July 25, 2001

BJ3-01-049

TO: Prospective Offerors

SUBJECT: Request for Proposal (RFP) 9-BJ32-T63-0-24P, Center Operations Support Services

The National Aeronautics and Space Administration (NASA), Lyndon B. Johnson Space Center (JSC), is soliciting offers for the Center Operations Support Services (COSS) Contract. The RFP (Enclosure 1) replaces the draft RFP (DRFP) issued on June 19, 2001, in its entirety. Enclosure 2 contains previously unpublished answers to questions received in response to the draft statement of work. Enclosure 3 contains answers to questions submitted after the pre-proposal conference. Enclosure 4 contains answers to questions received in response to the DRFP that was released on June 19, 2001. Enclosure 5 provides a roadmap to assist in understanding the format of the statement of work. Enclosure 6 provides a list of parties that have expressed interest in the subject solicitation. Any questions received timely in response to the RFP will be answered and issued as an amendment to the RFP.

A half-day Cost/Price briefing will be held at JSC on the morning of Friday, August 3, 2001, to discuss the RFP instructions for preparation of the Cost/Price proposal volume. The briefing will be held in the Building 111 conference room beginning at 8:00 a.m. Central Time. The space limitations of Building 111 require NASA to ask each prospective offeror to limit its participation in the briefing to no more than four people (including prospective subcontractors or team members). Also, each offeror shall pre-register their attendees to the briefing no later than Wednesday, August 1, 2001 by contracting the undersigned at 281-483-1372 or using email at charles.c.bell1@jsc.nasa.gov.

It is contemplated that a hybrid cost-plus-award-fee/fixed price contract will result from this solicitation. As stated in Section A, proposals are due no later than 4 p.m. August 24, 2001. Offerors are directed to Section L, provision L.3, entitled "Instructions to Offerors – Competitive Acquisition;" and provision L.12, entitled, "Submission of Proposals by Commercial Carrier."

A collection of documents, including historical workload data, relating to this procurement is available in the JSC Technical Resource Library (TRL). The TRL is located at JSC, Building 227, Door 4. Susan O'Bryan is the point of contact and can be reached at 281-483-0626. A badge is required for admittance to the TRL and can be obtained at Building 110.

The instructions for proposal preparation contained in Section L, Part II specify that each offeror shall submit twenty (20) copies of the Management and Technical Volumes of its proposal, five (5) copies of the Cost/Price Volume of its proposal, and ten (10) copies of the Past Performance Volume of its proposal. In addition, each offeror shall provide two (2) copies of its entire proposal electronically on CD ROM(s). Offerors are reminded to complete and return with their proposals the representations, certifications, and other statements of offerors contained in Section K. Furthermore, offerors are requested to provide a copy of their cost/price proposal to the cognizant Defense Contract Audit Agency office at the time proposals are submitted in order to expedite proposal evaluation.

All questions regarding this RFP shall be submitted in writing on or before August 8, 2001, by either fax (281-483-1139) or e-mail to the following address: charles.c.bell1@jsc.nasa.gov.

You are reminded to monitor the NASA Acquisition Internet Service website at http://procurement.nasa.gov/ for any changes to the acquisition schedule or for any amendments to the RFP.

NASA appreciates your interest and welcomes your participation.

(Original signed by)
Charles C. Bell
Contracting Officer

Enclosures

1 RFP
2 Answers to DSOW Questions (previously unanswered)
3 Answers to Preproposal Conference Questions
4 Answers to DRFP Questions
5 SOW Roadmap
6 List of Interested Parties

SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE	OF PAGES
			DO-C9	1	1083

2. CONTRACT NUMBER	3. SOLICITATION NUMBER	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
	9-BJ32-T63-0-24P	NEGOTIATED (RFP)	July 25, 2001	01022JA1 (Planning)

7. ISSUED BY	CODE	BJ32	8. ADDRESS OFFER TO *(If other than Item 7)*
NASA Lyndon B. Johnson Space Center 2101 NASA Road One Mail Code: BJ3, COD/SR&QA Procurement Office Houston, TX 77058			NASA Lyndon B. Johnson Space Center Attn: Building 416N, SEB 2101 NASA Road 1 Houston, TX 77058-3696

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

SOLICITATION

9. Sealed offers in original and copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in **Building 416 N at the Lyndon B. Johnson Space Center** until **4:00 p.m.** local time on **August 24, 2001.**

CAUTION — LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE *(NO COLLECT CALLS)*			C. E-MAIL ADDRESS
		AREA CODE	NUMBER	EXT.	
	Charles C. Bell, Contracting Officer	(281)	483-1372		charles.c.bell1@jsc.nasa.gov

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OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 120 calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52.232-8)*		10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NUMBER			15C. CHECK IF REMITTANCE	17. SIGNATURE	18. OFFER DATE
AREA CODE	NUMBER	EXT.	ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.		

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: 10 U.S.C. 2304(c) ( ) 41 U.S.C. 253(c)( )	23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*		ITEM

24. ADMINISTERED BY *(If other than Item 7)*	CODE	25. PAYMENT WILL BE MADE BY	CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT -- Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is unusable

STANDARD FORM 33 (Rev. 9-97)
Prescribed by GSA – FAR (48 CFR) 53.214(c)

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SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE – N/A

B.2 SUPPLIES AND/OR SERVICES TO BE FURNISHED

a. General --This contract is for center operations support services (COSS) for the Johnson Space Center (JSC) including those facilities at JSC, Ellington Field, and the Sonny Carter Training Facility (SCTF) using a hybrid of cost-reimbursement and, firm fixed price contracting methods. The contract also incorporates an award fee provision. The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to provide COSS in accordance with the Statement of Work in Section C. The services to be performed under the terms and conditions of this contract will be acquired as detailed below:

b. Routine Cost-Reimbursable Services – Annexes 1 through 5 and 8 through 12 of the statement of work (SOW) describe center operations support services work that is routinely required and for which accurate workload requirements are specified.

c. Non-Routine Cost-Reimbursable Services – Annex 13 of the SOW allows the Government to acquire on a cost-reimbursable, ID/IQ basis additional services within the general scope of COSS that either are not routine in nature or for which an accurate workload estimate does not exist at the time of contract award.

d. Routine Fixed-Price Services – Annexes 7 and 14 of the SOW describe center operations grounds and custodial support services work that are routinely required and for which accurate workload requirements are specified.

e. Non-Routine Fixed-Price Services – Annex 6 of the SOW allows the Government to acquire additional services such as construction services, additional grounds maintenance, and additional custodial services on a fixed-price, ID/IQ basis.

(End of Clause)

B.3 ID/IQ

(a) The guaranteed minimum contract value of work that will be ordered under this contract, and which will be initiated through the issuance of either fixed-price delivery orders under Annex 6 of the SOW or cost-reimbursable task orders under Annex 13 of the SOW shall be $200,000 per contract year. The maximum value that can be ordered under the ID/IQ provisions of this contract each contract year is $20,000,000.

(b) If the Government orders supplies or services in excess of the minimum but not up to the maximum, this circumstance shall not constitute the basis for an equitable adjustment to any contract price, estimated cost or fee.

(End of Clause)

The following contract clause entitled "FIRM FIXED PRICE (NASA 1852.216-78) (DEC 1988)" identifies the total fixed price to be paid to the contractor for acceptable performance of all services described in Annexes 7 and 14.

B.4 FIRM FIXED PRICE (NASA 1852.216-78) (DEC 1988)

The total firm fixed price of the work contained in Annexes 7 and 14 is $***[to be input by offeror]***.

(End of Clause)

The following contract clause entitled "ESTIMATED COST AND AWARD FEE (NASA 1852.216-85) (SEPTEMBER 1993)" identifies the estimated cost and maximum award fee of this contract. The estimated cost and maximum award fee amounts do not include the value of fixed priced services to be provided in accordance with Annexes 7 and 14.

B.5 ESTIMATED COST AND AWARD FEE (NASA 1852.216-85) (SEPTEMBER 1993)

The estimated cost of Annexes 1-5 and 8-12 is $***[to be input by offeror]***. The maximum available award fee, excluding base fee, if any, is $***[to be input by offeror]***. The base fee is $0. Total estimated cost, base fee, and maximum award fee are $***[to be input by offeror]***.

(End of clause)

The following contract clause entitled "CONTRACT FUNDING (NASA 1852.232-81) (JUNE 1990)" identifies the amount of funds allotted by the Government for purposes of payment of costs incurred by the contractor to perform the services identified in Annexes 1-5 and 8-12 only. The clause also identifies the funding amount obligated under this contract for the payment of award fee.

B.6 CONTRACT FUNDING (NASA 1852.232-81) (JUNE 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is $TBD. This allotment is for Annexes 1-5 and 8-12 of this contract and covers the following estimated period of performance: TBD.

(b) An additional amount of $TBD is obligated under this contract for payment of fee.

(End of clause)

Section B
Schedule of Coefficients Estimating Prices of Annex 6 ID/IQ Work

B.12 **COEFFICIENT FACTORS - ANNEX 6 IDIQ WORK (Full Contract Term Including Options)**

The following two sets of price factors, entitled "Coefficient Factors for Means Cost Data" and "Coefficient Factor for Non Pre-Priced Work" respectively, will only be used when developing fixed prices for ID/IQ delivery orders placed under Annex 6 of the SOW.

Coefficient Factors for Means Cost Data

a. Coefficient Factor for Normal Work Hours _____

b. Coefficient Factor for Other Than Normal Work Hours _____

Coefficient Factors for Non Pre-Priced Work

a. Coefficient Factor for Normal Work Hours _____

b. Coefficient Factor for Other Than Normal Work Hours _____

The following two factors, entitled "Coefficient Factor for Materials and Equipment Rental" and "Coefficient Factor for Subcontracted Work" respectively, will be used to develop fixed prices for ID/IQ delivery orders placed under Annex 6 of the SOW and when developing cost estimates for cost re-imbursement task orders placed under Annex 13.

Coefficient Factor for Materials and Equipment Rental _____

Coefficient Factor for Subcontracted Work _____

(End of Clause)

[END OF SECTION]

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1.0 ADMINISTRATIVE SUPPORT

1.1 GENERAL INFORMATION

1.1.1 Annex Description

This **Annex** identifies the Administrative Support Services that cannot be identified with a single annex or may be related to the performance of services throughout this Contract. Even though this Annex contains certain guidelines, the Contractor has the responsibility to establish a management program that is innovative and effective, and uses to full advantage the facilities and equipment provided by the Government.

1.1.2 Facilities, Land, and Utilities

The Government will furnish all available facilities, land, and utilities, as defined below, to the Contractor for performance of work defined in this Contract.

1.1.2.a. Facilities. Government-furnished facilities or portions thereof, to be provided to the Contractor, are identified in the ****List of Contractor Facility Floor Plans** and ****Drawings of Contractor Facility Floor Plans**. The Contractor may modify/alter the facilities per existing Center standards and shall provide design of proposed changes to the Administrative Technical Management Representative (***TMR**) for approval; and shall only proceed with the modifications with the approval of the Contracting Officer. All changes by the Contractor to Government-furnished facilities become the property of the Government or the Contractor shall, at the Government's request, restore the facility to the original condition. Any modifications of facilities that affect utility consumption are to be made in accordance with the National Energy Conservation Policy Act of 1992 and all subsequent legislation and Executive Orders that pertain to Energy and Water Conservation. Documentation supporting compliance with this energy requirement shall accompany requests for facility modification to the Administrative ***TMR**.

1.1.2.b. Land. In the event insufficient (as determined by the Administrative ***TMR**) Government-furnished facilities are provided, the Government will make available to the Contractor land suitable for temporary buildings or trailers. Lay down areas, and storage areas, etc., will be provided to the Contractor upon request and availability. Modifications/alterations, such as fencing, will be allowed only with the approval of the Administrative ***TMR** and according to the Center's current standards. When open areas are provided, the Contractor shall ensure the areas are actively utilized and are neat and clean in appearance, and are maintained in a manner fitting their surroundings. The Contractor shall make every resource effort to ensure their operations do not distract from the overall appearance of the site.

1.1.2.c. Utilities. The Government will provide all utilities for Government-furnished facilities assigned to the Contractor for the performance of services identified in this Contract. The Contractor shall exercise reasonable efforts to conserve energy per ****JA Management Guidance 8836.1, Johnson Space Center's (JSC's) Energy Conservation Policy**. The Center's Telephone System will be made available to the Contractor for official Government business. The Contractor shall be responsible for non-contract related and personal long distance toll charges.

1.1.3 Definitions and Acronyms

Definitions and acronyms used throughout this contract are identified in Tables 1-1 and 1-2. Words that have specific meaning in the context of this Contract have been **bolded** and **"*"** and further defined in Table 1-1. Definitions for terms used in a specific annex are stated in that annex and shall have precedence in that annex, overriding definitions stated in Annex 1. Webster's Ninth New Collegiate Dictionary will be used for defining words not specifically addressed. Items that have been **bolded** and **"**"** are located in the JSC Technical Reference Library (TRL) located in Building 227, Door #4.

1.1.4 Records, Reports, and Submittals

The Contractor shall maintain all records and documentation necessary to substantiate that all services have been accomplished as specified and shall support all Government audits with adequate personnel and timely documentation retrieval. Additional records, reports, and submittals required by the Government are identified in each applicable annex section.

Records, reports, and submittals and all associated documentation are to be maintained and provided as required in the various Section C Annexes. To accomplish this, the Contractor shall plan, implement, and maintain a comprehensive records, reports, and submittal management process that facilitates continual Government electronic access to all documentation records, reports, and submittals. The data items formatted in the databases, reports, and documents existing on the effective date of this contract (See the TRL) illustrate the frequency, category and activity description to be maintained in the electronic database. They are included for reference and to establish minimum requirements.

***Selected** records, reports and submittals are required by the Government via Data Requirement Descriptions (DRD's). Submittals may include but are not limited to plans, procedures, Standard Operating Procedures (SOP's) and are identified in the separate annexes. ***Selected** and other records, reports and submittals are further defined as:

1.1.4.a. Records. For the purpose of this Contract, required databases are considered as records. All logs, records, files, databases, workload data, etc., identified in the Annexes shall be maintained throughout the life of the Contract and as otherwise may be required by law or regulatory authority. Records shall be available for review by the Administrative ***TMR**, or designated technical representative and auditors, and upon termination of the Contract, shall be turned over to the Government. All records shall contain sufficient supporting documentation to provide a complete audit trail. Records shall be maintained in

an orderly fashion. Records shall be automated, as required in the Contract, in compliance with Annex 8 and other annexes. The Contractor shall maintain records, logs, databases, reports, data for all Section C requirements, including but not limited to, actual number of units of work performed for each respective contract line item workload unit, for each fiscal and contract year.

1.1.4.b. Reports. Selected reports and outline instructions for the development of the format are contained on individual DRD's in Section J, Attachment C. Due dates are specified for each separate report. When the due date falls on a Saturday, Sunday, or holiday, the report is due by 8 A.M. Monday, or 8 A.M. the day following the holiday. Reports shall be electronically available unless otherwise specified. The Contractor shall develop reporting formats, with NASA concurrences, that are electronically available and retrievable per Annex 8. Proposed changes to required forms will be submitted to the Administrative ***TMR** for consideration and approval.

1.1.4.c. Submittals. Detailed plans, manufacturer's installation, testing and product data, and other submittals that are required on an infrequent or one-time basis are identified in the applicable annexes. Typically, the required submittals require the Contractor to propose or define his plan or methodology of providing a specified service. Updates are required whenever changes to the stated plan occur. Selected submittals and outline instructions for the development of the format are contained on individual DRD's in Section J, Attachment C. Due dates are specified for each separate submittal. When the due date falls on a Saturday, Sunday, or holiday, the submittal is due by 8 A.M. Monday, or 8 A. M. the day following the holiday. Unless otherwise specified, the Contractor shall develop other submittal formats, with NASA concurrence, which are electronically available and retrievable per Annex 8.

1.1.5 Contractor Personnel

The Government's minimum requirements, qualifications, training, certifications, and other requirements are identified in the applicable annex. These minimum requirements do not relieve the Contractor of the responsibility of complying with all Federal, State, JSC, and Local laws regarding licenses, certifications, training, etc., of employees performing the specified services.

1.1.5.a. Contractor Conduct

Contractor personnel shall:

- conduct themselves in a proper courteous and business-like manner

1.1.5.b. Contractor Attire

Contractor personnel shall:

- wear attire that is neat, clean, and suited to the work or situation being performed.
- wear personnel protective equipment required by workplace hazard analyses performed by the Contractor as required by the Occupational Safety and Health Administration (OSHA).
- be uniformed to be easily identifiable. (For crafts and personnel required to perform work at multiple locations on site)
- display the name of the Contractor on the front of shirts. (For crafts and personnel required to perform work at multiple locations on site)

1.1.5.c. Contractor Qualifications

Contractor personnel shall:

- be properly qualified, trained, and licensed when operating Installation-provided automotive, construction, weight handling, material handling, or miscellaneous equipment.
- exercise due care while operating equipment and execute appropriate pre-operation and operational checks of equipment as required by the applicable NASA JSC Standards and Contractor Standards.

1.1.6 Directives

COD Enforcement of Directives - JSC and Center Operations Directorate (COD) will issue and enforce directives, manuals and instructions intended to establish policies and guidelines for organizations and persons on site (JSC, Ellington Field (EF), and Sonny Carter Training Facility (SCTF)) or utilizing site facilities/services. All Contractor personnel shall comply with all such directives, manuals and instructions. When two or more directives or instructions apply, Contractor personnel shall comply with the more stringent of the directives or instructions (as defined by the Government).

1.1.7 Restrictions, Limitations and Special Conditions

a. In performance of work under this Contract, the Contractor shall arrange with the Administrative ***TMR** a sequence of procedures, means of access, space for storage of materials and equipment, use of approaches, corridors, elevators and stairways, and other similar accommodations as required. Since space for storage is limited in work areas, the majority of storage must be outside or at the Contractor's assigned area. Only materials to be used for work under this Contract may be stored at assigned areas or work areas. Delivery and storage of materials and equipment shall be made to minimize interference with Government operations and personnel.

b. Building and work areas may be occupied during performance of work under the Contract. The Contractor shall take particular care in the execution of the work in all occupied areas, computer rooms, mechanical rooms, laboratories, electrical and telephone equipment areas. Uninterrupted operations shall be maintained in these areas. The Contractor shall avoid unscheduled downtime.

c. For all contract work which may inadvertently activate or directly impact a fire alarm or sprinkler system, coordinate with the Government's fire protection maintenance contractor at least 24 hours before beginning work to have the system deactivated.

d. For all work, furniture and portable office equipment in the immediate areas will be moved, relocated, and protected by the Contractor and replaced to original position. If the work required will not allow furniture and portable equipment to be replaced to its original location, new locations will be designated by the Administrative ***TMR**. The Contractor shall cover items that remain in place within the area of contract operations and protect the items against damage or loss. The Contractor shall store items that are removed in performance of work where directed or reuse in work as required by the project drawings, specifications or work requirements. Items temporarily removed shall be protected, cleaned, and replaced with items equivalent in condition and value prior to starting work. The Contractor shall have to pay for materials lost or damaged when performing all fixed price work. Security for items that are to be reused or replaced following periods of temporary storage shall be the sole responsibility of the Contractor.

e. The Contractor shall at all times keep the work, office, shop, and warehouse areas, including storage areas, free from accumulations of waste materials. Each work and project site shall be cleaned up at the end of each day. All debris (whether blown in or Contractor generated) on the job site shall be packaged up and disposed of properly. All materials shall be neatly stacked and secured to prevent wind gusts from blowing materials around the site. If the Administrative ***TMR** deems that the site is unsightly, or that there are unsafe conditions from clutter or other causes, the Administrative ***TMR** may instruct the Contractor to immediately stop work and repair/clean-up the site. All surfaces not directly associated with the project requirements shall be returned to original condition at the conclusion of the project (this includes but is not limited to accesses, grass, dirt, sprinkler systems, etc.).

f. Before completing the work, the Contractor shall remove from the work premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Administrative ***TMR**.

g. The Contractor shall be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and Local Laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work, which may have been accepted under the Contract.

h. The Government may undertake or award other contracts for additional work at or near the site of the work under this Contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performance of the work under this Contract to accommodate the additional work, heeding any direction that may be provided by the Administrative ***TMR**. If this coordination causes a schedule slippage, the Administrative ***TMR** shall be notified.

i. The Contractor shall preserve and protect all structures, facilities, utilities, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this Contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree pruning compound. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. For the fixed price portion of the contract, the Contractor shall promptly repair any damage to those facilities, at no cost to the Government, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work.

j. Unless noted on drawings or otherwise specified, new work in extension or adjacent to existing conditions shall correspond to existing work, in respect to material, workmanship and finish. Existing work that is cut, drilled, altered, removed or temporarily removed by the Contractor and replaced in order to perform work under the Contract, shall match existing work except where indicated or specified otherwise. Structural members shall not be altered without authorization of the Administrative ***TMR**. Work remaining in place which is damaged or defaced during this Contract shall be restored to the condition at times of start of the respective work.

k. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Administrative ***TMR**.

l. Temporary buildings (e.g.; storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer. The temporary buildings and utilities shall be the property of the Government.

m. The Contractor shall use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Administrative ***TMR**. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair any damaged curbs, sidewalks, or roads.

n. Where the Contractor proposes to substitute materials, the Contractor shall submit two samples of material specified and two samples of

material proposed for substitution, along with technical information on each before half of the task or Delivery Order (DO) time has elapsed. Where the Contractor's information on products is insufficient to determine "equality," laboratory tests will be required. An independent laboratory will be proposed by the Contractor and approved by the Administrative ***TMR** to conduct tests.

o. The Contractor shall maintain and keep up-to-date on a daily basis, a current set of redline drawings that accurately record all deviations from drawings provided to the Administrative ***TMR** within 10 days after work is completed. The Contractor shall submit a redline set through the Administrative ***TMR** and update master drawings per Annex 5.

1.1.7.1 Material Requirements

All materials, parts, and equipment shall be equal to or better than the existing, as approved by the Administrative ***TMR**, and shall comply with the Industrial Standards and Codes in this Contract. All replacement items shall comply with energy efficient requirements per Paragraph 1.1.2.a, unless the system, as determined by the Administrative ***TMR** upon review of the Contractor's submittal, is not compatible with this type. Upon replacing any item or equipment which has an informational sticker/tag affixed, the Contractor shall ensure a similar sticker/tag is affixed to the replacement item.

1.1.7.2 Covered Chutes

All chutes and containers for refuse and similar material shall be covered at all times or of such a design to fully confine the material to prevent the dissemination of dust and debris.

1.1.7.3 Trucking

The Contractor shall load all trucks leaving the site with loose debris in a manner that will prevent dropping of materials on streets. Onsite street cleaning to a broom clean condition shall be maintained on streets and crosswalks following any loose debris or material dropped from the bed or tires of trucks (e.g., mud) used by the Contractor.

1.1.7.4 Elevators

Any temporary use of an existing elevator shall be by arrangement with the Administrative ***TMR** and the appropriate Facility Manager and subject to their controls. Such use will be of an intermittent nature. The Contractor shall provide and maintain suitable and adequate protection covering as approved by Administrative ***TMR** for the elevator machinery, the hatchway entrance, and the interior of the elevator during the period of temporary use. Loads in excess of the rated capacity of the elevator will not be permitted. On completion of the work, the Contractor shall remove the protection coverings together with any resultant dirt and debris, and leave the equipment in a condition equal to that in which it was found.

1.1.7.5 Vehicles

Vehicles used to convey Contractor personnel, materials, and tools on ***JSC** streets shall be street legal and acceptable for use on public highways, including U.S. interstates. In addition, these vehicles shall be subject to the ****JSC27996, Vehicle Code**. Maintenance of Contractor vehicles shall be in approved locations as approved by Administrative ***TMR**. Parking of Contractor equipment, trucks, etc., shall be as approved and assigned by the Administrative ***TMR**.

1.1.7.6 Hazardous Materials

The Contractor shall immediately bring to the attention of the Administrative ***TMR** any material suspected of being hazardous which he encounters during execution of the work. A determination will be made by the Administrative ***TMR** as to whether the Contractor shall perform tests to determine if the material is hazardous and the Administrative ***TMR** will direct any follow-on action.

1.1.7.7 Beneficial Occupancy

a. The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Administrative ***TMR** shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Administrative ***TMR** to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the Contract. The Government's possession or use shall not be deemed as acceptance of any work under the Contract. Acceptance of work will not be completed by the Government until all work, including punch list and Maintenance Activation, is complete.

b. While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use. If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the applicable DO price at the time of completion.

1.1.7.8 Work By Others

During the Contract, there will be various construction fixed priced contracts being performed, for example, as a result of the Government's Invitation for Bid (IFB) process. These contracts will be administered separate from this Contract.

The Contractor shall perform adequate scheduling and planning to continue all Contract Work in full cooperation with these projects.

1.1.7.9 Deferral Codes

GOVERNMENT CAUSED. The following deferral explanations and related codes will be used when work actions cannot be accomplished due to Government interference. If the Contractor fails to request access or attempt to

start work within the first 25 percent of the time allowed for the task per Table 2-2, a deferral code that assigns the cause for the delay to the Government shall not be used. Additionally, the Administrative ***TMR** shall be notified within the first 75 percent of the time allowed for the task when work cannot be accomplished due to new site conditions. Notification shall be accomplished electronically and contain enough information to allow sufficient Government action/follow-up. In all cases, the maintenance actions, or portions of which can be accomplished, shall be accomplished. Re-performance of Government caused delays shall be coordinated through the Administrative ***TMR**.

- Access Denied. Access to a particular building, area, or equipment is denied or prevented by the Government, preventing accomplishment of a work action. Report code "GA" and reschedule maintenance.
- Access Obstructed. The work cannot be accomplished as access to the equipment is physically obstructed (e.g., new wall constructed around the equipment, the equipment is installed preventing access, etc.) and further Government action is required to obtain access. Report code "GO" and reschedule unless notified by the Administrative ***TMR** to suspend maintenance actions.
- Equipment not in Place. The work cannot be accomplished as the equipment has been, or is being, removed, replaced, modified, placed in storage, or never installed in the system. Report code "GE" and reschedule, unless notified by the Administrative ***TMR** to suspend maintenance actions.
- Action Invalid. The requested action is inappropriate for the situation and the work cannot be performed. Report code "GI" and reschedule unless notified by the Administrative ***TMR** to suspend the work.
- Safety Hazard. The action, equipment, or operation will present a safety hazard. Report code "GS" and reschedule unless notified by the Administrative ***TMR** to suspend work.

CONTRACTOR CAUSED. Any uncompleted maintenance actions not meeting one of the deferral codes above shall be coded "CC" for Contractor Caused and rescheduled.

1.1.8 Information Technology Systems

It is at the discretion of the Contractor to utilize the Government-provided systems or to initiate new systems for the purpose of increasing efficiency and to meet contract requirements. However, the new systems shall parallel and act in the same manner as the Government-provided systems. If the Contractor proposes to deviate from the existing systems, all proposals shall be submitted in writing, through the Administrative ***TMR**, for approval prior to implementation.

In the event the Contractor uses leased software, the Contractor is required to prepay the lease for one year beyond the end of the Contract. The lease shall allow the Government or the follow-on Contractor to use the software.

1.1.9 JSC Safety and Health Program

Safety and Health at ***JSC** is implemented in accordance with the requirements of ****JPG 1700.1H, JSC Requirements Handbook for Safety, Heath, Environmental Protection, and Emergency Preparedness,** which is closely tied to OSHA's Voluntary Protection Programs (VPP). Current JSC certification as a STAR site under VPP includes its contractors who shall comply with all OSHA and NASA requirements as well. The Contractor shall support JSC compliance with OSHA VPP criteria for which JSC is certified as a STAR site. This includes all team members of the Contractor. It is the nature of VPP that STAR sites must continuously improve their safety and health programs to retain certification; this continuous improvement philosophy extends to JSC onsite contractors as well. The 32 sub-elements of VPP are documented in the Federal Register of July 24, 2000 (available at the following link):

http://www.osha-slc.gov/FedReg_osha.data/FED20000724A.html.

The 4 categorical elements and 32 sub elements of VPP are shown in Table 1-4.

NOTE: There are slight differences in how the sub elements are categorized in Table 1-4 when compared to the Federal Register. OSHA's Region 6 VPP Office (which includes the State of Texas) established the categorical groupings of Table 1-4 for the purpose of annual self-evaluations by VPP certified participants.

1.1.10 General Meeting Support

The Contractor shall support meetings with NASA, JSC customers, and/or JSC Contractors as part of normal business operations. These meetings include, but are not limited to, control boards, incident investigations, status briefings, operations reviews, special review committees/boards external to JSC conducting meetings at ***JSC**, scheduling meetings, quality reviews, customer tagups, and safety meetings. A ***TMR** will request Contractor support even though the meetings may be called by NASA or ***JSC** customers. The COSS Contractor will be expected to support with appropriate technical disciplines or management. These meetings will be held at or in close proximity to ***JSC**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.2	**WORK MANAGEMENT AND CONTROL**			
	Ensure all requests for work are received and processed.	Establish a Work Control Center (WCC) to receive, input, categorize, prioritize, schedule, track and document all work 24 hours a day, 7 days a week. All WCC services shall be available at all times, i.e. an answering service only during certain shifts is not acceptable. Establish methods for the Government to contact WCC, (e.g., its location, phone number, electronic mail address, web address) to obtain the status of work requested.	****Workload History**	WCC accurately receives, processes, and documents all work on time. Full WCC services available 24/7.
		For all work requested, WCC shall record in the CMMS, including but not limited to the work order number, requester's name, requesting organization, location of work, category or classification, date requested, schedule, and any government tracking number associated with requested work. (e.g. 930 or CoF project number, HATS number.)		See above
		a. Receive all work requests courteously and provide to the requester at the time of request the work order number and schedule based on the appropriate CLIN or classification of work. Accurately schedule, categorize or classify work per this contract (e.g., Emergency, Urgent, Routine, or priority work). For repair work, if the requester does not agree with the classification, the request shall be either reclassified or elevated to the Administrative ***TMR** immediately for resolution. Input work description into CMMS at the time of the request.		All work courteously received and accurately recorded and maintained in the CMMS. Receive and accurately schedule work on time. Notify customer of schedule and work order number at time of request.
		NOTE: Definitions of work codes are defined in Annex 2, Table 2-1.		
		b. For work requested through the WCC that is not specifically covered by a contract CLIN, notify the requester that the work is being submitted to the Administrative ***TMR**. Submit the following to the Administrative ***TMR** within 24 hours of request: 1. Description of work requested. 2. Description of the COSS work to be performed to satisfy the request. 3. Identify the ***bare cost** for a possible service order per Annex 6 within 3 days of the request.		Work not specifically covered in contract is accurately determined and submitted to the Administrative ***TMR** on time. Accurate service order level and description of work submitted on time.
		In the case of emergency work, mitigate and respond per CLIN 2.3.2, Non Specified Equipment Emergency Response.		All emergency work assigned.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. The work order number given to the work requester shall remain the same regardless of the project/task phasing or the number and kinds of crafts assigned. Each work order number shall provide a cradle-to-grave audit trail until all the work requested is completed. Numbers shall be consecutive and accounted for at all times in order to track, schedule, status, etc., all work requested.		Accurate scope of work provided on time. All work has a complete audit trail and is traceable by one number.
		d. Update and maintain the required CMMS data fields whenever a change occurs, (e. g., changes in classification, funding availability, schedule, location, etc.). Information shall be available and current for Government review 24 hours a day, 7 days a week.		Work only performed with a work order number. All CMMS data inputs are accurate and on time.
		e. Notify the responsible Facility Manager or designee of work scheduled at least 48 hours prior to commencement of work. This notification shall be face to face or by phone. NOTE: Notification excepted where the required work occurs too quickly to allow 48-hour notice.		Notice of scheduled work provided on time and accurately.
		f. Provide notice of completion of work to the Facility Manager or designee within 24 hours of work completion. The notice shall include but not be limited to the work order number, work performed, completion date, etc. This notification may be accomplished electronically.		Notice of completed work provided on time and accurately.
		g. Track and document all work in the CMMS. Record the date and time of work accomplished, quality control inspection date where applicable, and required fields within the CMMS to provide a complete audit trail of work accomplished. Update and maintain the work order completion information in the CMMS database for inclusion in specified reports or metrics as required by this contract or as directed by the Administrative ***TMR**.		All data is complete within the CMMS. All data inputs are accurate.
1.3	**FACILITIES**	Government-furnished facilities, additional requirements:		
1.3.1	Building Manager Designate a Building Manager.	Designate a Building Manager to manage activities necessary for maintenance of each Government-furnished facility in which the Contractor is the sole occupant (e.g., Buildings 327, 329, 330, etc.). NOTE: Government-furnished facilities are identified in ****List of Contractor Facility Floor Plans** and ****Drawings of Contractor Facility Floor Plans.** Coordinate applicable Contractor operations with the NASA Facility Manager (FM) (for joint use facilities). Perform FM duties in the Government-furnished facilities. NOTE: Reference the ****Facility Managers Handbook** for a list of FM duties and responsibilities.	122,809 square feet.	A Building Manager who performs FM duties.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.3.2	Maintain Facilities Maintain Government-furnished facilities and warehousing operations.	Ensure facilities and operations are maintained in a clean and safe condition and exercise reasonable care, security, and protection of same. Comply with all applicable Life Safety Codes, Fire Protection, Energy and Water Conservation Directives and Uniform Building Codes during occupation or use of facilities. Maintain physical security of all assigned facilities, including locking the facility when unoccupied, and provided keys. Establish a Key Control Program that provides a complete audit trail of all keys issued. NOTE: During contract phase-in, the Government will issue keys for assigned facilities.	Nothing additional.	No instances of unsecured facilities, safety violation, fire protection discrepancy, or energy or water conservation regulation violation. Issued keys shall be accounted for at all times.
1.3.3	Facilities Utilization Records Maintain Facilities Utilization Records	Maintain Facilities Utilization Records by indicating the contract functions, personnel, and use of Government-furnished facilities on Facility Housing Plans (FHP). Provide and maintain floor plans showing accurate locations of contract functions in the various Government-furnished facilities. Contract functions shall be identified by Annex and sub-Annex level on drawings. Drawings shall be updated within 30 days of any change. Revisions are submitted to the Administrative ***TMR** within 15 days of each revision.	Contractor determined. Per Section J, Attachment J.	Records are accurate and revisions submitted on time.
1.4	**Contractor Work Area Cleaning** Maintain safe, orderly, and clean work areas and Government-furnished facilities.	Perform housekeeping, custodial, and other work to keep areas safe, orderly and clean in all work areas and Government-furnished facilities. Keep work areas, and Government-furnished facilities in which the Contractor operates and maintains, free of debris, accumulation of unorganized parts and supplies, dust, lubricants, unused tools, abandoned equipment, etc. Clean up work and project sites at the end of each day. NOTE: Examples of Contractor's work area are any task site, central plants, site mechanical rooms, tunnels and warehouses. Keep shops, laydown areas, and warehouse areas broom clean and free of any debris, scrap, litter, refuse, or unorganized storage.	Contractor determined.	All work areas and facilities are kept orderly in appearance, safe, and clean.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.5	**INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY** Maintain Installation - Accountable Government Property	Perform maintenance and repair on Installation - Accountable Government Property (IAGP), defined in Section J, Attachment I, List 4. Major repair or replacement for IAGP shall be defined as the lessor of 50% of the replacement cost or $5000 per occurrence. Contact the Administrative ***TMR** with documented price proposal to support all repairs exceeding 50% of the replacement cost for further analyses and resolution. Perform all repairs necessary to keep the equipment being 100% available to perform its intended function and provide necessary output.	40 Items.	Equipment to be available to perform its intended functions and output during its operating period.
1.6	**QUALITY CONTROL**			
1.6.1	Quality Control (QC) Program Provide, implement, and maintain a proactive quality program.	Establish, document, implement, and maintain a quality control program, which continually meets contract requirements and improves its effectiveness. The QC program shall be compliant with the requirements of ANSI/ASCQ Q9001 – 2000, Quality Management Systems Requirements. NOTE: Throughout the QC program, wherever the term "product" occurs it also means service.	One program.	QC Program meets the QC Plan and contract requirements. QC Program is compliant with ISO 9001 – 2000.
		Establish a system that monitors, measures, and controls the quality of products produced by the Contractor and Subcontractor to ensure they meet contract requirements. Ensure that any product, which does not conform to product requirements, is identified and controlled to prevent its unintended use or delivery.		
		Provide continual electronic access to all QC process documentation, such as, but not limited to, work methods, standard operation procedures, quality manual, and corrective action tracking system.		Continuous electronic access to all QC process documentation is provided.
		Provide a schedule, including subjects, with milestones at the beginning of each contract year outlining all QC Program audit items. For revisions to the schedule provide 5 copies to the Administrative ***TMR** 15 days prior to implementation.	See above	The identified schedule milestones are met and revisions are provided on time.
		For all quality control program audits performed, provide 3 copies of the audit results to the Administrative ***TMR** within 10 days of each audit completion. Provide a copy of any associated corrective action plans created in response to any audit nonconformance finding identified.		Copies of audit results, and associated corrective action plans, are provided on time.
		Establish and maintain accessible records to provide clear evidence of conformity of requirements and of the effective operation of the QC Program.		Records shall remain legible, readily identifiable, and retrievable.

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		Establish and submit quality objectives needed to meet contract requirements for products/services for all contract requirement functions and levels within the Contractor's organization. Additional emphasis shall be placed on those "high visibility" areas identified below.		
		A Quality Control Manager (QCM) shall be identified and stationed at JSC. The QCM shall be responsible for overall management of the Quality Control Program and shall have authority to act in all Quality Control matters for the Contractor. The QCM shall report directly to the Contractor's onsite management authority or offsite upper management. The QCM shall not have any other duties in addition to quality control. The QCM shall be responsible for reporting on performance of the Contractor's QC Program and ISO 9001 – 2000 implementation and subsequent maintenance.		QCM monthly reports accurately reflect QC Program and ISO 9001 performance.
		The QCM shall be onsite during ***core hours** during contract performance. An alternate QCM shall be identified in the QC Plan and the requirements for the alternate shall be the same as for the designated QCM.		QCM or designated alternate available at all times.
		a) Perform all corrective actions per requirements specified in Section J, Attachment F. On a monthly basis, for all corrective actions initiated, provide the Administrative ***TMR** a summary containing a brief description of the problem requiring corrective action, the actions planned, the actions taken, and a status (date open and closed). All corrective action plans shall be made available to the Administrative ***TMR** upon request.	12 summaries	All corrective actions are performed per Section J, Attachment F, are reported correctly and on time, and made available upon request
		b) By the 15th of each month, measure and report QC program performance, customer satisfaction metrics, and "high visibility" area metrics. "High Visibility" metrics are Safety, Special Events, Work Control Center, Service Orders, CMMS, Environmental Services, Maintenance and Repair, Equipment Accountably, Supply, Operations, Custodial, Engineering, Transportation, and Grounds. Establish a system to act upon customer feedback and metrics to effectively improve delivered products and services.	12 reports	All reports are submitted accurately and on time.
1.6.2	Quality Control Plan Develop and update QC Plan	Submit a Quality Control (QC) Plan that is compliant with ANSI/ISO/ASQ Q9001 – 2000. The initial plan shall be prepared in accordance with DRD AN-1-2 and is subject to government review and approval.	One Plan	QC Plan is compliant with ANSI/ISO/ASQ Q9001 – 2000. Plan was prepared in accordance with DRD AN-1-2.

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		During any contract period during which the Contractor's QC program is not ISO 9001 – 2000 certified by a registrar, all proposed changes to the Contractor's QC plan shall be submitted to the Administrative ***TMR** for review and approval prior to implementation. Otherwise, the Contractor shall notify the Administrative ***TMR** of any proposed changes 10 days prior to implementation.		All QC plan changes are submitted to the Administrative ***TMR** prior to implementation and on time.
		Update and maintain the QC Plan to ensure it remains compliant with ANSI/ISO/ASQ Q9001 – 2000 requirements.		QC Plan remains compliant all with ISO 9001 requirements.
		Provide updates within 15 days after receipt of applicable contract modifications or whenever a change to the program is proposed.	Contractor Determined	Updates provided within 15 days.
		Perform QC in accordance with the Government-approved QC Plan attached in Section J, Attachment A, Part 3.		QC is performed per the QC Plan.
1.6.3	ISO 9001 – 2000 Certification Obtain and maintain certification	Obtain ISO 9001 – 2000 registration certification within one year of contract start date. Maintain annual ISO 9001 – 2000 certification through the duration of the contract.	One certification	Maintain ISO 9001 registration certification following obtainment.
		For all quality management systems audits (internal and external) performed as required by NASI/ISO/ASQ Q9001 – 2000 provide a copy to the audit results to the Administrative ***TMR** within 10 days of each audit completion. Provide a copy of any associated corrective action plans created in response to any audit nonconformance finding identified.	Contractor Determined	Copies of audit results and associated corrective action plans are provided on time.
		Perform all corrective action in accordance with Section J, Attachment F.		
1.6.4	Continuous Improvement Program (CI) Actively participate on Continuous Improvement Teams.	Provide the appropriate level personnel with expertise in the subject matter to participate on Continuous Improvement Teams for the purpose of developing a solution for continuous improvement when chartered.	Eight teams per year.	Complete and accurate CI solutions presented on time.
		NOTE: Duration of a single team may range from four to six months. Personnel participation per team may range from two to three persons, 4 hours per week.		
1.7	**SAFETY AND HEALTH**			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.7.1	Safety and Health Program Implement the Contractor Safety and Health Program in accordance with JSC and VPP requirements.	Develop, implement, and maintain a unified safety and health program for all contract team members according to the Contractor-developed plan in CLIN 1.8.2. The program shall be based upon the 32 sub-elements of VPP found in Table 1-4, "VPP Elements and Sub-elements" and the latest revision of the ****JPG 1700.1H, JSC Requirements Handbook for Safety, Heath, Environmental Protection, and Emergency Preparedness.** Upon any revision to the Safety and Health plan, the program shall be updated within 30 days.	One Safety and Health Program.	Program meets all OSHA, NASA, and VPP requirements and is updated on time per the revised Safety and Health plan.
		The program shall result in:		
		a) An OSHA lost workday case (LWDC) frequency rate (lost day and restricted duty cases included) of 3.61 or less.		The OSHA frequency rates are at or below the goals specified.
		LWDC frequency rate = number of lost work day cases multiplied by 200,000 and divided by the total number of contract hours worked.		
		b) An OSHA recordable case (ORC) frequency rate (lost day, restricted duty, and medical treatment cases included) of 7.79 or less.		The OSHA frequency rates are at or below the goals specified.
		ORC frequency rate = number of lost day, restricted duty, and medical treatment cases multiplied by 200,000 and divided by the total number of contract hours worked.		
		c) An OSHA lost workday case (LWDC) severity rate (total days away cumulative) at the end of each contract year of 20.0 or less.		The OSHA severity rates are at or below the goals specified.
		LWDC severity rate = total current contract year and prior contract year days away multiplied by 200,000 and divided by the number of contract hours worked (current contract year.)		
		NOTE: Measures do not include occupational illnesses.		
		Ensure the Contractor Safety and Health Program is consistent with VPP objectives. Ensure significant accomplishments and areas of improvement are identified for possible action.		

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		Investigate Contractor-personnel mishaps and close calls (as defined in the **JPG 1700.1H, JSC Requirements Handbook for Safety, Heath, Environmental Protection, and Emergency Preparedness). The investigation includes identifying the root cause and abating the problem by establishing and implementing corrective action. When responding to mishaps and close calls, perform and submit a root cause analysis (e.g., Methods - proximate and contributing causes). Perform the analysis for OSHA recordable mishaps, first aid cases, property damage cases equal to or greater than $1000, and close calls with risk assessment codes of 1, 2, or 3 as defined in JPG 1700.1H. Solutions (corrective actions) shall address the identified root causes.		Mishaps and close calls are investigated and root cause analyses are correctly performed. Solutions to mishaps and close calls address identified root causes.
1.7.1.1	Voluntary Protection Program (VPP) Certification by OSHA Obtain third party certification assurance of the Contractor Safety and Health Program.	The Contractor (Prime or Partners in a joint venture) shall apply for VPP Merit certification within 1 year after contract start. Obtain VPP Merit certification within 2 years after contract start unless OSHA scheduling prohibits it. Maintain VPP Merit (or better) certification for the lifetime of the contract.	One certification.	VPP Merit certification applied and achieved on schedule and maintained at all times.
1.7.2	Safety and Health Plan Establish and implement a Safety and Health Plan as a contract requirement.	Establish and maintain a Safety and Health Plan in accordance with DRD SA-1-1, "Safety and Health Plan." Implement the plan as approved by the Government. The plan shall be revised as needed to be consistent with evolving JSC, OSHA, and VPP requirements. Revisions to the plan require NASA approval. Review and update the plan annually per DRD SA-1-1 or when directed by the CO.	One Safety and Health Plan.	Plan fully implemented as approved and in complete accordance with NASA safety and health requirements. All 32 VPP sub elements are addressed.
1.7.3	Safety Records, Reports, and Submittals Develop, maintain, and submit records, reports, and submittals.	Submit records, reports, and submittals as specified below.	See below	See below
1.7.3.1	Monthly Statistical Information Develop and submit Statistical Information report.	Provide completed **JSC Form 288 by the 10th of the month following the month being reported in accordance with DRD SA-1-4. Instructions for preparing and submitting this information are provided with the form available from JSC online publications, unless modified by the approved Safety and Health Plan.	Twelve reports	Report is submitted on time and in accordance with instructions.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.7.3.2	Safety and Health Program Self-Evaluation Develop and submit a Self-Evaluation report.	Provide an ****Annual Evaluation of Safety and Health Program** report ***annually** by September 30th. See DRD SA-1-3 for requirements and delivery instructions. The self-evaluation shall follow the format specified in OSHA TED 8.1, "Revised Voluntary Protection Programs (VPP) Policies and Procedures Manual", Appendix H (Program Evaluation Report), Attachment 2 (VPP Onsite Evaluation Format for Safety and Health Programs) for a STAR work site which is found at the following link: http:/www.osha-slc.gov/OshDoc/Directive_data/TED_8_1A.html Provide action plans for identified problem areas. Action plans shall include schedule for periodic progress reports to the Government. Frequency of status reports shall to be agreed to by the Government and the Contractor for each problem area.	One Report Contractor determines action plans	All VPP sub-elements are fully addressed. Report is submitted on time and in proper format. Problem areas show timely improvement or closure.
1.7.3.3	Roster of Terminated Employees Develop and submit a roster of terminated employees.	Consistent with Privacy Act requirements, provide a list of all contract personnel that no longer work on the contract to the Occupational Health Office to facilitate retirement of JSC Clinic medical records. Each employee shall be identified by name, date of birth, and Social Security number. The report is due no later than 30 days after the end of each contract year. (See DRD SA-1-2 for requirements and delivery instructions.)	One report.	All terminated employees (including Subcontractor employees) are listed in the report. Report is accurate and submitted on time.
1.7.3.4	Material Safety Data Sheets (MSDS) Develop and submit Material Safety Data Sheets.	For hazardous materials brought onto ***JSC** property by the COSS contractor (including the prime, joint venture partners, team members, and subcontractors), provide a MSDS to the JSC Occupational Health Office's Hazard Communication Section. Subsequent processing of MSDS will be in accordance with the Safety and Health Plan. If the material represents a significant change in on site operations, the MSDS shall be provided to JSC Occupational Health at least 30 days prior to arrival to allow a Government assessment of the changes. (See DRD-SA-1-1, 1.7.3 for requirements and delivery instructions.)	Contractor determined.	MSDS meet OSHA and Fed-Std-313 requirements. MSDS are delivered on time.
1.7.3.5	Hazardous Materials Inventory Develop and submit a Hazardous Materials Inventory Report.	Conduct an Inventory of Hazardous Materials ***annually** for hazardous materials that the Contractor has on NASA property. See ****Texas Dept. of Health Hazardous Materials Inventory**. Ensure the Government is aware of hazardous Contractor materials by developing, maintaining, and submitting a Hazardous Materials Inventory report in accordance with DRD SA-1-5. Note - JSC Occupational Health provides instructions ***annually** regarding schedule, coverage, and report format and delivery.	One inventory report	All hazardous materials onsite are inventoried. Report is accurate and submitted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.7.3.6	Hazard Abatement Notices and Plans Develop and submit Hazard Abatement Notices and Plans.	For safety hazards within Contractor-occupied facilities that have not been fully abated within 30 days of discovery, submit a completed ****JSC Form 1240, "JSC Notice of Safety or Health Hazard and Action Plan."** The plan shall be in place within 30 calendar days of discovery and sent to the Administrative ***TMR** within 45 calendar days of discovery. Maintain the status of abatement plans (schedule changes and action item completion) and forward any updated plans to the Administrative ***TMR** within 5 working days of status change. Before submission to the Administrative ***TMR,** each abatement plan shall be entered into the Government's Hazard Abatement Tracking System (HATS). NOTE: Entry into HATS entails completing an on-line form on JSC's intranet.	Contractor determined.	Plan is accurate and submitted on time.
		New and open hazards shall be reviewed with the Administrative ***TMR** monthly to ensure proper abatement and closure of all hazards found in the Contractor's work areas. (See DRD SA-1-1, 3.)	Twelve reviews.	All new hazards are correctly identified and reviewed.
1.7.3.7	Lessons Learned Develop and submit Lessons Learned report.	Develop, maintain, and submit a Lessons Learned report to the JSC Occupational Safety Office in the format specified in DRD SA-1-15, "Lessons Learned." The lessons may come from innovations in safety and health; mishaps; close calls; or any other area pertinent to safety and health and may be required any time during the year. NOTE: The CO may direct the Contractor to develop specific lessons learned.	Four reports.	Report is accurate and submitted on time.
1.7.3.8	Monthly Safety and Health Metrics Develop and submit Safety and Health Metrics report.	Develop, maintain, and submit Safety and Health Metrics report in accordance with DRD SA-1-14. Submit the metrics report to the JSC Occupational Health Office by the 20th of the month following the month being reported.	Twelve reports.	Report is accurate and submitted on time.
1.7.3.9	Log of Occupational Injuries/ Illnesses Develop and submit occupational illnesses and injuries report.	Develop, submit and maintain an annual summary of occupational illnesses and injuries. Report this data in accordance with DRD SA-1-6 by calendar year and provide to the Government no later than 15 February of the year following.	One Report	Report is accurate and submitted on time.
1.7.3.10	Hazards Identification Report work site hazards and hazardous operations.	Report results of annual work site safety analyses. This report shall contain the result of surveys, inspections, close call investigations, and analyses of occupational injuries and illnesses. (See DRD SA-1-1, 2.1-2.5,3.1-3.13.) The report shall list the Contractor's hazardous operations and it shall establish permit structures for hazardous processes.	One Report	Report is accurate and submitted on time.
1.8	**ENERGY AND WATER CONSERVATION**			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.8.1	Energy and Water Conservation Program Develop, implement and Maintain an Energy and Water Conservation Management Plan.	NASA's Strategic Plan requires ***JSC** to improve its energy efficiency and water conservation practices without impacting safety or mission support. Federal Legislation has established Federal Energy Resources Management goals at ***JSC**. Develop, implement, and maintain an energy and water conservation program per the requirements in ****DRD AN-1-3, JSC's Energy and Water Conservation and Management Plan.** Update the plan ***yearly**. Plan is due 180 days after contract start (not including phase-in period) to the CO for review and approval.	One plan. ***Yearly** update.	Plan implemented 30 days after Government review and acceptance.
1.8.1.a	Y2K Heating/Ventilation/Air Conditioning (HVAC) Equipment and Lighting Baseline Status Report Modify, update, and maintain a HVAC Equipment and Lighting Status Report.	Submit and maintain a HVAC Equipment and Lighting Status report per the requirements of ****DRD AN-1-1, HVAC Equipment Operational Status Report.** The initial submission shall be reformatted to reflect the changes in the DRD. Subsequent reports are to be updated and maintained monthly (by the 15th of following month) using data from the Operational Change Orders (OCO) or Limit Change Orders (LCO). Note: Facility Managers will submit an OCO whenever operational hours for covered equipment change for their building and where the change is longer than 72 hours. Note: Facility Managers will submit an LCO whenever operational limits for covered equipment change for their building and where the change is longer than 72 hours.	12 reports.	On time and accurate
1.8.1.b	Monthly Utility Report (MUR) Submit and Maintain a Monthly Utility Report.	Submit and maintain a MUR per the requirements of ****DRD AN-1-4.** The initial submission shall be reformatted to reflect changes outlined in the DRD. Subsequent reports are to be updated and maintained on a monthly basis as new buildings and/or equipment are added in the future years. Reports are due on the 15th of the month to the Administrative ***TMR** for review and approval. Submit per the requirements of ****DRD AN-1-4, Monthly Utility Report**. The first report after contract start shall be reformatted to reflect changes outlined in the DRD. Subsequent reports are to be maintained monthly and updated as new buildings and/or equipment are added.	12 reports.	On time and accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.8.1.c	Quarterly Energy Report (QER) Submit a Quarterly Energy Consumption and Report (QER)	Submit to the Administrative ***TMR** quarterly each fiscal year a QER per the requirements of ****DRD AN-1-5, NASA Quarterly Energy Consumption and Cost Report**. The initial submission is due 90 days after completion of the phase-in period and shall be reformatted to reflect changes outlined in the DRD. Subsequent reports are to be updated quarterly as new buildings or equipment are added. Submit the quarterly report 15 days after the last month of each quarter.	Four reports	On time and accurate.
1.8.1.d	Cold Weather Protection Plan Maintain and submit JSC's Cold Weather Protection Plan.	a. Maintain and submit per ****DRD AN-1-6, JSC Cold Weather Protection Plan**. Submit the plan with incorporated changes to the Administrative ***TMR** on October 1 for review and approval.	One plan	Complete and accurate plan submitted on time.
		b. Perform a freeze protection survey ***annually**. Survey all site equipment and facilities in November to identify all exterior exposed piping, hose bibbs and equipment which require insulation for freeze protection. Accomplish specifics of plan at ***JSC** facilities.	One survey	Survey performed on time. Piping or equipment protected from freeze damage.
1.9	**FUNCTIONAL METRICS**	Develop, acquire, maintain, record, and report all Contract Functional Metrics. Use these data to report various COSS functions and metrics that are required by JSC or NASA and other regulations. Report the various metrics as further defined in the referenced ****DRD AN-1-10, Functional Metrics**.	12 reports.	Metrics Reports are accurate and received on time..
		Update Metrics Reports by the 10th of each month and per dates required in DRD AN-1-10. Provide continuous electronic access to the updated reports via the LAN.		Report data is electronically available continuously
1.10	**ENVIRONMENTAL PROGRAMS**			
1.10.1	Environmental Requirements Ensure all activities are in compliance with all applicable requirements.	Ensure all Contractor activities performed, and equipment used, at ***JSC** and EPFOL are in compliance with all local, state, federal environmental requirements and NASA JSC directives, procedures and policies. Comply with the portion of DRD AN-9-1 that describes the COSS Contractor's activities necessary to ensure environmental compliance for its own activities. All appropriate COSS Contractor activities shall be included in compilations of the Center's environmental programs.	Contractor determined.	All Contractor activities performed and equipment used are compliant with all applicable requirements.
		NOTE: This CLIN refers to work performed by the COSS contractor for the accomplishment of the entire COSS contract. Services to support overall JSC environmental compliance are described in Annex 9. See Table 1-3, Environmental Laws, Regulations, and EO.		Appropriate portions of DRD AN-9-1 are followed to ensure environmental compliance for COSS activities.

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		NOTE: The Government remains the owner and operator of record for all activities conducted at ***JSC** and EPFOL. JSC's Environmental Office will be the single point of contact with regulators, unless otherwise directed by CO or the EO. This office will also submit all correspondence, permit applications, and other similar items to regulatory agencies for all activities, including COSS contractor activities, at ***JSC** and EPFOL.		All appropriate COSS activities are included in Center program compilations.
1.10.2	Procure Recycled Items/Material Procure items/material containing recycled content.	Procure and use materials with recycled content in accordance with EO 12873 and its amendments and all NASA and JSC Affirmative Procurement policies. Include paper and paper products, lubricating oils, insulation, tires, and concrete as well as any other Environmental Protection Agency (EPA) designated items when economically feasible and where proper equipment operation will not be compromised. Track procurement information of such items.	Contractor determined.	Contractor's procurement and material use are in compliance with EO's and Government Affirmative Procurement policies. Procurement information is accurately tracked.
1.10.3	Environmental Management System (EMS) Comply with all JSC EMS requirements	Conduct all contract work at **JSC*** and EPFOL in compliance with JSC's EMS (****EMS Policy Manual and associated procedures**). This includes, but is not limited to, identifying all COSS Contractor aspects (activities, services and products) that have environmental impacts. In general, these activities are broadly defined and are not task-level. All new or changed contract work shall be evaluated and entered into the database in accordance with EMS procedures. All aspects with impacts must be controlled through procedures or engineering controls or other appropriate methods. These controls must be documented in the database. Include environmental requirements, controls, calibration, measuring and monitoring, and training requirements in operating procedures and other documentation. Use JSC's quality management system procedures for COSS internal EMS documentation, records or other EMS requirements until COSS ISO 9001 registration is achieved. Following COSS ISO 9001 registration, either JSC or COSS system can be used as long as all JSC EMS requirements are met. Initiate corrective or preventive action in accordance with ****EMS Policy Manual and associated procedures** on all non-conformances identified during EMS audits.	Contractor determined	All work complies with JSC's EMS.

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		NOTE: Information collected when developing and completing the environmental checklist identified in DRD AN-9-1 can be used to identify EMS impacts as long as all the elements of the EMS Impacts procedure are followed. A database listing current BOSS contractor aspects and impacts exists and the COSS contractor may add to or edit that list rather than developing a new list. NOTE: Even if the COSS contractor achieves ISO 14001 registration for its activities, all JSC EMS requirements must be followed for on-site activities. NOTE: Fulfillment of this CLIN does not meet the requirements for meeting NEPA impact assessment.		
1.10.4	Affirmative Procurement Comply with all Affirmative Procurement requirements.	Comply with all affirmative procurement requirements for all products procured by the COSS Contractor for the performance of all contract requirements (included subcontractors) as identified in FAR and NASA NPG and JSC procedures. Waivers must be submitted and approved by the Environmental TMR for each product that will not meet affirmative procurement requirements prior to the procurement of a non-conforming product. Track the purchase of all products on the Comprehensive Procurement Guideline list, including but not limited to: a) the total amount of each item purchased ($) b) the total amount of each item purchased that contained recycled content ($), c) the constraint for each purchase that did not meet affirmative procurement requirements, d) total number of waivers requested, and e) the total number of waivers approved. This information shall be compiled along with other information to complete the center-wide report identified in CLIN 9.16.8.3.	Contractor determined	All items on the CPG list procured by the contractor (including subcontractors) meet the minimum recycled content requirements, unless a waiver was received prior to purchase. All required information is accurately tracked and provided on time.
1.10.5	Prohibited and Restricted Materials Control and track prohibited and restricted materials.	Ensure that no Class I ozone depleting substances (ODS) and no polychlorinated biphenyls (PCB) are purchased or used in equipment procured or controlled by the COSS contractor at ***JSC** or EPFOL. Obtain written waiver from Environmental TMR prior to purchase and use, if there is no acceptable alternative to Class I ODS.	Contractor determined	No instance where Class I ODS or PCB are purchased or used.

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1.10.6	Ozone Depleting Substances (ODS) Track equipment containing ODS.	Identify and track each piece of equipment operated or controlled by the Contractor that contains Class 1 or 2 ODS for the following: a) the amount of ODS contained in the equipment, b) the average cost per pound of the ODS, c) the amount of ODS released from or added to the equipment annually, d) the amount of the ODS recycled or reclaimed per year, e) the method of reclamation of ODS, and f) whether a substitute or alternative is being evaluated for the ODS. This information shall be compiled with additional information to complete the center-wide report identified in CLIN 9.16.8.5.	75 items	All required information is tracked, accurate and provided on time.
1.10.7	Polychlorinated Biphenyls (PCB) Track equipment containing PCB.	Identify an track each piece of equipment operated or controlled by the Contractor that contains PCB in concentrations of 1 mg/l or greater and comply with all regulatory requirements, as applicable. NOTE: This CLIN applies to equipment located at JSC or EF that contained PCBs prior to COSS contractor involvement as identified in the ****PCB Containing Equipment Inventory List**.	75 items	All required information is tracked, accurate and provided on time. All regulatory requirements are followed.
1.10.8	~~Participate in Recycling Programs~~ Participate Fully in all ***JSC** Recycling Programs	~~All COSS contractor personnel and departments, including~~ subcontractors, must place unused or discarded materials into JSC recycling programs, including but not limited to: scrap metal, batteries, fluorescent lamps, paper, cardboard, pallet, aluminum cans, and any other material where on-site recycling is available.	Contractor determined	All personnel place recyclable discarded materials into JSC's recycling programs.
1.11	**EMERGENCY MANAGEMENT PROGRAM** Plan, develop, manage, and accomplish Contractor supporting SOP's of the JSC Emergency Preparedness (EP) Plan.	Establish and implement an Emergency Management Program to ensure compliance with JSC, EF, and SCTF EP Plans. Program shall be inclusive of all required EP Annexes, Appendices, and SOP's that support overall Center Plan. Accomplish plan per DRD AN-1-7. Develop an EP Plan that parallels ****JSC's Emergency Preparedness Plan**. Provide update support to the JSC Plan, as required, and update SOP's on yearly basis for all annexes or appendices which pertain to the COSS Contractor's scope of responsibilities.	One plan.	Contractor's Program is in compliance with JSC's Emergency Management Program across all contract functions. Plan and SOP's are kept current.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.12	**CONTRACT REVIEW MEETING** Report contract cost and workload data	Present and explain the cost data reported on NASA Form 533, created in accordance with DRD AN-1-19, with the JSC Center Operations Directorate management, Procurement Office, and others. Clearly communicate cost and workload variances to the meeting attendees to explain both actuals and expectations. Provide any additional data required to effectively demonstrate the Contractor's cost management effort. NOTE: Each monthly meeting is expected to last about four hours.	12 Meetings	Presented cost data is accurate, organized per the DRD AN-1-19 required format, and variances are clearly explained.
		Support the Government in creating an annual cost-operating plan prior to the beginning of each government fiscal year (October 1 – September 30). Based upon the funding plan communicated by the Government, accurately produce an annual technical and cost plan consistent with the funding for that fiscal year. Support the Government's annual budget planning process by providing cost estimates, analyses, technical impact statements and decision packages as required. NOTE: The exact support requirements and their schedule will be given when the support task is assigned.		Support requirements are accurately met on time.
		Once the annual technical and cost plan has been finalized, assist the Government in the management of the plan as annex level cost and workload variances occur. In addition, support the JSC Center Operations Directorate management, Procurement Office, and others throughout the life of the contract as they respond to variations in funding levels and technical priorities.		Assistance is promptly and reliably provided.
1.13	**PERSONNEL REQUIREMENTS** Provide properly trained and qualified personnel.	Ensure compliance with all industry standards, Federal, State, and Local laws regarding licenses, certifications, and training of employees performing the specified services, to the same degree as requirements fulfilled on non-Federal Property. Ensure training is updated and kept current for activities that require periodic recertification. Employee shall not be allowed to perform task for which the certification is not current. NOTE: The Government's minimum staffing requirements, qualifications, training, certifications, and other requirements are identified in the applicable annex.	Contractor specified.	Personnel are fully qualified to hold the position designated. Personnel conduct themselves in a proper, courteous, and business-like manner.
1.13.1	Sufficient Qualified Personnel Staffing Provide a sufficient number of competent and qualified personnel to accomplish the services.	Contractor personnel assigned to operate either Government-owned or Contractor-owned/leased motor vehicles/equipment in the performance of this Contract shall be certified by the Contractor as being fully qualified to operate the vehicles/equipment to which they are assigned and be licensed as required by State and local Governments. Ensure a sufficient number of personnel are qualified to perform the volume and types of work requiring specific knowledge and skill as identified in all Performance Requirements.	Contractor specified.	Sufficient numbers of qualified personnel assigned.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.2	Certified Operators Provide properly trained and certified operators.	Ensure operators are trained and certified for systems equipment and process they operate. Document all operator training and certification. Provide adequate drills and exercises in conjunction with the Contractor's QC Program that confirm operators' knowledge, skills, safety, and understanding of operational requirements. Drills, certification, testing, and scheduling are the Contractor's responsibility. Provide an adequate number of environmental operators to operate environmental equipment, escort, weigh in and weight out trucks for waste shipments, perform environmental inspections and keep environmental documents. Requires a minimum of 4 years of experience in the operation of environmental equipment and regulatory record keeping. Ensure operators exercise due care while operating equipment and accomplish appropriate pre-operational inspections of the equipment as required by JSC Standards. NOTE: Reference Annex 4, Operations, and Annex 9, Environmental, for additional requirements.	Contractor determined.	Qualified operators are assigned.
1.13.3	Emergency Preparedness Personnel Provide properly trained and qualified Emergency Preparedness Personnel.	Provide support personnel (e.g., plumbers, electricians, heavy equipment operators) and Emergency Response Personnel that are properly trained to the appropriate OSHA HAZWOPER training level specified in 29CFR1910.120 and 29CFR1910.1200 and JSC's Emergency Preparedness Plan, JSC-05900. Training shall be provided and updated at least annually and as required by regulation for all new employees.	Contractor determined.	Personnel are adequately trained. All assigned personnel are qualified.
1.13.4	Crewman Personnel Certification Ensure personnel operating lifting equipment are properly trained and certified.	Ensure all personnel hired to work under this Contract as crane and forklift operators and crewman are certified by JSC prior to operating cranes and forklifts and performing duties as crewman in support of JSC Programs. All Contract personnel in above crafts shall have the appropriate JSC Certification at the start of contract. Thereafter, the Contractor shall notify the Administrative ***TMR** by typed memo requesting recertification of the appropriate personnel prior to the initial certification expiring. A JSC Form 1464 (Certification For Lifting Program Hardware) will be provided by the Government to each certified employee after the employee satisfactorily completes a written and hands-on examination. These certifications are required by the ****NSS/GO-1740.9B, NASA Safety Standard for Lifting Devices and Equipment** and ****JSCM 1700D**.	Nothing additional.	No operations using uncertified operators.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.5	Energy Manager Manage Contractor's Energy and Water Conservation Program	Appoint an individual to serve as a focal point for all energy matters and to manage and monitor energy and water consumption and conservation. The individual shall be an Association of Energy Engineers (AEE) certified energy manager or a Texas Registered Professional Engineer. The energy manager shall be proficient in the following areas: a. Fundamentals of building energy systems. b. Building energy codes and applicable professional standards. c. Energy Accounting and analysis. d. Life cycle cost methodology. e. Fuel supply and pricing. f. f. Instrumentation for energy consumption and metrics.	Contractor determined.	Manager available and meets personnel requirements
1.13.6	Environmental Training Provide all environmental training required by pertinent regulations or NASA policy.	Plan, schedule, and accomplish environmental training for all employees conducting activities that will require it. Maintain all training and certificate records in accordance with CLIN 1.1.4 and applicable regulations. At termination of the Contract, relinquish all environmental training records in accordance with regulations that require that records be maintained for a minimum of 3 years or more. Ensure that all COSS Subcontractors have all required training prior to conducting applicable activities. Training shall be provided in the following areas, at a minimum. Other training may be required. a. Resource Conservation and Recovery Act Training for all persons handling hazardous wastes or working on systems managing hazardous wastes. b. Asbestos Abatement Training for all persons performing asbestos abatement in accordance with the **JSC Asbestos Control Manual, EPA, and OSHA. c. Environmental Management System awareness training for all persons who perform any task that may have an impact on the environment in accordance with **JSC's EMS Policy Manual and references.	Contractor determined.	All personnel are trained as required by regulation, JSC policy or other requirement. Training records are accurate, complete and easily accessible. All required training records are turned over to the government at the termination of the contract.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. Storm Water Pollution Prevention training for all persons who perform activities that may result in pollution of the storm water in accordance with state regulations and the ****JSC and EF Storm Water Pollution Prevention Plans.**		
		e. Spill Prevention Control and Countermeasure Plan (SPCC) training for all persons who handle or manage petroleum products in accordance with state regulations and ****Johnson Space Center (JSC) Spill Prevention, Control, and Countermeasure** and **EF's SPCC Plan.**		
		f. Provide visible emission observer training and certification sufficient to ensure that there is a certified observer available on-site when equipment that may have visible emissions are started or on other occasions when readings are required. The certification is the "Visible Emission Evaluator Certification" from the Texas Natural Resource Conservation Commission, Operator Certification Section.		
		g. Pollution Prevention and Recycling training for all employees who perform activities requiring participation in recycling activities or who require information on how to minimize or reduce pollutant generation.		
		h. Texas Natural Resources Conservation Commission (TNRCC) Spill/Release Rule training for the spill response supervisor and other personnel as appropriate.		
1.14	**RECORDS, REPORTS, AND SUBMITTALS**			
1.14.1	Workload Data Collection Report Collect Contract Workload Data	Provide workload data collection for all identified work types per DRD AN-1-17, Workload Data Collection. The compiled annual report covering the entire contract year shall be delivered by May 1 of each year for the previous year.	1 Report	All requested data is accurately collected, identified and reported on time.
1.14.2	Fixed Price Award Proposal Create firm fixed price proposal	Provide a proposal to covert all or part of the COSS contract into a firm fixed price contract per DRD AN-1-18, Fixed Price Award Proposal. Deliver this proposal two years after contract award.	One Proposal in Year Three	The proposal is clearly written, completely provides all requested information, and is on time.
1.14.3	Cost Data Report Collect Contract Cost Data	Provide a cost data report for all COSS work per DRD AN-1-19, Cost Data Report. Reports shall be delivered monthly by the 15th of the month.	12 Reports	All requested data is accurately collected, identified and reported on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.14.4	NF533 Cost and Data Report Deliver contract cost and workload data	Prepare NASA Form 533 cost reports monthly in accordance with DRD AN-1-19 to project contract costs and hours to ensure that dollar and labor resources realistically support contract requirements.	12 Reports	All requested data is accurately collected, identified and reported on time.

TABLE 1-1
DEFINITIONS

Annually – Service is accomplished once during each 12-month period of the contract, at intervals of 11 to 13 months. Synonymous with ***yearly**.

Annual Work Plan (AWP) – A plan prepared on an annual basis prior to the start of the applicable fiscal year that systematically lays out the maintenance and repair work to be accomplished.

Backlog of Maintenance and Repair (BMAR) – The unfunded facilities maintenance work required to bring facilities and collateral equipment to a condition that meets acceptable facilities maintenance standards.

Bare Cost – The applicable sum of: (1) labor wage rate (including employer paid fringe benefits), (2) material and, (3) equipment cost, without overhead and profit applied.

Center Operation Support Services (COSS) – A multi-function Johnson Space Center Contract providing center operating services for Johnson Space Center, Ellington Field and Sonny Carter Training Facility.

Benchmark – A standard against which something is measured.

Building Manager – A Contractor employee designated by the Contractor to perform Facility Manager duties in each Government-furnished facility in which the Contractor is the sole or primary occupant.

Bulk – For purposes of this contract, bulk is defined as any material, container, or packaging with an internal volume greater than 119 gallons.

Chlorofluorocarbons (CFC's) – A family of chemicals used in refrigerants in some commercial air conditioning and refrigeration systems and in other applications.

Collateral Equipment – Encompasses building-type equipment, built-in equipment, and large, substantially affixed equipment/property that is normally acquired and installed as part of a facility project as described below:

Building-Type Equipment – Equipment normally required to make a facility useful and operable. It is built-in or affixed to the facility in such a manner that removal would impair the usefulness, safety, or environment of the facility. Such equipment includes elevators; heating, ventilating and air conditioning systems; transformers; compressors; and other like items generally accepted as being an inherent part of a building or structure and essential to its utility. It also includes general building systems and subsystems such as electrical, plumbing, pneumatic, fire protection, and control and monitoring systems.

Built-In Large, Substantially Affixed Equipment – A term used in connection with facility projects of any type, other than building-type equipment, that is to be built-in, affixed to, or installed in real property in such a manner that the installation cost, including special foundations or unique utilities service, or the facility restoration work required after its removal is substantial.

Computerized Maintenance Management System (CMMS) – A CMMS is a set of computer software modules, hardware, and equipment data bases containing facility utilities and structures data with the capability to process the data for Section C Functions. These maintenance-related functions typically include, but are not limited to:

Work Input Control

Job Estimating

Work Scheduling and Tracking

Facility/Equipment Inventory

Facility/Equipment History

Building Operations and Maintenance (including the normal CMMS functions)

Preventive Maintenance

Predictive Maintenance

Facility Inspection and Assessment

Material Management

Utilities Management

Condition Assessment – Condition assessment is the inspection and documentation of the material condition of facilities, structures, utilities, and equipment, as measured against the applicable maintenance standard. It provides the basis for long-range maintenance planning as well as annual work plans and budgets.

Consumables – Expendable material and/or supplies used on a recurring basis.

Continuous Inspection – A program of periodic, scheduled inspections of facilities and equipment to determine their condition with respect to specified standards.

Continuous Unit – For purposes of this contract, continuous unit is defined as an uninterrupted segment of a specified unit. Uninterrupted means no more than 25 feet between connecting sections of the same unit. For example: A chain link fence separated by a 12' gate is a continuous unit with sections; a gravel road intersected by a 24' paved road is a continuous unit; a sidewalk intersected by a 24' driveway is a continuous unit.

Contracting Officer (CO) – "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings.

Contracting Officer's Technical Representative (COTR) – A Government employee with technical training and experience appointed by the Contracting Officer to assist in the following functions:

Ensuring services under the terms and conditions of this contract are accomplished as defined.

Providing technical clarification of work requirements specified in their functional annex. The COTR serves as the central point of contact between the customer, the Contractor, and the Contracting Officer.

Contractor-Acquired Property - Material, supplies, and/or equipment that is procured or otherwise acquired by the Contractor, to which the Government has title.

Contractor-Furnished Property (CFP) – Material, supplies, and/or equipment provided or acquired by the Contractor and in the possession of the Contractor, to which the title remains with the Contractor until installed or utilized in performance of contract services.

Core Hours – For purposes of this contract core hours are 0700-1630, Monday through Friday excluding holidays.

Current Replacement Value (CRV) – Approximate cost to replace an existing facility in its present form. NASA calculates CRV by escalating facility and collateral equipment acquisition cost, and any incremental book value changes of $1,000 or more to present-year dollars using the Engineering News Record (ENR) Building Cost Index (BCI). The NASA Real Property Data Base Program or NASA approved equivalent is used in performing the required calculations.

Criticality Class Codes – See RCM Criticality Class Codes.

Daily (D) – Service is accomplished at intervals of 22 to 26 hours, Monday through Friday (excluding holidays), during each 12-month period of the contract (not including Saturday and Sunday).

Daily, 7 days a week (D7) – Service is accomplished at intervals of 22 to 26 hours, Monday through Sunday, during each 12-month period of the Contract.

Day – For purposes of this contract, a day is defined as one calendar day.

Debris – For purposes of this contract, debris is defined as any trash, wastepaper, garbage, gum, or other matter lying scattered about which is foreign to its surroundings; e.g., leaves/rocks in lawns, branches in roads, or other items not placed or intended for the given location.

Deferral Codes – Codes used by the Contractor that indicate the reason for a delay in work accomplishment. The codes cover both Government and Contractor caused delays.

Design – This term is used to encompass both preliminary design and final design for facility projects.

Direct Digital Control (DDC) – A control loop in which a digital controller periodically updates a process as a function of a set of measured control variables using a given set of control algorithms. For example, DDC signals from a central computer can be converted to a voltage or pneumatic signal to operate an actuator to perform necessary mechanical functions.

Directed Services – Government ordered work on unscheduled COSS service work that may include, but is not limited to maintenance; corrective maintenance; repair; alterations; modernization; new capability construction; engineering; and other support service work.

Disposition – The disposal, treatment, recycling or offsite storage of any industrial solid waste. This does not include storage in an authorized, onsite facility.

Drawings – Graphic data, including drawings as defined in MIL-STD 100A and prepared in accordance with MIL-STD-1000, Category D; aperture cards in accordance with MIL-C-9877; and graphs or diagrams in accordance with industry standards and industry specifications on which details are represented with sufficient information to define completely, directly, or by reference the end result for use in the selection, procurement, and manufacture of the item required.

Dust free – The result or work the Contractor accomplishes to keep work areas such as data processing, research and medical equipment areas, etc., protected from damage and accumulation of dust.

End Result – Includes all necessary actions to accomplish a requirement.

Energy Monitoring and Control System (EMCS) – A computerized system for monitoring and controlling remote systems through an integrated system of network controls.

Enterprise Building Integrator (EBi) – The Honeywell energy management system.

Facility Manager (FM) - The responsible Government person, a point of contact for the onsite safety and health of a building and its occupants (building "superintendent").

Fiscal Year (FY) – An accounting period of 12 months. NASA fiscal year extends from October 1 through September 30 of the following year.

Government Property – All property owned or leased by the Government or acquired by the Government under the terms of the contract. It includes both Government-furnished and Contractor-acquired property.

Grounds Care – Grounds Care is the maintenance of lawns, shrubs, trees, sprinklers, right-of-ways and open fields, drainage ditches, other similar improvements to land, and pest control when performed outside of buildings. The maintenance tasks include mowing, spreading fertilizer, trimming hedges

and shrubs, clearing ditches, snow removal, and related work. Included in this category is the cost of maintaining Grounds Care equipment such as mowers and tractors.

Holidays – Federal holidays include New Year's Day, Martin Luther King, Jr. Day; Presidents' Day; Memorial Day; Independence Day, Labor Day; Columbus Day; Veterans' Day; Thanksgiving Day; and Christmas Day.

Immediate/Immediately – For purposes of this contract, immediately means with no interval of time or delay. Immediate response shall comply with training received through Emergency Vehicle Operators Course (EVOC) Training.

Industrial Solid Waste (ISW) – Waste that is regulated by TAC 335, includes all hazardous wastes, Toxic Substance Control Act wastes, mixed radioactive waste, or any other waste that is similar to wastes incidental to any process of industry or manufacturing. Includes TNRCC Class 1, Class 2 and Class 3 Wastes.

In-House – For purposes of this contract, "in-house" labor includes all labor performed by prime Contractor employees or employees of Subcontractors permanently involved with functions identified in this contract. "In-house" labor does not include labor resulting from one-time contracts/services.

Installation – In Annex 7, an installation is geographically contiguous property owned by NASA JSC. EF and SCTF are each installations since they are not contiguous.

Installation – Accountable Government Property (IAGP) – Property in the possession of, or directly acquired by the Government and subsequently made available to the Contractor for use in the performance of work related to this contract.

Johnson Space Center (JSC) – For purposes of this contract, Johnson Space Center (JSC) includes JSC, Ellington Field (EF), and Sonny Carter Training Facility (SCTF) unless otherwise stated to exclude one or more of the facilities. See maps in Section J.

Life-Cycle Costs (LCC) – A form of economic analysis that considers the total cost of owning, operating, and maintaining building and equipment over its useful life. LCC's are the sum of the present value of:

a. Investment costs, less salvage values, at the end of the useful life;

b. Nonfuel operation and maintenance costs;

c. Replacement costs, less salvage costs, of replaced building systems;

d. Energy costs.

All life-cycle costing analyses of energy-related projects shall be performed using the energy cost projections and discount rates provided by the National Institute of Standards and Technology in support of Department of Energy responsibilities under the most current version of 10 CFR, Part 436, Subpart A.

Line Item – An individually identifiable record (e.g. equipment, data, task) or occurrence of the contract.

Litter – Trash, wastepaper, garbage, or other matter lying scattered about which is foreign to its surroundings.

Mission Critical – Stock that is necessary to provide support to the Manned Space Flight Program.

Mission Variable Facility – Specialized Facilities supporting energy-intensive activities directly related to the level of mission activity, such as Building 49, Building 222, etc. The National Energy Conservation Policy Act (NECPA) allows for exempting these facilities from the Federal Energy Reduction Goals.

Mitigate/Mitigation – For purposes of this contract, mitigation includes arresting the immediate problem/situation and repairing, or restoring the piece of equipment, property, or system to an acceptable condition such that it may be utilized for its intended purpose. Repairs may be temporary; however, temporary repairs shall not create an unsafe environment, allow additional damage to incur, or result in higher, unusual costs to the Government in terms of additional wear and tear on property/equipment, excessive use of utilities, etc.

Monthly (M) – Service is accomplished at intervals of 28 to 32 days during each 12-month period of the contract,.

Non-Bulk – For purposes of this contract, non-bulk includes material, containers or packaging with an internal volume less than 119 gallons.

On-Line Access - Immediate and direct access by local area network using Government computers to databases generated for the purposes of contract requirements with the capability to compile and generate reports.

Outage – The planned or unintentional interruption or termination of a utility service such as electricity, water, steam, chilled water, or communication.

Paved Areas – Includes all paved off-street areas intended for vehicular usage, including parking lots, piers, hardstand areas, access roads and entranceways to parking areas and buildings, turn-arounds, loading/unloading areas, including loading dock areas, etc.

Pre-Designated Staging Area (PSA) – Temporary areas established for the collection of Regulated Substances, awaiting pickup to a retention/treatment facility. PSA's are not designated as retention facilities/locations.

Predictive Testing & Inspection (PT&I) – Trend performance and analytical data. PT&I is the use of advanced technology to assess machinery condition. It replaces maintenance scheduled at arbitrary times or usage intervals with maintenance that is scheduled only when the condition of the equipment

requires it. The PT&I data obtained allows for planning and scheduling corrective maintenance or repairs in advance of failure. PT&I utilizes primarily non-invasive techniques and inspection activities for facility utilities and structure items that generally require more sophisticated means to identify maintenance requirements than those of Preventive Maintenance.

Pre-Expended Bin Material – Includes all normally stocked, common use items inherently used by craftsman during the performance of their jobs. Pre-expended material will include all items with an extended price up to $25 per line item, before tax.

Preventive Maintenance (PM) – Also called time-based maintenance or interval-based maintenance. PM is the planned, scheduled periodic inspection, adjustment, cleaning, lubrication, parts replacement, and minor repair of equipment and systems for which a specific operator is not assigned. PM consists of many checkpoint activities on items that, if disabled, would interfere with an essential Center Operation, endanger life or property, or involve high cost or long lead time for replacement.

Proactive Maintenance (PAM) – It seeks to reduce the need for maintenance through better design, better installation, precision balance and alignment, and root-cause failure analysis.

Programmed Maintenance (PGM) – Programmed maintenance are those maintenance tasks whose cycle exceeds one year, such as painting a building every fifth year. (This category is different from PM in that if a planned cycle is missed the original planned work still remains to be accomplished, whereas in PM only the next planned cycle is accomplished instead of doing the work twice, such as two lubrications, two adjustments, or two inspections.)

Property Administrator – Authorized representative of the Contracting Officer who is assigned to administer the contract requirements and obligations relating to Government Property.

Quarterly (Q) – Service is accomplished at intervals of 80 to 100 days during each 12 month period of the contract,.

Reactive Maintenance – Often called breakdown maintenance or "run to failure (RTF)." Reactive maintenance or equipment repairs are performed only when the deterioration in a machine's condition causes a functional failure. A high percentage of unplanned maintenance work, high replacement part inventories, and the inefficient use of maintenance personnel typify this strategy.

Ready-for-Issue – In a usable condition and available for immediate use.

Real Property – Any interest in land and anything permanently attached to it, including structures, fixtures, and their improvements.

Recurring Work – Work which is performed under the contract which is not a part of the Scheduled Maintenance and Repair Program and is required an undetermined number of times during the year, but is required at least once. This work will be accomplished as required. An example is implementation of the Hurricane Plan which will be performed (partially) once per year at the start of hurricane season with the resumption and completion of the plan carried out dependent on the number of storms which threaten the Texas Gulf Coast.

Recycled – Includes use, reuse, or reclamation of a discarded material.

Refuse – Discarded garbage, ashes, debris, branches and limbs, waste material, sand blast grit, etc. Wet refuse includes vegetable wastes and animal bones, fat, scraps, etc., resulting from food consumption and preparation. Does not include infectious or hazardous waste or bulky refuse such as appliances, furniture, trees and large branches, large auto parts, etc.

Regulated Substances (RS) – For purposes of this contract, regulated substances includes any substance regulated by environmental regulations such as hazardous wastes, industrial wastes hazardous material, recyclables, and Toxic Substance Control Act (TOSCA) material.

Reliability Centered Maintenance (RCM) – RCM is a maintenance strategy that logically incorporates into a maintenance program the proper mix of reactive, preventive, predictive, and proactive maintenance practices. Rather than being independent, the four maintenance categories draw upon their respective strengths to maximize facility and equipment operability and efficiency while minimizing required maintenance time, materials, and, consequently, costs.

Reliability Centered Maintenance (RCM) Criticality Class Codes –

Class I – Mission Critical – Class 1 facilities or systems are based on the presence of at least one of the following criteria: (1) the loss of the facility or system would impact a launch; (2) the loss of a facility or system would restrict or prohibit a spacecraft landing, or would require a mission to be cut short or cause a mission objective to be lost or restricted; or, (3) an existence of a potential or existing environmental, Occupational Health, or safety issue that would have grave consequences.

Class II – Site Critical – Class II facilities or systems are ones where the loss of the facility or system would severely limit the intended function, use or capacity, could impact a very large number of people or could have a large economic impact. A system example is a piece of equipment that has a very high cost or long lead procurement time required for replacement.

Class III – Mission Support - Class III facilities or systems are ones that are costly to maintain but do not directly impact a mission. Facilities and systems seriously impacting other operations and cost (for example, steam trap monitoring for energy conservation) may be within this classification.

Class IV – Program Support - Facilities or systems that have a history of significantly impacting mission or maintenance costs are included as Class IV. These items shall be evaluated periodically to determine whether routine

Predictive Testing and Inspection techniques are cost effective and warranted for the facility or utility.

Class V – Site Support – Class V facilities or systems are ones that have no direct site utility or mission impact. This is the lowest criticality class code level that Predictive Testing and Inspection is performed on. Most equipment or systems in this category are isolated systems, have impact on a minimum number of personnel or affect a small portion of a facility, structure, or utility.

Root-Cause Analysis – A detailed technical procedure performed on an item of equipment that is having repeated breakdowns or is experiencing excessive wear. It is also performed when a safety, Occupational Health, or environmental incident occurs.

Scheduled Maintenance (SM) –The planned, routine, repeatable, scheduled maintenance work on specified significant structures, facilities and utilities or systems (SFUSS) and components thereof. Scheduled maintenance work has a Contractor limit of liability as defined in Annex 2.

Selected – Records, reports, and submittals that are further defined by a DRD.

Semi-Annually (S) – Service is accomplished two times during each

12-month period of the contract, at intervals of 160 to 200 days.

Service Order (SO) – A unit of Directed Support service work that may be ordered by the Government to perform a pre-priced unit of discretionary directed services work. Work ordered may be maintenance, corrective maintenance, alterations, repair, modernization, new capabilities, engineering services, or other contract work.

Shift – The period of time defined as one third of a 24-hour day.

Shipment – Physical distribution/movement and storage functions associated with commodities identifiable to specific documentation.

Special Purpose Equipment – A wide variety of non-collateral equipment.

Specified Significant – The JSC defined line item in a listing that indicates specific structures, facilities and utilities or their respective systems thereof such as: systems, equipment, component on which the Contractor shall perform SM work to result in the delivery of specified reliability, availability, function, redundancy and output.

Standing Work – Work which is performed under the contract which is not a part of the Scheduled Maintenance and Repair Program and is required a pre-determined number of times during the year. The schedule can be specifically called out as in, once per hour or may be left to the Contractor, as in, once annually. An example is implementation of the Fall/Winter Setback Plan which always occurs once per year during the fall of the year.

Technical Management Representative (TMR) – A representative of the Contracting Officer acting within the limits of such authority as delegated by the Contracting Officer. A TMR provides support to the contract COTR for purposes of monitoring, providing insight into specific contract annexes, and issuance of technical direction. The CO's Letter of Appointment limits the TMR's authority.

Total Cost – is the ***bare cost** plus contractor overhead and profit.

Trouble Desk – A work reception desk operated 24 hours a day, seven days a week by the COSS Contractor for receiving, screening, and coordinating emergency/service calls.

Work Control Center (WCC) – The central organizational point for receipt, tracking, and management of work generated from all sources.

Workday – For purposes of this contract, a workday is defined as one calendar day from Monday through Friday, inclusive, excluding ***Holidays**.

Yearly – Service is accomplished once during each 12-month period of the contract, at intervals of 11 to 13 months. Synonymous with ***annually**.

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

A&E	Architectural & Engineering
ABO	Aviation Breathing Oxygen
ACM	Asbestos Containing Material
ACR	Allowance Change Request
ADP	Automated Data Processing
AEI	Air Emissions Inventory
AES	Automated Estimated System
AGST	Above Ground Storage Tank
AIA	American Institute of Architects
AIDS	Acquired Immune Deficiency Syndrome
AIM	Automated Industrial Monitoring and Control
AIS	Automated Information Security
AMD	Average Monthly Demand
AMS	Air Management System
ANSI	American National Standards Institute
AQL	Acceptable Quality Level
ASCAN	Astronaut Candidate
ASME	American Society of Mechanical Engineers
ASQ	American Society for Quality
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
AWCS	Agency Wide Coding Structure
AWP	Annual Work Plan
AWWA	American Water Works Association
BCS	Building Control System
BLCC	Building Life-Cycle Cost
BMAR	Backlog of Maintenance and Repair
BMP	Best Management Practice
BOD	Beneficial Occupancy Date
BOSS	Base Operations Support Services
BPA	Blanket Purchase Agreement
BSEE	Bachelor of Science in Electrical Engineering
BTU	British Thermal Unit
BUP	Building Unit Point
CAA	Clean Air Act
CAD	Computer-Aided Design
CAMEO	Computer-Aided Management of Emergency Operations
CAP	Contractor-Acquired Property
CD	Compact Disc
CDO	Contractor Duty Officer
CDPA	Control Document Production Area
CDR	Contract Discrepancy Report
CEMS	Continuous Emissions Monitoring System
CEQ	Council for Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	Chlorofluorocarbon
CFE	Contractor-Furnished Equipment
CFM	Contractor-Furnished Material
CFP	Contractor-Furnished Property
CFR	Code of Federal Regulations
CGA	Cylinder Gas Audit
CGM	Computer Graphics Metafile
CLCWA	Clear Lake City Water Authority
CLIN	Contract Line Item Number
CM&R	Corrective Maintenance and Repair

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

CMMS	Computerized Maintenance Management System
CO	Contracting Officer
COB	Close of Business
COD	Center Operations Directorate
CoF	Construction of Facilities
COMSEC	Communication Security
CONTAR	Container Trailer Vans
COP	Coefficient of Performance
COSS	Center Operations Support Services
COTR	Contracting Officer's Technical Representative
CPU	Central Processing Unit
CRN	Change Request Notification
CRT	Cathode Ray Tube
CRV	Current Replacement Value
CSCS	Central Security Control System
CSI	Construction Standard Institute
CSO	Computer Security Official
CSSUPB	Construction Support Service Unit Price Book
CTS	Central Telephone System
CWA	Clean Water Act
D	Daily
D7	Daily, 7 days a week
DAMES	Defense Automatic Addressing System
	Center Asynchronous Message Entry System
DAO	Designated Approving Official
DAR	Daily Activity Report
DC	Direct Current
DDC	Direct Digital Control
DEC	Digital Equipment Corporation
DESTRANS	NASA Supply Management System
	Destination Transaction
DFAR	Department of Defense Federal
	Acquisition Regulation
DLA	Defense Logistics Agency
DLSC	Defense Logistics Service Center
DO	Delivery Order
DOD	Department of Defense
DOE	Department of Energy
DOI	Division Operating Instructions
DOL	Department of Labor
DoT	Department of Transportation
DRD	Data Requirements Description
DRMO	Defense Reutilization and Marketing Office
DV	Designated Verification
EA	Environmental Assessment (NEPA related)
Ebi	Enterprise Building Integrator
EBS	Environmental Baseline Survey
ECLSS	Environmental Control and Life Support Systems
ECN	Equipment Control Number
EF	Ellington Field
EHL	Environmental Health Lab
EHS	Environmental, Health, and Safety
EIA	Electronic Industry Association
EIN	Equipment Identification Number
EIQ	Emissions Inventory Questionnaire
EIS	Environmental Impact Statement (NEPA Related)
EMCS	Energy Management and Control System
EMS	Environmental Management System

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

EO	Executive Order
EOC	Emergency Operations Center
EOQ	Economic Order Quantity
EORB	EMCS Operations Review Board
EPA	Environmental Protection Agency
EPASS	Electronic Pass and Security System
EPCRA	Emergency Planning & Community Right-to-know Act
EPFOL	El Paso Forward Operating Location
EPS	Engineering Performance Standards
ERD	Environmental Resource Document
ERT	Emergency Response Team (NASA JSC)
ESA	Endangered Species Act
ESD	Electrostatic Discharge
ESO	Environmental Services Office (NASA JSC)
ESRB	EMCS System Review Board
EST	Energy System Test
ESTA	Energy Systems Test Area
EVOC	Emergency Vehicle Operators Course
EWS	Emergency Warning System
FA	Facility Activation
FAR	Federal Acquisition Regulation
FBR	Fixed Budget Rate
FCA	Facility Condition Assessment
FCB	Facility Control Board
FCC	Federal Communications Commission
FCR	Flight Control Room
FCS	Federal Catalog System
FEDLOG	Federal Logistics Data on Compact Disc
FEP	Fire Evacuation Plan
FHP	Facility Housing Plans
FIFO	First In, First Out
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FM	Facility Manager
FMD	Financial Management Division
FMEA	Failure Mode and Effects Analysis
FMIS	Facilities Management Information System
FMS	Facility Maintenance Support
FOB	Free on Board
FPMR	Federal Property Management Regulations
FRR	Flight Readiness Review
FY	Fiscal Year
G	Gravity
G&A	General and Administrative
GAO	General Accounting Office
GBL	Government Bill of Lading
GCT	Gas Cylinder Tracking
GFE	Government-Furnished Equipment
GFM	Government-Furnished Material
GNS	Guidance and Navigation Simulator
GPM	Gallons per minute
GPO	Government Printing Office
GPS	Government Provided Software
GSA	General Services Administration
GSE	Ground Support Equipment
H2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

HAZMAT	Hazardous Material
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCFC	Hydrochlorofluorocarbon
HEPA	High-Efficiency Particulate Arresting
HFD	Houston Fire Department
HMI	Hazardous Material Inventory
HMIS	Hazardous Materials Information System
HQ	Headquarters
HSWA	Hazardous and Solid Waste Amendments
HTH	Calcium Hypochlorite
HVAC	Heating/Ventilation/Air Conditioning
HWO	Hazardous Waste Operator
IATA	International Air Transport Association
IAW	In Accordance With
ICAO	International Civil Aviation Organization
ID	Identification
IEEE	Institute of Electrical and Electronic Engineers
IM	Inventory Manager/Management
IPG	Inspection Preparation Guidelines (Air Emission Inventory related)
IAGP	Installation – Accountable Government Property
IQ	Indefinite Quantity
IRM	Information Resources Management
ISC	Integration Support Contract
ISD	Information Systems Directorate
ISO	International Standards Organization
ISS	International Space Station
ISW	Industrial Solid Waste
IT	Information Technology
IWPTP	Industrial Waste Pre-Treatment Plant
JB7	Transportation Branch Mail Code
JHB	Johnson Space Center Handbook
JPD	Johnson Space Center Policy Directive
JPG	Johnson Space Center Procedures and Guidelines
JSC	Johnson Space Center
JSCI	Johnson Space Center Instruction
JSCM	Johnson Space Center Manual
JSCMD	Johnson Space Center Management Directive
JSCMI	Johnson Space Center Management Issuances
JSCS	Johnson Space Center Standard
KSC	Kennedy Space Center
kV	Kilo-Volt
KVA	Kilo-Volt Amps
KWH	Kilowatt Hours
LAN	Local Area Network
LAU/LDU	National Stock Number Add User/Delete User
LCC	Life-Cycle Costs
LCO	Limit Change Order
LDD	Lost, Damaged, or Destroyed Property
LDR	Land Disposal Restrictions
LEPC	Local Emergency Planning Committee
LMR	Land Mobile Radio
LOE	Level of effort
LOEP	List of Effective Pages
LOGRUN	Logistics Remote Users Network
LWDC	Lost Workday Case

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

M	Monthly
MAWP	Maximum Allowable Working Pressure
MBTU	Million British Thermal Units
MCC	Mission Control Center
MCL	Maximum Contaminant Level
MCRR	Modification, Construction, Rehabilitation and Repair
MER	Material and Equipment Rental
METASYS	Johnson Control SCADA Product
M-F	Monday Though Friday
MG/L	Milligram per Liter
MGPD	Million Gallons Per Day
MHE	Material Handling Equipment
MIL/FED	Military/Federal
MIL-STD	Military Standard
MIPR	Military Interagency Purchase Request
MIS	Material Information Sheet
MMT	Material Movement Ticket
MOU	Memorandum of Understanding
MRO	Material Release Order
MRR	Mission Readiness Review
MSDS	Material Safety Data Sheet
MSE	Mobile Support Equipment
MUFFIN	Multi-Use File for Interagency News
MUP	Master Utility Plan
MUR	Monthly Utility Report
MW	Monitoring Well
NABER	National Association of Business and Educational Radio
NAC	National Agency Check
NAESA	National Association of Elevator Safety Authorities
NAICS	National Industry Classification System
NASA	National Aeronautics and Space Administration
NAVFAC	Naval Facilities Engineering Command
NBL	Neutral Buoyancy Laboratory
NCA	Noise Control Act
NEC	National Electrical Code
NEIS	NASA Environmental Information Systems
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NETS	NASA Environmental Tracking System
NFPA	National Fire Protection Association
NHB	NASA Handbook
NICET	National Institute for Certificate of Engineering Technology
NIOSH	National Institute of Occupational Safety and Health
NMI	NASA Management Instruction
NOD	Notice of Deficiency (TNRCC/TDH/EPA)
NOR	Notice of Registration
NOV	Notice of Violation (TNRCC/TDH/EPA)
NOx	Nitrogen Oxide
NPD	NASA Policy Directive
NPDES	National Pollutant Discharge Elimination Permit
NPDMS	NASA Property Disposal Management System
NPG	NASA Procedures and Guidelines
NRC	National Response Center

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

NRCA	National Roofing Contractors Association
NRP	NASA Resource Protection
NS	Safety and Test Operations Division
NSMS	NASA Supply Management System
NSN	National Stock Number
NSPS	New Source Performance Standards
NTIA	National Telecommunication Information Administration
O&M	Operations and Maintenance
O/W	Oil/Water
O2	Oxygen
OCC	Operations Control Center
OCO	Operational Change Order
ODS	Ozone Depleting Substances
OIG	Office of Inspector General
OMB	Office of Management and Budget
OP	Operational Procedure
OQAD	Operation Quality Assurance Division
OS&D	Overages, Shortages, and Damages
OSHA	Occupational Safety and Health Administration
P&I	Piping and Instrumentation
P2	Pollution Prevention
PAM	Proactive Maintenance
PAO	Public Affairs Office
PC	Personal Computer
PCB	Polychlorinated Biphenyl
PGM	Programmed Maintenance
PHD	Plant Historian Data
PI	Permit Information
PLC	Programmable Logic Controller
PM	Preventive Maintenance
PMI	Preventive Maintenance Inspection
PO	Purchase Order
POTW	Publicly Owned Treatment Works
PPA	Pollution Prevention Act
ppb	Parts Per Billion
PPE	Personal Protective Equipment
ppm	Parts Per Million
PPOA	Pollution Prevention Opportunity Assessments
PPP/P3	Pollution Prevention Plan
PQP	Personnel Qualification Program
PR	Post Required
PRVS	Pressure Reducing Valve Station
PSA	Pre-designated Staging Area
psi	Pounds per square inch
psig	Pounds per square inch gauge
PSMO	Pressure System's Manager's Office
PST	Petroleum Storage Tank
PT&I	Predictive Testing & Inspection
PTR	Patrol Requirement
PWTRL	Public Works Technical Reference Library
PWUPB	Public Works Unit Price Book
Q	Quarterly
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAE	Quality Assurance Evaluator
QC	Quality Control

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

R	Repair
R&U	Redistribution and Utilization
RACM	Regulated Asbestos Containing Material
RATA	Relative Accuracy Test Audit
RCFA	Root-Cause Failure Analysis
RCM	Reliability Centered Maintenance
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RFP	Request for Proposal
RIM	Readiness Integration Meeting
RMP	Risk Management Plan
ROD	Report of Discrepancy
RPAS	Real Property Accounting System
RPDB	Real Property Data Base
RS	Regulated Substances
RTU	Remote Terminal Unit
RVI	Random Vehicle Inspections
RVP	Reid Vapor Pressure
S	Semi-Annually
S&E	Sedimentation and Erosion
SAIL	Shuttle Avionics Integration Laboratory
SCADA	Supervisory Control and Data Acquisition
SCTF	Sonny Carter Training Facility
SDWA	Safe Drinking Water Act
SEMO	Supply and Equipment Management Officer
SF	Standard Form
SFM	Simplified File Maintenance
SFUSS	Structure, Facilities, Utilities, Systems and Subsystems
SM	Scheduled Maintenance
SMS	Security Management System
SMSF	Shuttle Mission Simulator Facility
SO	Service Order
SOP	Standard Operating Procedure
SOS	Security Operations System
SOW	Statement of Work
SP	Special Purpose
SPCC	Spill Prevention, Control and Countermeasures
SPF	Software Production Facility
SPME	Special Purpose Mobile Equipment
SPSF	Shuttle Procedures Simulation Facility
SQL	Structured Query Language
SR&QA	Safety, Reliability, and Quality Assurance
SRT	Service Request Tag
SSP	Space Shuttle Program
STA	Site Critical Areas
STEERS	State of Texas Environmental Electronic Reporting System
STIC	Scientific and Technical Information Center (Same as TRL)
STP	Sewage Treatment Plant
SWMU	Solid Waste Management Unit
SWPPP	Strormwater Pollution Prevention Plan
SWT	SPECSINTACT Working Team
TAC	Texas Administrative Code
TAHPA	Texas Asbestos Health Protection Act
TARVAN	Trailer Vans

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

TCLEOSE	Texas Commission on Law Enforcement Officer Standards and Education
TDH	Texas Department of Health
TDY	Temporary Duty
TEGD	Technical Enforcement Guidance Document
TFBR	Technical Feedback Report
TIFL	Transportation Inbound Freight Log
TMR	Technical Management Representative
TNRCC	Texas Natural Resources Conservation Commission
TPDES	Texas Pollutant Discharge Elimination System
TRI	Toxic Release Inventory (EPA/TNRCC)
TRL	Technical Reference Library
TRRP	Texas Risk Reduction Program
TSCA	Toxic Substance Control Act
TSD	Treatment Storage Disposal
TSDR	Commercial Treatment, Storage, Disposal, or Recycling Facility
TVP	True Vapor Pressure
TX	Texas
U.S.	United States
U.S.C.	United States Code
UCS	Utility Control System
UP	Utility Procedure
UPB	Unit Price Book
UPS	Uninterruptible Power Supplies
UPV	Unfired Pressure Vessels
US GOVT	United States Government
USPS	United States Postal Service
UST	Underground Storage Tank
UTM	Universal Transverse Mercator
VATF	Vibration and Acoustic Test Facility
VAX	Virtual Address Extension
VIP	Very Important Person
VMS	Virtual Memory System
VOC	Volatile Organic Compound
VSMF	Visual Search Micro Film
VTE	Vertical Transportation Equipment
W	Week
WCC	Work Control Center
WETF	Weightless Environment Training Facility
WIS	Waste Information Sheet
WQIA	Water Quality Improvement Act
Y2K	Year 2000

TABLE 1-3
ENVIRONMENTAL LAWS, REGULATIONS, AND EXECUTIVE ORDERS

Environmental Laws, Regulations, and Executive Orders

The Contractor shall comply with the issue or version (including all changes and amendments) of all applicable Federal, State and Local Environmental Laws and implementing regulations and ordinances, in effect on the date of contract award except as otherwise noted, including, the applicable portions of the documents cited below. Includes applicable and pertinent regulatory guidance documents and cited references to industry standards. This list is meant to be comprehensive though not exhaustive or necessarily complete.

Mandatory Federal Laws and Regulations, as Applicable

ADA, Americans With Disabilities Act

Archeological Resources Protection Act, 42 U.S.C. 1996

Archeological and Historic Preservation Act, 42 U.S.C. 470aa-mm

Bald Eagle Protection Act, 16 U.S.C. 668-668d

Clean Water Act (CWA), 33 U.S.C. 21, et seq.

Clean Air Act (CAA), 42 U.S.C. 7401, et seq.

Coastal Zone Management Act of 1972, 16 U.S.C. 1451, et seq.

Coastal Barrier Resources Act, 16 U.S.C. 3501, et seq.

Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. 9601 (CERCLA), et seq.

Department of Transportation (DoT) Regulations

Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. 11001, et seq.

Endangered Species Act (ESA), 16 U.S.C. 1531, et seq.

Energy Policy and Conservation Act, 42 U.S.C. 6374, et seq.

Energy Policy Act of 1992, Public Law 102-486

Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.

Federal Energy Management Improvement Act of 1988, Public Law 100-615.

Federal Facilities Compliance Act of 1992, 42 U.S.C. 6961 et seq.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 136, et seq.

Federal Land Policy and Management Act, (FLPMA)

Federal Water Pollution Control Act, 1976

Fish and Wildlife Coordination Act, 16 U.S.C. 661-66c.

Historic Sites, Buildings, and Antiquities Act of 1935, 16 U.S.C. 461, et seq.

Migratory Bird Treaty Act, 16 U.S.C. 703 4321, et seq.

National Emissions Standards for Asbestos, 40 CFR Part 61, Subpart M

National Environmental Policy Act (NEPA), 42 U.S.C. 4321, et seq., and Council for Environmental Quality (CEQ) implementing NEPA

National Historic Preservation Act, 16 U.S.C. 470 et seq.

National Energy Conservation Policy Act, 42 U.S.C. 8251-8287

National Monuments Act

Native American Graves Protection and Repatriation Act, 42 U.S.C 3001-3013.

Noise Control Act (NCA) of 1972

Occupational Health and Safety Act of 1970, 29 U.S.C.A. 651 et seq.

Oil Pollution Prevention Act of 1990, 33 U.S.C. 2701 et seq.

Pollution Prevention Act of 1990 (PPA), 42 U.S.C. 13101 et seq.

Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 et seq., as amended by the Hazardous and Solid Waste Amendments (HSWA), 1984

Rivers and Harbors Act, 33 U.S.C. 403 et seq.

Safe Drinking Water (SDWA), 42 U.S.C. 300f et seq.

Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq.

Water Quality Improvement Act (WQIA) of 1974

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

Wilderness Act, 16 U.S.C. 1131 et seq.

State Environmental Laws

Texas Natural Resources Code Annotated, Title 30

Texas Health and Safety Code Annotated, Title 5

Executive Orders (EO)

TABLE 1-3
ENVIRONMENTAL LAWS, REGULATIONS, AND EXECUTIVE ORDERS

EO 11514 (Amended by EO 11991) Protection and Enhancement of Environmental Quality

EO 11593 Protection and Enhancement of the Cultural Environment

EO 11870 Environmental Safeguards on Activities for Animal Damage Control on Federal Lands

EO 11988 Floodplain Management

EO 11990 Protection of Wetlands

EO 12088 (Amended by EO 12580) Federal Compliance with Pollution Control

EO 12148 Federal Emergency Management

EO 12759 (Sections 3, 9, and 10) Federal Energy Management

EO 12843 Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances

EO 12844 Federal Use of Alternative Fueled Vehicles

EO 12845 Requiring Federal Agencies to Purchase Energy Efficient Computers

EO 12856 Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements

EO 12873 Federal Acquisition, Recycling and Waste Prevention

EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EO 12902 Energy Efficiency and Water Conservation at Federal Facilities

EO 12969 Federal Acquisition and Community Right-to-Know

EO 13016 Amendment to Executive Order 12580

EO 13101 Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition

EO 13123 Greening the Government Through Efficient Energy Management

EO 13134 Developing and Promoting Biobased Products and Bioenergy

EO 13148 Greening the Government Through Leadership in Environmental Management

EO 13149 Greening the Government Through Federal Fleet and Transportation Efficiency

State Environmental Laws

Texas Natural Resources Code Annotated, Title 30

Texas Health and Safety Code Annotated, Title 5

OMB Circulars

OMB Circular A-11: Preparation and Submission of Budget Estimates

OMB Circular A-106: Reporting Requirements in Connection with the Prevention, Control, and Abatement of Environmental

Pollution at existing Federal Facilities

NASA Environmental Policy Directives/Letters

NASA Policy for Procurement of Office Paper, December 1994

JSC Management Directives

1710.9B Control of Hazardous Materials

8800rev1 Asbestos Control Manual

8800.3K Preventing and Reporting Pollution

8800.4C Hazardous Waste Minimization Program

8847.1L Disposal of Chemical, Toxic, and Hazardous Waste Materials

4100.01A Sedimentation and Erosion Control

NASA Facilities Management Directives

8820.2 Facilities Project Implementation Handbook

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1.2. VPP Commitment	2.2. Industrial Hygiene	3.2 Hazard Elimination or Control	4.2. Supervisors
1.3. Planning	2.3. Pre-use Analysis	3.3. Process Safety Management	4.3. Employees
1.4. Written Safety and Health Program	2.4. Hazard Analysis	3.4. Occupational Healthcare Program	4.4. Emergencies
1.5. Top Management Leadership	2.5. Routine Inspections	3.5. Prevention Maintenance	4.5. PPE
1.6. Authority and Resources	2.6. Employee Hazard Reporting System	3.6. Hazard Correction Tracking	4.6. Managers
1.7. Line Accountability	2.7. Accident/Incident Investigations	3.7. Disciplinary System	
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Table 1-4 VPP Elements and Sub Elements

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2 MAINTENANCE AND REPAIR

2.1 General Information

2.1.1 Annex Description

This Annex identifies the routine ***Scheduled Maintenance** (SM) and Repair (R) requirements for specified significant Structures, Facilities, Utilities, Systems and Subsystem components (SFUSS), Mobile Support Equipment (MSE), User Equipment (UE), and Installation - Accountable Government Property (IAGP)

2.1.2 Background

The ***JSC** is a large and complex site and the Contractor is expected to use to full advantage the equipment and facilities provided by the Government to keep all identified equipment providing their intended functions, outputs, and availability. The Contractor will be provided the NASA-JSC Scheduled Maintenance Database, which includes:

(1) The initial Annual Work Plan (AWP)
(2) All required scheduled maintenance task instructions
(3) Partial equipment inventory including buildings and systems with six categories of equipment.
(4) All mandated Computerized Maintenance Management System (CMMS) fields
(5) Levels of criticality for Repairs

The SM plan establishes the minimum quantity and frequency for each scheduled Preventive Maintenance (PM) task for the Buildings, Systems, Sub-systems and equipment in the ****SM database**. System Descriptions, components, and required outputs are provided in Section J, Attachment N, Exhibit N-1, Table 1. In the event that inconsistencies exist between SFUSS descriptions, and their components, as generally set forth in Section J, Attachment N, Exhibit N-1, Table 1 and specific descriptions of such systems contained in the Technical Reference Library (TRL), the specific descriptions in the TRL shall control.

Equipment Categories within the SM Database are as follows:

- Center Operations User Equipment (UE/JA)
- Structures, Facilities, Utilities, Systems and Sub Systems (SFUSS)
- Installation - Accountable Government Property (IAGP)
- Mobile Support Equipment (MSE)
- User Equipment (UE)
- Non Specified Equipment (NSE)

2.1.3 Definitions

User Equipment (UE)- Those systems or equipment that are required for test setups or in conducting operations unique to a particular facility, and frequently changed or moved to accommodate the requirements of a particular test program.

Center Operations User Equipment (UE/JA)- Those pieces of user equipment that belong to the Center Operations Directorate.

Structures, Facilities, Utilities, Systems, and Subsystems (SFUSS) - the physical plant of ***JSC**; further defined in CLIN 2.1.5.

Installation - Accountable Government Property (IAGP) - Property in the possession of, or directly acquired by, the Government and subsequently made available to the Contractor for use in the performance of work related to this contract.

Mobile Support Equipment (MSE) - A group of Government owned mobile equipment that is maintained, repaired, and fueled by the COSS contractor and may be made available for use by the Government, other Government Contractors, or the COSS Contractor. A portion of the MSE is engine driven and the remainder is not. A detailed list of MSE is provided in Section J, Attachment N, Exhibit N-2.

Non Specified Equipment (NSE) - A group of non-collateral equipment that is not specified in the contract and will have maintenance and repair provided, if required, by Delivery Order.

Maintenance - Day-to-day, periodic, scheduled, or unscheduled work required to preserve a piece of equipment, a system, or a real property facility in a condition that it may be effectively used for its intended purpose and availability.

Repair - That facility work required to restore a facility of component thereof, including ***collateral equipment**, to a condition substantially equivalent to its originally intended and designed capacity, efficiency, or capability. It includes the substantially equivalent replacements of utility systems and ***collateral equipment** necessitated by incipient or actual breakdown. Repair includes adjustment, overhaul, reprocessing, or replacement of constituent parts or material that have deteriorated by action of the elements or usage, have been damaged, regardless of the cause, or have not been corrected through maintenance. Example: Repair does include services such as tank cleanings, etc., due to unsatisfactory testing, inspections, or scheduled maintenance; however, Repair does not include upgrades identified as building deficiencies (e.g., safety or fire inspections, new laws, etc.)

2.1.4 Additional Contract Support

The ***Scheduled Maintenance** (SM) and Repair (R) programs shall include, but not be limited to: all labor, materials, equipment, tools and other Center Operations Support Services (COSS) such as transportation, rigging, supply, engineering, operations, and reporting necessary to accomplish maintenance and repair. The programs also include, but are not limited to: planning, implementing, accomplishing, recording, and reporting on all facets of maintenance and repair.

2.1.5 SFUSS Descriptions

SFUSS includes, but is not limited to the general descriptions below:

2.1.5.a Structures (S): A structure is a constructed unit established for a designated objective. Structures that are part of or inside a facility are included with the facility. For purposes of this Contract, the following are defined as examples of structures:

(1) Environmental - Vaults, containment berms.

(2) Civil - Fences, gates, memorial and Rocket Park displays, flagpoles, weather towers, antenna towers, refuse collection and compaction structures, fire training facility structures.

2.1.5.b Facilities (F): A facility is an enclosed structure to protect personnel, material, or equipment from the elements and to provide associated work or storage space. A facility includes the utility systems inside the facility to a point of interface as defined in Section J, Attachment N, Exhibit N-1. The facility is defined to extend to five feet from the facility on each utility system or as otherwise defined.

(1) Civil (C): Includes roll-up and automatic doors, domestic hot water, potable water, sanitary and storm sewer, natural gas, fire protection water, roofs, doors, windows, flooring (coatings and coverings), stairs and stairwells, interior walls, ceilings, and partitions, foundation, structural system, building shell, including Pre-cast Exposed Aggregate Faced (PEAF) panels, external attachments such as walkway covers, overhangs, barge and loading docks.

(2) Electrical (E): Includes138kV transmission systems, 15kV distribution systems, emergency lighting system, emergency power backup systems, general area lighting, grounding, lightning protection, Energy Management and Control Systems, secondary distribution system, fire protection and security system, exterior lighting systems, traffic control, obstruction and warning lighting system, central telecommunication systems, Intercom systems, and radio tape monitoring systems.

(3) Mechanical (M): Includes Heating Ventilation and Cooling (HVAC), compressed air, chilled water, steam/condensate return, heating hot water, exhaust, refrigeration systems, and support equipment.

(4) Environmental (X): Includes various combinations of utility or facilities units, i.e., tanks and collection systems, vaults, containment berms and impoundments, groundwater treatment systems, and waste treatment systems. These facility units and systems are highly regulated by numerous Environmental Protection Agency (EPA) and State environmental laws and regulations and therefore shall be maintained to meet these regulatory requirements. For all environmental structures, facilities, utilities, and systems, the Contractor will conduct Preventive Maintenance tasks in accordance with JSC approved PM's.

(5) Other (O): includes elevators, cranes, and hoists.

2.1.5.c Utilities (U): A utility is a system for collecting or distributing services between a common point and specific locations both above and below ground. They are characterized by the assignment of site code of 998 in the System field in the SM Database. The division between facility and utility occurs at five feet from the facility for piping systems or as defined in the respective definition.

Detailed definitions including components and associated output are provided in Section J, Attachment N, Exhibit N-1,Table 1.

2.1.6 Location of Services

Maintenance and Repair services are required at ***JSC**. The Contractor shall be provided with a wide variety of facilities and work areas, see ****** **List of Contractor Facility Floor Plans** and ****** **Drawings of Contractor Facility Floor Plans**, from which to support these services

2.1.7 Restrictions, Limitations, and Special Conditions

All personnel performing maintenance and repair work within any ***JSC** facility shall sign in and out on the Facility Managers building work log. Sign in/out is required for occupancy/evacuation purposes and shall be done for each separate activity even if performed on the same workday.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.2	**Scheduled Maintenance**			
2.2.1	Implement the SM Plan Ensure the SM database is accurately input into the CMMS	Load the ****SM Database** into the CMMS system. Conduct system verification and check out and ensure proper system operation.	1 Database	All system modules operate correctly.
2.2.2	Accomplish Scheduled Maintenance	Accomplish all UE/JA, SFUSS, and IAGP maintenance tasks in the ****SM Database**. Tasks shall be performed within the windows specified in Table 2-2 for each applicable maintenance frequency.	****SM Database**	All tasks accomplished on schedule and at industry standard quality or better.
	Ensure performance of the PM tasks in the SM Database	Maintain HVAC equipment and systems free of mold, mildew, fungus, algae, and other biological growth to ensure indoor air quality meets current ASHRAE recommendations. Provide outage/operation support for maintenance work. Maintain, update, report, and reconcile the ****SM Database** for changes to the PM task statements as directed under Maintenance Activation, CLIN 2.4		
2.2.3	Equipment Inventories & Database Update Verify/Validate an accurate CMMS Equipment Database	Conduct two comprehensive physical field inventories of all facility equipment at ***JSC**. One inventory within 90 days of contract start, including re-labeling and bar coding the equipment. Conduct a second inventory 42 months after contract start. (Year 1 and Year 4 of contract). There are approximately 12,600 items in the database. Update the ***SM Database** and CMMS database as required to correct errors or anomalies identified during the inventory. Identify configuration changes, errors, or deficiencies to the existing facility structures and utility inventories, and recommend changes and/or improvements to the CMMS Database. Upon Government approval, incorporate changes into the CMMS database.	1 inventory in year 1 1 inventory in year 4	All equipment accurately identified and accounted for. Updates are correct and made on time.
2.2.4	Equipment Identification Maintain an accurate equipment identification program	Maintain an accurate CMMS Equipment database to: Ensure accurate Maintenance Identification (ID) Numbers Ensure accurate Equipment Numbers Facilitate Replacing missing Tags Accurately Identify new or replacement equipment. Ensure Capturing Database Information Maintain a data base which tracks equipment numbers in the CMMS for all newly installed, relocated, and removed equipment per **** Equipment Number List**. Distribute correct numbers to site customers within one day of request.	12,600 pieces of equipment	Timely and accurate data and identification. All equipment is tagged.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Accurately populate the equipment data fields within 14 days (Horsepower, capacities, etc.) for Facility Condition Assessment, equipment history, etc. as a part of Maintenance Activation and ensure that all equipment and database include matching maintenance ID tags.	Contractor determined	Accurate equipment data.
		Replace tags found missing (as part of other duties) within two days of discovery.	Nothing additional	Tags correctly replaced on time.
2.2.5	Pressure Systems Support Ensure accurate inspection and certification of Pressure Systems	Provide required support to ensure that all SFUSS pressure vessels and pressurized systems are accurately inspected and certified as required by ****JHB 1710B, Design, Inspection, Certification of Pressure Vessels and Pressurized Systems**. For items in the system see ****Pressure Systems Inventory**. Note: Support includes but is not limited to: providing crafts to accompany the Pressure Systems Inspector and includes removing, bench testing and re-installing Relief Valves, removing and reinstalling tube bundles etc. and other disassemble/assembly work to facilitate inspection tasks. This support also includes Work Control Center support in tracking and other paperwork to ensure an audit trail.		
		a. Provide support for Class I Pressure Vessel Inspections: Year 1 – 535, Year 2 – 564, Year 3 – 535, Year 4 – 520, Year 5 - 535.	520 to 564 inspections	Inspections accurate and on time.
		b. Provide support for Class II Pressure Vessel Inspections: Year 1 – 8, Year 2 – 11, Year 3 – 22, Year 4 – 10, Year 5 - 9.	8 to 22 inspections	Inspections accurate and on time.
		c. Provide support for Class III Pressure Vessel Inspections: Year 1 – 50, Year 2 – 93, Year 3 – 95, Year 4 – 46, Year 5 - 59.	46 to 95 inspections	Inspections accurate and on time.
		d. Provide Relief Valve Certification and vessel/system proof testing support: Year 1 – 450, Year 2 – 359, Year 3 – 514, Year 4 – 295, Year 5 - 514.	344 to 565 certifications	Certifications accurate and on time.
		e. Provide Flex Hose Certification support: Year 1 – 24, Year 2 – 34, Year 3 – 46, Year 4 – 19, Year 5 - 29.	19 to 46 certifications	Certifications accurate and on time.
2.2.6	Light/Lamp Replacement Incandescent and fluorescent lights and lamps are replaced when burned out or flickering.	Provide and replace burned out or flickering light bulbs/lamps with same type, wattage/voltage. Clean fixtures, globes, reflectors, covers, diffusers, and plastic side panels when lamps are replaced and clean any adjacent areas that become contaminated with foreign material, including dust, dirt, or cleaning product residue. Complete bulb/lamp replacement for those above 10 foot within 5 ***workdays** except where directed by the Maintenance & Repair ***TMR**. Place burned out bulbs and lamps into box labeled "Universal Waste." Lamps shall be collected and recycled in accordance with Annex 9 requirements.	20,000 fixtures at ***JSC**.	Lighting is replaced properly and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.3	**Repair**			
2.3.1	Repair Equipment and Systems identified in the SM Database Ensure accurate repairs	Perform all repair work required for systems, equipment and components identified in the ****SM database**. NOTE: Response and Repair times are defined in Table 2-1. a. For all equipment in the ** **SM Database**: If repairs are anticipated to exceed 66% of the replacement cost of the equipment, notify the Maintenance and Repair ***TMR** for direction or authorization to replace the equipment. b. For equipment not included in the ****SM Database**: Repairs for this equipment shall be accomplished by Task Order/ IDIQ as specified in Annex 13. Provide outage/operation support for repair work.	** **Workload History**	Equipment operating except during repair period. Repair plan used where required.
		Repair plans shall be submitted for work that will not be performed within the timeframe given in Table 2-1. The plan shall include at a minimum the name and work order number of the task, the justification for the delay and the scheduled completion date. NOTE: Asbestos exists in some ***JSC** buildings, consequently, some Maintenance and Repair work will require OSHA Class I - III Asbestos Abatement.		Repair plans submitted with adequate detail.
2.3.2	Non Specified Equipment Emergency Response Correct Emergency Situations on Non Specified Equipment	Respond to, mitigate, and fix, non specified equipment requiring emergency repair. Includes cleanup actions resulting from an emergency situation, moving of equipment, furniture, etc. to preclude further damage to the property, and follow-up checks to ensure reliability of services (e.g. lights work properly after a kitchen fire, etc.)	200 Emergency Calls	Respond per Table 2-1
		Individuals responding to an emergency shall be capable of mitigating the situation. When situations occur outside the Contractor's control, which prevent the work from being mitigated, approval to suspend emergency work shall be obtained from the Maintenance and Repair * **TMR**.		No work above the approval level without a Task Order or Verbal approval of the CO.
		Perform work up to an estimated cost of $ 500 ***bare cost** per occurrence. Individual Task Orders per Annex 13 will be issued for amounts exceeding that level. Authorization shall be obtained from the CO prior to exceeding the $ 500 cost estimate.		
		Once the Emergency has been mitigated, remaining work shall be reclassified to the appropriate classification and considered new work. Provide the Maintenance and Repair ***TMR** with the scope of work for mitigated or completed work within 24 hours of request.		Accurate data provided within the required time frame.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.3.3	Critical Spare Parts Management Ensure Availability of Correct Spare Parts for Critical Equipment	Provide all necessary program analysis, field validation, technical research, analysis, failure rate determination, life cycle forecasting, and critical parts determination for critical equipment. The contractor shall recommend to the Government, the critical spares that need to be purchased for all new equipment or equipment that has changed in criticality of use. When equipment is removed from ***JSC** the Contractor shall recommend changes to the critical spares system. All approved critical spare parts will be procured, received, and warehoused according to Annex 10. Note: The current Critical Spares Catalog includes 3540 line items.	365 Days	Critical Spare Parts Inventory is accurate. Critical spares are in inventory and available when needed.
2.4	**Maintenance Activation Program** Ensure a seamless transition from construction work to site Maintenance and Operations responsibility.	Develop and implement a Maintenance Activation (MA) program to ensure that all necessary changes to the ****SM database** are made. The changes shall be made whenever required due to the following:		Updates are correct and made on time.
		a. Installation of new equipment as part of Repair, Service Orders, or work estimated to cost under $200,000. MA for IDIQ work estimated to cost greater than $200,000 shall be priced per IDIQ in Annex 6. Note: This can be either new capability equipment or replacement equipment. Note: New equipment installed by delivery order shall be added to the ****SM Database** during the quarterly equipment reconciliation.	100 pieces of equipment	
		b. Changes identified through application of maintenance actions, manufacturer's maintenance change bulletins, configuration changes, etc. c. Changes identified through the application of the JSC Reliability Centered Maintenance analysis program. Tasks in the program include but are not limited to the following:		Nothing additional
		d. Ensure correct Scheduled Maintenance Task Instructions are assigned/written, Government approved and added to the ****SM database** and the equipment is accurately input. Ensure that the task instructions maintain the manufacturer's warranty in full effect for its scheduled duration. Update ****SM database** within 14 days of receipt of approved changes.		Manufacturers warranties are not voided due to inappropriate maintenance. Updates are accurate and made within the specified timeframe.
		e. Update the FCA database for new and replacement equipment. Update within 4 weeks of receipt of approved changes or receipt of a change order.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		f. Monitor and verify work performed to ensure additions, deletions, and/or changes to equipment are identified and incorporated into the ****SM database.**		
		g. Continually track all Scheduled Maintenance task instruction additions (+) and deletions (-).		
		h. Provide a ****Quarterly Reconciliation Report** for the ****SM Database** to demonstrate accuracy. The report shall be in electronic form and submitted to the Maintenance and Repair Technical Management Representative **(*TMR)** within 10 days of the end of each quarter. The report shall contain as a minimum: (1) number of Original Database tasks deleted, (2) the value of Original Database tasks deleted, (3) number of Original Database tasks added, (4) the value of Original Database tasks added, (5) the total costs of Original Database tasks added and deleted, and (6) the net balance of tasks.	4 Reports	Reports are accurate and submitted on time.
		i. Maintain and continually update the Government provided ****SM Database**. Provide continual on-line access to the Government and assure that all updates and changes to the database are input by the 10th of each month.		The database is accurate and all updates are on time.
		j. Provide outage/operations support for all work classes. This requirement is provided for and found in Annex 4 CLIN 4.1.4.		
		k. Take and record initial (baseline) data using the appropriate Predictive Testing tool (thermography, vibration, oil sample, etc) for equipment installed/replaced. Baseline documentation shall be completed within 15 days of BOD.		All new equipment has baseline documentation.
		l. Ensure that the appropriate personnel are correctly trained on new equipment/systems installed by the COSS Contractor and that the appropriate personnel attend provided training for equipment, facilities, or systems provided/installed by other contractors.		
2.5	**Warranty Program** Develop and maintain a warranty program.	Develop and maintain a warranty program for warranties received for the Government that includes, but is not limited to the following areas: all warranties for facilities, structures, utilities, construction, and equipment that have been transferred to the property accounts of the Government regardless of the source of the warranty.	Nothing additional.	Warranties accurately tracked and benefits enforced as needed.
		a. Administer the warranty program. For construction projects, the normal warranty period is 1 year from the beneficial occupancy date (BOD). The warranty period for some items (typically landscape planting) will be less and others (termite protection, roofs, metal wall panels and certain equipment, etc.) will be longer. Warranty information will be provided on or near BOD and shall be maintained in the TRL for all contractor originated work. Data fields shall be established and updated in the CMMS to track facilities or equipment under warranty.	300 warranties	Warranty data accurately and completely input into the CMMS.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Identification of warranty and warrantor notification. When an anomaly or discrepancy condition is identified on a newly installed item, the Contractor shall determine if a warranty is in effect. If so, the Contractor shall notify the warrantor and request corrective action. Notification may be by telephone, but shall be confirmed in writing, with a copy provided to the CO. If a warranty discrepancy creates an emergency or priority condition, the Contractor shall correct the emergency or priority condition without regard to warranty provisions.	Nothing additional.	Timely notification of Warrantor and CO on corrective warranty actions.
		c. Response from the warrantor. When notified of a problem in accordance with the terms of a warranty, the warrantor should correct the problem promptly. However, if the warrantor fails to take corrective action within 14 days (or the construction contract response time, if less) or takes corrective action but fails to correct the discrepancy, the COSS Contractor shall confirm in writing any such action, and immediately provide a copy to the CO. When corrective actions require long lead times (due to parts and material), the COSS Contractor shall obtain an estimated completion date and shall follow-up based on that date in lieu of the 14 days specified above.	Nothing additional.	Written notification to CO of warrantor nonconformance and on time.
		d. Actions if warrantor fails to correct discrepancy. If the warrantor fails to correct a warranted item problem within 28 days of initial contact, the Contractor shall make a final request. If the response to the final request is positive, the warrantor shall be allowed 7 additional days to take appropriate action before requesting CO assistance. If at any time, the warrantor declines responsibility under a warranty to the Government, the CO's assistance shall be requested immediately in writing.	Nothing additional.	Final written notification to warrantor on time.
		e. Notification to CO of completed warranty work. Monitor warranty work and ensure satisfactory completion. Completed warranty work shall be reported to the CO in writing within 5 days of completion.	Nothing additional.	Accurate notification to CO on time.
		f. Provide a monthly status report. This report shall include the most current status of all warranty actions (see items a-e above) performed during the month. Submit an electronic copy of the report to the Maintenance & Repair ***TMR** by the 5th day of the following month. Completed warranty actions shall be deleted after appearing on the second report.	12 status reports.	Accurate report, complete, and on time.
2.6	**Availability and Reliability** Ensure Available and Reliability of equipment, systems, and components.	Track and report downtime as specified in the ****JSC RCM Guideline** as required to identify problem areas and ensure reliability of all systems, equipment, and components at JSC, EF, and SCTF. a. Modify the CMMS system to include two additional fields to track downtime (time and date stamps) and failure codes. b. Provide metrics reports as identified in AN-1-10	Contractor Determined	Time/Date Stamps accurately recorded in a timely manner. All reports accurate and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.7	**Reliability Centered Maintenance** Develop and Implement a Reliability Centered Maintenance program	Develop and Implement a Reliability Centered Maintenance Program in compliance with the requirements in the ****JSC RCM Guideline**. a. Perform one (1) RCM Analyses per quarter for each year of the contract. Systems, equipment, or components shall be selected as specified in the RCM Guideline or as directed by the Government. b. Provide the training as required in the RCM Guideline in an appropriately phased manner to adequately support the required number of Analysis and to ensure that all applicable employees are trained by the end of the third contract year.	4 RCM Analyses	
2.8	**Personnel Requirements**			
2.8.1	Provide Qualified Personnel Provide personnel who meet the following education or experience criteria.	See Annex 1 Equivalent criteria may be submitted through the Maintenance and Repair * **TMR** for approval. Personnel directly supervising individuals with maintenance and repair responsibilities shall successfully complete all education or experience required for the individuals they are supervising.	See below.	Current certification, or evidence of experience, is on hand for individuals performing duties defined above.
2.8.2	Provide Electrical Personnel Provide Journeyman Electricians, or equivalent title, to perform maintenance and repair and construction actions.	A journeyman shall have successfully completed a 4-year technical program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Training may be substituted with progressive "hands-on" experience specifically in the power generator/distribution area on a year-for-year basis, with at least 2 years at an apprentice level. Specific experience shall include cable splicing; switchgear and line work; breakers, meters, transformers, and relays testing and calibration; and electrical generator work on power generator/distribution power systems.	Contractor determined.	Required for individuals working on power generator/distribution systems. Current certification, or evidence of experience, is on hand for individuals performing duties defined above.
2.8.3	Provide Diesel Personnel Provide Journeyman Diesel Mechanics, or equivalent title, to perform maintenance and repair actions.	A Journeyman shall have successfully completed a 4-year technical program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Training may be substituted with progressive "hands on" experience specifically in the diesel power generation area on a year-for-year basis, with at least 2 years at an apprentice level.	Contractor determined.	Required for individuals working on diesel generators and associated equipment. Current certification, or evidence of experience, is on hand for individuals performing duties defined above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.8.4	Provide Refrigeration Personnel Provide Journeyman Refrigeration Mechanics, or equivalent title, to perform maintenance and repair actions.	A Journeyman shall have successfully completed a 4-year technical program. Technical training may include an accredited technical training program or recognized, established apprenticeship program. Training may be substituted with progressive "hands on" experience specifically in the air conditioning and refrigeration area on a year-for-year basis, with at least 2 years at an apprentice level. Personnel shall meet the EPA requirements of 40 CFR 82.161.	Contractor determined.	Required for individuals working on direct expansion HVAC and refrigeration equipment. Current certification, or evidence of experience, is on hand for individuals performing duties defined above.
2.8.5	Provide General Tester Provide certified personnel to perform testing of all backflow prevention assemblies.	Recognized testers shall meet the Texas Natural Resources Conservation Commission (TNRCC) requirements for training and obtain the accredited tester classification for "General Tester" to test and repair backflow prevention assemblies on any domestic, commercial, industrial or irrigation system. NOTE: In accordance with the TNRCC, the test reports and records shall follow their format. The TNRCC states that the "Test and Maintenance report shall be retained for a minimum of 3 years. The public water supplier shall provide these records to the commission staff for inspection upon request."	Contractor determined.	Records of certification shall be made available for documentation of compliance.
2.8.6	Provide Breaker Tester Complete an accredited course covering breakers, relay and switchgear testing and maintenance.	Accredited courses shall meet or exceed the National Electrical Testing Association Standards. Certification is current for 1 year. Additional follow-up is required annually.	Nothing additional.	Required for individuals working on electrical breakers. Current certification, or evidence of training is on hand for individuals performing duties defined above.
2.8.7	PT&I Personnel Requirements	The following minimum standards shall be met by personnel performing Predictive Testing & Inspection work: A manager of the vibration program shall maintain a Vibration Level III American Society of Nondestructive Testing (ASNT) Certification. Vibration data collecting personnel shall maintain Vibration Level I Training and vibration analysts shall maintain Vibration Level II Training. A manager of the Thermography program shall maintain an American Society of Nondestructive Testing (ASNT) Level II Certification. Infrared Thermography scanning personnel shall maintain Thermography Analyst Level I Training, and Infrared Thermography Analysts shall maintain Thermography Analyst Level II Training.	Contractor determined.	Records of certification shall be available for documentation of compliance.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Vibration and Thermography training requirements for Levels I and II are that the training program pursued shall be one that meets the guidelines set forth for that Technology and Level by the American Society of Nondestructive Testing (ASNT). An internal qualifications training program for the proper use of laser alignment equipment, air born ultrasonic scanner, ultrasonic thickness detector, battery monitoring systems, and collection and analysis of lubricants and insulating oil shall be developed by the Contractor as per the equipment manufacturer's recommendations. Similar qualifications and requirements standards shall be established as new technologies are implemented at JSC, EF, and SCTF. A program shall be in place to ensure current qualifications are maintained and refresher courses pursued as needed in all predictive technology areas.		
2.8.8	Provide Journeyman Linemen or Equivalent Title Provide Journeyman Linemen or equivalent title, to perform maintenance services on the electrical transmission/distribution system and the 15kV facility switches.	A Journeyman shall have successfully completed an apprenticeship-training program. Specific experience shall include cable splicing; switchgear and line work; breakers, meters, transformers, and relays testing and calibration on high voltage systems.	Contractor determined.	Be able to show compliance with training and knowledge requirements. Required for individuals working on 12 kV and higher voltage levels.
2.9	**Records, Reports, and Submittals**			
2.9.1	User Equipment Maintenance Report Provide Monthly PM Report	Prepare and submit a report listing the preventive maintenance performed for each User in the PM program purchased by TO. Submit to the M & R (***TMR**) by the 10th of each month. The report shall cite the DO, task instruction number, title, and completion date of each task, sorted by User organization.	12 Reports	Reports are accurate and on time
2.9.2	Pressure Systems Certification Testing Report Provide Monthly Pressure System Certification Report	Prepare and submit a report listing the pressure systems testing performed during the month. Submit electronically and by hard copy to the M & R (***TMR**) by the 10th of each month. The report shall cite the task instruction number, verbal description, location, type of test, status of all task orders received, task due date and completion date, list of backlogged tasks, reason for delay and new scheduled date, and significant events that occurred.	12 Reports	Reports are accurate and on time

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Table 2 - 1
Work Classification

WORK CLASSIFICATION	RESPONSE TIME	MITIGATION	REPAIR	RECLASSIFICATION
EMERGENCY	15 MINUTES JSC 30 MINUTES SCTF/EF	CONTINUOUS UNTIL COMPLETE	N/A	48 HOURS
URGENT	24 HOURS	N/A	Material + 5 DAYS Not to Exceed 10 DAYS	N/A
ROUTINE	30 DAYS	N/A	30 DAYS	N/A
DEFERRED	NASA COD APPROVAL	N/A	NASA COD APPROVAL	N/A

1. **Work Classification** – Work Classification as shown in the Table above applies to Repair. Generate the Work Classification after a screening conversation with the requester. If the requester does not agree with the classification, the work shall be either reclassified or the matter elevated to the Contracting Officer (CO) or his assignee for resolution and comply with this decision.

2. **Work Classification Code Definitions –**

Emergency Any work needed to correct failures, incidents or events that constitute an immediate danger to personnel, property, compliance to health, safety, environmental regulations or the JSC mission.

Urgent Maintenance or repair work required to reinstate the facility to normal operating conditions. Does not pose an immediate danger to personnel, property or JSC mission. If not responded to, could result in an emergency situation.

Routine Facilities maintenance work that can be scheduled routinely within the capability of the facilities maintenance organization. Complete in order of receipt, subject to availability of resources, and consolidate by facility or zone or as directed to obtain efficiency of operation.

Deferred Maintenance or repair work that may be safely, operationally and economically postponed; could not be completed within the specified urgent or routine times due to materials availability, work site access, funds shortage or conditions outside of the control of the maintenance organization.

3. **Response Times by Classification –** Time from incident knowledge to arrival at incident scene. Knowledge includes, but is not limited to, remote indication, operator finds, call-ins, etc.

Emergency JSC – 15 minutes, SCTF/EF – 30 minutes
Urgent 24 hours
Routine 30 calendar days
Deferred As approved by NASA COD.

4. **Repair Times** – Maximum allowed time for completed, expedited repairs

Emergency Work must be continuous until the problem has been mitigated, repaired or the contractor relieved by NASA COD. After mitigation, if additional repair work remains, it must be reclassified as urgent or routine within two days.

Urgent Materials receipt plus 5 days not to exceed 10 calendar days. If repair time is expected to exceed 10 calendar days, a repair plan must be submitted to and approved by NASA COD.

Routine Work must be complete within 30 calendar days. If work is expected to exceed 30 calendar days a repair plan must be submitted to and approved by NASA COD.

Deferred As approved by NASA COD

Table 2 – 2
MAINTENANCE SCHEDULING WINDOWS

Maintenance Frequency	Window (Days)
Daily (D)	1
Weekly (W)	7
Every 2 Weeks (W2)	7
Monthly (M)	14
Every 2 Months (M2)	14
Quarterly (Q)	21
Every 4 Months (M4)	21
Semi-Annually (SA)	28
Annually (A)	28
Every 18 Months (M18)	28
Every 24 Months (M24)	28
Every 36 Months (M36)	28
Every 48 Months (M48)	28
Every 60 Months (M60)	28

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	135	E135XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	135	E135XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	135	E135XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	135	E135XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	135	E135XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	135	E135XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	135	E135XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	135	E135XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	135	E135XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	135	E135XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
ELL	135	E135XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	135	E135XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	135	E135XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	135	E135XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	135	E135XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	135	E135XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	135	E135XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
ELL	135	E135XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	135	E135XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
ELL	135	E135XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	135	E135XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
ELL	135	E135XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
ELL	136	E136XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	136	E136XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	136	E136XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	136	E136XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	136	E136XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	136	E136XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	136	E136XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	136	E136XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	136	E136XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	136	E136XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	136	E136XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	136	E136XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	136	E136XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	136	E136XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	136	E136XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	136	E136XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
ELL	136	E136XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	137	E137XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	137	E137XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	137	E137XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	137	E137XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	137	E137XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	137	E137XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	137	E137XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	137	E137XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	137	E137XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	137	E137XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	137	E137XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	137	E137XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	137	E137XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	137	E137XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	137	E137XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	137	E137XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
ELL	137	E137XXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
ELL	137B	E137BXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	137B	E137BXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	137B	E137BXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	138	E138XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	138	E138XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	138	E138XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	139	E139XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	139	E139XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	139	E139XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	139	E139XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	139	E139XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	140	E140XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	140	E140XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	140	E140XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	140	E140XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	140	E140XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	140	E140XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	140	E140XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	140	E140XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	140	E140XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	140	E140XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	140B	E140BXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	142	E142XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	142	E142XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	142	E142XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	142	E142XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	142	E142XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	142	E142XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	142	E142XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	142	E142XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	142	E142XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	142	E142XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	150	E150XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	150	E150XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	150	E150XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	150	E150XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	150	E150XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	150	E150XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	150	E150XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	150	E150XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	150	E150XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	150	E150XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	150	E150XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	150	E150XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	150	E150XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	150	E150XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	150	E150XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	151	E151XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	151	E151XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	151	E151XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	151	E151XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	245	E245XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	245	E245XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	245	E245XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	245	E245XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	245	E245XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	245	E245XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	247	E247XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	247	E247XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	248	E248XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	248	E248XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	248	E248XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	248	E248XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	248	E248XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	248	E248XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	248	E248XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	248	E248XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	248	E248XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	248	E248XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	248	E248XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	248	E248XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	248	E248XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	260	E260XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	260	E260XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	260	E260XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	260	E260XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	260	E260XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	260	E260XXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
ELL	260	E260XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	260	E260XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	260	E260XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	260	E260XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	261	E261XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	261	E261XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	261	E261XXGRN	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	261	E261XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	263	E263XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	264	E264XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	264	E264XXGRN	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	264	E264XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	265	E265XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	265	E265XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	265	E265XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	265	E265XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	265	E265XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	265	E265XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	265	E265XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	265	E265XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	265	E265XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	265	E265XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	265	E265XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
ELL	265	E265XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	265	E265XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	266	E266XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	266	E266XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	266	E266XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	266	E266XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	266	E266XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	266	E266XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	266	E266XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	266	E266XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	266	E266XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	266	E266XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	266	E266XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	267	E267XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	267	E267XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	267	E267XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	267	E267XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	267	E267XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	267	E267XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	267	E267XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	267	E267XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	267	E267XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	267	E267XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	267	E267XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	267	E267XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	267	E267XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	267	E267XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	267	E267XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	269	E269XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	269	E269XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	269	E269XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	269	E269XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	269	E269XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	269	E269XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	269	E269XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	269	E269XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	269	E269XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	269	E269XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	269	E269XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	269	E269XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	269	E269XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	269	E269XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	269	E269XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	270	E270XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	270	E270XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	270	E270XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	270	E270XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	270	E270XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	270	E270XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	270	E270XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	270	E270XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	270	E270XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	270	E270XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	270	E270XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	270	E270XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	270	E270XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	270	E270XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	270	E270XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	271	E271XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	271	E271XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	271	E271XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	271	E271XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	271	E271XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	271	E271XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	271	E271XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	271	E271XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	271	E271XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	271	E271XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	271	E271XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	271	E271XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	271	E271XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	272	E272XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	272	E272XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	272	E272XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	272	E272XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	272	E272XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	272	E272XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	272	E272XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	272	E272XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	272	E272XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	272	E272XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	272	E272XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	272	E272XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	273	E273XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	273	E273XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	273	E273XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	273	E273XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	273	E273XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	273	E273XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	273	E273XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	273	E273XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	273	E273XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	273	E273XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	273	E273XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	273	E273XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	273	E273XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	273	E273XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	273	E273XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	273	E273XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	276	E276XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	276	E276XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	276	E276XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	276	E276XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	276	E276XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	276	E276XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	276	E276XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	276	E276XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	276	E276XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	276	E276XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	276	E276XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	276	E276XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	276	E276XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	276	E276XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	276	E276XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	276	E276XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	276	E276XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
ELL	276	E276XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	276	E276XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
ELL	276	E276XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
ELL	278	E278XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	278	E278XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	278	E278XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	278	E278XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	278	E278XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	278	E278XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	278	E278XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	278	E278XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	278	E278XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	278	E278XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	278	E278XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	278	E278XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	278	E278XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	278	E278XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	278	E278XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	278	E278XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	278	E278XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
ELL	380	E380XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	380	E380XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	380	E380XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	380	E380XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	380	E380XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	380	E380XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	380	E380XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	380	E380XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	380	E380XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	380	E380XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	380	E380XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	380	E380XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	380	E380XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	380	E380XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	380	E380XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	990	E990XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	990	E990XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	990	E990XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	990	E990XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	990	E990XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	990	E990XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	990	E990XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	990	E990XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	990	E990XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	990	E990XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	990	E990XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	990	E990XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	990	E990XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	990	E990XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
ELL	990	E990XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
ELL	990	E990XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	990	E990XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
ELL	990	E990XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
ELL	991	E991XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	992	E992XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	993	E993XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	993	E993XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	993	E993XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	993	E993XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	993	E993XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	993	E993XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	993	E993XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	993	E993XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
ELL	993	E993XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	993	E993XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	993	E993XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	993	E993XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	994	E994XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	994	E994XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
ELL	994	E994XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	994	E994XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
ELL	994	E994XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
ELL	994	E994XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
ELL	994	E994XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
ELL	994	E994XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
ELL	994	E994XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
ELL	994	E994XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
ELL	994	E994XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
ELL	994	E994XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
ELL	994	E994XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
ELL	994	E994XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
ELL	998	E998XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
ELL	998	E998XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.01	1	Core Hours
ELL	998	E998XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	2	Continuous
ELL	998	E998XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	2	Continuous
ELL	998	E998XXFGT	FENCES AND GATES	FGT	C	Sec. J, Att N, Exh. N-1, 1.4.11	2	Continuous
ELL	998	E998XXRPD	PUBLIC DISPLAYS	RPD	C	Sec. J, Att N, Exh. N-1, 1.4.12	2	Continuous
ELL	998	E998XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	2	Continuous
ELL	998	E998XXMVD	SITE ELECTRICAL 15KV DISTRIBUTION	MVD	E	Sec. J, Att N, Exh. N-1, 1.2.02	3	Continuous
ELL	998	E998XXOWL	SITE OBSTRUCTION & WARNING LIGHTING SYSTEM	OWL	E	Sec. J, Att N, Exh. N-1, 1.2.12	2	Continuous
ELL	998	E998XXBER	CONTAINMENT BERMS	BER	X	Sec. J, Att N, Exh. N-1, 1.5.04	2	Continuous
JSC	000	J000XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	000	J000XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	000	J000XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	000	J000XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	000	J000XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	000	J000XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	000	J000XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	000	J000XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	000	J000XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	000	J000XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	2	Continuous
JSC	000	J000XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	000	J000XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	000	J000XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	000	J000XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	001	J001XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	001	J001XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	001	J001XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	001	J001XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	001	J001XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	001	J001XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	001	J001XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	001	J001XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	001	J001XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	001	J001XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	001	J001XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	001	J001XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	001	J001XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	001	J001XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	001	J001XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	001	J001XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	001	J001XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	2	Continuous
JSC	001	J001XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	001	J001XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	001	J001XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	001	J001XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	001	J001XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	002	J002XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	002	J002XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	002	J002XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	002	J002XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	002	J002XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	002	J002XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	002	J002XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	002	J002XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	002	J002XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	002	J002XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	002	J002XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	002	J002XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	002	J002XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	002	J002XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	002	J002XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	002	J002XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	002	J002XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	002	J002XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	002	J002XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	002	J002XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	003	J003XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	003	J003XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	003	J003XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	003	J003XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	003	J003XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	003	J003XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	003	J003XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	003	J003XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	003	J003XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	003	J003XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	003	J003XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	003	J003XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	003	J003XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	003	J003XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	003	J003XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	003	J003XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	003	J003XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	003	J003XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	003	J003XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	003	J003XXSTE	CAFETERIA	STE	M	Sec. J, Att N, Exh. N-1, 1.1.12	1	Core Hours
JSC	003	J003XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	004N	J004NXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	004N	J004NXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	004N	J004NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	004N	J004NXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	004N	J004NXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	004N	J004NXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	004N	J004NXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	004N	J004NXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	004N	J004NXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	004N	J004NXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	004N	J004NXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	004N	J004NXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	004N	J004NXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	004N	J004NXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	004N	J004NXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	004N	J004NXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	004N	J004NXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	004N	J004NXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	004N	J004SXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	004S	J004SXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	004S	J004SXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	004S	J004SXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	004S	J004SXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	004S	J004SXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	004S	J004SXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	004S	J004SXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	004S	J004SXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	004S	J004SXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	004S	J004SXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	004S	J004SXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	004S	J004SXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	004S	J004SXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	004S	J004SXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	004S	J004SXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	004S	J004SXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	004S	J004SXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	004S	J004SXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	004S	J004SXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	004S	J004SXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	004S	J004NXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	005N	J005NXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	005N	J005NXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	005N	J005NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	005N	J005NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	005N	J005NXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	005N	J005NXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	005N	J005NXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	005N	J005NXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	005N	J005NXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	005N	J005NXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	005N	J005NXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	005N	J005NXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	005N	J005NXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	005N	J005NXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	005N	J005NXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	005N	J005NXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	005N	J005NXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	005N	J005NXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	005N	J005NXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	005N	J005NXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	005N	J005NXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	005N	J005NXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	005N	J005NXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	005S	J005SXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	005S	J005SXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	005S	J005SXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	005S	J005SXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	005S	J005SXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	005S	J005SXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	005S	J005SXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	005S	J005SXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	005S	J005SXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	005S	J005SXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	005S	J005SXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	005S	J005SXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	005S	J005SXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	005S	J005SXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	005S	J005SXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	005S	J005SXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	005S	J005SXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	005S	J005SXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	005S	J005SXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	005S	J005SXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	007	J007XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	007	J007XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	007	J007XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	007	J007XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	007	J007XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	007	J007XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	007	J007XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	007	J007XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	007	J007XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	007	J007XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	007	J007XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	007	J007XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	007	J007XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	007	J007XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	007	J007XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	007	J007XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	007	J007XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	007	J007XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	007	J007XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	007	J007XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	007	J007XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	007	J007XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	007	J007XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	007A	J007AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	007A	J007AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	007A	J007AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	007A	J007AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	007A	J007AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	007A	J007AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	007A	J007AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	007A	J007AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	007A	J007AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	007A	J007AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	007A	J007AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	007A	J007AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	007A	J007AXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	007A	J007AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	007A	J007AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	007A	J007AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	007A	J007AXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	007A	J007AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	007A	J007AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	008	J008XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	008	J008XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	008	J008XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	008	J008XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	008	J008XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	008	J008XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	008	J008XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	008	J008XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	008	J008XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	008	J008XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	008	J008XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	008	J008XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	008	J008XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	008	J008XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	008	J008XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	008	J008XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	008	J008XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	008	J008XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	008	J008XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	008	J008XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	008	J008XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	008	J008XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	008A	J008AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	008A	J008AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	008A	J008AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	008A	J008AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	008A	J008AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	008A	J008AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	008A	J008AXVAL	VAULT STRUCTURAL	VAL	X	Sec. J, Att N, Exh. N-1, 1.5.02	1	Continuous
JSC	008A	J008AXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	009N	J009NXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009N	J009NXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	009N	J009NXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	009N	J009NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009N	J009NXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	009N	J009NXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	009N	J009NXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	009N	J009NXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	009N	J009NXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	009N	J009NXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	009N	J009NXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	009N	J009NXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	009N	J009NXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	009N	J009NXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	009N	J009NXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	009N	J009NXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	009N	J009NXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	009N	J009NXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	009N	J009NXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	009NE	J009NEDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009NE	J009NEFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	009NE	J009NEPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009NE	J009NERUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	009NE	J009NESET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	009NE	J009NESIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	009NE	J009NESNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	009NE	J009NESWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	009NE	J009NEELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	009NE	J009NEEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	009NE	J009NEGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	009NE	J009NELPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	009NE	J009NELTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	009NE	J009NESDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	009NE	J009NECAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	009NE	J009NECHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	009NE	J009NEEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	009NE	J009NEHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	009NE	J009NEHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	009NE	J009NESCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	009NE	J009NECRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	009NE	J009NEELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	009NW	J009NWDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	009NW	J009NWFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	009NW	J009NWPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009NW	J009NWRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	009NW	J009NWSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	009NW	J009NWSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	009NW	J009NWSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	009NW	J009NWSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	009NW	J009NWELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	009NW	J009NWEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	009NW	J009NWGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	009NW	J009NWLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	009NW	J009NWSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	009NW	J009NWCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	009NW	J009NWCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	009NW	J009NWEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	009NW	J009NWHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	009NW	J009NWSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	009NW	J009NWCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	009NW	J009NWELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	009S	J009SXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009S	J009SXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	009S	J009SXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	009S	J009SXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	009S	J009SXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	009S	J009SXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	009S	J009SXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	009S	J009SXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	009S	J009SXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	009S	J009SXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	009S	J009SXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	009S	J009SXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	009S	J009SXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	009S	J009SXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	009S	J009SXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	009S	J009SXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	009S	J009SXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	009S	J009SXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	009S	J009SXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	009S	J009SXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	009S	J009SXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	009S	J009SXPLW	PLATING WASTE PRE-TREATMENT SYSTEM	PLW	X	Sec. J, Att N, Exh. N-1, 1.5.07	1	Continuous
JSC	009S	J009SXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	009SX	J009SXVAL	VAULT STRUCTURAL	VAL	X	Sec. J, Att N, Exh. N-1, 1.5.02	1	Continuous
JSC	010	J010XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	010	J010XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	010	J010XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	010	J010XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	010	J010XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	010	J010XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	010	J010XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	010	J010XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	010	J010XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	010	J010XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	010	J010XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	010	J010XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	010	J010XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	010	J010XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	010	J010XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	010	J010XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	010	J010XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	010	J010XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	010	J010XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	010	J010XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	010	J010XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	010	J010XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	010	J010XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	011	J011XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	011	J011XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	011	J011XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	011	J011XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	011	J011XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	011	J011XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	011	J011XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	011	J011XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	011	J011XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	011	J011XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	011	J011XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	011	J011XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	011	J011XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	011	J011XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	011	J011XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	011	J011XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	011	J011XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	011	J011XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	011	J011XXSTE	CAFETERIA	STE	M	Sec. J, Att N, Exh. N-1, 1.1.12	1	Core Hours
JSC	012	J012XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	012	J012XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	012	J012XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	012	J012XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	012	J012XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	012	J012XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	012	J012XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	012	J012XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	012	J012XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	012	J012XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	012	J012XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	012	J012XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	012	J012XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	012	J012XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	012	J012XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	012	J012XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	012	J012XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	012	J012XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	012	J012XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	012	J012XXHST	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	012	J012XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	013	J013XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	013	J013XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	013	J013XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	013	J013XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	013	J013XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	013	J013XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	013	J013XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	013	J013XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	013	J013XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	013	J013XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	013	J013XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	013	J013XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	013	J013XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	013	J013XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	013	J013XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	013	J013XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	013	J013XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	013	J013XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	013	J013XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	013	J013XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	013	J013XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	013	J013XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	014	J014XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	014	J014XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	014	J014XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	014	J014XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	014	J014XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	014	J014XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	014	J014XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	014	J014XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	014	J014XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	014	J014XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	014	J014XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	014	J014XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	014	J014XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	014	J014XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	014	J014XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	014	J014XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	014	J014XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	014	J014XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	014	J014XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	014	J014XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	014	J014XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	015	J015XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	015	J015XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	015	J015XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	015	J015XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	015	J015XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	015	J015XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	015	J015XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	015	J015XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	015	J015XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	015	J015XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	015	J015XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	015	J015XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	015	J015XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	015	J015XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	015	J015XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	015	J015XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	015	J015XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	015	J015XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	015	J015XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	015	J015XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	015	J015XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	015	J015XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	015	J015XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	016	J016XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	016	J016XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	016	J016XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	016	J016XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	016	J016XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	016	J016XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	016	J016XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	016	J016XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	016	J016XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	016	J016XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	016	J016XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	016	J016XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	016	J016XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	016	J016XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	016	J016XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	016	J016XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	016	J016XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	016	J016XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	016	J016XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	016	J016XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	016	J016XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	016A	J016AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	016A	J016AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	016A	J016AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	016A	J016AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	016A	J016AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	016A	J016AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	016A	J016AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	016A	J016AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	016A	J016AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	016A	J016AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	016A	J016AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	016A	J016AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	016A	J016AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	016A	J016AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	016A	J016AXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	016A	J016AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	016A	J016AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	016A	J016AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	016A	J016AXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	016A	J016AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	016A	J016AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	017	J017XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	017	J017XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	017	J017XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	017	J017XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	017	J017XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	017	J017XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	017	J017XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	017	J017XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	017	J017XXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	017	J017XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	017	J017XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	017	J017XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	017	J017XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	017	J017XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	017	J017XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	017	J017XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	017	J017XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	017	J017XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	017	J017XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	017	J017XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	017	J017XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	017	J017XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	017	J017XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	017	J017XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	017	J017XXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	018	J018XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	018	J018XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	018	J018XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	018	J018XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	018	J018XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	018	J018XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	018	J018XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	018	J018XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	018	J018XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	018	J018XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	018	J018XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	018	J018XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	018	J018XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	018	J018XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	023	J023XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	023	J023XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	023	J023XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	023	J023XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	023	J023XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	024	J024XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	024	J024XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	024	J024XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	024	J024XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	024	J024XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	024	J024XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	024	J024XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	024	J024XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	024	J024XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	024	J024XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	024	J024XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	024	J024XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	024	J024XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	024	J024XXRTM	RADIO TAPE MONITORING SYSTEM	RTM	E	Sec. J, Att N, Exh. N-1, 1.2.19	1	Continuous
JSC	024	J024XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	024	J024XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	4	Continuous
JSC	024	J024XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	4	Continuous
JSC	024	J024XXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	4	Continuous
JSC	024	J024XXDFS	DIESEL FUEL SYSTEM	DFS	M	Sec. J, Att N, Exh. N-1, 1.1.09	1	Continuous
JSC	024	J024XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	024	J024XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	2	HVACSR
JSC	024	J024XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	024	J024XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	3	Continuous
JSC	024	J024XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	025	J025XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	025	J025XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	025	J025XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	025	J025XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	025	J025XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	025	J025XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	025	J025XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	025	J025XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	025	J025XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	025	J025XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	025	J025XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	025	J025XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	025	J025XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	025	J025XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	025	J025XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	025	J025XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	025	J025XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	025	J025XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	025	J025XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	025	J025XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	025	J025XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	028	J028XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	028	J028XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	028	J028XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	028	J028XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	028	J028XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	028	J028XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	028	J028XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	028	J028XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	028	J028XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	028	J028XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	028	J028XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	028	J028XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	028	J028XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	028	J028XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	3	Continuous
JSC	028	J028XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	3	Continuous
JSC	028	J028XXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	3	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	028	J028XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	2	HVACSR
JSC	028	J028XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	029	J029XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	029	J029XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	029	J029XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	029	J029XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	029	J029XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	029	J029XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	029	J029XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	029	J029XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	029	J029XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	029	J029XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	029	J029XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	029	J029XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	029	J029XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	029	J029XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	029	J029XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	029	J029XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	029	J029XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	029	J029XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	029	J029XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	029	J029XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	029	J029XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	030A	J030AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030A	J030AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	030A	J030AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030A	J030AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	030A	J030AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	030A	J030AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	030A	J030AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	030A	J030AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	030A	J030AXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	030A	J030AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	030A	J030AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	030A	J030AXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	030A	J030AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	030A	J030AXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	030A	J030AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	030A	J030AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	030A	J030AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	030A	J030AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	030A	J030AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	030A	J030AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	030A	J030AXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	030A	J030AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	030A	J030AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	030L	J030LXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030L	J030LXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	030L	J030LXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030L	J030LXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	030L	J030LXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	030L	J030LXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	030L	J030LXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	030L	J030LXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	030L	J030LXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	030L	J030LXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	030L	J030LXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	030L	J030LXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	030L	J030LXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	030L	J030LXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	030L	J030LXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	030L	J030LXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	030L	J030LXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	030L	J030LXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	030L	J030LXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	030L	J030LXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	030L	J030LXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	030M	J030MXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030M	J030MXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	030M	J030MXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030M	J030MXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	030M	J030MXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	030M	J030MXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	030M	J030MXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	2	Continuous
JSC	030M	J030MXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	030M	J030MXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	030M	J030MXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	030M	J030MXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	030M	J030MXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	2	Continuous
JSC	030M	J030MXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	030M	J030MXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	2	Continuous
JSC	030M	J030MXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	030M	J030MXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	030M	J030MXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	2	Continuous
JSC	030M	J030MXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	2	Continuous
JSC	030M	J030MXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	2	HVACSR
JSC	030M	J030MXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	030M	J030MXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	2	Continuous
JSC	030M	J030MXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	030M	J030MXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	030S	J030SXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030S	J030SXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	030S	J030SXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	030S	J030SXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	030S	J030SXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	030S	J030SXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	030S	J030SXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	030S	J030SXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	030S	J030SXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	2	Continuous
JSC	030S	J030SXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	2	Continuous
JSC	030S	J030SXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	030S	J030SXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	030S	J030SXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	030S	J030SXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	030S	J030SXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	2	Continuous
JSC	030S	J030SXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	030S	J030SXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	3	Continuous
JSC	030S	J030SXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	2	Continuous
JSC	030S	J030SXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	2	HVACSR
JSC	030S	J030SXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	2	Continuous
JSC	030S	J030SXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	030S	J030SXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	030S	J030SXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	031	J031XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	031	J031XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	031	J031XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	031	J031XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	031	J031XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	031	J031XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	031	J031XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	031	J031XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	031	J031XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	031	J031XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	031	J031XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	031	J031XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	031	J031XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	031	J031XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	031	J031XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	031	J031XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	031	J031XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	031	J031XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	031	J031XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	031	J031XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	031	J031XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	031A	J031AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	031A	J031AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	031A	J031AXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	031A	J031AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	031A	J031AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	031A	J031AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	031A	J031AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	031A	J031AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	031A	J031AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	031A	J031AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	031A	J031AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	031A	J031AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	031A	J031AXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	031A	J031AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	031A	J031AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	031A	J031AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	031A	J031AXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	031A	J031AXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	031A	J031AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	032	J032XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	032	J032XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	032	J032XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	032	J032XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	032	J032XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	032	J032XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	032	J032XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	032	J032XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	032	J032XXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	032	J032XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	032	J032XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	032	J032XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	032	J032XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	032	J032XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	032	J032XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	032	J032XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	032	J032XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	032	J032XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	032	J032XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	032	J032XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	032	J032XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	032	J032XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	032	J032XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	032	J032XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	032A	J032AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	032A	J032AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	032A	J032AXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	032A	J032AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	032A	J032AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	032A	J032AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	032A	J032AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	032A	J032AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	032A	J032AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	032A	J032AXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	032A	J032AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	032A	J032AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	032A	J032AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	032A	J032AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	032A	J032AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	032A	J032AXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	032A	J032AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	032A	J032AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	032A	J032AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	032A	J032AXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	032A	J032AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	032Q	J032QXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	032Q	J032QXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	032Q	J032QXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	032Q	J032QXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	032Q	J032QXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	032Q	J032QXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	032Q	J032QXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	032Q	J032QXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	032Q	J032QXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	032Q	J032QXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	033	J033XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	033	J033XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	033	J033XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	033	J033XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	033	J033XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	033	J033XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	033	J033XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	033	J033XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	033	J033XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	033	J033XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	033	J033XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	033	J033XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	033	J033XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	033	J033XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	033	J033XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	033	J033XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	033	J033XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	033	J033XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	033	J033XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	033	J033XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	034	J034XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	034	J034XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	034	J034XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	034	J034XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	034	J034XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	034	J034XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	034	J034XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	034	J034XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	034	J034XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	034	J034XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	034	J034XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	034	J034XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	034	J034XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	034	J034XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	034	J034XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	034	J034XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	034	J034XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	034	J034XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	035	J035XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	035	J035XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	035	J035XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	035	J035XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	035	J035XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	035	J035XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	035	J035XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	035	J035XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	035	J035XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	035	J035XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	035	J035XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	035	J035XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	035	J035XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	035	J035XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	035	J035XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	035	J035XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	035	J035XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	035	J035XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	035	J035XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	036	J036XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	036	J036XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	036	J036XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	036	J036XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	036	J036XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	036	J036XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	036	J036XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	036	J036XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	036	J036XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	036	J036XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	036	J036XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	036	J036XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	036	J036XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	036	J036XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	036	J036XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	036	J036XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	036	J036XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	036	J036XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	036	J036XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	036	J036XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	037	J037XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	037	J037XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	037	J037XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	037	J037XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	037	J037XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	037	J037XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	037	J037XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	037	J037XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	037	J037XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	037	J037XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	037	J037XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	037	J037XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	037	J037XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	037	J037XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	037	J037XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	037	J037XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	037	J037XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	037	J037XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	037	J037XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	037	J037XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	037	J037XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	037	J037XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	037	J037XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	038	J038XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	038	J038XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	038	J038XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	038	J038XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	039	J039XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	039	J039XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	039	J039XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	040	J040XXPWS	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	040	J040XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	040	J040XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	040	J040XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	041	J041XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	041	J041XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	041	J041XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	041	J041XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	041	J041XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	041	J041XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	041	J041XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	041	J041XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	042	J042XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	042	J042XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	042	J042XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	042	J042XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	042	J042XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	042	J042XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	042	J042XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	042	J042XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	042	J042XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	044	J044XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	044	J044XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	044	J044XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	044	J044XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	044	J044XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	044	J044XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	044	J044XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	044	J044XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	044	J044XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	044	J044XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	044	J044XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	044	J044XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	044	J044XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	044	J044XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	044	J044XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	044	J044XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	044	J044XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	044	J044XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	044	J044XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	044	J044XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	044	J044XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	044	J044XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	045	J045XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	045	J045XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	045	J045XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	045	J045XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	045	J045XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	045	J045XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	045	J045XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	045	J045XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	045	J045XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	045	J045XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	045	J045XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	045	J045XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	045	J045XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	045	J045XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	045	J045XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	045	J045XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	045	J045XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	045	J045XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	045	J045XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	045	J045XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	046	J046XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	046	J046XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	046	J046XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	046	J046XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	046	J046XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	046	J046XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	046	J046XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	046	J046XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	046	J046XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	046	J046XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	046	J046XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	046	J046XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	046	J046XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	046	J046XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	046	J046XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	046	J046XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	046	J046XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	046	J046XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	046	J046XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	046	J046XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	048	J048XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	048	J048XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	048	J048XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	048	J048XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	048	J048XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	048	J048XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	048	J048XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	048	J048XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	048	J048XX8AG	BLDG 48 A-POWER SYSTEM	8AG	E	Sec. J, Att N, Exh. N-1, 1.2.05	3	Continuous
JSC	048	J048XX8BG	BLDG 48 B-POWER SYSTEM	8BG	E	Sec. J, Att N, Exh. N-1, 1.2.04	3	Continuous
JSC	048	J048XX8DG	BLDG 48 D-POWER SYSTEM	8DG	E	Sec. J, Att N, Exh. N-1, 1.2.03	3	Continuous
JSC	048	J048XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	048	J048XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	048	J048XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	048	J048XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	2	Continuous
JSC	048	J048XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	048	J048XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	048	J048XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	048	J048XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	048	J048XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	4	Continuous
JSC	048	J048XXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	2	Continuous
JSC	048	J048XXDFS	DIESEL FUEL SYSTEM	DFS	M	Sec. J, Att N, Exh. N-1, 1.1.09	1	Continuous
JSC	048	J048XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	048	J048XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	048	J048XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	048	J048XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	2	Continuous
JSC	048	J048XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	049	J049XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	049	J049XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	049	J049XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	049	J049XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	049	J049XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	049	J049XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	049	J049XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	049	J049XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	049	J049XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	049	J049XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	049	J049XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	049	J049XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	049	J049XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	049	J049XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	049	J049XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	049	J049XXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	1	Continuous
JSC	049	J049XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	049	J049XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	049	J049XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	049	J049XXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	049	J049XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	049	J049XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	049	J049XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	049A	J049AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	049A	J049AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	049A	J049AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	049A	J049AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	049A	J049AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	049A	J049AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	049A	J049AXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
JSC	049A	J049AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	049A	J049AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	050	J050XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	050	J050XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	050	J050XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	050	J050XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	050	J050XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	050	J050XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	050	J050XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	056	J056XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	056	J056XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	056	J056XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	056	J056XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	056	J056XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	056	J056XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	056	J056XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	056	J056XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	056	J056XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	056	J056XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	056	J056XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	056	J056XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	057	J057XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	057	J057XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	057	J057XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	057	J057XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	057	J057XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	057	J057XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	057	J057XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	057	J057XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	057	J057XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	057	J057XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	057	J057XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	057	J057XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	090	J090XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	090	J090XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	090	J090XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	090	J090XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	090	J090XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	090	J090XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	090	J090XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	090	J090XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	090D	J090DXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	090D	J090DXDWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	101	J101XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	101	J101XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	101	J101XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	101	J101XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	101	J101XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	103	J103XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	103	J103XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	103	J103XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	103	J103XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	103	J103XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	110	J110XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	110	J110XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	110	J110XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	110	J110XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	110	J110XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	110	J110XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	110	J110XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	110	J110XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	110	J110XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	110	J110XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	110	J110XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	110	J110XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	110	J110XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	110	J110XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	111	J111XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	111	J111XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	111	J111XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	111	J111XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	111	J111XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	111	J111XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	111	J111XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	111	J111XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	111	J111XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	111	J111XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	111	J111XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	111	J111XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	111	J111XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	204	J204XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	204	J204XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	204	J204XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	204	J204XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	204	J204XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	207	J207XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	207	J207XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	207	J207XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	207	J207XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	207	J207XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	207	J207XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	207	J207XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	207	J207XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	207	J207XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	207	J207XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	207	J207XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	207	J207XXSTE	CAFETERIA	STE	M	Sec. J, Att N, Exh. N-1, 1.1.12	1	Core Hours
JSC	207	J207XXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
JSC	207A	J207AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	207A	J207AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	207A	J207AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	207A	J207AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	207A	J207AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	210	J210XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	210	J210XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	210	J210XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	210	J210XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	210	J210XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	210	J210XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	210	J210XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	210	J210XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	210	J210XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	210	J210XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	210	J210XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	210	J210XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	211	J211XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	211	J211XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	211	J211XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	211	J211XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	211	J211XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	220	J220XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	220	J220XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	220	J220XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	220	J220XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	220	J220XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	220	J220XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	220	J220XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	220	J220XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	220	J220XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	220	J220XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	220	J220XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	220	J220XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	220	J220XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	220	J220XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	220	J220XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	220	J220XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	221	J221XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	221	J221XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	221	J221XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	221	J221XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	221	J221XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	221	J221XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	221	J221XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	221	J221XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	221	J221XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	221	J221XXHVT	SITE ELECTRICAL 138KV TRANSMISSION SYSTEM	HVT	E	Sec. J, Att N, Exh. N-1, 1.2.01	3	Continuous
JSC	221	J221XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	221	J221XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	221	J221XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	221	E221XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	221	J221XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	221	J221XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	221	J221XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	222	J222XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	222	J222XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	222	J222XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	222	J222XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	222	J222XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	222	J222XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	222	J222XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	222	J222XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	222	J222XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	222	J222XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	222	J222XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	222	J222XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	222	J222XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	222	J222XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	222	J222XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	222	J222XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	222	J222XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	222	J222XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	222	J222XXSCR	STEAM AND CONDENSATE	SCR	M	Sec. J, Att N, Exh. N-1, 1.1.05	1	Continuous
JSC	222	J222XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	223	J223XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	223	J223XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	223	J223XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	223	J223XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	223	J223XXSNP	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	223	J223XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	223	J223XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	223	J223XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	223	J223XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	223	J223XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	223	J223XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	223	J223XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	223	J223XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	225	J225XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	225	J225XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	225	J225XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	225	J225XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	225	J225XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	225	J225XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	225	J225XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	225	J225XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	225	J225XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	225	J225XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	225	J225XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	225	J225XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	225	J225XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	225	J225XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	226	J226XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	226	J226XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	226	J226XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	226	J226XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	226	J226XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	226	J226XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	226	J226XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	226	J226XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	226	J226XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	226	J226XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	226	J226XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	226	J226XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	226	J226XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	226	J226XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	226	J226XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	226	J226XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	227	J227XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	227	J227XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	227	J227XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	227	J227XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	227	J227XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	227	J227XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	227	J227AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	227	J227XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	227	J227XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	227	J227XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	227	J227XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	227	J227XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	227	J227XXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
JSC	227	J227XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	227	J227XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	227	J227XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	227	J227XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	227	J227XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	228	J228XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	228	J228XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	228	J228XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	228	J228XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	228	J228XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	228	J228XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	228	J228XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	228	J228XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	228	J228XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	228	J228XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	228	J228XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	228	J228XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	228	J228XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	228	J228XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	228	J228XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	229	J229XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	229	J229XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	229	J229XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	229	J229XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	229	J229XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	229	J229XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	229	J229XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	229	J229XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	229	J229XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	229	J229XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	229	J229XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	229	J229XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	229	J229XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	229	J229XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	230	J230XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	230	J230XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	230	J230XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	230	J230XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	230	J230XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	230	J230XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	230	J230XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	230	J230XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	230	J230XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	230	J230XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	230	J230XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	230	J230XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	230	J230XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	231	J231XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	231	J231XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	231	J231XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	231	J231XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	231	J231XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	231	J231XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	231	J231XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	231	J231XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	231	J231XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	231	J231XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	231	J231XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	231	J231XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	231	J231XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	232	J232XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	232	J232XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	232	J232XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	232	J232XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	232	J232XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	232	J232XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	232	J232XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	232	J232XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	232	J232XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	232	J232XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	232	J232XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	241	J241XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	241	J241XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	241	J241XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	241	J241XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	241	J241XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	241	J241XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	241	J241XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	241	J241XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	241	J241XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	241	J241XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	241	J241XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	241	J241XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	241	J241XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	241	J241XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	241	J241XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	259	J259XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	259	J259XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	259	J259XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	259	J259XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	259	J259XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	259	J259XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	259	J259XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	259	J259XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	259	J259XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	259	J259XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	259	J259XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	259	J259XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	259	J259XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	259	J259XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	259	J259XXSTE	CAFETERIA	STE	M	Sec. J, Att N, Exh. N-1, 1.1.12	1	Core Hours
JSC	260	J260XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	260	J260XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	260	J260XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	260	J260XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	260	J260XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	260	J260XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	260	J260XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	260	J260XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	260	J260XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	260	J260XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	260	J260XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	260	J260XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	260	J260XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	260	J260XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	260	J260XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	260	J260XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	260	J260XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	260A	J260AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	260A	J260AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	260A	J260AXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	260A	J260AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	260A	J260AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	260A	J260AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	260A	J260AXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	260A	J260AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	260A	J260AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	260A	J260AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	260A	J260AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	260A	J260AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	260A	J260AXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	260A	J260AXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	260A	J260AXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	261	J261XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	261	J261XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	261	J261XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	261	J261XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	261	J261XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	261	J261XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	261	J261XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	261	J261XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	261	J261XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	261	J261XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	261	J261XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	261	J261XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	261	J261XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	261	J261XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	262A	J262AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	262A	J262AXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	262A	J262AXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	262A	J262AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	262A	J262AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	262A	J262AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	262A	J262AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	262A	J262AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	262A	J262AXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	262A	J262AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	262A	J262AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	262A	J262AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	262A	J262AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	262B	J262BXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	262B	J262BXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	262B	J262BXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	262B	J262BXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	262B	J262BXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	262B	J262BXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	262B	J262BXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	262B	J262BXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	262B	J262BXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	262B	J262BXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	262B	J262BXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	262B	J262BXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	263	J263XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	263	J263XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	263	J263XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	263	J263XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	263	J263XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	263	J263XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	263	J263XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	263	J263XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	263	J263XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	263	J263XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	263	J263XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	263A	J263AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	263A	J263AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	263A	J263AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	263A	J263AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	263A	J263AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	263A	J263AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	263A	J263AXCSA	CONTAINER STORAGE AREA	CSA	X	Sec. J, Att N, Exh. N-1, 1.5.03	1	Continuous
JSC	264	J264XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	264	J264XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	264	J264XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	264	J264XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	264	J264XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	264	J264XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	264	J264XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	264	J264XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	264	J264XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	264	J264XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	265	J265XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	265	J265XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	265	J265XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	265	J265XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	265	J265XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	265	J265XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	265	J265XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	265	J265XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	265	J265XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	265	J265XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	265	J265XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	265	J265XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	266	J266XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	266	J266XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	266	J266XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	266	J266XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	266	J266XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	266	J266XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	266	J266XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	266	J266XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	266	J266XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	266	J266XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	266	J266XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	266	J266XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	266	J266XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	267	J267XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	267	J267XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	267	J267XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	267	J267XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	267	J267XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	267	J267XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	267	J267XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	267	J267XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	267	J267XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	267	J267XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	267	J267XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	267	J267XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	267	J267XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	267	J267XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	267	J267XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	268	J268XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	268	J268XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	268	J268XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	268	J268XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	268	J268XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	268	J268XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	268	J268XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	268	J268XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	268	J268XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	268	J268XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	268	J268XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	268	J268XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	268	J268XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	269	J269XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	269	J269XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	269	J269XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	269	J269XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	269	J269XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	269	J269XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	269	J269XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	269	J269XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	269	J269XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	269	J269XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	269	J269XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	269	J269XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	269	J269XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	302	J302XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	302	J302XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	304	J304XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	304	J304XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	304	J304XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	304	J304XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	304	J304XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	304	J304XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	304	J304XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	304	J304XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	304	J304XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	304	J304XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	304	J304XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	304	J304XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	305	J305XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	305	J305XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	305	J305XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	305	J305XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	305	J305XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	306	J306XXPWG	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	306	J306XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	306	J306XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	320	J320XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	320	J320XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	320	J320XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	320	J320XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	320	J320XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	320	J320XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	320	J320XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	320	J320XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	321	J321XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	321	J321XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	321	J321XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	321	J321XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	321	J321XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	321	J321XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	321	J321XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	321	J321XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	321	J321XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	321	J321XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	321	J321XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	321	J321XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	321	J321XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	321	J321XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	322	J322XXPWD	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	322	J322XXPWP	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	322	J322XXPWT	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	322	J322XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	322	J322XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	322	J322XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	322	J322XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	322	J322XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	322	J322XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	322	J322XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	323	J323XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	323	J323XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	323	J323XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	323	J323XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	323	J323XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	323	J323XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	323	J323XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	323	J323XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	323	J323XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	323	J323XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	323	J323XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	323	J323XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	323	J323XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	324	J324XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	324	J324XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	324	J324XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	324	J324XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	324	J324XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	324	J324XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	324	J324XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	324	J324XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	324	J324XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	324	J324XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	324	J324XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	324	J324XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	324	J324XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	325	J325XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	325	J325XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	325	J325XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	325	J325XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	325	J325XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	325	J325XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	325	J325XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	325	J325XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	325	J325XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	325	J325XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	325	J325XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	325	J325XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	325	J325XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	325	J325XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	325	J325XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	325	J325XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	326	J326XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	326	J326XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	326	J326XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	326	J326XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	326	J326XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	326	J326XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	326	J326XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	326	J326XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	326	J326XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	326	J326XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	326	J326XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	326	J326XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	326	J326XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	326	J326XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	326	J326XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	326A	J326AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	326A	J326AXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	326A	J326AXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	326A	J326AXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	326A	J326AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	326A	J326AXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	326A	J326AXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	326A	J326AXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	326C	J326CXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	326D	J326DXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	326E	J326EXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	326F	J326FXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	327	J327XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	327	J327XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	327	J327XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	327	J327XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	327	J327XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	327	J327XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	327	J327XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	327	J327XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	327	J327XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	327	J327XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	327	J327XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	327	J327XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	328	J328XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	328	J328XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	328	J328XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	328	J328XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	328	J328XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	328	J328XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	328	J328XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	328	J328XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	328	J328XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	328	J328XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	328	J328XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	328	J328XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	328	J328XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	328	J328XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	329	J329XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	329	J329XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	329	J329XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	329	J329XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	329	J329XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	329	J329XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	329	J329XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	329	J329XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	329	J329XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	329	J329XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	329	J329XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	329	J329XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	329	J329XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	329	J329XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	329	J329XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	329	J329XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	330	J330XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	330	J330XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	330	J330XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	330	J330XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	330	J330XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	330	J330XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	330	J330XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	330	J330XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	330	J330XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	330	J330XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	330	J330XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	332	J332XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	333	J333XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	333	J333XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	333	J333XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	333	J333XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	333	J333XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	333	J333XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	333	J333XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	333	J333XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	333	J333XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	333A	J333AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	334	J334XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	334	J334XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	334	J334XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	334	J334XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	334	J334XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	334	J334XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	334	J334XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	334	J334XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	335	J335XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	335	J335XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	335	J335XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	335	J335XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	335	J335XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	335	J335XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	335	J335XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	335	J335XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	336	J336XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	336	J336XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	336	J336XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	336	J336XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	336	J336XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	336	J336XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	336	J336XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	336	J336XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	336	J336XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	336	J336XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	336	J336XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	336	J336XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	336	J336XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	337	J337XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	337	J337XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	337	J337XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	337	J337XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	337	J337XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	337	J337XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	337	J337XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	337	J337XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	337	J337XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	338	J338XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	338	J338XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	338	J338XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	338	J338XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	338	J338XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	338	J338XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	338	J338XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	338	J338XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	338	J338XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	338	J338XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	338	J338XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	338	J338XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	338	J338XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	338	J338XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	338	J338XXCSA	CONTAINER STORAGE AREA	CSA	X	Sec. J, Att N, Exh. N-1, 1.5.03	1	Continuous
JSC	339	J339XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	339	J339XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	339	J339XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	339	J339XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	340	J340XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	341	J341XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	341	J341XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	341	J341XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	342	J342XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	342	J342XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	342	J342XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	342	J342XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	342	J342XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	342	J342XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	342	J342XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	342	J342XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	342	J342XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	342	J342XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	342	J342XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	342	J342XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	342	J342XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	342	J342XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	342	J342XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	342	J342XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	343	J343XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	343	J343XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	343	J343XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	343	J343XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	343	J343XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	343	J343XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	343	J343XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	343	J343XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	343	J343XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	343	J343XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	343	J343XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	343	J343XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	343	J343XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	343	J343XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	343	J343XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	343N	J343NXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	343N	J343NXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	343N	J343NXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	343N	J343NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	343N	J343NXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	343N	J343NXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	343N	J343NXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	343N	J343NXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	343N	J343NXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	343N	J343NXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
JSC	343N	J343NXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	343N	J343NXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	343N	J343NXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	343N	J343NXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	343N	J343NXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	343N	J343NXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	343N	J343NXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	348	J348XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	348	J348XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	348	J348XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	348	J348XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	348	J348XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	348	J348XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	348	J348XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	348	J348XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	349	J349XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	349	J349XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	349	J349XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	349	J349XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	349	J349XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	349	J349XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	349	J349XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	349	J349XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	349	J349XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	349	J349XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	349	J349XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	349	J349XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	349	J349XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	349	J349XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	350	J350XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	350	J350XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	350	J350XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	350	J350XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	350	J350XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	350	J350XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	350	J350XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	350	J350XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	350	J350XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	350	J350XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	350	J350XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	350	J350XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	350	J350XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	350	J350XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	350	J350XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	350	J350XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	350	J350XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	350	J350XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	350	J350XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	350	J350XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	351	J351XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	351	J351XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	351	J351XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	351	J351XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	351	J351XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	351	J351XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	351	J351XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	351	J351XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	351	J351XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	351	J351XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	351	J351XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	351	J351XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	351	J351XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	351	J351XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	351	J351XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	351	J351XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	351	J351XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	351	J351XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	351	J351XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	352	J352XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	352	J352XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	352	J352XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	352	J352XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	352	J352XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	352	J352XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	352	J352XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	352	J352XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	352	J352XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	352	J352XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	352	J352XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	352	J352XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	352	J352XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	352	J352XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	352	J352XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	352	J352XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	352	J352XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	352	J352XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	353	J353XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	353	J353XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	353	J353XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	353	J353XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	353	J353XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	353	J353XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	353	J353XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	353	J353XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	353	J353XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	353	J353XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	353	J353XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	353	J353XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	353	J353XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	353	J353XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	353	J353XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	353	J353XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	353	J353XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	353	J353XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	353	J353XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	354	J354XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	354	J354XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	354	J354XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	354	J354XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	354	J354XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	354	J354XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	354	J354XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	354	J354XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	354	J354XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	354	J354XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	354	J354XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	354	J354XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	354	J354XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	354	J354XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	354	J354XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	354	J354XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	354	J354XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	354	J354XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	355	J355XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	355	J355XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	355	J355XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	355	J355XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	355	J355XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	355	J355XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	355	J355XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	355	J355XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	355	J355XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	355	J355XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	355	J355XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	355	J355XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	356	J356XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	356	J356XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	356	J356XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	356	J356XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	356	J356XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	356	J356XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	356	J356XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	356	J356XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	356	J356XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	356	J356XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	356	J356XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	356	J356XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	356	J356XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	356	J356XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	356	J356XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	356	J356XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	356	J356XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	356	J356XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	356	J356XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	356	J356XXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	357	J357XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	357	J357XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	357	J357XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	357	J357XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	357	J357XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	357	J357XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	357	J357XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	357	J357XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	357	J357XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	358	J358XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	358	J358XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	358	J358XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	358	J358XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	358	J358XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	358	J358XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	358	J358XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	358	J358XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	358	J358XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	358	J358XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	358	J358XXWTC	WASTE TANK COLLECTION SYSTEM	WTC	X	Sec. J, Att N, Exh. N-1, 1.5.01	1	Continuous
JSC	358	J358XXWWI	WASTEWATER IMPOUNDMENTS	WWI	X	Sec. J, Att N, Exh. N-1, 1.5.05	1	Continuous
JSC	359	J359XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	359	J359XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	359	J359XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	359	J359XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	359	J359XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	359	J359XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	359	J359XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	359	J359XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	359	J359XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	359	J359XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	359	J359XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	359	J359XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	361	J361XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	361	J361XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	361	J361XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	361	J361XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	361	J361XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	361	J361XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	361	J361XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	361	J361XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	361	J361XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	361	J361XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	361	J361XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	361	J361XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
JSC	361	J361XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	361	J361XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	361	J361XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	361	J361XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	361	J361XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	380	J380XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	380	J380XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	380	J380XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	380	J380XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	380	J380XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	380	J380XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	380	J380XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	380	J380XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	380	J380XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	380	J380XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	380	J380XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	380	J380XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	380	J380XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	380	J380XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	381	J381XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	381	J381XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	381	J381XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	381	J381XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	381	J381XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	381	J381XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	381	J381XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	381	J381XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	382	J382XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	382	J382XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	382	J382XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	382	J382XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	382	J382XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	383	J383XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	383	J383XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	383	J383XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	383	J383XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	383	J383XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	383	J383XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	383	J383XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	383	J383XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	383	J383XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	383	J383XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	383	J383XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	383	J383XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	383	J383XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	383	J383XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	383	J383XXGTS	GROUNDWATER TREATMENT SYSTEM	GTS	X	Sec. J, Att N, Exh. N-1, 1.5.06	1	Continuous
JSC	412	J412XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	412	J412XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	412	J412XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	412	J412XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	412	J412XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	412	J412XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	412	J412XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	413	J413XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	413	J413XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	413	J413XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	413	J413XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	413	J413XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	413	J413XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	413	J413XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	413	J413XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	413	J413XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	413	J413XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	415	J415XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	415	J415XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	415	J415XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	415	J415XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	415	J415XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	415	J415XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	415	J415XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	416	J416XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	416	J416XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	416	J416XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	416	J416XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	416	J416XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	416	J416XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	416	J416XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	416	J416XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	416	J416XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	416	J416XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	416	J416XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	416	J416XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	416	J416XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	416	J416XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	417	J417XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	417	J417XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	417	J417XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	417	J417XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	417	J417XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	417	J417XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	417	J417XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	417	J417XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	417	J417XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	417	J417XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	417	J417XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	417	J417XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	417	J417XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	417	J417XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	417	J417XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	417	J417XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	418	J418XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	418	J418XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	418	J418XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	418	J418XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	419	J419XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	419	J419XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	419	J419XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	419	J419XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	419	J419XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	419	J419XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	419	J419XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	419	J419XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	419	J419XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	419	J419XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	419	J419XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	419	J419XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	419	J419XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	419	J419XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	419	J419XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	419	J419XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	419	J419XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	420	J420XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	420	J420XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	420	J420XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	420	J420XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	420	J420XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	420	J420XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	420	J420XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	420	J420XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	420	J420XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	420	J420XXCTS	CENTRAL TELECOMMUNICATIONS SYSTEMS (CTS)	CTS	E	Sec. J, Att N, Exh. N-1, 1.2.15	1	Continuous
JSC	420	J420XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	420	J420XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	420	J420XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	420	J420XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	420	J420XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	420	J420XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	420	J420XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	420	J420XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	420	J420XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	420	J420XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	420	J420XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
JSC	421	J421XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	421	J421XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	421	J421XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	421	J421XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	421	J421XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	421	J421XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	421	J421XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	421	J421XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	421	J421XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	421	J421XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	421	J421XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	421	J421XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	421	J421XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	421	J421XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	421	J421XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	421	J421XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	421	J421XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	421	J421XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	421	J421XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	422	J422XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	422	J422XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	422	J422XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	422	J422XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	422	J422XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	422	J422XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	422	J422XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	422	J422XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	422	J422XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	422	J422XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	422	J422XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	422	J422XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	422	J422XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	422	J422XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	422	J422XXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
JSC	422	J422XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	422	J422XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	422	J422XXREF	REFRIGERATION SYSTEM	REF	M	Sec. J, Att N, Exh. N-1, 1.1.07	1	Continuous
JSC	422	J422XXUHR	SPACE HEATING	UHR	M	Sec. J, Att N, Exh. N-1, 1.1.10	1	HVACSR
JSC	423	J423XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	423	J423XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	423	J423XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	423	J423XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	423	J423XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	423	J423XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	423	J423XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	423	J423XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	423	J423XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	423	J423XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	423	J423XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	423	J423XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
JSC	423	J423XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	423	J423XXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
JSC	424	J424XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	424	J424XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	424	J424XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	424	J424XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	424	J424XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	424	J424XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	424	J424XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	424	J424XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	424	J424XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	424	J424XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
JSC	424	J424XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	425	J425XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	425	J425XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	425	J425XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
JSC	425	J425XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	425	J425XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	425	J425XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	425	J425XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
JSC	425	J425XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	425	J425XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	425	J425XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	425	J425XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	450	J450XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	450	J450XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
JSC	450	J450XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	1	Continuous
JSC	450	J450XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	450	J450XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	450	J450XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
JSC	450	J450XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	450	J450XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	450	J450XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
JSC	450	J450XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	578	J578XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	584	J584XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	585	J585XXDWH	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	585	J585XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	585	J585XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	585	J585XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
JSC	585	J585XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	586	J586XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	586	J586XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
JSC	586	J586XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	586	J586XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
JSC	586	J586XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
JSC	586	J586XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
JSC	586	J586XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
JSC	587	J587XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
JSC	998	J998XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	2	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
JSC	998	J998XXFGT	FENCES AND GATES	FGT	C	Sec. J, Att N, Exh. N-1, 1.4.11	2	Continuous
JSC	998	J998XXNGS	NATURAL GAS SYSTEM	NGS	C	Sec. J, Att N, Exh. N-1, 1.4.04	2	Continuous
JSC	998	J998XXPWD	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	2	Core Hours
JSC	998	J998XXRPD	PUBLIC DISPLAYS	RPD	C	Sec. J, Att N, Exh. N-1, 1.4.12	2	Continuous
JSC	998	J998XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	2	Continuous
JSC	998	J998XXTIS	TURF IRRIGATION	TIS	C	Sec. J, Att N, Exh. N-1, 1.4.07	2	Continuous
JSC	998	J998XXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	2	Continuous
JSC	998	J998XXELT	EXTERIOR LIGHTING SYSTEM	ELT	E	Sec. J, Att N, Exh. N-1, 1.2.06	2	Continuous
JSC	998	J998XXEWS	SITE EMERGENCY WARNING SYSTEMS	EWS	E	Sec. J, Att N, Exh. N-1, 1.2.17	2	Continuous
JSC	998	J998XXFPS	FIRE PROTECTION AND SECURITY SYSTEM	FPS	E	Sec. J, Att N, Exh. N-1, 1.2.20	2	Continuous
JSC	998	J998XXMVD	SITE ELECTRICAL 15KV DISTRIBUTION	MVD	E	Sec. J, Att N, Exh. N-1, 1.2.02	3	Continuous
JSC	998	J998XXOWL	SITE OBSTRUCTION AND WARNING LIGHTING SYSTEM	OWL	E	Sec. J, Att N, Exh. N-1, 1.2.12	2	Continuous
JSC	998	J998XXSIS	SITE INTERCOM SYSTEM	SIS	E	Sec. J, Att N, Exh. N-1, 1.2.18	2	Continuous
JSC	998	J998XXSTC	SITE TRAFFIC CONTROL	STC	E	Sec. J, Att N, Exh. N-1, 1.2.07	2	Continuous
JSC	998	J998XXBER	CONTAINMENT BERMS	BER	X	Sec. J, Att N, Exh. N-1, 1.5.04	2	Continuous
SCTF	920A	S920AXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	920A	S920AXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
SCTF	920A	S920AXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
SCTF	920A	S920AXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
SCTF	920A	S920AXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
SCTF	920A	S920AXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
SCTF	920A	S920AXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
SCTF	920A	S920AXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
SCTF	920A	S920AXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
SCTF	920A	S920AXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
SCTF	920A	S920AXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
SCTF	920L	S920LXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	920L	S920LXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	920L	S920LXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
SCTF	920L	S920LXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
SCTF	920L	S920LXELT	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
SCTF	920L	S920LXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
SCTF	920L	S920LXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
SCTF	920L	S920LXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
SCTF	920L	S920LXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
SCTF	920L	S920LXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
SCTF	920L	S920LXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
SCTF	920L	S920LXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
SCTF	920L	S920LXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	1	Continuous
SCTF	920L	S920LXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
SCTF	920L	S920LXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
SCTF	920L	S920LXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
SCTF	920L	S920LXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
SCTF	920L	S920LXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
SCTF	920N	S920NXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	920N	S920NXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
SCTF	920N	S920NXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	920N	S920NXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
SCTF	920N	S920NXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
SCTF	920N	S920NXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
SCTF	920N	S920NXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
SCTF	920N	S920NXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
SCTF	920N	S920NXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
SCTF	920N	S920NXEMC	ENERGY MANAGEMENT CONTROL SYSTEM	EMC	E	Sec. J, Att N, Exh. N-1, 1.2.08	1	Continuous
SCTF	920N	S920NXEPB	EMERGENCY POWER BACKUP SYSTEMS	EPB	E	Sec. J, Att N, Exh. N-1, 1.2.16	1	Continuous
SCTF	920N	S920NXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
SCTF	920N	S920NXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
SCTF	920N	S920NXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous

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Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
SCTF	920N	S920NXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
SCTF	920N	S920NXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
SCTF	920N	S920NXCHW	CHILLED WATER	CLC	M	Sec. J, Att N, Exh. N-1, 1.1.01	1	Continuous
SCTF	920N	S920NXCLT	COOLING TOWERS	CLT	M	Sec. J, Att N, Exh. N-1, 1.1.03	1	Continuous
SCTF	920N	S920NXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
SCTF	920N	S920NXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
SCTF	920N	S920NXHBC	HYPERBARIC CHAMBER SYSTEM	HBC	M	Sec. J, Att N, Exh. N-1, 1.1.13	1	Continuous
SCTF	920N	S920NXHWH	HOT WATER-HEATING	HWH	M	Sec. J, Att N, Exh. N-1, 1.1.08	1	HVACSR
SCTF	920N	S920NXPSW	PROCESS WATER	PSW	M	Sec. J, Att N, Exh. N-1, 1.1.11	1	Continuous
SCTF	920N	S920NXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
SCTF	920N	S920NXELE	ELEVATORS	ELE	O	Sec. J, Att N, Exh. N-1, 1.6.02	2	Continuous
SCTF	924	S924XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	924	S924XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
SCTF	924	S924XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	924	S924XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
SCTF	924	S924XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
SCTF	924	S924XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
SCTF	924	S924XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
SCTF	924	S924XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
SCTF	924	S924XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
SCTF	924	S924XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
SCTF	924	S924XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
SCTF	924	S924XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
SCTF	924	S924XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
SCTF	924	S924XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
SCTF	924	S924XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
SCTF	924	S924XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
SCTF	924	S924XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
SCTF	925	S925XXDHW	POTABLE HOT WATER	DHW	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours

Table 2 - 3
Building Systems

SITE	BLDG	CMMS MAINT ID	SYSTEM LABEL	CMMS SYSTEM CODE	SYSTEM TYPE CODE	SYSTEM DEFINITIONS	Pkg Factor	Operational Hours
SCTF	925	S925XXFFP	FIRE PROTECTION	FFP	C	Sec. J, Att N, Exh. N-1, 1.4.05	1	Continuous
SCTF	925	S925XXPWR	POTABLE WATER	PWR	C	Sec. J, Att N, Exh. N-1, 1.4.06	1	Core Hours
SCTF	925	S925XXRUD	DOORS AND BARRIERS	RUD	C	Sec. J, Att N, Exh. N-1, 1.4.10	1	Continuous
SCTF	925	S925XXSET	FACILITY EXTERIOR SYSTEM	SET	C	Sec. J, Att N, Exh. N-1, 1.4.09	1	Continuous
SCTF	925	S925XXSIT	FACILITY INTERIOR SYSTEM	SIT	C	Sec. J, Att N, Exh. N-1, 1.4.08	1	Continuous
SCTF	925	S925XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
SCTF	925	S925XXSWS	STORM SEWER SYSTEM	SWS	C	Sec. J, Att N, Exh. N-1, 1.4.03	1	Continuous
SCTF	925	S925XXELS	EMERGENCY LIGHTING SYSTEM	ELS	E	Sec. J, Att N, Exh. N-1, 1.2.11	1	Continuous
SCTF	925	S925XXGND	GROUNDING SYSTEM	GND	E	Sec. J, Att N, Exh. N-1, 1.2.14	1	Continuous
SCTF	925	S925XXLPS	LIGHTNING PROTECTION SYSTEM	LPS	E	Sec. J, Att N, Exh. N-1, 1.2.13	1	Continuous
SCTF	925	S925XXLTG	LIGHTING SYSTEM (GENERAL)	LTG	E	Sec. J, Att N, Exh. N-1, 1.2.10	1	Continuous
SCTF	925	S925XXSDE	SECONDARY DISTRIBUTION EQUIPMENT	SDE	E	Sec. J, Att N, Exh. N-1, 1.2.09	1	Continuous
SCTF	925	S925XXCAR	COMPRESSED AIR	CAR	M	Sec. J, Att N, Exh. N-1, 1.1.04	1	Continuous
SCTF	925	S925XXEXH	EXHAUST AND VENTILATION	EXH	M	Sec. J, Att N, Exh. N-1, 1.1.06	1	Continuous
SCTF	925	S925XXHAC	HVAC SYSTEM	HAC	M	Sec. J, Att N, Exh. N-1, 1.1.02	1	HVACSR
SCTF	925	S925XXCRN	LIFTING DEVICES	CRN	O	Sec. J, Att N, Exh. N-1, 1.6.01	3	Continuous
SCTF	998	S998XXFGT	FENCES AND GATES	FGT	C	Sec. J, Att N, Exh. N-1, 1.4.11	1	Continuous
SCTF	998	S998XXSNS	SANITARY SEWER	SNS	C	Sec. J, Att N, Exh. N-1, 1.4.02	1	Continuous
SCTF	998	S998XXBER	CONTAINMENT BERMS	BER	X	Sec. J, Att N, Exh. N-1, 1.5.04	1	Continuous

ANNEX 3
DIRECTED SERVICES
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3.0 DIRECTED SERVICES

3.1 General Information

3.1.1 Annex Description

This Annex identifies miscellaneous services such as: surface painting and signage, hurricane plan support, support for special events, developing and maintaining the Technical Reference Library. The second portion of this Annex identifies the requirements necessary to support the ongoing Facility Condition Assessment Program for the government's facilities, structures, and utilities.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2	**MISCELLANOUS SERVICES**			
3.2.1	Surface Painting and Signage Provide traffic control surface painting and signs.	Maintain traffic control and pedestrian painted surface markings and signs at ***JSC** (unless noted otherwise) to ensure safe conditions for pedestrian and vehicle safety. A schedule shall be provided to the Directed Services ***TMR** in June every year that shows all painting planned for the year. Painting activities shall be planned and performed to have minimal impact on traffic flow and facility users.	Nothing additional.	
		a. Paint all pedestrian crosswalks annually. Standard reflectorized highway marking paint shall be used with sufficient non skid additive to minimize pedestrian slip potential during inclement weather. Any crosswalks with insufficient non skid as determined by pedestrian feedback from Close Calls or Contractor Customer Feedback Forms or with paint that deteriorates before one year service shall be repainted by the Contractor. As a minimum, paint shall conform to Federal Specification TT-P-115 for Traffic Coating Paint.	3,000 LF.	Accurate painting of all crosswalks including sufficient non skid additive and on time.
		b. Paint street markings and parking lot markings including, but not limited: to verbiage, symbols, graphics, handicap logos, center lines, fire lanes, and safety cross-hatch marks. This also includes apron markings at EF and helipad markings at JSC. Using reflectorized standard highway paint, paint all street traffic control markings and parking lot markings. This task shall be completed in contract years one, three and five. Lines shall be straight and follow existing patterns and site standards unless otherwise directed by the Government.	60 miles.	Accurate painting of all street and parking lot markings and on time.
		c. Re-stencil all reserved parking space designations. This effort shall be closely coordinated with the Security Contractor to assure proper labeling of spaces. This work shall be scheduled and tracked so that all spaces are repainted during contract years one, three and five.	1,650 reserved parking spaces.	Accurate painting of all reserved parking space designations and on time.
		d. Traffic control signs that become loose shall be securely refastened. Also where reserved parking spaces have metal nameplate holders permanently attached to the concrete curbs, they shall be securely re-attached as needed. Upon notification to the Contractor, the signs or nameplate holders shall be re-attached within three ***workdays**.	15 signs or nameplate holders.	Secure installation and on time.
		e. Install new traffic control signs. New traffic control signs shall be installed in Government designated locations using existing mounting locations. Remove old signs and install new ones that are highly reflectorized standard highway department type (or appropriate standard for the category supplied) and they shall be securely fastened to the existing mounting location. Also included in this item is replacement of damaged or missing permanently mounted metal nameplate holders for reserved parking spaces. Upon notification to the Contractor, the signs or nameplate holders shall be installed within 10 ***workdays**.	60 signs or nameplate holders.	Secure installation and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		f. Install new traffic control signs with posts. New traffic control signs, including mounting posts, shall be installed in designated locations. Signs shall be highly reflectorized standard highway department type and shall be securely fastened to the posts. Signposts shall be standard size for the attached sign and set in concrete. Upon notification to the Contractor, the signs with posts shall be installed within 10 ***workdays**.	15 signs with posts.	Secure installation and on time.
		g. Maintain the permanently mounted road surface reflectorized buttons and ceramic markers to support their intended functions. Missing or broken markers shall be replaced within 60 days of damage.	10 reflectorized buttons or ceramic markers.	Secure installation and on time.
		h. Paint all fire hydrants, post indicator valves, water and gas valve covers and identification markers, exposed gas piping, and all exterior yellow protection bollards. Water valve covers and associated identification markers shall be painted white. Post indicator valves shall be painted red. All exterior yellow protection bollards, gas valve covers and associated identification markers, exposed gas piping, and fire hydrants shall be painted yellow. Identification markers shall be re-stenciled with the identification number in block letters so that they are easily identified. All water and gas appurtenance coatings shall be exterior epoxy. This task shall be completed in contract years one, three and five. A list of completed items painted including date and accurate identification designation, shall be provided to the Directed Services ***TMR** in the last month of each contract year that this painting is performed. This list shall also contain any water or gas valves that have missing, damaged or deteriorated identification posts. NOTE – The following drawings show the associated piping systems: gas - ****C-SITE-700**; water - ****C-SITE 312, 313, 314, 315**. SCTF info: gas and water - ****C-920-1, C-920-2**. EF info: gas and water - ****C-E990-1, MUP-ESITE-1, MUP-ESITE-2, MUP-ESITE-3, MUP-ESITE-10, MUP-ESITE-16, MUP-ESITE-17**	12 Months	Accurate painting of all items and on time.
		i. Each time surface coating activities are performed in building 304, collect data required by Texas Natural Resources Conservation Commission Standard Exemption No. 75. Fill out and submit ****Surface Coating Log Form** (copy in TRL). Maintain these records so they are readily retrievable. NOTE: Traffic Control Signs includes, but is not limited to the following type exterior signs: informational, traffic, security, hazard, health, handicap, and safety.	30 occurrences.	Accurate record keeping following each surface coating activity.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2	Hurricane Plan Support Develop support plan and implement when directed.	a. Annually participate in the review and update of the ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan** which is one section of the ***JSC** Emergency Preparedness Plan. Participate in annual reviews of the plan to identify and document improvements and required changes. In addition, the Contractor shall initially develop and annually update his Emergency Preparedness and Participation Plan to be supportive of the Center's Plan. All updates shall be completed prior to June 1 (the start of Hurricane Season).	Comprehensive review of two plans.	Review of COD and Contractor plans. Updates accurate and on time.
		b. Maintain contents of hurricane cabinets. Ensure specified quantities of items listed in ****Logistics Division Standard Operating Plan titled Hurricane/Severe Weather and Shelter Plan, Attachment E** are available in hurricane cabinets. Drain and fill nine 200 gallon water storage containers 30 days prior to the start of hurricane season. Verify shelf life of items is sufficient to last for duration of hurricane season (June 1 through November 30). During the month of April of each year, perform inventory of hurricane cabinets and notify the Directed Services ***TMR** for purchasing of specified quantities not available or shelf life insufficiencies.	26 Hurricane cabinets.	Cabinets are accurately maintained at 100 percent of required contents. Replenishment notification to Directed Services ***TMR** accurate and on time.
		c. Maintain emergency storm supplies list. Review annually the Supplies for Emergency Shelters Located at ***JSC** in ****Logistics Division Standard Operating Plan titled Hurricane/Severe Weather and Shelter Plan, Attachment E** for any quantity and content changes. Mark any changes on the list and return to the Directed Services ***TMR** by at least May 1. NOTE: List has approximately 33 ***line-items**	1 Review	Accurate list and updated on time.
		d. Upon notification from Government's Hurricane Rideout Team Captain, accomplish all Level IV activities per the current **** JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan**. These tasks additionally include inventory and replenishing supplies in the Hurricane Van and Area Protection Team Lockers, and the EOC. Advise the CO and Hurricane Rideout Team Captain in writing of Level IV activities completion and capabilities for performing Levels III through I activities.	All preparation activities one time.	Preparation activities complete and on time.
3.2.3	Special Events Support Center Director initiated special events.	a. Support the following recurring major JSC annual special events. Specific requirements will be provided by the Directed Services ***TMR** at the time each event is planned, coordinated and in process. Successfully complete all requested activities.	Four major events	Effective support of all special events within the specified timeframe.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		JSC Open House/Ballunar Fest JSC Safety and Total Health Day JSC Inspection Day JSC Christmas Events NOTE: Although specific requirements change annually, examples of past activity for each event is provided in ****Special Events** in the TRL. Event support requires both ***core hour** and non-***core hour** support from numerous labor categories as well as special material purchases.		
		b. Support minor or unique special events. These are relatively smaller scale events that require support as they are identified.	Nothing additional.	Effective support of all special events within the specified timeframe.
		c. Space Shuttle crew returns. Support Space Shuttle Crew Return Ceremonies at EF following Astronaut arrival at conclusion of SSP missions. The following items are stored in a conex box northwest of E990: platforms, stanchions, ropes, sand bags, chairs, and one electrical patch panel. These items shall be removed from storage and set-up inside E990 as directed by the Directed Services ***TMR.** Also, a large American Flag shall be installed from the ceiling of E990 as back drop for the staging, which is generally located in the middle of E990. Ropes and stanchions shall be set up north and south of E990 to keep pedestrian traffic from entering the flight line to the east. Following the conclusion of the ceremonies, all support items shall be dismantled and returned to the storage container northwest of E990.	Six ***Missions**	
3.2.4	COSS Technical Reference Library Operate and maintain the Facility TRL.	Operate and maintain the Facility TRL. NOTE: The library shall be a central point of current information available at all times for use by Government and Government Contractor personnel to aid in obtaining information regarding the site, facilities, and equipment. The library is not intended to replace the COSS Contractor's administrative or management operations or obligations and, as such, material established in the library shall not be checked out to COSS personnel for extended periods of time (30 days maximum).	Nothing additional.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Prepare and maintain an operating plan for the Facility TRL. The plan shall be submitted within 60 days of contract start. Submit subsequent updated plans to the Directed Services ***TMR** within 30 days of the annual contract renewal. Use to full advantage the material, equipment, and facilities provided by the Government, as required under the terms of this contract, to develop and provide the most thorough library services possible. As such, the Contractor is encouraged to utilize new technologies such as CD-ROM and CDR storage of data. Even though minimum performance standards have been established, the services to be provided will rely heavily on knowledgeable, experienced individuals capable of assisting library customers.	One plan.	Accurate plan, complete, and on time.
		b. The Library shall be located at JSC in building 45 room 454. The Government will provide, as Government Furnished Property (GFP), facilities, and office space including utilities, office furniture, and workstation modules. The Contractor shall ensure that adequate space (seating and table space) is made available for customers who elect to review material in the library.	Nothing additional.	Organized, neat, library environment effectively utilizing GFP.
		c. The library collection shall be a comprehensive resource. At the start of this contract, the Government will provide the Contractor with the existing data and documentation that is in the Bidder's TRL and the Facility TRL (same size as Bidder's TRL). No classified material shall be maintained in the Facility TRL. The library shall be open to all individuals possessing valid ***JSC** ID badges. The library collection shall be complete within 60 days after contract start. All required documents shall be updated within 30 days of any change.	Twelve months.	Comprehensive library collection, systematically organized, and updates on time.
		Provide and maintain complete historical and current documentation of all facility, structural, and utility maintenance records, as well as other information pertinent to the COSS Contract such as, but not limited to: 1. Maintenance and repair records and history as well as preventive maintenance and predictive testing and inspection maintenance check lists. 2. Current FCA Plan along with Inspection Reports as they are updated. 3. All maintenance and operation manuals. 4. Configuration drawings, miscellaneous engineering standards and associated drawings.		

5. IAGP and material inventories.
6. Spare parts quantities.
7. Environmental, Energy, and Safety logs, records and inventories.
8. Contractor, NASA, ***JSC** & FED Directives, handbooks, and procedures that relate to Facilities, Utilities, Structures, Systems, or other COSS Contract requirements.
9. Manufacturers' catalogs and reference materials, and qualified products listing.
10. Reports and submittals required by the COSS Contract.
11. Electronic access to CMMS historic database and files.
12. Warranty data and records.
13. Electronic copies of all plans, operating procedures, Operations and Maintenance manuals, reports, and submittals.

Provide the following for effective, timely and quality TRL management and administration. Requirements shall include, but are not limited to:

a. Organization by shelving and/or filing for easy access and retrievability.

b. Current catalog guide for all library patrons utilizing the Dewey Decimal System or other approved numbering system, as well as Contract Number and Subject location.

c. Procure updates of NASA and other applicable Government references.

d. Receipt and processing of new Government-based materials which shall be permanently marked with "Property of NASA JSC-FED".

e. Inventory control of library materials to provide accountability at all times. Include annual wall-to-wall inventory to be performed in February of each contract year.

f. Continually review and identify materials that have become outdated. Deletion shall be performed only upon Directed Services ***TMR** approval.

g. Operation of the Facility TRL to allow patrons access for self-guided usage.

h. Providing a check out/loan of material outside the Facility TRL and acceptance of reservations for Facility TRL materials.

i. Availability of materials during ***Core Hours**.

3.3 FACILITY CONDITION ASSESSMENT

3.3.1 General Information

3.3.1.1 Annex Description

This Annex covers performance of the Facility Condition Assessment (FCA) for ***JSC**. FCA is the compilation of field inspections and accompanying prioritized inspection reports for all facilities, structures, and utilities located at ***JSC**. Perform all inspections per ****NPG 8831.2C NASA Facilities Maintenance Management** effective date March 3, 2000 and ****NPD 8831.1B Management of Facilities Maintenance** effective date July 15, 1996. Any repairs found during FCA that are covered by Annex 2 shall be performed under Annex 2.

Copies of current annual inspection and maintenance plans are available in the TRL for reference. The information contained in these plans is representative of the minimum information required for inspections and preparation of prioritized lists.

Service Orders (CLIN 6.2), Delivery Orders (Annex 6) or Task Orders (Annex 13) may be used to accomplish repairs that include, but are not limited to the following areas: roof repairs and replacement; roof mounted appurtenances including mountings; facility exteriors; road surfaces; sidewalks; fences; sanitary sewer collection systems; and stormwater collection systems.

3.3.1.2 Definitions

EF Aprons – EF aprons in this annex refers to the concrete airplane travelways, just outside and adjacent to the airplane hangars, that are used for temporary parking and movement of aircraft. The limits of this area are clearly delineated on the associated EF apron drawing within the ****Annual Road, Street, Parking Lot, and EF Apron Maintenance Plan**.

Roof mounted appurtenances – roof mounted appurtenances for this annex includes, but is not limited to: antennas, data sensors, and microwave dishes. For actual list of items, see roof mounted appurtenance inspection section in ****Roof Inspections 1999-2000** located in TRL.

Nondestructive – nondestructive for this annex means no adverse affect to the integrity of the surface and structure. No penetrations shall be made and the inspection area shall not be destroyed or altered in any manner.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.3.2	Facility Condition Assessment Program Develop and maintain FCA Program.	Develop and maintain an FCA Program for ***JSC**. Incorporate the FCA guidelines in this Program that are identified in ****NPG 8831.2C NASA Facilities Maintenance Management** and ****NPD 8831.1B Management of Facilities Maintenance**. NOTE: ****NPG 8831.2C NASA Facilities Maintenance Management** and ****NPD 8831.1B Management of Facilities Maintenance** require the use of qualified inspectors and common inspection standards. The documents provide criteria for FCA procedures and inspection standards, and establishment of Backlog of Maintenance and Repair (BMAR).	Nothing additional.	
		a. Develop a FCA Plan to document the program that includes the schedule and inspection methods and criteria defined below. Submit the initial plan to the Directed Services Technical Management Representative (***TMR**) within 30 days of contract start and submit subsequent updated plans to the Directed Services ***TMR** annually within 15 days of the annual contract renewal. Provide monthly status reports (per paragraph d.) for this program. Within the FCA Plan, establish a five-year inspection schedule. The schedule shall provide for inspection of 20% of the facilities, utilities and structures per year as indicated in Table 3-1. This will ensure that in five years FCA shall be done on all facilities. Additionally, the plan shall include a schedule for other inspections contained in this annex. These include inspection of roofs, building exteriors, roads, parking areas and EF aprons, sidewalks, fences, sanitary sewers and stormwater collection systems. The scheduled frequencies are listed in subsequent CLINS. Within the FCA Plan, document inspection methods, reports and criteria to be used for all inspections. The inspection methods, content and criteria shall be established standards as stated in ****NPG 8831.2C NASA Facilities Maintenance Management** and ****NPD 8831.1B Management of Facilities Maintenance.**	One plan.	Completed on time and conforming to applicable guidelines.
		b. Implement the FCA Plan. Perform inspections per the schedule and methods identified in the FCA Plan. Re-tag equipment with missing identification tags. File all paper copies of the inspection reports in a systematic organized manner. Maintain the files so that they are immediately available for review by the Government upon request.	12 Months	Plan implemented accurately, completely, and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Document and maintain FCA inspection results in a database in accordance with requirements of ****NPG 8831.2C NASA Facilities Maintenance Management** and ****NPD 8831.1B Management of Facilities Maintenance**. The database shall be capable of debiting and crediting both data and cost information to provide current information. The existing data is maintained in a product leased by the present Contractor from Applied Management Engineering (AME) Inc. of Virginia Beach, VA 23452, Phone 757-498-4400 and Web page http://www.ame.net/. NOTE: The contractor will be provided an electronic copy of the data contained in ****Annual Facility Condition Assessment Report**. The cost estimates contained in the report are calculated in accordance with Annex 6. The existing data format is Visual Foxpro Version 5. The Contractor has the option of purchasing the license to continue the data in the present AME format, or migrating the existing Facility Condition Assessment database to a new system. See Annex 8, for requirements on FCA database. If a new FCA database is utilized, it shall have the same integral functions of the existing AME Facility Condition Inspection System database. Update the database within four weeks of any of the following condition changes to reflect current equipment status resulting from: changes due to repairs or replacements through maintenance, ongoing continual inspection information generated from preventive maintenance tasks and predictive testing and inspection tasks, scheduled FCA inspections detailed in subsequent CLINs, equipment replaced through construction projects, and other scheduled FCA building inspections. The Government shall have continuous direct electronic access of the database. A portion of the ****AME Database** is provided in the TRL.	One FCA database.	Database accurate, complete, and updated on time.
		d. Provide a monthly FCA Status Report to the Directed Services ***TMR** by the 25th of each month. The report shall contain, as a minimum: (1) Work accomplished during the reporting period, (2) Schedule status and milestones, (3) Problems encountered, (4) Suggested plan/program improvements and (5) Equipment status changes and costs.	12 monthly status reports	Accurate report, complete and on time.
		e. Provide Annual Facility Condition Assessment Report per DRD 3-1. A complete copy of a recent ****Annual Facility Condition Assessment Report** is located in the TRL.	One report.	Accurate report complete and on time.
3.3.3	FCA Inspection - Roofs Accurately assess site roof conditions.	Develop an inspection schedule, visually inspect all roofs including roof mounted appurtenances, and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repair required to protect the facilities from leaks, facilitate preservation of roof conditions, and prevent degradation.	Nothing additional.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Perform comprehensive visual roof inspection. This inspection shall be performed in accordance with the National Roofing Contractors Association (NRCA) Maintenance Guidelines. Key inspection items shall include, but are not limited to: flashing, coping, gravel stops, pitch pockets, penetrations, drains, caulk and all notated defects of roofing. All defects shall be identified in a report that includes a prioritized list compiled by building along with the defects accurately documented on the ***JSC** roof layout drawings. Inspections shall be performed annually within the months of November through January and the inspection report shall be submitted to the Directed Services ***TMR** in March. There are 191 facilities.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.
		b. Perform nondestructive roof inspections. A current proven effective nondestructive inspection method shall be used to inspect 20% of 1,749,000 square feet. of built-up roofs per year so that each built-up roof will be inspected by this method every five years. The inspection method chosen shall be approved by the CO prior to performance. The prioritized inspection report shall include the five year schedule. Inspections shall be performed annually within the months of November through January and the inspection report shall be submitted to the Directed Services ***TMR** in March.	Nothing additional.	Accurate, comprehensive, nondestructive inspection results submitted on time.
		c. The data contained in the inspection report shall be incorporated into the FCA Database.	Nothing additional.	Database accurate, complete, and updated on time.
		d. Perform roof mounted appurtenance inspection. Inspect to ensure stability and protection from wind damage. The inspection checklist shall include, but is not limited to the following items: building number, tag number, location and description of appurtenance, all other available identification tag information, and a mount certification checklist. The inspection of all items and posting of results in the roof inspection report shall be performed during November through January and submitted to the Directed Services ***TMR** in March during each contract year. The inspection results shall be made available electronically to the Directed Services ***TMR**. NOTE: Many roofs at Ellington Field (EF) and Johnson Space Center (JSC) are over 30 years old. Typical roof types include, but are not limited to: shingle, hypalon, asphalt built-up roofs, pitch built-up roofs, concrete, sheet metal, fiberglass, polyurethane foam on sheet metal, and other coatings on sheet metal roofs. NOTE: There are about 200 roof-mounted appurtenances. A copy of the current ****Roof Inspections annual report 1999 - 2000** is located in the TRL.	Nothing additional.	Accurate comprehensive inspection results submitted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.3.4	FCA Inspection - Building Exteriors Accurately assess building exterior conditions.	Develop an inspection schedule, visually inspect all building exteriors, and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repairs relative to the condition of the building exterior.	Nothing additional.	
		a. Perform comprehensive visual inspection. Inspect the condition of the building exteriors (other than the roofs which are covered under CLIN 3.3.3. Key building exterior inspection items shall include, but are not limited to: caulking condition, siding, walls, and loggia ledge coatings. All defects shall be identified in a report that includes a prioritized list supplemented with adequate drawings to accurately describe the inspected discrepancy. This plan summarizes the condition of the building exterior. Inspections shall be performed in condition of the building exterior. Inspections shall be performed in contract years one, three and five within the months of July through August and the inspection report shall be submitted to the Directed Services ***TMR** in October	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.
		b. The data contained in the inspection report shall be incorporated into the FCA Database.	Nothing additional.	Database accurate, complete, and updated on time.
		NOTE: There are approximately 191 buildings. The buildings at JSC, EF, and SCTF consist mainly of Pre-cast Exposed Aggregate Faced Panels or sheet metal siding. There are a few buildings of other construction such as brick, cement block, or spray applied aggregate facing. A copy of the current ****Building Exterior Inspection annual report 1999 - 2000** is located in the TRL.		
3.3.5	FCA Inspection - Roads, Parking Areas and EF Aprons Accurately assess site road, parking area and EF apron conditions	Develop an inspection schedule, visually inspect all roads and parking areas including aprons at EF, and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repairs required to provide safe driving surfaces for personnel vehicles, safe travel surfaces for airplanes at EF, and to enhance the service life of the road and parking areas.	Nothing additional.	
		a. Perform comprehensive visual inspection of all paved roads and parking areas including aprons at EF. Use low vehicle volume days, such as weekends, to obtain adequate condition data in parking areas. Key inspection items shall include but are not limited to: inspection of deteriorated asphalt or concrete surfaces including stabilized limestone shoulders, low ponding areas, inadequately sealed curb and apron joints, broken or missing wheel stops, surface crack sealing, and seal coating for roads and parking areas.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All defects shall be identified in a report that includes a prioritized list along with accurate identification of the discrepancy locations on the road and parking area annual plan drawings. Inspections shall be performed in contract years two and four within the months of July through August and the inspection report shall be submitted to the Directed Services ***TMR** in October.		
		b. The data contained in the inspection report shall be incorporated into the FCA Database.	Nothing additional.	Database accurate, complete, and updated on time.
		NOTE: There is 772,600 square yards of paved surfaces and 58,500 square yards of EF aprons. A copy of the current ****Annual Road, Street, Parking Lot, and EF Apron Maintenance Plan** is located in the TRL.		
3.3.6	FCA Inspection - Sidewalks Accurately assess site sidewalk conditions.	Develop an inspection schedule, visually inspect all sidewalks and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repairs required to preserve the integrity of the sidewalk systems and provide safe travel areas for pedestrian travel.	Nothing additional.	
		a. Perform comprehensive visual inspection of all sidewalks. Key inspection items shall include, but are not limited to: vertical separations of greater than one half inch between slabs, missing joint caulking, joint caulking extruding from the walking surface, surfaces requiring patching or crack repair, and areas needing replacement to preclude a trip hazard for pedestrians. All defects shall be identified in a prioritized list along with accurate identification of the discrepancy locations on the sidewalk annual plan drawings. Inspections shall be performed annually within the months of April through May and the inspection report shall be submitted to the Directed Services ***TMR** in July.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.
		b. The data contained in the inspection report shall be incorporated into the FCA Database. NOTE: There is a total of 573,600 square feet of sidewalks. A copy of the current ****Annual Sidewalk Inspection 1999-2000** is located in the TRL.	Nothing additional.	Database accurate, complete, and updated on time.
3.3.7	FCA Inspection - Fences Accurately assess site fence conditions.	Develop an inspection schedule, visually inspect all fences and produce an accurate prioritized inspection report. This plan shall identify all maintenance elements and repairs required to preserve the integrity of the fence systems and provide for site security.	Nothing additional.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Perform comprehensive visual inspection of all fences. Key inspection items shall include, but are not limited to: washouts under fence fabric or around support posts, loose or damaged chain link fabric, and rusted or deteriorated components. This inspection shall include ease of operation and functionality of perimeter security gates. All defects shall be identified in a report that includes a prioritized list along with accurately identifying the discrepancy locations on the fence plan drawing. Inspections shall be performed annually within the months of August through September and the inspection report shall be submitted to the Directed Services ***TMR** in November.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.
		b. The data contained in the inspection report shall be incorporated into the FCA Database.	Nothing additional.	Database accurate, complete, and updated on time.
		NOTE: Fencing is located for security purposes around the perimeter of the JSC Site and around some internal secure areas. Perimeter fencing exists at EF, around the NASA JSC facilities, and around the NASA JSC parking lots. A minimal amount of fencing is located at the SCTF to secure storage and staging areas. A copy of the current ****Fence Inspection** is located in the TRL. There is a total of 86,200 linear feet of fences		
3.3.8	FCA Inspection - Sanitary Sewer System Accurately assess site sanitary sewer system conditions.	Develop an inspection schedule, visually inspect all sanitary sewer manholes, perform television inspection of the trunk lines and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repairs required to ensure that the sanitary sewer system maintains continuous operation, and system is free from degradation, obstructions, and infiltration.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.
		a. Manholes - Perform comprehensive visual inspection of all sanitary sewer manholes. Key inspection items shall include, but are not limited to: leaks, loose mortar or bricks, evidence of sand infiltration, and any slip liner deficiencies. The total number of manholes is 246.	Nothing additional.	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Trunk lines - Perform nondestructive inspection of underground gravity trunk lines using television inspection. One fifth of 45,900 linear feet of trunk lines shall be inspected using this method each year so that the entire length of sewer trunk lines will be inspected by this method every five years. Building laterals are not included in the television inspection. All defects from the television inspection and visual manhole inspection shall be identified in one inspection report that includes a prioritized list along with accompanying accurately annotated drawings of discrepancies in the entire system. Use the existing Sanitary Sewer Collection System numbering scheme for manhole identification. Copies of the television tapes and photographs shall also be included. Television tapes shall be in color, all manholes shown shall be labeled with the appropriate number and a counter with the linear footage shall be visible on the tape. Inspections shall be performed annually within the months of December through January and the inspection report shall be submitted to the Directed Services **TMR** in March.	Nothing additional.	See above.
		c. The data contained in the inspection report shall be incorporated into the FCA Database. NOTE: A copy of the current ****JSC Sewer System Inspection** is located in the TRL. Trunk lines and building laterals total 104,700 linear feet.	Nothing additional.	Database accurate, complete, and updated on time.
3.3.9	FCA Inspection - Stormwater Collection System Accurately assess site stormwater collection system condition.	Develop an inspection schedule, visually inspect all stormwater collection system components, and produce a prioritized inspection report. This report shall identify all maintenance items and repairs required to ensure continuous conveyance of stormwater from collection points onsite to the property lines.	Nothing additional.	
		a. Perform comprehensive visual inspections of entire stormwater collection systems. Key inspection items shall include, but are not limited to: extraneous vegetation, debris or accumulated silt on any portion of the system (including requirements for periodic drag lining of earthen drainage ditches to maintain capacity), ponding areas requiring the construction of swales, culverts that need straightening or cleaning, area inlets obstructed by debris on top or inside, localized sink holes around any stormwater collection system or structure, collapsed buried piping, deteriorated manholes or inlets, eroded earthen embankments, and cracks or joints in concrete drainage structures that need to be repaired or sealed.	One report.	Accurate, comprehensive, prioritized inspection report is submitted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All defects shall be identified in an inspection report that includes a prioritized list along with accompanying accurately annotated drawings of discrepancies in the entire system. Use the existing Stormwater Collection System annual plan drawings including numbering scheme for identification. Inspections shall be performed annually within the months of January through February and the inspection report shall be submitted to the Directed Services ***TMR** in April.		
		b. The data contained in the inspection report shall be incorporated into the FCA Database.	Nothing additional	Database accurate, complete, and updated on time.
		NOTE: The components of the Stormwater Collection System include, but are not limited to: drainage inlets, manholes, concrete and metal piping, swales, ditches, concrete aprons and associated energy dissipating structures, headwalls, corrugated metal culverts including inserts and concrete box culverts. There are 177,200 LF of stormwater systems. A copy of the current ****Annual Storm Sewer Inspection 1999-2000** is located in the TRL.		
3.4	**Personnel, Training, and Certifications**	See Annex 1 for general contract personnel requirements.		
3.4.1	Personnel Qualifications, Roof Maintenance	Due to the criticality of the roofing systems, it is imperative that personnel assigned as craftsmen and inspectors for roof maintenance are thoroughly familiar with repair procedures of the various systems installed. Therefore, all inspectors and craftsmen assigned to these positions shall meet the Roofing Industry's Educational Institute Requirements for Roofer ID (3 years specialized experience in repair and maintenance of the roofing system being repaired and inspected). Qualifications shall be provided to the Directed Services ***TMR** within the first 60 days of contract start for supervisors and inspectors.	Contractor determined.	Personnel properly trained.
3.4.2	Library Technician	Provide a library technician to oversee library operations and program development. The Technical librarian shall have 2 years of specialized experience in library operations, management and enhancement.	Contractor determined.	Personnel properly trained.
3.5	**Records, Reports, and Submittals**			
3.5.1	Provide FCA Plan	FCA Plan – CLIN 3.3.2 (initial plan within 30 days of contract start – subsequent plans within 15 days of annual contract renewal)	Nothing additional.	Completed on time and conforming to applicable guidelines.
3.5.2	Provide Monthly FCA Status report	Provide a monthly FCA Status Report to the Directed Services ***TMR** by the 25th of each month.	Nothing additional.	Accurate report, complete and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.5.3	Provide Comprehensive Inspection Reports.	Provide comprehensive prioritized inspection reports to Directed Services ***TMR** within designated month as detailed in the listed CLINs. a. Annual Facility Condition Assessment Report – CLIN 3.3.2 e. (September) b. Roof inspection report – CLIN 3.3.3 (March). c. Building exterior inspection report – CLIN 3.3.4 has a bi-annual requirement and is due in October. d. Road, parking area, and EF apron inspection report – CLIN 3.3.5 has a bi-annual requirement and is due in October. e. Sidewalk inspection report – CLIN 3.3.6 (July). f. Fence inspection report – CLIN 3.3.7 (November). g. Sanitary sewer inspection report – CLIN 3.3.8 (March). h. Stormwater collection system inspection report – CLIN 3.3.9 (April).	Nothing additional	Accurate, comprehensive, prioritized inspection report is submitted on time.

Table 3-1

PHASE SCHEDULE FOR PERFORMING FACILITY CONDITION ASSESSMENT ON BUILDINGS

Contract Year 1	Contract Year 2	Contract Year 3	Contract Year 4	Contract Year 5
Buildings	Buildings	Buildings	Buildings	Buildings
7	301	1	16	4
14	302	2	17	5
15	304	3	24	29
18	305	8	25	33
38	320	9	28	36
40	321	10	30	220
90	322	11	31	222
102	323	12	32	225
103	324	45	34	226
204	325	46	35	227
207	326	59	37	230
210	327	105	39	231
211	328	110	41	232
228	329	111	42	262
229	330	269	43	264
241	332	319	44	265
250	333	359	48	266
260	334	361	49	268
261	335	380	50	269
263	336	381	56	E135
267	337	382	57	E136
420	338	383	221	E137
E266	339	384	223	E139
E273	340	412	259	E140
E276	341	413	T584	E142
E277	342	415	T585	E150
E278	343	416	T586	E151
E380	348	417	T587	E245
E990	349	418	T588	E247
E991	350	419	T589	E248
E992	351	420	Tunnel	E260
E993	352	421		E261
E994	353	422		E265
	354	423		E267

Table 3-1

PHASE SCHEDULE FOR PERFORMING FACILITY CONDITION ASSESSMENT ON BUILDINGS

Contract Year 1	Contract Year 2	Contract Year 3	Contract Year 4	Contract Year 5
Buildings	Buildings	Buildings	Buildings	Buildings
	355	424		E270
	356	425		E271
	357			E272
	358			
	920			
	924			
	925			

NOTE: Building numbers include all locations in that building complex; ie. 9 includes 9N,S,E etc. and 326 includes 326 a,c,d,e,j.

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4 OPERATIONS

4.1 General Information

4.1.1 Annex Description

This Annex identifies the day-to-day operations, standing, recurring, and miscellaneous services required for utility systems. Even though specific guidelines/requirements and minimum standards have been established, the services to be performed will rely heavily on knowledgeable, experienced individuals capable of safely and efficiently operating the utility systems. The Contractor is required to operate the established utility systems, providing cost effective usage. Services addressed in this Annex include operator maintenance but do not include Repair or Scheduled Maintenance (SM) services (see Annex 2).

4.1.2 Minimum Standards

The Contractor shall operate the Annex 2 defined systems to provide output for the operational period identified in this annex. References are given in Annex 2 for the location of details for operations in Annex 4.

4.1.3 Common Terms Used in This Annex

Man and Operate: This term is used for systems requiring continuous staffing during the operational period provided in the Performance Evaluation Criteria column. Personnel may also operate other systems within the immediate vicinity for which they are qualified.

Operate: This term is used for systems that require periodic operational activities but not continuous staffing. Personnel may be available for other contract activities.

Monitor: This term is used to delineate system activities other than actual operations that require periodic staffing. Activities include operator surveillance of system parameters and visual checks for damage, abnormal conditions, leaks, etc. and the associated initiation of corrective actions. The Government requires that these activities be accomplished by trained personnel with ability to recognize and take appropriate actions for abnormal conditions and evidence of potential problems.

Utility Procedure (UP): This is a one time per operation, Contractor generated, Government approved document that provides step-by-step instructions to establish responsibility and control system configuration changes. It provides details such as lockout/tagout, switch operation, valve operation, coordination, etc. (see **JA Management Guidance 8410.02, Utilities Procedures**).

Operating Procedure (OP): This is a standing procedure that provides step-by-step instructions to operate utility systems. The OP requires Contracting Officer (CO) approval but shall be maintained in electronic format easily accessible to the Government.

****Service Request Tag (SRT):** This term is used to identify a tag which is designed to be attached to a faulty piece of equipment. The intent of the SRT is to identify the problem to other personnel in the field, as well as, provide a means of tracking known problems until corrective action is initiated. An electronic log of SRT's shall be electronically posted for all active SRT's and accessible to the Government.

Mission: This term is used to designate the time period Launch minus 12 hours through Landing plus 4 hours, unless otherwise specified, during which flight support activities take place at the Johnson Space Center (JSC). During the Shuttle Mission period, there are restrictions imposed on operations and maintenance activities associated with most of the utility systems. Typical restrictions are detailed on each Mission Fact Sheet. (see ****STS Fact Sheet**). Mission restrictions imposed on operations and maintenance activities for continuous International Space Station Complex Phase Periods include Readiness Integration Meeting support only.

4.1.4 Operations Guidelines for This Annex

Major configuration changes or changes which place a utility system in an abnormal configuration shall normally be accomplished with an approved UP. However, if the change is accomplished with an OP then the utility procedure is not required.

Visual checks require a check sheet to document time/date, items visually checked, conditions found, actions taken, and identification of personnel performing the checks.

Operations of all systems shall be in accordance with Operations and Maintenance (O&M) manuals, Operation and Utility Procedures.

The operation of all utility systems includes the activities necessary to comply with the requirements of the ****JSC Cold Weather Protection Plan,** the ****JSC 05900 Hurricane Severe Weather Plan, Appendix 2, Emergency Preparedness Plan,** the ****JSC KVA Demand Plan,** the ****HVAC Seasonal System Adjustment Program,** the ****Y-2K HVAC and Lighting Baseline Status Report,** and the ****Space Shuttle Mission Support Plan, Center Operations Directorate**.

The Contractor shall perform all electrical power systems switching and provide necessary operations support according to written utility procedures.

The operation of all utility systems includes the activities necessary to configure systems for maintenance/outages, and return systems to operational status following maintenance/outages.

The operation of all ***JSC** utility systems includes the activities necessary to configure systems for maintenance, repair, inspection, testing, special events and construction, and return systems to operational status following reconfiguration. Lineman support shall be provided for all ***JSC** maintenance, repair, inspection, testing, special events and construction projects including Maintenance Activation, up to an initial construction value of $300,000. For projects greater than $300,000, lineman support shall be separately priced per Annex 6, (See ****IQ Delivery Order Construction**). Operational support (Operators and Operations Engineering) shall be provided for all ***JSC** maintenance, repair, inspection, testing, special events and all construction projects despite the construction value. Operations and lineman support includes all actions necessary for support of all COSS, non-COSS contractor or ***JSC** user requirements identified above.

Operators have historically performed some operational maintenance tasks that are prescribed in the ****SM database**, including but not limited to: boiler pre-flight checks, chiller balance piston checks, Cooling tower water treatment sampling and testing, building air compressor testing, diesel engine cooling water tests, power generator operation, potable water exercising, natural gas valve exercising, and fire hydrant flushing.

The operation of all utility systems includes the activities and operational support necessary to comply with the testing requirements of the ****JSC Pressure System Inventory/Recall System Status Report**, ****Johnson Space Center Handbook (JHB) 1710B Design, Inspection and Certification of Pressure Vessels and Pressurized Systems**, and American Society of Mechanical Engineers (ASME) I and IV, American National Standards Institute (ANSI)-B31.1 and National Board of Boiler Inspectors.

The utility systems located in Buildings 24, 28, MCC, 48, 221, 319, 322, all mechanical rooms and the utility tunnel require special access requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2	**Operations**			
4.2.1	Plant/Production			
4.2.1.1	Steam and Condensate Return			
4.2.1.1.1	Operations Information	The current system configuration is shown on drawings PI-T-2, Tunnel System Steam and Condensate for the site. Operation books for the Building 24 boilers are: ****Operations and Maintenance Manual, Central Heating and Cooling Plant Utilities**, Instruction Book for Start-up, Operation, Maintenance of Steam Generators Murray Iron Works Company, Zurn Instruction Manual, Start-up Zurn Industries, Inc., National Fire Protection Association (NFPA), and ASME Sections VI, VII, and VIII.	See below.	
4.2.1.1.1.a	Boiler and Condensate Return System Man and Operate the Building 24 Central Plant Steam Boiler and Condensate Return System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.05 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Perform ***continuous inspection** to maintain continuous steam supply. Support steam boiler operations by starting and stopping boilers; placing appropriate feedwater pumps on-line; and configuring deaerater tanks, condensate tanks, and natural gas/fuel oil as required.	One system.	Service is available during operational hours per referenced requirements.
		Run all 3 power boilers on fuel oil prior to each shuttle mission for 1 hour as per ****Mission Readiness Plan Plant Maintenance and Operations Support Service**. Report any anomalies using a Service Request Tag (SRT), notify the Operations Technical Management Representative (***TMR)** and initiate corrective action within 8 hours. Ensure air emissions meet regulatory requirements. (Reference Annex 9.) Requirements are listed in Building 24 Boiler Permit No. C-19211 and Operating Permit #O-01552 (****Environmental Regulatory Permits**), and Work Method WM-1040-028 Maintain B24 Boiler Records (****SOP's for Environmental Activities**). Acknowledge and clear all boiler alarms within 5 minutes of occurrence. Use SRT to request repairs for all boiler/system anomalies and water or steam leaks. Notify the Operations ***TMR** and initiate SRT and corrective action within 8 hours.	Six missions	Boilers operated per mission requirements. Operations ***TMR** is notified and SRT and corrective action are initiated on time. Air regulations are met. Boiler alarms responded to and cleared on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide operations support for boiler and steam systems outages and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in UP or SM Task Instruction. Treat leaving steam with amines and continually check condensate return to ensure full condensate return from the buildings. Check condensate return for water hardness. Locate, isolate, and repair all site and plant sources of water hardness within 1 week.		Hard water sources are corrected on time.
4.2.1.1.2	Standing Work			
4.2.1.1.2.a	Building 24 Central Plant Steam/Boiler System Read and Record Meters/Gauges to Monitor Building 24 Central Plant Steam/Boiler System Conditions and Production	Observe and record data for all boilers and steam systems. Reference the following forms for minimum data to be collected and recorded: a. ****Hot Loop Water Analysis Log *Daily (D7)** – Test water quality and record readings every 4 hours. b. ****JSC Building 24 Boiler Log *Daily (D7)** - Record each operating boiler reading every 4 hours. c. ****JSC Building 24 Steam Plant Data Log *Daily (D7)** - Record each reading every 4 hours. d. ****JSC Chief Operator's Log *Daily (D7)** - Record each reading on intervals as shown on form.	One system.	Data is accurate, collected and recorded on time.
4.2.1.2	Electrical Plant			
4.2.1.2.1	Operations Information	Included are the 138 kilovolt (kV) system at Building 221 and the "A", "B", & "D" power systems at Buildings 30S, 30M, and 48. The current system configurations and operations have been established by the Government based on Reliant Energy and customer needs and the availability of equipment. General Operating Procedures (GOP) and Standing Operating Procedures (SOP) for the backup Mission Control Complex have been established by the Government and previous Contractors based on Operational Guidelines and Restrictions. The listing of GOP's and SOP's has been provided to the Contractor for reference and use during the first six months of the contract. The Contractor shall review all GOP's and SOP's for efficiency, accuracy, applicability, and provide any changes or updates within one year of contract start. (see ****Listing of General and Standing Operating Procedures**).	See below.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.2.1.a	138 kV JSC Site Electrical Substation Inspect and Operate the 138kV JSC Site Electrical Substation	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.2.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	One substation	Service is available during operational hours per referenced requirements.
		Operate the 138kV electrical system in accordance with Occupational Safety and Health Administration (OSHA) requirements.		
		Qualified linemen shall be available on site within one hour for non-scheduled switching or emergency problem investigation.		Adequate qualified linemen available on time
		Support Reliant Energy whenever needed to isolate their transmission lines.		
		Note: This Reliant Energy support occurs at least four times a year.		
		Perform all switching using written UP's, via radio and recorded by radio traffic recorder in the Operations Control Center.		All switching completed using UP and via radio.
		Mark up all configuration changes on drawing E-JSC-9A in Building 221E to show current configuration within 1 hour following switching activity.		Configuration drawing E-JSC-9A updated accurately and on time.
		Perform visual inspection ***daily (D)** of the 138kV ring bus down to the high side of the transformers, including Reliant Energy equipment. Qualified personnel shall perform inspection. Maintain check sheets for 24 months in Building 221.		System is inspected by qualified personnel. Check sheets are accurate, and available.
		Immediately mitigate any hazardous conditions found which could pose imminent danger to life, health or property. Initiate SRT and corrective action and notify Operations ***TMR** within one hour.		Hazardous conditions are mitigated immediately. Operations ***TMR** is notified and SRT and corrective action are initiated on time.
4.2.1.2.1.b	Building 48 Power Systems Operate Building 48 "A", "B" and "D" Power Systems.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definitions 1.2.03, 1.2.04 and 1.2.05 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	Three systems	Continuous certified resident Operations Engineer support in Building 48 for all ***mission** periods.
		Provide continuous certified operations engineer support during all ***mission** periods. The operations engineer shall be stationed at building 48 during these periods and shall provide non-matrixed mission support for the duration of the mission.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Operate standby generators each week for 1 hour in an integrity test run for operational availability. Comply with 30TAC 117.206(i) Operating Restrictions and 30TAC 117.219(f)(10) Records of Operation. During the first week, use Buildings 30M and 30S as load; during the alternate week, use 100% load bank for load. Operate generators for severe weather support (See **JA Management Guidance 8460.01, "Mission Operations Support, Diesel Engine Operation") and for an outage or loss of commercial power. Verify generators start-up when required. Physically check equipment within 5 minutes of start up operations when operations personnel are in the building. Auto start procedures shall allow for a maximum 15-minute time period to physically check equipment. Engine operations shall be limited to 600 hours annually per engine.	Weekly run	Engine generators are run weekly. Engine operations limited to 600 hours annually per engine.
		Provide a certified operator to safely start and parallel the "B" and "D" system generators upon notification by the FOM, COD, or for impending adverse weather conditions within five miles of the site. During requested or weather related support, the certified operator shall be stationed at Building 48, ready to operate the "B" and "D" power system generators.		
		Continually monitor the system throughout the operation period to ensure uninterrupted services. At the end of the operation, ensure generators are shut down and all auxiliary systems/equipment are properly reset for automatic start-up. Immediately safeguard and write SRT for any conditions posing imminent danger to life, health or property and notify the Operations ***TMR** within 24 hours.		Operations ***TMR** is notified and SRT and corrective action are initiated on time.
		Operate on-line Uninterruptible Power Supply (UPS) continuously.		
		Provide continuous, resident certified operator support during all engine runs and ***mission** periods.		Continuous, resident certified operator support provided during all engine runs and ***mission** periods.
		NOTE: The following are the applicable OP's: ****OP-B1 Procedures for DE-1, 2 and 3 Startup** ****OP-B2 Procedures for DE-1, 2 and 3 Shutdown** ****OP-B3 Pre-Start Checklist "B" Power EMD's** ****OP-B4-T1 "B" System on Transformer T1** ****OP-B4-T2 "B" System on Transformer T2** ****OP-C1A B48 Critical Power Checklist**		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		****OP-C1B B30M Critical Power Checklist** ****OP-C1C B30S Critical Power Checklist** ****OP-C1D MCC Short System Checkout** ****OP-D3A Daily Checklist for DE-7** ****OP-D1 Procedures for DE-7 and DE-9 Startup** ****OP-D2 Procedures for DE-7 and DE-9 Shutdown** ****OP-D3 Pre-Startup Checklist for DE-9** ****OP-D4 Procedures for D System Single Transformer Ops.** ****OP-A1 Procedures for "A" Power UPS Startup** ****OP-A2 Procedures for "A" Power UPS Shutdown** ****OP-A3 "A" Power UPS Daily Checklist** ****OP-E4A "AX" Power UPS Startup** ****OP-E4B "AX" Power UPS Shutdown** ****OP-F1 Shift B30S to TBX-1 & 2 or B48 Power**		
4.2.1.2.1.c	Building 48 Power Generators and UPS Monitor Building 48 "B" and "D" Power Generators and "A" Power UPS.	Perform ***daily (D7)** visual checks of Building 48 "B" and "D" Power Generators and "A" Power UPS systems by certified personnel to ensure continued availability of the equipment. Initiate SRT and immediately safeguard for conditions posing imminent danger to life, health or property, and notify the Operations ***TMR** within 24 hours. Monitor "B" and "D" Power Generator sets and "A" and "AX" Power UPS's ***daily (D7)** by certified personnel. Repair work may be halted and the generators or UPS left in an "out of service" status only by permission of the Operations ***TMR**. Maintain separate check sheets for each system for 12 months. NOTE: System consists of: Two 2800 kilo volt ampere (kVa) "D" power diesel-driven generator sets and three 1500 kVa "B" power diesel-driven generator sets. Four 500 kVA UPS's, two in B.48 (B power)and two in B.30S (D power)	One system	Power Generator sets and UPS's monitored ***daily (D7)** by certified personnel. SRT and corrective action initiated and Operations ***TMR** notified on time. Check sheets are properly maintained.
4.2.1.2.2	Standing Work			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.2.2.a	Shuttle Mission Support Provide Shuttle Mission Support	Provide Mission Support Services for six Shuttle ***missions** per year.	Six ***missions**	Continuous qualified operations engineering support for all Shuttle support.
		NOTE: See ****Shuttle Flight Schedule**		
		Provide comprehensive review to NASA COD for supporting system's readiness to support real time mission operations for Space Shuttle Mission.		
		Provide a Contractor Alternate COD Mission Manager to perform the duties of the NASA COD Mission Manager during the latter's absence. See ****Mission Manager Training Book.** These duties include but are not limited to:	30 days	Duties are performed as required.
		1. Process JSC Form 1273, Mission Exception Form. Maintain one Mission Exception file for each mission.	150 Mission Exception Forms per mission	Accurate Mission Exception Forms processed and file maintained.
		2. Ensure work per requirements of the ****Mission Readiness Plan** and ****STS Fact Sheet** per mission.		
		NOTE: ****Facilities Engineering Division Mission Readiness Reviews, ****Space Shuttle Mission Support Plan, Center Operations Directorate, ****Open Constraints for STS-98, ****STS-98 Fact Sheet**, and ****STS 98 Flight Readiness Review** for typical presentation materials.		
		NOTE: Instructions on completing JSC Form 1273 are located on the COD Home Page.		
		3. Support mission related meetings, prepare presentation, and provide COD/COSS representation, including but not limited to:		Mission related meetings supported.
		a. Readiness Integration Meeting (RIM) (1 hour) and Facility Control Board meetings (2 hours) during alternate weeks. (Reference ****Building 30/48 Facility Control Board.**)	26 RIM and 26 FCB meetings	See above
		b. ***Daily (D7)** MOD mission meetings(30 minutes) from 14 days prior to each mission during the mission through landing.	6 ***missions**	See above
		c. Flight Readiness Review (FRR) (1 hour) meeting, once 30 days before each launch. (Reference ****STS-98 Flight Readiness Review.**)	6 meetings	See above
		d. Mission Readiness Review (MRR) (1 ½ hour) at 7 days prior to each mission. (Reference ****Facilities Engineering Division Readiness Reviews.**)	6 meetings	See above
		Develop and maintain Open Constraints Listing.		Shuttle Mission or ISS support provided.
		Sign readiness statement for COSS readiness to support the Mission. Provide initial review at L-4 weeks to JC.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Support ***daily (D7)** meetings with COD Mission Management to provide status of open constraints listed as Criticality 1 at L-7 days.		
		Provide the following as-configured utility system drawings 3 days prior to each mission: Drawings E-JSC-9, E-JSC-9A, C-Civil-300, C-Site-312, -313, -314, -315; PI-T-1, -2, -3, -4, -5, -6; C-Site-700.	14 drawings.	Utility system drawings provided on time.
		Buildings 30/48 Facility Control Board (FCB):	Two 2-hour FCB meetings per month.	See above.
		Provide two certified Operations Engineers for membership to the Buildings 30/48 FCB.		
		NOTE: The board meeting is held with representatives from COD and MOD to review the end-to-end facility configuration supplying Buildings 30 and 48 backup power and cooling to the user power distribution units and workstations in Buildings 30M and 30S.	Three ongoing FCB subcommittee assignments.	
		Provide qualified technical support; make recommendations for the continuing development of facility reliability and integrity, and review requirements documentation, testing specifications, and evaluation system configurations.		
		Resolve corrective actions and action items that are the COSS functional responsibility resulting from the FCB, maintain action item file, prepare minutes and PowerPoint presentations, and provide status reports.		
		Support FCB subcommittee assignments from FCB. (see ****Building 30/48 Facility Control Board Charter**).		
		MOD/COD Meeting:	12 meetings	See above.
		Prepare presentations and chair the monthly MOD/COD meeting (1 hour).		
4.2.1.2.2.b	Preflight Checkout of Power Systems Perform Preflight Checkout of Building 48 "A", "B" and "D" Power Systems.	Ensure all Building 48 "A", "B" and "D" Power System components are functional and ready to support flight activities.	Six missions	Abnormalities reported and appropriate corrective action initiated on time.
		See the following checkout procedure for required operations documentation: ****OP-C1A Building 48 Critical Power Checklist**		
		Note any abnormal operational characteristics and immediately initiate corrective action.		
		Complete checkout and be prepared to support each mission at launch minus 12 hours.		Systems are mission support ready on time.
		Prepare and submit a ****Mission Readiness Plan** to the Operations ***TMR** for each mission.	Six plans	****Mission Readiness Plan** provided for each mission.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.2.2.c	Power Systems Meters Read and Record Meters to Monitor Building 48 "A", "B" and "D" Power Systems	Read meters and record data with frequency stated for operating UPS, "B" and "D" power systems. Maintain data at Building 48 continuously available for Government review. See following forms for minimum data to be collected and electronically recorded: ****Building 48 A-1 UPS Log – *daily (D7)**. Record readings every 8 hours. ****Building 48 A-2 UPS Log - *daily (D7)**. Record readings every 8 hours. ****Building 48 Electro Motive Division (E.M.D.) Diesel Engine Operating Log** - One record per operating engine, ***daily (D7)**. Record readings every hour. ****Building 48 "D" Power Log-A - *daily (D7)**. Record readings every 8 hours; during missions, record readings every 2 hours. ****Building 48 "D" Power Log-B - *daily (D7)**. Record readings every 8 hours; during missions, record readings every 2 hours.	365 days	Data are obtained on time and reviewed for abnormalities. Data are available continuously in Building 48.
4.2.1.2.3	Recurring Work			
4.2.1.2.3.a	Kilowatt Hours Meters Read and Record Metering Data to Monitor and Report Power Consumption.	Upon monthly coordination with Reliant Energy, electronically record Reliant Energy-provided data and kilowatt hours (kWh) meter readings at Buildings 221 and 47 to support monthly utility bill validation. Each month, electronically record the accumulated kilowatt-hours, four on-peak high values, and four off-peak high values in the Enterprise Building Integrator (EBi) system. Record at the same time as Reliant Energy records for billing purposes. Coordinate with Reliant Energy to reset the kilowatt hour accumulators and on/off peak recorders in the EBi system. Report readings to Operations ***TMR** within 2 hours and post electronically the same day of reading. Maintain electronic historical record for 5 years. NOTE: Meters 8300 and 8301 are at Building 221. Southwestern Bell meter is at Building 47.	12 readings of 16 values.	Readings reported to Operations ***TMR** and electronically recorded on time. Resetting of EBi accomplished correctly and on time. Historical data accurately maintained and electronically posted and available to Government on time.
4.2.1.2.3.b	Power Protective Devices Function Test All Building 48 "B" and "D" Power Protective Devices	Function test "B" and "D" systems *annually, including engine overspeed, low oil pressure, high temperature, protective relays, and circuit breakers. Function test "A" system, including protective relays, circuit breakers, static by-pass and alarms. Initiate SRT and corrective action within 3 working days. Complete action within 10 working days.	Annually.	Function tests performed according to procedure. SRT initiated and corrective action completed on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.2.3.c	Output Capacity Verify Output Capacity of Building 48 "B" and "D" Power Generators	Load bank generators to 100% capacity for 2 hours. Monitor and record operating parameters. Comply with 30TAC 117.206(i), Operating Restrictions and 30TAC 117.219(f)(10), Records of Operation. NOTE: Air-cooled load banks are switchable onto bus. Initiate SRT and corrective action within 3 working days. All priorities for completing corrective action except Mission Critical Emergencies shall be classified as emergency or urgent, and worked in accordance with Work Classification criticalities.	Annually.	Output capacity of power generators verified per procedures. SRT initiated and corrective action completed on time.
4.2.1.2.3.d	Power Recording Charts Operate and Maintain Power Recorders and Charts	Operate and maintain recorders located in Buildings 221 and 48 in operational condition, including cleaning the ink system and changing charts as required. Provide paper and ink as needed to maintain maximum detail printout. Maintain and update to current software version. Record date, time, and location on each chart and maintain on file at the location for 2 years. Notify Operations ***TMR** of all voltage disturbances immediately.	Five recorders.	Recorders are available continuously. Records are dated and retained per requirement. Operations ***TMR** is notified of disturbances immediately.
4.2.1.3	Chiller/Chilled Water Production			
4.2.1.3.1	Operations			
	information	Current Buildings 24/28 site configuration is shown on ****Pi-T-1, "Chilled Water Supply and Return Schematic**. Note: Building 24: Seven chillers, seven chilled water pumps, eight cooling tower cells, and nine condenser water pumps. Building 28: Two chillers, two chilled water pumps, two cooling tower cells, and two condenser water pumps The operation of the chiller plants is based on site loads but chiller operations personnel shall reconfigure chiller plant equipment/systems as required to support site/plant outages, equipment installation, or replacement. Operating parameters have been established by the Government based on customer needs, energy restriction guidelines, and knowledge of facility characteristics and includes monitoring all operational equipment for proper oil levels and requesting/replenishing oil to maintain proper levels. The auxiliary chiller plant is remotely controlled from the central plant.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.3.1.a	Heating and Cooling Plant Chilled Water Production Systems Man and Operate the Building 24 Central Heating and Cooling Plant and the Building 28 Auxiliary Chiller Plant Chilled Water Production Systems.	Man and operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. In addition operate chiller at the central heating and cooling plant according to ****OP-24-ME-04, "Chiller Startup and Shutdown Building 24 Turbine Driven Chillers", **OP-24-ME-08, "Operation of Electric Motor Driven Chillers"**. In addition operate the Building 28 chilled water production systems to maintain the chilled water supply in accordance with ****OP-28-ME-01, "Operational Procedures for Chillers in the Auxiliary Chiller Facility Building 28"**. Continually monitor the chilled water production systems to ensure that chilled water temperatures and flows are maintained. Immediately resolve any failure of monitoring or system capabilities to assure normal monitoring and desired chilled water supply is continuously available to JSC. Operate the chilled water systems to provide the most cost effective operation based on lowest dollars/ton operational cost per chiller. Operation shall provide support for chilled water system outages and minimum runtime for less efficient chillers.	365 days	System is available and operational, and output maintained as required.
		Acknowledge and clear all chilled water or cooling water alarms within 5 minutes of occurrence (15 minutes for Building 28 alarms if no operators are present at alarm initiation). Submit repair requests via SRT for all chilled water production system anomalies, freon leaks, and water leaks.	365 days	Chiller alarms are responded to and SRT and corrective action are initiated on time.
		Provide operations support for chilled water systems outages and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in UP or SM task statement.		No chillers are out of service.
		Remove or add refrigerants as required to support operational requirements. Adhere to all Environmental Protection Agency regulations and standards including 40CFR 82.156. Maintain accurate and timely records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level.		Refrigerant records are maintained accurately and regulations followed.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.3.1.b	Building 48 Chilled Water Production System Operate and Monitor the Building 48 Emergency Power Building Chilled Water Production System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Continually monitor the chilled water production system to ensure that chilled water temperatures and flows are maintained. Immediately resolve any failure of monitoring or system capabilities to assure normal monitoring and desired chilled water supply is available to JSC. NOTE: Four chillers, ten chilled water pumps, four cooling tower cells, and six condenser water pumps. Operate the Building 48 chilled water system or use the Buildings 24 and 28 chilled water system during non-mission periods to provide chilled water to Buildings 30L, 30M, and 30S at the most cost effective and energy efficient operation based on lowest dollars/ton operational cost per chiller. Operate the chilled water production system to accomplish minimum runtimes for the Building 48 chillers. (NOTE: This is performed in an effort to maintain Building 48 equipment reliability and availability for outages and weather support.) During mission periods, operate the Building 48 chilled water system 24 hours a day with continual coverage. Configure the system to provide support and backup capacity to Buildings 30L, 30M, and 30S. Acknowledge and clear all chilled water or cooling water alarms within 5 minutes of occurrence (15 minutes if no operators are present at alarm initiation). Submit repair requests via SRT within 8 hours for all chilled water production system anomalies, freon leaks, and water leaks. Provide operations support for chilled water systems outages and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in UP or SM task statement. Remove or add refrigerant as required to support operational requirements. Adhere to all Environmental Protection Agency regulations and standards including 40CFR 82.156. Provide notification to Environmental ***TMR** for extension requests. Maintain accurate and up-to-date records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level.	365 days	During mission support periods, continual coverage of the chilled water system is provided. System is available and operational. Adherence to energy guidelines and directives is demonstrated. No chillers are out of service. Continual coverage during *missions. Chiller alarms are responded to and SRT and corrective action are initiated on time. Refrigerant records are maintained accurately and regulations are followed.
4.2.1.3.2	Standing Work			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.3.2.a	Chilled Water System Meters/Gauges Read and Record Buildings 24, 28, and 48 Chilled Water Systems Meters and Gauges.	Read meters and gauges for operating chillers and cooling tower systems to monitor conditions and production. Collect and record data with frequency stated in the following logs: a. ****Building 24 Chiller Motor Log** - One record per operating chiller, ***daily (D7)**. Record data every 2 hours. b. ****Building 24 Chiller Steam Turbine Log** - One record per operating chiller, ***daily (D7)**. Record data every 2 hours. c. ****JSC Building 24 Chiller Log** - One record per operating chiller, ***daily (D7)**. Record data every 2 hours. d. ****JSC Building 24 Refrigeration Plant Data Log - *daily (D7)**. Record data every 2 hours. e. ****JSC Chief Operator's Log - *daily (D7)**. Record each reading on intervals as shown on form. f. ****Building 24 Refrigerant Tracking Log** - Record data as required whenever refrigerants are transferred. g. ****JSC Building 28 Chiller Log** - One record per operating chiller, ***daily (D7)**. Record data every 8 hours. h. ****Building 28 Chiller Motor Log and Building 28 Refrigeration Plant Log** - One record per operating chiller, ***daily (D7)**. Record information every 8 hours. i. ****Building 28 Refrigerant Tracking Log** - Record data as required whenever refrigerants are transferred. j. ****Building 48 Chiller Log - Chiller No. 1** - One record per operating chiller, ***daily (D7)**. Record data every 8 hours for non-mission, every 2 hours for mission. k. ****Building 48 Chiller Log** - Chiller No. 2 - One record per operating chiller, ***daily (D7)**. Record data every 8 hours for non-mission, every 2 hours for mission. l. ****Building 48 Chiller Log for Chiller No. 3 / 4** - One record per operating chiller, ***daily (D7)**. Record data every 8 hours for non-mission, every 2 hours for mission. m. ****Building 48 Heating & Cooling Log** - One record per operating piece of equipment, ***daily (D7)**. Record data every 8 hours for non-mission, every 4 hours for mission.	365 days	Data are collected and recorded on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		n. ****Building 48 Refrigerant Tracking Log** - Record data as required whenever refrigerants are transferred. All data to be available to the Government within 4 hours of data collection.		
4.2.1.3.2.b	Condenser Water Treatment Execute the Condenser Water Treatment Program for the Central Plant, Building 24, the Auxiliary Chiller Plant, Building 28, and the Emergency Power Building 48.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.03 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Treat condenser water with a corrosion inhibitor chemical treatment program to ensure condenser water piping and condenser water tubes remain free of biological growth, corrosion, and scale buildup. Maintain chemical levels within operational parameters at all times with corrosion coupons rates for mild steel less than 2 mils per year and for copper less than 0.2 mils per year with no evidence of scale on the condenser water tubes. The cooling towers shall be treated for biological growth and algae using algaecides and biocides to maintain levels of total bacteria colonies/ML at less than the control limit of 10^4 colonies/ML and fungi (yeast and mold) at no growth. An aggressive treatment program shall be implemented and maintained whenever harmful bacteria are found until it is eliminated. Maintain condenser water between 3.6 and 6.0 cycles of concentration. NOTE: 14 cooling tower cells Record all water quality readings for the cooling tower systems to monitor condenser water quality against known standards. See following forms for minimum data to be collected and made available to the Government: ****Building 24 E-Logs** Water Analysis Log - Building 24 - ***daily (D7)**. Test water quality and record data every 8 hours. Water Analysis Log for Cooling Tower at Building 28 - ***daily (D7)**. Record data every 8 hours. ****Building 48 E-Logs** Water Analysis Log for Cooling Towers in Buildings 48 - One record per operating cooling tower, ***daily (D7)**. Record data every 8 hours. **Building 48 Heating & Cooling Log – One record per operating piece of equipment, *daily (D7). Record data every 8 hours for non-mission, every 4 hours for mission.**	365 days	Systems continuously available. Treatment program controls biological growth. Aggressive treatment shall be instituted when harmful biological growth is found. Water quality readings are accurate, on time, and available for Government access.
4.2.1.4	Potable Water			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.4.1	Operations Information	The water plant shall be operated to ensure a continuous supply of water is provided at all times. Water operations do not require continuous coverage but do require operator support to be available 24 hours a day to accomplish routine activities and respond to emergencies. Current system configuration and operations have been established to provide conformance to the Clear Lake Water Authority contract requirements and to the Texas Natural Resources Conservation Commission (TNRCC) requirements. The surface water supply at JSC consists of purchasing treated surface water from the City of Houston's Southeast Water Purification Plant via metering at the Clear Lake City Water Authority (CLCWA). The system shall be controlled within CLCWA contract restrictions, which limits JSC to 1.60 Million Gallons Per Day (MGPD) production allocation, 2.56 MGPD pumping allocation, and 2.56 MGPD distribution system allocation. Two site wells are kept operational for backup support, which have a total capacity of 2,500 gallons per minute total flow. Also, an emergency supply line is kept pressurized from the CLCWA system for further backup support. If well water is utilized, ground storage tank ventilation shall be accomplished to remove methane gas. The available water treatment includes injection of sodium hypochlorite, aqueous ammonia and corrosion inhibitor. Existing system descriptions are described in the O&M Manuals. The water system pressure is maintained with pressure boosting pumps to achieve a site pressure of 68 pounds per square inch (psi). Operational utility prints and master utility plans further show piping locations and valve configurations. The JSC water system is regulated by the State of Texas under the TNRCC. The JSC system is considered a non-transient, non-community water system by definition serving a population of more than 10,000 people and falls under regulations affecting such systems. Space Center Houston Visitor Center is also provided free water service.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		System performance shall comply with requirements identified by the TNRCC regulations. Operators shall accomplish procedures and requirements identified in O&M Manuals and shall implement and perform work in accordance with OP's. OP's shall be generated as needed to enhance operational control. Operational support is required to support outages. The integrity of the equipment and system shall be maintained and corrective actions shall be initiated in a timely manner. The system shall be kept under the direct supervision of qualified personnel who are knowledgeable and capable of performing all operations and associated work. Operators shall have and maintain the certification required by the TNRCC Chapter 290. The Ellington Field (EF) facilities are directly metered from the City of Houston's distribution system and are isolated by backflow preventors. EF tract 1 is equipped with a separate firewater distribution system. The Sonny Carter Training Facility (SCTF) is metered from the CLCWA distribution system.		
4.2.1.4.1.a	Water Treatment System Operate JSC Water Treatment System to Maintain Water Quality.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Operate and monitor the chemical treatment equipment 24 hours a day control to treat water on a continuous basis. Provide all chemicals associated with water treatment and analysis. Chemicals used shall be equivalent in salient characteristics to those for which the facility was designed. Maintain a minimum 7-day supply of treatment chemicals. Respond to alarms within 15 minutes and start remedial action to clear alarms within 30 minutes. Disinfection treatment consists of sodium hypochlorite combined with aqueous ammonia. The combined total chlorine residual shall be automatically monitored by analyzers and controlled by a Programmable Logic Controller (PLC). The automatic PLC system shall be monitored and the results shall be validated by testing with portable hand held test kits. The total combined chlorine residual entering the ground storage tanks and leaving the Building 322 pumping station shall be maintained at a level designated in the OP. All sampling of chlorine residuals shall be recorded.	365 days	Water Treatment System is operated continuously and output is correctly maintained. Response to all alarms and corrective action taken on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The corrosion inhibitor levels shall be controlled to meet dosages documented in OP's which shall be based on the chemical manufacturer recommendations for use in potable water distribution systems. Analyze the active inhibitor constituent at the far ends of the distribution system to ensure that the dosages applied to the treated water are adequate to provide the necessary levels for corrosion control throughout the distribution system. Monitor the distribution system coupons and corrater probes to obtain and document control of corrosion rates. Corrosion coupons and test assemblies shall be analyzed every 90 days.		
		Monitor corrosion levels of asbestos cement, mild steel, brass and copper piping via coupon racks and corrater probes at 90 day minimum intervals. Ensure corrosion rates meet American Water Works Association (AWWA) and National Association of Corrosion Engineers recommendations and guidelines for mild steel (less than 2 mils per year) and for copper (less than .2 mils per year) and for brass. Ensure no evidence of degradation of concrete in asbestos cement and concrete lined ductile iron pipe based on fiber count or other AWWA recommended metal analysis for asbestos cement pipe as specified in Title 30 Texas Administrative Code, Chapter 290.		Sampling accomplished on time and corrosion rates do not exceed recommended levels.
		Achieve chloramine and corrosion inhibitor levels designated in OP's and as specified in TNRCC Chapter 290.		
		Obtain chlorine and corrosion inhibitor analysis samples at the water plant a minimum of two times per 8 hour shift (separated by a minimum of 3 hours between readings) to document chemical control. Obtain corrosion inhibitor samples in the distribution system ***daily (D7)**.		
		All sampling of corrosion inhibitors shall be recorded and results shall be recorded in the monthly Water Utility Report.		
		NOTE: The chemicals used for treatment include sodium hypochlorite and aqueous ammonia and a corrosion inhibitor. Alarms on the treatment system include pumps, drum scales, spill indicators and tank level monitoring.		
4.2.1.4.1.b	Water Storage System Operate JSC Water Storage System to Maintain Water Quantity.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	One system.	Water levels and pressure maintained per specifications. Response and corrective action to alarms initiated on time.
		Operate the Water Storage System to maintain levels in the ground storage tanks No. 339 and No. 341 between 24 and 30 feet and to achieve an average site pressure of 68 psi from the elevated storage tank No. 40.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: The water storage system can be filled with the surface water supply line, the emergency water supply line, and the site water wells. Automatic control is provided via Clayton control valve for surface water, hand control for well water. Flush the emergency supply line ***monthly** to maintain in a ready to use condition and prior to each use. Flush the surface water supply line as needed to maintain water quality. Respond to Water Storage System alarms within 5 minutes and start remedial action within 15 minutes. NOTE: The elevated storage tank is equipped with low and high level alarms. The ground storage tank is equipped with a high level alarm.		
4.2.1.4.1.c	Water Pumping System Operate JSC Pumping System and Controls to Maintain Water Pressure and Volume	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Maintain operability of the five potable water boosting pumps. Monitor the pumps, check gallons per minute (GPM) flow, and record all information in the ****Water Operator's Log**. NOTE: The pump configuration is preset by the PLC. Manually operate each pump and gas engine for no less than 15 minutes each week as a check for functional availability.	365 days	Required water pressure and volume maintained during operational hours. Logs are accurately maintained. Pumping system tested per scheduled.
4.2.1.4.1.d	Operate JSC Water Wells Operate JSC Water Wells to Maintain Operability of Water Generation System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Flush each of the two wells a minimum of 2 hours per week, prior to anticipated surface water outages, and for monthly sampling.	365 days	Water wells maintained and operated per requirements. Wells flushed per schedule for outages, and sampling.
4.2.1.4.2	Standing Work			
4.2.1.4.2.a	Water Plant Meters Read and record Water Plant Meters to Monitor Consumption.	Collect and record all water quality/flow readings for the site water system as directed on the following forms: ****Water Treatment Plant Instrument Readings** – Two readings ***daily (D7)**. Record readings at midnight. ****Operational Log - Natural Gas Engines** - Building 322 – Eight readings ***daily (D7)** (record start and stop readings). Record readings when engines are run.	365 days	All data are collected, accurate, and recorded on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		****Flowmeter Readings, Potable and Deionized Water** - Record readings first day of each month and ***daily (D7)** when pumps are operated. NOTE: A meter is installed on the incoming surface water line from CLCWA and the outgoing pressurized line. NOTE: Four natural gas engines, four meters, two meter totalizers All recorded data to be available to the Government within 4 hours of collection unless otherwise stated.		
4.2.1.4.2.b	Water Plant Operations Log Maintain Water Operator's Log of Water Plant and Water Well Operations.	Maintain the Water Plant Operator's Log, recording ***daily (D7)** each ***shift**, maintenance and checks performed, including such information as: Status of valve configuration equipment status outages scheduled and status alarm status run time GPM checks of pumps quantities of chemicals used per shift, feed rates, dosages all water quality tests conducted storage tank levels meter readings operator activities	365 days	Log is updated on time and continuously available.
		Maintain the Water Well Operator's Log including such information as: date and hours of run time when flushing to ditch pumping level, meter reading, alarm status, disinfection quantities, log of tank ventilation when using as a site generated source. Logs are available continuously at Building 322.	365 days	
4.2.1.4.2.c	Water Chart Recorder Maintain the Building 322 Chart Recorder and Water Flow Charts.	Change out Building 322 recorder chart ***daily (D7)**. Record the date and time on chart and maintain on file in Building 322 for no less than 2 years. Replace paper and ink as necessary to insure continuous operation.	365 days	Recorder available at all times. Historical data is dated and maintained.
4.2.1.4.2.d	Well Drawdown Test Perform Well Drawdown Test.	Perform a drawdown test of each well annually and document well yield, capacity, pumping level, static level, and recovery. Report information in the appropriate month in the ****Water Utility Report**. NOTE: Two wells, two tests each.	Four tests	Each well tested annually and results reported in the ****Water Utility Report**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.5	Compressed Air			
4.2.1.5.1	Operations Information	Current system configuration and operations have been established by the Government based on customer needs and availability of equipment. The systems are shown on drawing PI-T-4 Utility Air. The operation manuals are available in the COSS Technical reference Library. The Contractor shall be responsible for ensuring proper and efficient operation of the system while continually evaluating the system configuration and operations and making recommendations for improvements, including remote control and continual monitoring of the utility air compressor at the auxiliary chiller plant and operation and monitoring of the three utility air compressors at the central chiller plant. The Contractor shall also be responsible for monitoring all operational equipment for proper oil levels and requesting/replenishing oil to maintain proper levels. Operators shall continually be attentive to potential problems and initiate corrective action in a timely manner. Current configuration allows for the remote monitoring of the compressed air system at Building 28 through the Energy Management and Control System (EMCS) computer. Current monitoring of the Building 24 Central Plant Compressed Air System is performed by plant operators.	See below	
4.2.1.5.1.a	Compressed Air System Man and Operate the Building 24 Central Heating and Cooling Plant, Building 28 Auxiliary Chilled Water Plant, and Building 48 Emergency Power Plant Compressed Air Systems.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.04 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide 24-hour a day continual coverage of the Building 24 compressed air system operations to maintain continuous output. Check the entire Building 28 compressed air system once per shift. During non-mission support periods, man the Building 48 compressed air system operations as necessary to maintain continuous output. During mission support, provide 24-hour a day continual coverage to maintain continuous output. Continually monitor the compressed air system to ensure oil free air with a -40°F dew-point air quality is maintained.	365 days	Air operable systems always available. Required air quality is maintained at all times. SRT and corrective action Initiated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide operations support for compressed air systems outages and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in utility procedures or scheduled maintenance task instructions. Perform a physical/visual check of the compressed air systems including air compressors, cooling systems, dryers, etc. to identify potential problem areas. Initiate SRT and corrective action for all anomalies within 8 hours.		
4.2.1.5.2	Compressed Air System Meters/Gauges Read and Record Buildings 24, 28, and 48 Compressed Air System Meters and Gauges.	Read meters and gauges for all compressed air systems and record data with frequency stated in the following forms: ****Building 24 E-Logs** JSC Building 24 Utility Air System Log – ***daily (D7)**. Record readings every 2 hours. Building 24 Utility Air Compressor Log (C) - One record per operating air compressor, ***daily (D7)**. Record readings every 2 hours. ****Building 24 Utility Air Compressor Log (R)** - One record per operating air compressor, ***daily (D7)**. Record readings every 2 hours. Building 28 Utility Air System Log - ***daily (D7)**. Record readings every 8 hours ****Building 48 Logs** Building 48 Heating & Cooling Log - One record per operating piece of equipment, ***daily (7D)**. Record readings every 8 hours for non-mission, every 4 hours for mission. All data to be available to the Government within 4 hours of collection.	365 days.	All data are collected, accurate, and recorded on time.
4.2.1.6	Operations Control Center (OCC) and Energy Management Control System			
4.2.1.6.1	Operations			
	Information	The OCC is a multi-purpose center located at Building 24, Central Heating and Cooling Plant. It houses EMCS and encompasses numerous functions to provide for the total control of the site utility, facility systems. The OCC work scope includes the coordination of all plant operations and outage activities for *JSC.	See below.	See below.

The sitewide EMCS monitors and controls large portions of the electric power, steam, chilled water, and building Heating/Ventilation/Air Conditioning (HVAC) systems at JSC. In addition, it is designed to monitor and control various parameters of utility systems and equipment in buildings and facilities. By monitoring the equipment controlled by EMCS field devices, the EMCS acts as an effective tool for controlling energy consumption and operational and maintenance costs. The EMCS system supports energy management, management reports, data archival, and data analysis for equipment control and efficient operations. The EMCS is also required to monitor and control SCTF facility utilities and HVAC via a separate PC interface called System 20/20. This system is marketed by Automatic Logic Corporation and is currently supported by UES Corporation.

Honeywell's Enterprise Building Integrator (EBi) is the site EMCS that monitors and controls all equipment at JSC. This system runs on a Windows NT Platform using Dell Power edge 2300 servers. These servers communicate with Honeywell XL500 Series Controllers and other third party PLC's and controllers. These third party PLC's and controllers are implemented on a variety of platforms, including Allen-Bradley PLC, Modicon PLC, Woodward PLC and Johnson Controls Metasys Controllers. Other equipment includes Liebert Controllers, Exide UPS Controllers, MINT Westinghouse Controllers, and Power Demand Data Acquisition Control System Controllers.

All third party equipment is interfaced to EBi by means of terminal servers via RS232 communications. The communication protocols utilized are XLNET, Allen-Bradley DFI, Modbus RTU, and OPC Server/Client. The client stations are Compaq workstations provided by NASA for operator interface with the servers via Ethernet utilizing TCP/IP protocol. Reference ****EBi System Architecture Drawing**.

The Honeywell EBi system consists of the following:

Building 24, operator area with servers and workstations within the computer room.

Building 24, utility and tech areas each with workstations.

Building 48, control room with servers.

Building 221, control room with B221A servers and B221E workstations.

Building 32, maintenance room with workstations.

Building 28, workstation.

Building 45, workstation.

Building 325, workstation.

Field devices, PLC, Building Control Systems (BCS), HVAC, and other miscellaneous field units.

EMCS literature, cut sheets describing EBi, and Plant Historian Data (PHD).

NOTE: The Honeywell contractor is responsible for portions of the EMCS EBi System. Honeywell provides sustaining software integration support from the Terminal Servers to JSC-EMCS LAN and all the stations with EBi man-machine or PHD software. Honeywell also maintains the EBi/PHD Servers, EBi Domain Controllers, and Terminal Servers. The COSS Contractor is responsible for the operation, maintenance, and programming of the Building Control Systems (i.e. Excel controllers, PLC's, Metasys, etc). The COSS contractor is also required to support the EMCS software and hardware components.

Honeywell responsibilities include:

Software development and integration activities pertaining to the EBi Operating System functions.

System performance monitoring.

Real-time database upgrades.

Driver interfaces to connect third party controllers or systems.

Integration/implementation of projects requiring man-machine graphic interfaces with database modifications.

Reference ****New Support Contractor Scope of Work for EBi** for a complete description of Honeywell EMCS software and hardware support.

COSS responsibilities include:

Continuous operation, control, surveillance and maintenance support for the Honeywell EBi, SCTF 20/20 System and associated systems, databases and programs as described in the following sections of CLIN 4.2.1.6.

All software/hardware of BCS or devices beginning with the terminal servers to the BCS and field instrumentation or the output of the EBi Server to the BCS (i.e. Excel controllers and field instrumentation).

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.6.1.a	Operations Control Center Man and Operate the Operations Control Center.	Operate the OCC in accordance with applicable OP's, O&M Manuals, UP's, applicable manufacturer's specifications, literature, directives, etc. and as listed below:	365 days.	OCC is continuously staffed with qualified personnel.
		Man and operate the EMCS 24 hours/day, seven days/week, to provide continuous operation, control, and surveillance support for the Honeywell EBi and the SCTF 20/20 Man-Machine Graphics Systems.		
		Initiate response within 1 hour to failures and interruptions in the utility and facility systems listed in Annex 2-3 and 2-4. Notify the Operations ***TMR** immediately by telephone in accordance with the ****Utility Interruption Notification List** of any unscheduled outages, reduction in capacity of equipment, or malfunction that could seriously impact the site facilities.		Corrective action for utility interruptions and failures initiated on time. The Operations ***TMR** is notified immediately by telephone.
		Update the on-line version of the ****Utility Interruption Notification List** within 24 hours of notification of changes from the Operations ***TMR**.		****Utility Interruption Notification List** updated on time.
		Initiate utility configuration changes to support operation/ maintenance/ energy activities (e.g., street lights, time clocks, equipment shutdown or startup, etc).		
		Verify utility and facility systems maintain the output as stated in Section J, Attachment N, Exhibit N-1, Table 1, System Definitions.		
		Operate the base radio communication for operations support.	Radio system. 400 calls per day	Radio communications requirements are met.
		NOTE: Base stations located in Buildings 24 (OCC), 329 (Work Control Center), and 48 (Operations).		
		Service voice recorders at OCC, including changing the tape ***daily (D7)**. Rotate tapes weekly. Tapes will be available to the Government for review upon request.	Three voice recorded reports per year as requested by the Operations ***TMR**.	****Utility Interruption Notification List** updated on time and available for Government access.
		NOTE: Currently there are nine sets of tapes.		
		Record all radio traffic. Maintain ten previous days of recorded traffic. Verify ***monthly** that the voice recorders are fully operational and functional, including clock synchronized and recording properly.		
		Maintain the ****Utility Interruption Notification List** in an electronic format with Government access.		
		Coordinate and track site outages for maintenance and construction. Maintain working copy of all active UP's.	250 UP's.	
		Document and track the steps in UP's ensuring they are completed in the proper order.		Active UP's are accurately tracked.
		Issue tag numbers for lockout/tagout maintenance danger tags.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain and provide the functions described in ****DRD AN-1-3, JSC's Energy Management and Water Conservation Plan**.		
		Receive and log user complaints for facility systems interruptions or failures and initiate investigation of problems. Log significant site activities and plant operations.		
		Answer telephone inquires for daily activities. In addition, operate and support the hotline telephone for emergency calls (fire, security, ambulance flooding, etc.).	400 calls per day	
		Maintain HVAC Energy Conservation Exceptions log		
		Implement the Spring/Summer and Fall/Winter HVAC Seasonal Adjustment Plans, KVA Demand Plan, Cold Weather Plan or Y2K HVAC and Lighting Baseline Status Report.		
		Produce individual Morning Reports ***daily (D7)** which shall be electronically posted by 7 a.m., detailing: (1) the activities at Buildings 30/48, (2) the activities of Buildings 24/28, (3) the activities of Building 221, (4) the utilities on the rest of the site, (5) a listing of site activities and problems for the previous evening, (6) weather conditions. Building activities shall include status of equipment operations, problems or repairs. Problems shall remain on the list until resolved and updates on actions and current status shall be daily.	One Morning Report per day per system	Morning reports are complete and posted on time.
		NOTE: Reports generated over the weekend and on non-workdays will be presented in a consolidated report on the following workday.		
		Maintain ***daily (D7)** logs for OCC activities, Operator Dispatch Log, Lockout-Tagout Log and Tunnel Log, and utility procedure steps.		
		Track and assign tunnel badge authorizations.		
		Coordinate facilities support 24 hours/day, seven days/week for Shuttle missions.		
		The Contractor may be directed by the Operations ***TMR** to operate the OCC in exception to the above operating procedures due to emergencies, inclement weather, energy conservation, safety, mission constraints, user requirements.		
4.2.1.6.1.b	EMCS Man and Operate the EMCS (Honeywell EBi and SCTF System 20/20).	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.2.08 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. The Government may direct changes for reasons of emergencies, inclement weather, energy conservation, safety, mission constraints, user requirements and as listed below.	One system.	System is operated by personnel who are knowledgeable of the utility systems accessed by the EMCS and trained to operate the EMCS hardware and software.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Operate man-machine interface EBi in various buildings and the SCTF Building Control System 20/20 System in Building 24.	12 work stations	Sequence files executed within 5 minutes of prompt.
		Execute group files on EBi for emergency electrical shedding.		
		NOTE: Four workstations in Building 24, two each in Buildings 32, 48 and 221, one each in Buildings 28 and 45.		
		Maintain and modify equipment runtime schedules to support utility management and flight support requirements. Execute equipment runtime schedule changes or overrides of equipment. Maintain and modify facility HVAC operational and lighting controls in accordance with ****DRD AN-1-3, JSC's Energy Management and Water Conservation Plan**, and the ****Y-2K HVAC and Lighting Baseline Status Report.**		
		EMCS controlled exterior lighting shall be turned on no earlier than 10 minutes before dusk and turned off no later than 10 minutes after dawn.		
		Implement ***daily (D7)** control changes as required to support site loads and operations.		Change requests are submitted to the Operations ***TMR** for approval prior to implementation.
		Initiate utility configuration changes to support operations, maintenance, energy, and EMCS activation activities. Submit change request to Operations ***TMR** for approval prior to any hardware, software or firmware changes. Submit any change that would establish a new electrical demand peak to the Operations ***TMR** for approval prior to implementation.		
		Initiate system setpoint adjustments to accommodate changing field controls. Additional requirements and guidance are listed in Operational Change Order document found in ****DRD AN-1-3, JSC's Energy Management and Water Conservation Plan**.	18,000 points **(**EBi/SCTF Points).**	Response and remedial action to alarms performed on time.
		Maintain flat-line point function, i.e., add points to flat-line file on EBi system to achieve alarm optimization and improve visibility of field problem related to instrumentation, etc. Delete flat-line points from file when points are deleted from EBi real-time database.		
		Monitor and respond to alarm conditions generated via EBi, SCTF 20/20 System, or phone system messages from user based control system. Acknowledge critical alarms within 1 minute and start remedial action immediately. Acknowledge non-critical alarms within 5 minutes and start remedial action within 8 minutes.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Ensure no EMCS alarms older than 5 ***workdays**. Any EMCS alarms older than 5 ***workdays** shall have the approval of the Operations ***TMR**.		
		Report malfunctions and/or breakdowns of SCTF 20/20 and EMCS/EBi controlled or monitored systems and equipment, PLC's, Metasys, Woodward, Excel 500 controllers, critical points, points that effect HVAC comfort, mission variables, equipment damage, and Energy points (DRD AN-1-3) in the Morning Report (ref: CLIN 4.2.1.6.1.a). Contact the Operations ***TMR** verbally per EMCS reporting requirements in Utility Notification Listing. (Reference ****EMCS Utility Notification Procedure**.)		
		Maintain and update daily an electronic spreadsheet of EMCS/EBi malfunctions and a historical spreadsheet of anomalies that have been restored. Provide the Government continuous access to EMCS/EBi electronic spreadsheets.		
		Maintain an audit trail of hardware problems using ACCESS database. Provide discrepancy inputs per ****EMCS Utility Notification Procedure**.		
		Maintain an EMCS Tagin/Tagout Status Report for any point that is not required to be alarmed due to being placed out of service for energy conservation, hardware malfunctions, maintenance, and installation. Equipment placed out of service shall have associated alarm points tagged out within 1 hour and tagged in within 1 hour of equipment being placed back into service. Reference ****DRD AN-4-5, EMCS Alarm Management Plan and Procedures**		
		Initiate utility system changes in response to customer complaints (i.e., hot/cold calls). Input hot/cold call status data to personal computer (PC) application at time of trouble call.	2,500 Hot/Cold calls.	Data electronically posted on time.
		Receive request for adjustments directly from the customer. Dispatch field operators to resolve hot/cold call issues. Conduct business in a courteous manner and gather accurate and pertinent facts. Adjust HVAC temperature levels within 2 hours of customer's initial call, as approved by the Operations ***TMR**, to meet customer needs and sustain a comfortable work environment. Temperature ranges shall comply with the JSC Energy Conservation Program while allowing maximum benefit for the customer. Temperatures shall not be adjusted outside of Government defined temperature range without Operations ***TMR** approval. Forward unresolved issues to the Operations ***TMR** for further action/resolution. Document customer calls received and action taken. Electronically post data within 30 minutes of each call or any action or feedback. Maintain data backlog per Government record keeping regulations.		Hot/Cold calls adjustments made on time and within temperature guidelines.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: See ****Hot/Cold Call Field Log** for minimum data to be collected and electronically maintained.		
		Start/stop utility system components to verify field readiness.		Discrepancies reported and cleared accurately on time.
		Ensure all data programs, reports, trends, and man-machine displays are accurate and functional. Report all non-conformance problems and discrepancies electronically via the ****EMCS Review Item Disposition Form to EMCS Operation Review Board (EORB)**. No more than five discrepancies shall exist on the EMCS man-machine operator's interfaces unless noted and approved in the EORB process. Discrepancies requiring action by the Contractor shall be no older than 2 weeks unless approved by the Operations ***TMR**.		
		Maintain a manageable alarm file. (DRD AN-4-5).		
		Maintain system setpoint and point limits. Ensure setpoints are configured as specified in available documentation (OP's, JSC's Energy Management and Water Conservation Plan, DRD AN-1-3, etc.) Track set point and limit changes per OP. Maintain electronic file.		
		Maintain sensor inhibit process for any point which is not required to be alarmed 24 hours a day (e.g., when equipment is shutdown).		
		Analyze and adjust operating parameters to resolve field problems.		
		Input data to EMCS support programs and databases.		
4.2.1.6.1.c	EMCS Software Manage the EMCS Software	Manage the EMCS software in compliance with International Standards Organization (ISO) 9001-2000 standards and NASA STD-2201-93 guidelines per contractors Quality Control (QC) Plan. Areas of management include but are not limited to quality assurance, quality engineering, reliability, verification/validation, and data control, configuration/change control, license agreements, maintenance, records, training, servicing, audits, backup, handling, storage, packaging, testing, acceptance, nonconformance reporting, corrective actions, safety, and security.	365 days	EMCS software managed according to stated standards and guidelines.
		Additionally, manage all software, databases and firmware developed, supplied, maintained or operated for or in support of the EMCS systems with the exception of the EBi System Software on workstations/servers.		Software management plan and license agreements submitted to the Operations ***TMR** on time.
		Provide license agreement to the Operations ***TMR** for all new or revised vendor software within 1 week of software delivery. This includes the purchase of the Computer Aided Regulation Engineering (CARE) software used to interface from Honeywell Ebi to the various equipment controllers.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: Includes all building Controllers, PLC's, Metasys, Liebert controllers, Power Demand Data Acquisition Control System, Central Telephone point interface System (CTS); Westinghouse Mint Impacc; Excide UPS, Woodward PLC and any other devices listed in Table 2-3.; Smart Field Instrumentation software; portions of Honeywell EBi Man-Machine.		
		Review and concur on test plans and test scripts of all software integration or any modifications to EBi Software changes specified in this contract. Forward test plans to the Operations ***TMR** for approval 1 week prior to formal testing. Provide field support for testing and verification of points due to software changes. Support EMCS testing for new systems, databases, programs, field changes, and projects.		Test plans are processed and submitted to the Operations ***TMR** for approval on time. Testing and verification support avaiable.
		Return all items in a fully operational format at the end of the contract.		
		NOTE: EMCS support programs listed in CLIN 4.2.1.6.1.d		
4.2.1.6.1.d	EBi Workstation Support Provide EMCS Programming Support at EBi Workstation	Provide EMCS programming support consisting of but not limited to:	365 days	Programming support provided for EMCS software and applications.
		1. Configuration management of changes on the Honeywell's EBi system on the EBi Operator workstations.		
		NOTE: Configuration management changes for files, parameters, databases can also be issued by the Operations ***TMR.**		
		Accomplish graphic changes to man-machine interfaces that require no data base additions or deletions (i.e., buildings floor plans, M&O information screens, Air Handler Unit configurations, text/graphics, descriptions, etc.). These changes will be made and provided to the software support contractor, for installation on the server. Maintain all new configuration graphic screens that require no database implementation.		
		Modify point parameters for alarms management and energy conservation (i.e., set-points, alarm inhibitions, tagin/tagout, off/on scan, flat-line, limit changes).		
		Modify load-shedding parameters (i.e., runtime schedules, overrides, onpeak/offpeak).		
		2. Accomplish programming support, file/database updates, for the following EMCS support programs, reports, trends, and databases.	Five reports per year at the request of the Operations ***TMR**.	
		EMCS Point Identification Listing.		
		PC Energy Management reports, trends, and software data statistical models.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Hot/Cold Calls Field Log.		
		Alarm monitoring Performance (DRD AN-4-5).		
		HVAC Equipment Status Report.		
		Quarterly Energy Report.		
		Operational Change Order.		
		Sensor Inhibit Report (DRD AN-4-5).		
		Building Unit Point (BUP) Hardware Malfunction (ACCESS).		
		Discrepancy Form Tracking System.		
		Tagin/Tagout Status Report (DRD AN-4-5).		
		Field Engineering Database (ACCESS) – Design and implement new database file structures and relations to meet requirements for database expansion and efficient report generation.		
		All software applications shall use EBi Platform, ACCESS database, or Excel spreadsheets.		EMCS databases and programs are available to the Government at all times.
		Make all EMCS databases and programs available electronically for Government access on a continuous basis.		
		All software development and modifications shall adhere to ISO 9001-2000 standards.		
		Submit to the Operations ***TMR** for approval any changes to reports, files, graphics and databases that change the functionality of the application prior to use.		Software and application changes are submitted to the Operations ***TMR** for approval prior to use.
		Perform modification of configuration parameters and graphics within 5 working days unless an extension is granted by Operations ***TMR**.		
4.2.1.6.1.e	EMCS Building Control Systems Support Provide EMCS Programming and Support for the EMCS Building Control Systems or Field Devices Interfaces.	Maintain all application software developed for building control devices and all microprocessor field interface devices under this contract. Provide support for point definitions, database modifications, ladder logic changes, field set-ups, optimization algorithms, analyzing and testing, upgrades to licenses, restore software/firmware in event of failure, etc. All software development and modification shall adhere to ISO 9001-2000 standards.	One System	All software development and modification adhere to ISO 9001-2000 standard.
		See ****JSC's Energy and Water Conservation and Management Plan** for energy conservation data and Table 2-3 for systems and equipment.		
		Update applicable Honeywell Excel Controllers whenever set points, runtime schedules, or other parameters in EBi are modified that affect the data integrity of the controller.		Program maintained with no loss of software or data integrity.
		NOTE: Update requires saving controller software.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Update site traffic controller parameters when configuration change is prompted. Provide five configuration changes per year as needed. Update and sync traffic zone flasher time clocks ***annually**. **Review and concur on test plans and operations documents as needed.**		
4.2.1.6.2	Standing Work			
4.2.1.6.2.a	Action Item File Maintain Action Item File	Update the Action items File for the EMCS shall be updated to include requests for field configuration changes or provide status of EMCS tasks monitored. Review weekly with the Operations ***TMR**.	Weekly	Action item file accurately updated and reviewed with the Operations ***TMR** on time.
4.2.1.6.2.b	Operating Set Point Limits Maintain Winter/Summer and Operating Set Point Limits.	Reference ****JSC's Energy and Water Conservation and Management Plan** and EMCS Central Systems – Honeywell EBi; SCTF 20/20 System. Ensure limits for points are properly configured to operate facilities and utilities in a safe, efficient, and energy conserving mode. Update files whenever points are added or deleted from EMCS Systems. Provide fall and summer reports identifying point, type, number of times the point went into alarm, date/time of alarm, temperature, limits, and setpoint, if applicable, for each review period. Include recommendations for all points needing alarm limit adjustments and field changes.	365 days	Operating set point limits are accurately configured on time. Reports are accurate and on time.
4.2.1.6.2.c	Monitoring and Control Systems Perform Function Test of the Monitoring and Control Systems Connected to EBi Supervisory Systems.	Perform field checks and testing to ensure EMCS controls and monitoring points function properly from the field to the EBi man-machine interface. Ensure all points exercised in the field or at the EBi interface function properly, data values are correct, alarms are generated in EBi, and interface devices are configured and operate at optimum performance levels. Maintain a continuous electronic log that includes changes and updates for all devices for each building. NOTE: For system definition see Section J, Attachment N, Exhibit N-1, Table 1, System Definitions 1.2.08 and 1.2.09 and Annex 2, Table 2-3 for list of building control devices and PLC's. Provide a yearly schedule to test each EMCS BCS System or groups of EMCS points to the Operations ***TMR** for approval within first 60 days of contract. NOTE: Schedules to test each BCS System are subject to change due to mission support. Test each EMCS BCS annually. Develop a ***monthly** test report that includes all verifications, adjustments, cancellations, and field worksheets. Provide the report to the Operations ***TMR** within 3 days of the end of each month. Provide an electronic copy of EBi Event Log 5 days after completing BCS test.	365 days	Systems are accurately tested. Yearly schedule of testing and monthly reports are accurate and provided to the Operations ***TMR** on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.6.2.d	EMCS Operations Review Board Support the EMCS Operations Review Board (EORB).	Provide qualified personnel to actively participate in EORB meetings. NOTE: The EORB board is a joint meeting supported by the Operations ***TMR**, the Contractor and Honeywell's EBi Software Integration Contractor to review EMCS System issues and discrepancies. Provide qualified technical personnel to support EMCS software/hardware development and testing activities, make recommendations for development of EMCS software projects and EMCS system configuration, provide review of requirements and design documentation, establish testing specifications, and evaluate system configurations for efficiency and effectiveness. Resolve EMCS corrective actions and actions items (e.g., alarms, limits, databases, hardware/software, etc) resulting from EORB/ESRB, maintain action item file, prepare minutes and presentations, and provide status reports.	One meeting per week.	Qualified personnel actively participate in meetings. Corrective actions and actions items processed accurately and Review Board supporting data provided.
4.2.1.6.3	Recurring Work			
4.2.1.6.3.a	Preflight Checkout Review Preflight Checkout of EMCS Computer Systems.	Ensure all EMCS devices are functional and ready to support mission. See ****EMCS Preflight Checklist** for minimum data to be collected and electronically recorded. Report any abnormal operational characteristics to the Operations ***TMR** and the COD Mission Manager no later than 3 days prior to launch.	Six missions per year	Preflight checkout of EMCS computer systems performed accurately. Anomalies reported to the Operations ***TMR** and the COD Mission Manager on time.
4.2.1.6.3.b	EBi Historical/Event File Media Maintain EBi Historical/Event File Media.	Notify software support contractor immediately when computer alarm prompts EMCS operator that the historical/event files are nearing capacity limit. (Reference CLIN 4.2.1.6.1.) Ensure logging to historical or event files is continuous with no loss of data. NOTE: Three historical and one event file systems.	365 days	Software support contractor notified of alarms on time. Continuous logging to event file systems with no loss of data.
4.2.1.6.3.c	System Printers Maintain and Service EMCS Printers.	Ensure printers operate properly and provide continuous monitoring capabilities. Replace paper and ink and provide cleaning as necessary to ensure continued printing operations Report printer problems or inability to produce reports to the Operations ***TMR** within 24 hours.	Two printers.	No loss of data due to lack of printer maintenance or service. Operations ***TMR** notified of printer anomalies on time.
4.2.1.7	Fuel System			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.7.1	Operations Information	Operate the fuel farm storage tanks and pumps in a safe and proper operating condition to provide for adequate and safe fuel supplies. Be alert for dangers or situations that may hinder operations or destroy/incapacitate the Fuel Supply/System.	See below.	
4.2.1.7.1.a	Site Fuel System Operate the Site Fuel System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.09 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	One system.	System is operated to meet availability and operational requirements.
		Procure fuel based on anticipated usage to support Shuttle Missions and minimum levels set by the Government. Notify the Operations ***TMR** and Buildings 24 and 48 Facility Managers no later than 24 hours prior to scheduled delivery and 2 hours following delivery of fuel to their building.	90,000 gallons per year.	Adequate levels of fuel are maintained in the diesel storage tanks.
		Receive, escort delivery vehicles, off load, and store fuel in existing storage tanks. Inspect each bulk delivery of fuel to ensure that transport vessel is vapor tight. Inspect hoses for visible leaks and terminate transfer if leak is observed. Obtain and analyze fuel samples from each truck. Record delivery time/date, quantity dispensed to diesel tank, and results of fuel sample analysis. Log results into a Government provided spreadsheet within 3 ***workdays**.		
		NOTE: 4 above ground diesel tanks: 1 - 100,000 gallon tank at Building 24, 2 - 10,000 gallon tanks at Building 48 and 1 - 8,000 gallon tank in the 300 area.		
		Begin unloading within 30 minutes of vendor arrival. Do not incur demurrage while unloading. The entire unloading process will be monitored by certified Contractor personnel.		
		Measure tank levels and check for any leaks. Maintain 80% or above level in Building 24 tank. Maintain Building 48 tanks full 3 days prior to launch and no more than 8,000 gallons from full during mission.		
		Diesel fuel for Building 48 shall be high sulfur, off road use fuel. Sample the fuel, have it analyzed for sulfur content and British Thermal Unit (BTU) content and log results.		Fuel shall be of proper type for use in engines.
		Using the 1,200-gallon tank truck, transfer diesel fuel from the Building 24 tank to the Building 48 tanks in case of inability to receive diesel fuel from offsite to onsite.		
4.2.1.7.2	Mobile Support Equipment Ensure Mobile Support Equipment (MSE) Fueling	Provide fuel and refueling services for all MSE items which are engine-driven, as necessary, to maintain a readily available condition.	600 gallons gasoline	Refueling is accomplished on time.
		Respond to Customer request for refueling and fuel testing within 2 hours.	750 gallons diesel	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.1.7.3	Fuel Oil Monitoring Read Meters and Gauges to Monitor Buildings 24 and 48 Fuel Oil Usage, Storage, Quality, and Leakage.	Read Buildings 24 and 48 gauges and record data on all pertinent fuel oil storage, delivery, consumption, and leakage in the system with frequency stated in the Building 48 Monthly Fuel Consumption Report (Reference ****Building 48 Electronic Logs**). a. Record data within 4 hours of collection. Read ***daily (D7)**.	365 days	Data recorded on time.
4.2.2	Distribution			
4.2.2.1	Steam and Condensate Return			
4.2.2.1.1	Operations			
	Information	The tunnel steam system consists of 3.5 miles of steam piping with associated steam traps, mud legs, valves and expansion joints. In addition, there are 3.5 miles of condensate return piping and valves.	See below.	See below.
4.2.2.1.1.a	Tunnel Steam Distribution System Operate and Monitor the Tunnel Steam Distribution System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.05 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide operations support for steam and condensate distribution system outages, and reconfigurations. Remove from service, drain, secure, tagout, and return to service as defined in UP or SM task statement Request repairs to all steam distribution system anomalies, including steam leaks, with SRT within 8 hours of detection.	365 days.	System is operated to meet availability and operational requirements. SRT and corrective action initiated on time.
4.2.2.1.2	Inspect Steam Distribution System Prevent Leaks in Steam Distribution System	Conduct a visual inspection ***quarterly** of all accessible steam components, (expansion joints, steam and condensate lines, steam valves, traps, valve tags, and pipe insulation) to identify potential problem areas. Initiate SRT and corrective action within 8 hours for all anomalies.	4 inspections	Entire system inspected ***quarterly**. SRT and corrective action initiated on time.
4.2.2.2	Electrical Distribution			
4.2.2.2.1	Operations			
	Information	The systems included are the 15kV system at Building 221, the tunnel, and at each JSC facility, the EF Electrical Distribution System, and the Street/Mall Lighting Systems. The current system configurations and operations have been established by the Government based on customer needs and the availability of equipment. The Contractor shall be responsible for ensuring proper and efficient operation of the systems.	See below.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.2.2.1.a	Site 15kV Distribution System Operation Manage and operate the Site 15kV Distribution System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.2.02 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Operate the 15kV electrical system in accordance with OSHA requirements. Perform all switching and provide operations support according to written utility procedures and record the activity using the radio traffic recorder in the Operations Control Center. Drain electrical substation containment pits as needed to maintain capacity for transformer oil loss. Containment pits shall be maintained as needed to remove slip hazards such as mold, algae, or mud. Linemen shall be available on site within 1 hour of notification for non-scheduled switching or emergency problem investigation. Mark up all configuration changes on configuration drawing E-JSC-9 in Building 221E within 1 hour of switching change.	365 days	System operated per OSHA regulations to achieve the availability requirements and operational hours. Containment pits are drained and maintained for safety. Configuration drawings accurately updated on time.
4.2.2.2.1.b	Site 15kV Distribution System Inspection Inspect the Building 221 15kV JSC Electrical Distribution System.	Perform visual inspection of the Building 221 15kV Distribution System once every 24 hours using qualified linemen and trained roving operator. Within Building 221 and yard, inspect ***daily (D7)** from the secondary side of the 138 kV transformers to the output side of the 15kV feeder breakers, including all associated relaying, metering, AC and DC power, capacitor banks, switchgear, breakers, batteries, chargers, Reliant Energy metering equipment, and any other related equipment in the buildings and yard at Building 221. Outside Building 221 buildings and yard (including the underground system at Building 221), inspect ***quarterly** overhead and underground feeders, cable trays, manholes, sump pumps, wooden distribution poles, overhead transformers, and associated hardware. Inspection shall be conducted at ground level while system is energized. Record inspection reports ***daily (D7)**. Maintain checksheets for 24 months in Building 221. Reference drawings ****E-JSC-9 & 9A**.	365 days	Complete inspections performed on time by qualified personnel. Checksheets accurately maintained at Building 221. Corrective action initiated and reported on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Immediately mitigate any conditions posing imminent danger to life, health or property. Within 1 hour of detection of any abnormal conditions, initiate SRT and corrective action and notify the Operations ***TMR**.		
4.2.2.2.1.c	EF and SCTF Electrical Distribution Systems Inspect the EF and SCTF Electrical Distribution Systems	Inspect the EF and SCTF electrical distribution systems ***quarterly** from metering points to the line side of the facility transformers, including switchgear, circuit breakers, bus, overhead and underground feeders, manholes, meters, wooden poles, overhead transformers, and fuses. Inspect for visual damage or abnormal onditions from ground level and while systems are energized. NOTE: The EF system is composed of five small services from Reliant Energy. The SCTF system is composed of three services from Reliant Energy.	4 inspections	Complete inspections performed on time by qualified personnel. Corrective action initiated and reported on time.
		Record inspection reports on checksheets and retain for 24 months in Building 221.	4 checksheets	Checksheets accurately maintained.
		Immediately mitigate any conditions posing imminent danger to life, health or property. Within 1 hour of detection of any abnormal conditions, initiate SRT and corrective action and notify the Operations ***TMR**.		
4.2.2.2.1.d	Exterior Lighting System Inspect the Exterior Lighting System	Inspect the street lighting and mall lighting systems for inoperable lamps, broken or missing lens, broken or bent poles (indention in pole is two inches or greater), broken or deformed pole base plates, broken missing or deformed anchor bolts, broken missing or deformed handhold or base covers, broken or bent luminarie arm, and broken or detached external ground wires. Ensure identification numbers are intact and legible. Replace illegible identification numbers, renumber, or add new numbers, as necessary, to ensure proper identification. Inspect the entire system every two weeks at ground level with systems energized. Immediately mitigate any conditions posing imminent danger to life, health or property. Initiate SRT and corrective action within 12 hours of detection of any abnormal conditions. Reprogram the EMCS and all timers to correct time within 36 hours following the beginning and end of Daylight Saving Time. NOTE: The system is operated by a combination of EMCS, photo cells, and timers and has up to ten different types of fixtures. NOTE: Approximately 38 circuits; 1200 poles.	365 days	System components are safe, operative, and properly configured and labeled. Corrective action initiated on time.
4.2.2.2.2	Standing Work			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.2.2.2.a	High Voltage Switching Documentation Maintain High Voltage Switching Documentation.	Prior to each Shuttle mission, review, update, and submit to the Operations ***TMR** the ****Site High Voltage (HV) System Configuration** which is the reference document for high voltage switching that identifies response to power losses in buildings, switches, feeders, and transformers. NOTE: The document is used in the planning of outages or restoration procedures.	Six documents.	Documentation is accurately maintained according to schedule.
4.2.2.2.2.b	System Meters and Gauges Read and Rrecord Building 221 System Meters and Gauges.	Read, record, and make available the following electrical system data for loading and operational analyses of the JSC site electrical substation. Record data according to the referenced forms:	365 days	Data recorded accurately with frequency stated and electronically posted on time.
		Substation Bus and Feeder Meters – Using the form ****Operating Data, JSC Electrical Substation (Building 221)**, record ***daily (D)** at 1:00 p.m. the kilowatt-hour voltage, and current readings on the 15kV distribution system at Building 221. Include the individual ampere readings on each of the 138kV transformer lightning arrestors. Post data electronically within 4 hours of collection.		Corrective action and repairs completed on time.
		Transformer Loads - Record ***quarterly** the electrical loads on all metered distribution transformers at the JSC site as stated in ****Operating Data - Electrical Substations – Indoors** and ****Operating Data - Electrical Substations-Outdoors**. Record data within 3 consecutive weekdays between the hours of 12:00 noon and 3:00 p.m. Post data electronically within 3 days of collection. Initiate SRT and corrective action for any meter found inoperable or damaged. Ensure meter is repaired and back in service within 10 days.	4 records	See above
4.2.2.2.2.c	Dranetz Recorder Monitor and Service Dranetz Recorder.	Monitor and service the five channel recorder equipment located in Building 221A ***daily (D7)**. Report all sags, surges, lows, impulses and other disturbances verbally to Operations ***TMR** by close of business (COB) of the following day. Replace paper and ink as needed to maintain continuous maximum detail monitoring.	365 days	Recorder available for use at all times.
		Initiate SRT and corrective action for anomalies within two hours.		SRT and corrective action initiated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.2.2.2.d	Building 221 Area Control Access to the Building 221 Area.	Control access and verify personnel are logged into the fenced area of the Building 221 Substation. Maintain records of personnel accessing the controlled area. Secure the area and lock gates when area is unattended. NOTE: The Building 221 area consists of the buildings making up the JSC site 138/12kV electrical substation, including the fenced area.	One substation.	Substation access is limited to approved personnel.
4.2.2.3	Chilled Water			
4.2.2.3.1	Operations			
	Information	The Chilled Water Distribution System includes chilled water supply and return piping, valves, fittings, insulation, instrumentation, gauges, and ancillary components required to distribute chilled water to the various mall buildings. The system is located within the Utility Distribution Tunnel with the exceptions of the following directly buried sections: a. Parallel chilled water lines between Building 24 and the Building 45/46 junction. b. Chilled water supply and return lines between Building 28 and the Utility Tunnel near Building 8. c. Chilled water supply and return lines between Tunnel zone 5 and the North Tunnel Leg. An above ground valve station at the junction of (b) and (c) is included.	Nothing additional.	
4.2.2.3.1.a	Chilled Water Distribution System Operate the Chilled Water Distribution System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.01 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	365 days	Chilled water distribution system is operational and available per requirements.
4.2.2.3.2	Tunnel Chilled Water Distribution Inspect Tunnel Portion of Chilled Water Distribution System	Perform a visual inspection of the entire system ***quarterly**, including accessible chilled water components, insulation, brass tags (piping and valves), etc. to identify potential problem areas. Report anomalies immediately to Operations ***TMR**. Initiate SRT and corrective action within 8 hours.	4 Inspections	Entire system is inspected ***quarterly**. Anomalies reported and SRT and corrective action initiated on time.
4.2.2.4	Potable Water			
4.2.2.4.1	Operations			
	Information	The water distribution system operation does not require continuous coverage but does require operator support to be available 24 hours a day to respond to routine activities and emergencies.	See below.	See below.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		JSC: The Potable Water Distribution System begins at the point of pump discharge and ends at a point five feet outside the facilities it serves. It shall be operated to ensure a continuous supply of water is provided at all times to all facilities and use points. The Distribution Piping System provides water to facilities and associated components, Fire Protection Systems and the Turf Irrigation System. The Distribution System is designed with a series of loops and valves to minimize outages in the event of line failures. Fire hydrants are located on lines throughout the system for flushing and fire protection. Flushing of these fire hydrants is necessary to maintain site water quality and to maintain the chlorine residual required by the TNRCC. Backflow preventors are located throughout the system to protect the system from contamination and as required by TNRCC. The Distribution System is regulated by the TNRCC as a non-transient, non-community water system by definition serving a population of more than 10,000 people and falls under the regulations affecting such systems. Space Center Houston Visitor Center is provided free water service through the JSC System. The system shall be kept under the supervision of qualified personnel who are knowledgeable and capable of performing all operations and associated work. Operators shall maintain the certification required by TNRCC Chapter 290. SCTF and EF: The SCTF and EF Distribution Systems begin at the property line where the meters and backflow preventors are located and end at a point five feet outside the facilities which they serve. They shall be operated to ensure a continuous supply of water at all facilities and use points. Fire hydrants are located on lines throughout the system for flushing and fire protection. Flushing of these lines is necessary to maintain site water quality and to maintain the chlorine residual required by the TNRCC. EF has a separate Fire Water Distribution System serving Facility Fire Protection and Deluge Systems. Operation of the Fire Water System is not included under this CLIN.		
4.2.2.4.1.a	Water Distribution System Operate and Monitor the Water Distribution System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definitions 1.4.01, 1.4.05, 1.4.06 and 1.4.07 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. NOTE: JSC: 107,000 linear feet of pipe and associated valves and turf irrigation system, EF: 10,400 linear feet of pipe, SCTF: approximately 1,000 linear feet of pipe.	365 days	Required output and functionality of the water distribution system is maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Perform all applicable water system requirements identified in the Texas Administrative Code (TAC), Part I, TNRCC Chapter 290 regulations for potable water distribution systems. Support water distribution system outages.		
		Flush the water distribution system per the JSC, EF, and SCTF Fire Hydrant and Facility Flushing Plan developed in DRD AN-4-3. Additionally, flush the water distribution system in areas where sampling documents bacterial contamination, or due to customer complaints of taste, color or odor. Provide response within 30 minutes of receipt of complaint. Document all flushing activities and record the fire hydrant or building number and location, dates and times of flushing, and the chlorine residuals after flushing.		Flushing is implemented on time and per DRD AN-4-3. Minimum chlorine residuals are maintained.
		Perform all flushing in a controlled manner to minimize impacts of pressure fluctuation in the system.		
		Post data within 8 hours of collection ***daily (D7)**.	365 days	Log is accurate and on time.
4.2.2.4.2	Standing Work			
4.2.2.4.2.a	Water Distribution System Activities Log Maintain a Daily Log of Operator Water Distribution System Activities.	Maintain a ***daily (D7)** log of operator Water Distribution System activities that includes the following information: status of valve configuration, equipment status (if out of service), and status of outages. Ensure log is available continuously at Building 322.	365 days	Log is accurate, on time and available continuously at Building 322.
		Read Water Distribution System meters on the last day of each month. Record reading, date, time, location, and meter number. NOTE: One meter at JSC (Building 8), six meters at EF, two at SCTF.		
4.2.2.4.2.b	In-Ground and Above-Ground Valves Function Test JSC Fire Hydrants and In-Ground and Above-Ground Valves for Operational Availability.	Develop and implement a schedule that provides for:	365 days	Fire hydrant testing accomplished annually. Accurate final report of discrepancies and test results provided on time.
		Annually test the operation of JSC fire hydrants to a complete flow to ensure hydrant operates properly. Provide a copy of the implementation schedule to the Operations ***TMR**. Maintain a log of all tests at Building 322. Log abnormalities and identify those hydrants that need new identification numbers. Provide final report of discrepancies and test results to Operations ***TMR** within 24 hours.		
		NOTE: See ****C-SITE-312 Water District 100 Area, ****C-SITE-313 Water District 200 Area,** and ****C-SITE-314** and **EF Utility Prints** for number of valves.		
		The location verification and functionality test operation of each in-ground and above-ground valve ***annually**.		Valve test is accomplished ***annually**.
		Log tests and abnormalities in log of operator activities maintained at Building 322. Note those valves that need new marker identification posts.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Initiate SRT and corrective action for abnormalities and marker identification posts within 24 hours.		SRT and corrective action initiated on time.
4.2.2.5	Sanitary Sewer Pumping and Collection			
4.2.2.5.1	Operations			
	Information	The sanitary sewer system does not require continuous coverage but does require operator support to be available 24 hours a day to accomplish routine activities and respond to emergencies. JSC: The Sewage Collection and Pumping System shall be operated to ensure continuous collection, pumping, and removal of wastewater is provided at all times. System configuration and operations have been established based on customer needs and availability of equipment. JSC provides connection service from Space Center Houston. System equipment list is available in the TRL. The JSC wastewater effluent is treated offsite at the CLCWA Sewage Treatment Plant (STP). The JSC System shall be operated in conformance with requirements of the contract between the Government and CLCWA. Restrictions include limiting quality of discharge to meet the requirements of CLCWA, State, and local permits, and limiting discharge rates from JSC to the CLCWA STP to 1,400 GPM peak rate of flow with a discharge volume not to exceed a daily average of 910,000 gallons during any calendar month, and not to exceed a maximum of 1.4 MGPD peak flow. Various wet wells and manholes can be used to serve as holding tanks to control flow as needed. EF: The EF sanitary sewer system consists only of a gravity system, with a wash rack pumping station. SCTF: The SCTF sanitary sewer system consists only of a gravity system.	See below.	See below.
4.2.2.5.1.a	Sanitary Sewer Pumping and Distribution System Operate and Monitor the Sanitary Sewer Pumping and Distribution System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.02 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Operate and monitor the sanitary sewer pumping and distribution system. Support system outages.	One system	System operated to meet availability and operational requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Inspect lift station wet well levels and alarms, test operability of pumps, inspect dry well sides (inspect from ground level only without confined space entry) to ensure uninterrupted service once every 8 hours. Alternate pumps as needed to ensure operability. Respond to the remote high level alarm on Lift Station 2 within 15 minutes and start remedial action within 30 minutes.		Lift stations inspected on time. Alarms response and remedial action initiated on time.
		Operate and monitor Building 223 wet wells and associated equipment. NOTE: Building 223 has two wet wells with a common pipe and four electric pumps and one natural gas driven engine. The wet wells are used as holding basins to control flow discharge to the CLCWA STP.		Initiate SRT and corrective action within 2 hours.
		Initiate SRT and corrective action for anomalies.		
4.2.2.5.2	Standing Work			
4.2.2.5.2.a	JSC and EF Operator Activities Log Maintain Daily Log of JSC and EF Operator Activities.	Maintain ***daily (D7)** log of JSC and EF Operator Activities to include a list of scheduled outages on wastewater equipment and equipment abnormalities noted during inspections. Post log within 8 hours of data collection.	365 days	Required data recorded accurately and posted on time.
4.2.2.5.2.b	Distribution System Meters and Rainfall Monitor JSC Distribution System Meters and Rainfall Total.	Read meters and record in wastewater operator log ***daily (D7)**. Read, record, and empty rainfall gauge located at Building 322 ***daily (D7)** and posted within 8 hours. NOTE: Two meters at Building 358 and west of Building 207.	365 days	Required data recorded accurately and posted electronically on time.
4.2.2.5.3	Recurring Work			
4.2.2.5.3.a	Grease Traps and Oil/Water Separators Pump out Grease Traps and Oil/Water Separators.	Pump out grease traps ***monthly** at JSC Buildings 3, 11, and 207 cafeterias. Pump out JSC and EF oil/water separators for disposal. Pump out as necessary (no less than annually) to ensure tanks do not exceed 80% capacity. Ensure pumping actions prevent spillage and have minimal impact on customers. NOTE: Three JSC grease traps. Three manifests per month (i.e., 36 manifests). Three oil/water separators at JSC Buildings 329, 320, and 417; ten oil/water separators at EF. Complete and sign the ****Solid/Special Waste Manifest**, found in ****Environmental Reference** for each quantity of waste removed from each grease trap onsite. Provide the Transporter, Secondary Transporter and Disposer copies of the manifest to the transporter to accompany the waste. Deliver the generator and Health Department copies to the Operations ***TMR** within 2 workdays of signing the manifest.	Monthly	Tanks and separators are pumped out on time and do not exceed 80% capacity. Manifests are processed and copies distributed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: Grease trap waste is considered a regulated substance and disposal shall be managed as industrial solid waste. See Annex 9.		
4.2.2.5.3.b	JSC Stormwater Pump Out JSC Stormwater.	Pump out stormwater from concrete basins at Building 223 to ensure water does not fill more than 30% of tank volume and to prevent the breeding of mosquitoes. Treat accumulated rainwater with Calcium Hypochlorite (HTH) to remove algae and transfer via portable pump to wet well at Building 223 for disposal. See ****Cooling Tower Blowdown Pretreatment Facility, O&M Manual".**	Six times	Water does not exceed 30% of tank volume. No presence of breeding mosquitoes.
4.2.2.6	Compressed Air			
4.2.2.6.1	Operations			
	Information	The Compressed Air Distribution System supplies the various mall area buildings and the Atmospheric Re-entry Materials and Structures Evaluation Facility, Building 222, with compressed air produced in the Central Heating and Cooling Plant, Building 24, and the Auxiliary Chiller Facility, Building 28. The Building 48 compressed air system serves the Mission Control Center through the tunnel in the event of Buildings 24/28 failure. This system is predominantly routed through the Utility Tunnel System with the exception of the sections between Building 28 and the tunnel at Building 8, and the section between Building 222 and the North tunnel leg. The system is shown on the drawings in the JSC Engineering Drawing Control Center. This system is designed for a maximum allowable working pressure (MAWP) of 150 pounds per square inch gauge (psig) but is currently operated at 125 psig.	See below.	
4.2.2.6.1.a	Compressed Air Distribution System Operation Operate and Monitor the Compressed Air Distribution System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.04 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide operations support for Compressed Air Distribution System outages, and reconfigurations. Remove from service, drain, secure, tagout, and return to service as defined in UP or SM task statement.	365 days	Continuous output of compressed air is maintained. SRT and corrective action Initiated on time.
4.2.2.6.1b	Inspect Compressed Air Distribution System	Perform a visual check ***quarterly** of all accessible components of the Compressed Air Distribution System (including brass tags) to identify problems or potential problem areas. Initiate SRT and corrective action for all anomalies within 8 hours.	4 inspections	Entire system is inspected ***quarterly**. Anomalies reported and SRT and corrective action initiated on time.
4.2.2.7	Natural Gas			
4.2.2.7.1	Operations			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
	Information	The Natural Gas System Operation does not require continuous coverage but does require operator support to be available 24 hours a day to accomplish routine activities and respond to emergencies. JSC: The site is supplied natural gas via the main site metering station at Building 340. The main site pressure up to Building 24 and the regulator stations operate at 78 psi. The pressure is reduced at eight pressure reducing stations. The gas system piping continues from the regulator stations to the buildings, where the pressure is reduced further at the building regulators to the pressure required by the equipment that it serves. EF: The EF facilities are supplied natural gas via five meters located at the property lines of the Government owned tracts. SCTF: The SCTF is fed through one meter located at the SCTF.	See below.	
4.2.2.7.1.a	Natural Gas Distribution System Operate and Monitor the Natural Gas Distribution System	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.04 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Monitor the system for proper operating pressure, check the condition of above ground piping and relief valves, monitor the system for leaks, and support system outages. Notify the Operations ***TMR** of any leaks. Initiate SRT and corrective action within 4 hours for all anomalies. NOTE: JSC site has 43,000 linear feet of pipe and associated valves, regulators, meters and cathodic protection. See drawing ****C-Site-700** for system layout. EF has 3,000 linear feet of pipe and associated valves. SCTF has 1000 linear feet of pipe.	365 days	System operated to meet availability and operational requirements. SRT and corrective action initiated on time.
4.2.2.7.2	Standing Work			
4.2.2.7.2.a	Daily Log Maintain Daily Log of JSC and EF Operator Activities	Maintain the Natural Gas Distribution System log to include status of valve configuration if other than normal, meter readings, equipment configuration status (if out of service), outages scheduled, SRT items and other pertinent information. Post data and log events ***daily (D7)** during the same work shift in which they occur.	One log.	Data are recorded on time and available continuously.
4.2.2.7.2.b	Distribution System Meters Read Distribution System Meters at JSC to Monitor and Report Consumption.	Record the meter readings in a log. Meters are located at: Building 340 - two meters (main metering station); record ***daily (D7)**; Building 24 - two meters; record ***daily (D7)**;	365 days	Data are accurately recorded and posted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Building 222 - two meters; record monthly, the first workday of the month; Buildings 227, 260, 350, 47, 416, and 420- one meter; record monthly, the first workday of the month; EF – five meters; record monthly, the first workday of the month; SCTF – one meter; record monthly, the first workday of the month. Ensure data is available to the Government within 4 hours of collection. See following forms for minimum data to be collected and recorded: a. ****Natural Gas Daily Log Building 340**, record ***daily (D7).** b. ****Site Gas Meter Readings**, record ***daily (D7).**		
4.2.2.7.2.c	Natural Gas Distribution System Check the Natural Gas Distribution System for Leaks and Function Test in-Ground Valves.	Check the Natural Gas Distribution System for leaks and function test in-ground valves. Develop and implement a schedule that provides for the ***annual** inspection of the Natural Gas Distribution System for leaks and the location and manual operation of each in-ground natural gas valve to ensure it operates properly. Log any discrepancies or leaks found during the checks in the daily electronic operators natural gas log. Identify any valves requiring new identification markers. Provide final report of discrepancies and task completion to Operations ***TMR** within 24 hours. Initiate SRT for anomalies within 24 hours. Immediately safeguard any conditions posing imminent danger to life, health or property. NOTE: Reference drawing ****C-SITE-700 Natural Gas Distribution System** for JSC and EF ****MUP's** for number of valves.	1 inspection	Inspections performed according to schedule and data recorded in the log. SRT and corrective action Initiated on time.
4.2.3	Facility			
4.2.3.1	Steam and Condensate Return			
4.2.3.1.1	Steam and Condensate Return System Operate and Monitor Steam and Condensate Return System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.05 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide operations support for boiler and steam systems outages, and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in UP or SM task statement.	365 days	System maintains continuous steam and condensate return system function and output.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Initiate SRT and corrective action within 8 hours for all system anomalies.		SRT and corrective action initiated on time.
4.2.3.1.2	Low Pressure Steam Boiler Systems Monitor the Low Pressure Steam Boiler Systems.	**Monitor the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.05 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.** Check low pressure steam boilers once a week for leaks and deterioration. Monitor the steam pressure reducing stations, steam reboiler systems and associated piping, traps, and condensate return units for proper operation, leaks, inoperative valves, deterioration, and pressure settings. Reset pressures as necessary to meet Government setpoint requirements. Immediately safeguard any conditions posing imminent danger to life, health or property. Initiate SRT and corrective action within 8 hours. NOTE: The number of steam boilers and reboilers are in the ****SM Database.**	365 days	SRT and corrective action initiated on time.
4.2.3.2	Electrical			
4.2.3.2.1	Operations			
	Information	The systems included are the 15kV facility switches, the Central Telephone System (CTS) system, the Emergency Power Backup systems and the low voltage distribution systems. The current system configurations and operations have been established by the Government based on customer needs and the availability of equipment. Complete drawings of the systems to be serviced are available in the JSC Engineering Drawing Control Center. The Contractor shall be responsible for ensuring proper and efficient operation of the systems.	See below.	
4.2.3.2.1.a	15kV Facility Switches Operate 15kV Facility Switches	Operate the 15kV facility switches for maintenance support, isolation of faults, and redistribution of loads using written UP's. Execute switch operations using two-way radio control or as directed by the Operations ***TMR**. Update the 'mark up' drawing of E-JSC-9, E-JSC-9A, and E-JSC-8 within 1 hour after configuration changes occur. Post the configuration drawings in Building 221E. Operate the 15kV electrical system in accordance with O&M Manuals, OP's, UP's, and OSHA requirements. Initiate SRT and corrective action and notify the Operations ***TMR** within one hour of finding any abnormal conditions that could pose imminent danger to life, health, or property. Immediately mitigate any hazardous conditions.	365 days	Switch operations performed according to UP's. Configuration drawings "mark ups" completed on time and available for review. SRT and corrective action initiated and Operations ***TMR** notified on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Redistribute loads twice annually. Redistribute building loads at the direction of the Operations ***TMR**. Switch capacitor bank configuration such that half of each of the three capacitor banks are on for a 6-month cycle. NOTE: For system definition see Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.2.02.		Redistribution of building and capacitor loads accomplished.
4.2.3.2.1.b	JSC Low Voltage Systems Operate the JSC Facility Low Voltage Systems to Maintain Required Availability.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.XX and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide qualified electrician support during the first and second shifts ***daily (D7).** Provide electrician support for scheduled operations or outages and to isolate electrical systems during operations, construction, or investigations.	365 days	System operated to achieve availability and operational hours.
		Provide electricians within one hour to support unscheduled operations, emergency switching, or problem investigation. NOTE: The Low Voltage Systems include the facility main disconnect means, secondary distribution systems, emergency systems, and general lighting.		Electricians available on time for operations, switching, or problem investigation.
		Perform operations using UP's where applicable. Always use written UP's when isolating facilities or equipment that has dual sources.		UP's are accurate and executed when needed.
		Initiate SR, corrective action, and notify the Operations ***TMR** within 8 hours of any anomalies. Immediately mitigate any hazardous conditions. Comply with 30TAC 117.206(i), Operating Restrictions, and 30TAC 117.219(f)(10), Records of Operations.		SRT and corrective action initiated and Operations ***TMR** notified on time. Hazard mitigation accomplished.
4.2.3.2.2	Standing Work			
4.2.3.2.2.a	Power Generators Test CTS and Emergency Power Generators	Test CTS and Emergency Power generators to ensure equipment starts up and comes on-line as required. Once a week, manually operate the equipment for 1 hour. Comply with 30TAC 117.206(i) Operating Restrictions and 30TAC 117.219(f)(10) Records of Operation. Initiate SRT and corrective action for all anomalies within 24 hours. NOTE: For system definition see Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.2.16. NOTE: Generators are located at Buildings 3, 8, 9, 10, 15, 17, 29, 30A, 32, 37, 44, 259, 343N, E260, and E990.	52 weeks 16 Generators	Equipment properly tested on schedule. SRT and corrective action Initiated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.3.2.2.b	Electrical Power Loads Read and Record Electrical Power Loads in the MCC Complex	Read and record data for MCC electrical power loads. See following forms for minimum data to be collected every 4 hours ***daily (D7)** and electronically recorded within 4 hours of collection: a. ****Building 30S Switchgear** b. ****A-1 Power Load Log Buildings 30M & 48** c. ****A-2 Power Load Log Buildings 30M & 48** d. ****Building 30S UPS**	365 days	Accurate data collected and electronically posted on time.
4.2.3.2.3	Electrical Power Systems Loads Transfer Transfer Loads in MCC for Operation Load Balance and Maintenance Support.	Transfer loads on the Electrical Power Systems in the MCC for maintenance support work and for operational requirements such as load redistribution for load balancing. Develop procedures detailing the required activities for standard transfer of loads in the MCC Electrical Systems.	365 days	Loads are accurately switched using approved UP's or OP's.
4.2.3.3	HVAC			
4.2.3.3.1	Operations			
	Information	Paragraphs 4.2.3.3.2 and 4.2.3.3.3 described below include Section J, Attachment N, Exhibit N-1, Table 1 System Definitions 1.1.01, 1.1.02, 1.1.03, 1.1.06, 1.1.07, 1.1.08, and 1.1.10.	See below.	
4.2.3.3.1.a	HVAC Systems Operate and Monitor the JSC Facility HVAC Systems	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definitions 1.1.01, 1.1.02, 1.1.03, 1.1.06, 1.1.07, 1.1.08, and 1.1.10 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Provide operations support for HVAC Facility Systems outages and reconfigurations. Remove from service, drain, secure, tagout and return to service as defined in UP or SM Task Instruction. Reconfigure equipment as required to support special requirements, additional hours, construction or outage tasks. NOTE: See following form for current equipment operated by the roving operators: ****Schedule of Equipment Startup by Roving Operators**. NOTE: Systems include but are not limited to chilled water, direct expansion, pre-treated outside air systems, central station units, portable spot coolers, window units, D/X split systems, fan coil units, condenser units, package units, and floor mounted computer room type units.	365 days	Systems operated to achieve output, availability and operational hours required.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Adjust equipment to maintain correct output and operating parameters. Restart equipment as required following fire alarm activation. See the following operating procedures for examples of required operating documentation: a. ****OP-C1B Building 30M Critical Power Checklist** b. ****OP-C1C Building 30S Critical Power Checklist** c. ****OP-C1D MCC Complex Operations Short System Checkout for Delayed Space Missions** Maintain accurate and timely records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level. Adhere to all Environmental Protection Agency regulations and standards including 40CFR 82.156. Provide notification to Environmental ***TMR** for extension requests.		**Refrigerant records are accurate and regulations are followed.**
		Visually check ***daily (D7)** all JSC HVAC components (cooling tower structures, pumps, compressors, evaporators, chilled water coils, hot water coils, steam coils, controls, refrigeration lines, piping, insulation, supply and exhaust fans, etc.) to identify potential problem areas. Report anomalies immediately to Operations ***TMR** and initiate SRT and corrective action within 8 hours. The check data shall also be made available for use in the Facility Condition Assessment (FCA) Plan described in Annex 3.	For number of HVAC components see SM Database.	Operators to have visual check on all equipment they locally operate daily and other checks are to be accomplished in conjunction with the SM program. SRT and corrective action initiated and Operations ***TMR** notified on time.
4.2.3.3.2	Standing Work			
4.2.3.3.2.a	MCC Complex HVAC System Read and Record Meters/Gauges.	Read gauges and record data every 4 hours ***daily (D7)** for all pertinent MCC HVAC Systems. Electronically record within 4 hours of data collection. See following forms for minimum data to be collected. a. ****Building 30 MOW Operation Log** b. ****Building 30 MOW & MAW Operation Log** c. ****Building 30S Air Conditioning Log**	365 days	Data recorded accurately, on time and posted on time.
4.2.3.3.2.b	Hot Water Converters and Boilers Monitor and Inspect Hot Water Converters and Boilers.	Monitor the JSC hot water converter systems and JSC/EF hot water boilers to ensure that temperatures and pressures are per guidelines. Monitor monthly during heating season or year round where dehumidification is required. Inspect the hot water converter systems and hot water boilers for leaks and deterioration. Verify no natural gas leaks exist in the boiler systems. Natural gas leaks shall be immediately made safe upon discovery.	365 days	Hot water converter systems temperatures and pressures are maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Record data weekly and add appropriate water treatment as needed. Reference ****Hot Loop Water Analysis** form for minimum hot water boiler data to be collected and electronically recorded. Post data electronically within 8 hours of collection. Initiate SRT and corrective action within 8 hours for all anomalies. NOTE: For JSC hot water converter systems definition see Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.08. NOTE: For number of hot water converters see ****SM Database**.		Accurate data electronically posted on time. SRT and corrective action initiated on time.
4.2.3.3.2.c	JSC Humidifiers Inspect Humidifier Systems at JSC.	Inspect the JSC humidifier systems monthly during heating season for proper operation, leaks, and calcium buildup. Initiate SRT and corrective action within 8 hours for all anomalies. NOTE: For number of humidifiers refer to the ****SM Database**.	365 days	Systems inspected on time. Initiate SRT and corrective action on time.
4.2.3.4	Potable Water and Domestic Hot Water			
4.2.3.4.1	Potable Water and Domestic Hot Water Systems Operate and Monitor Facility Potable Water and Domestic Hot Water Systems	Ensure Potable Water System operator support is available 24 hours a day to accomplish routine activities and respond to emergencies. **Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definitions 1.4.01 and 1.4.06 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.** Monitor control points and alarms. Respond to Building 1 water system alarms within 10 minutes and initiate remedial action within 5 minutes of response. Develop a checklist of items to monitor, including, but not limited to: a. condition of hot water pumps b. temperatures of hot water generators and hot water heaters c. condition of relief valves d. condition of backflow preventors, piping, pressure booster pumps, tanks and local alarms Perform checklist inspection and initial the checklist, indicating the date of inspection, and post on mechanical room door. Initiate SRT and corrective action within 8 hours for any anomalies found.	365 days	Potable water and domestic hot water distribution systems operation hours and outputs are maintained. Respond to alarms in Building 1 on time. Accurate data are recorded in the checklist on time. Checklist is continuously available for review. SRT and corrective action are initiated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: The facility potable and domestic hot water system does not require continuous coverage, but does require operator support to be available 24 hours a day to accomplish routine activities and respond to emergencies. The Potable Water System in the facilities provides water to rest rooms, sinks, showers, drinking fountains, etc. It also includes supply piping to Domestic Hot Water Systems, to Fire Water Systems, and make up supplies to mechanical equipment. The facility domestic Hot Water System provides for the generation and distribution of domestic hot water to rest rooms, sinks, cafeteria equipment and shower facilities.		
4.2.3.4.2	Water Operations Log Maintain a ***daily (D7)** Water Operations Log.	Maintain a ***daily (D7)** water operations log of operator maintenance and operator checks performed, including equipment status, if out of service; alarms; outages scheduled; visual checks accomplished; and SRT items identified.	365 days	Log is accurate and available continuously.
4.2.3.5	Compressed Air			
4.2.3.5.1	Compressed Air Systems Operate the Facility Compressed Air Systems.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.1.04 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3. Monitor data acquisition points using systems performance to verify proper control and operation. Reconfigure equipment for special requirements or support. Provide operations support for facility compressed air systems outages and reconfigurations. Tag out, secure, depressurize, etc., and return to service, the compressed air systems as defined in UP or SM task statement to support system or component repairs and maintenance. NOTE: There are two basic types of air compressors for the buildings: control air and shop air. Mall buildings have backup control air compressors that start when tunnel air is lost to the building. The outlying buildings with pneumatic controls have their own control air compressors and many have shop air compressors. There is one building air compressor per mall building except for Building 30M which has three and Building 30S which has none.	365 days.	Systems operated to achieve availability requirements and operational hours. Support provided for system or component repairs and maintenance.
4.2.3.5.2	Facility Compressed Air Systems Inspect Facility Compressed Air Systems.	Inspect the facility compressed air systems ***quarterly** to determine operational condition. Initiate SRT and corrective action within 8 hours for all anomalies. NOTE: There is one building air compressor per mall building except for Building 30M which has three and Building 30S which has none.	4 inspections	Systems inspected and SRT and corrective action initiated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.3.5.3	Backup Control Compressed Air System Functional test the Backup Control Compressed Air System.	Test the mall buildings control air compressors ***yearly** to verify automatic start up when a loss of tunnel air pressure occurs, proper operation of the air dryer, adequate air pressure, and flow from building system to support all control functions as required. Test shall be run for 24 hours to verify system. Initiate SRT and corrective action within 8 hours for all anomalies.	Test ***yearly**	System tested ***yearly**. SRT and corrective action initiated on time.
		Post data within 24 hours.		Data posted on time.
4.2.3.6	EMCS			
4.2.3.6.1	Building Control System Interfaces Test Local Building Control System Interfaces	Test ***yearly** the Building Control System, remote terminal units XL500's, PLC's, 20/20, and Metasys from local terminal interfaces to ensure proper operation. Use laptop computer and software interface when testing the system. All off-the-shelf software interfaces shall be kept compatible with hardware upgrades.	Test ***yearly**	System interfaces tested on time.
		For system definition see Section J, Attachment N, Exhibit N-1, Definitions 1.2.08, and 1.2.09.		
		Initiate SRT and corrective action within 24 hours for all anomalies.		SRT and corrective action initiated on time.
		NOTE: Execution of the remote control and data acquisition functions are accomplished through BCS's, XL500's, PLC's, and Metasys control units.		
4.2.3.7	Natural Gas			
4.2.3.7.1	Natural Gas Distribution System Operate and inspect JSC's and EF's Facility Natural Gas Distribution System.	Operate the system described in, and achieve output shown in, Section J, Attachment N, Exhibit N-1, Table 1, System Definition 1.4.04 and in accordance with all applicable OP's, O&M Manuals, and UP's for the operational hours as designated in Annex 2, Table 2-3.	365 days	System operated to achieve availability and operational hours.
		Monitor the system and equipment for proper operating pressure.		
		Inspect the system ***quarterly** for leaks. Initial the check and record the date of inspection. Immediately safeguard any conditions posing imminent danger to life, health or property. Initiate SRT's and corrective action within 8 hours for any anomalies.	Inspect ***quarterly**	Equipment inspected on time. SRT and corrective action initiated on time.
		NOTE: The natural gas system in the JSC and EF facilities includes the system from a point five feet outside the facility, including the building regulator, up to the equipment which it serves including generators, laboratory equipment, boilers, hot water heaters, heaters and test equipment. Natural gas is also provided to three water booster pumps at Building 322, one deep well turbine pump at well #4, and one raw lift pump at Building 223.		
		NOTE: See natural gas print ****C-SITE-700 Natural Gas Distribution System** and EF ****MUP's** for location of building regulator stations.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.3.7.2	JSC and EF Natural Gas Distribution System Log Maintain Natural Gas Distribution System Log of operator activities	Update the Natural Gas Distribution System log ***daily (D7)** to include status of valve configuration (if other than normal), equipment configuration status (if out of service), visual checks accomplished, SRT items identified, and outages scheduled. Ensure log is accurate and continuously available.	One log.	Log is updated on time, accurate, and available continuously.
4.2.3.8	Fuel Systems			
4.2.3.8.1	Portable and Stationary Equipment Tanks Maintain CTS Emergency Generators Tanks and other portable and stationary equipment tanks, such as pumps, generators, etc.	Provide, deliver fuel to, and fill the tanks of each CTS generator and other generators and pumps as needed. Maintain fuel levels such that activity is not interrupted. Caution shall be taken not to overfill tanks. Immediately safeguard any conditions posing imminent danger to life, health or property. NOTE: There are tank farms at Building 24, 48 and in the 300 area that are used to support normal equipment operations, natural gas outages, and missions. NOTE: 5 CTS generators. Stationary generators at Buildings 8, E990, and 37. Numerous portable pumps, etc.	15,000 gallons	Fuel levels provide uninterrupted operations.
4.2.3.9	Utility Support			
4.2.3.9.1	Valve Marker Identification Maintain JSC and EF valve marker identification.	Perform periodic inspection of JSC and EF marker identification of valves in the Distribution System which use the JSC standard yellow identification posts. Replace/paint missing identification posts and/or markers within 30 days. NOTE: Reference drawing ****C-Site-700 Natural Gas Distribution System, ****SM Plan and Drawings, ****C-Site-312, ****C-SITE-313, and ****C-SITE-314** and **EF Utility Prints** for number of valves.	365 days	Missing post or illegible identification markers are restored on time.
4.2.3.9.2	Recurring Work			
4.2.3.9.2.a	Utility Systems Locate, identify, and mark utility systems upon request.	Locate, identify, and mark utilities within 3 workdays of the request. Drawings shall be provided to the Contractor showing expected utilities and locations. Utilities shall be marked using colored flags and paints as specified by the Government. NOTE: This work is required through ****JA Management Guidance 8805.5, Excavation and Boring Permits**.	75 utility markings	Utility systems marked within 3 days of request.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.3.9.2.b	Utility System Operation Manuals, OP's and Equipment Documentation Develop, update, and maintain utility system operation manuals, OP's, and equipment documentation.	Develop or update and maintain Operations ***TMR** approved documentation for all activities which can impact the reliability of the utility systems, including utility system operation manuals, OP's, and equipment documentation. Develop or provide revised documentation within 6 months of contract start date and update within 3 months of changes thereafter. Operations ***TMR** approved OP's shall be electronically maintained with continuous Government access. Plant/system documentation shall be maintained and updated as required by ****JA Management Guidance 8830.1C, "Facility Baseline Documentation Requirements"**. Update the OP's, Operations and Maintenance Manuals and other baseline documentation for the following production, distribution, and facility systems as configuration changes are made: Steam, Boiler and Condensate Return Building 221, Building 48, high voltage and site electrical systems Chilled water systems Potable water systems Compressed air systems EMCS systems OCC systems Fuel systems Sanitary sewer systems Natural gas systems Low voltage electrical systems HVAC systems Maintain Facility Baseline Documentation available for review by Operations ***TMR**.	Annual revision or whenever configuration changes	Documentation and procedures for all specified systems are accurate and updated on time. Facility Baseline Documentation is maintained and available for review by the Operations ***TMR**.
4.2.4	Personnel Requirements			
	Information	See Annex 1. Equivalent criteria or substitution may be submitted for approval to the Operations ***TMR**.	See below.	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.4.a	Trained/Certified Personnel Use only trained/certified personnel for all utility systems operations.	Ensure trained/certified personnel with qualifications, technical knowledge, and skills are used to manage, supervise, operate, and maintain the JSC utility systems. Make available to the Operations ***TMR** upon request current certifications or evidence of experience for individuals performing services.	Contractor determined.	Only trained, certified, and/or Operations ***TMR**-approved personnel are used to operate utility systems. Records are made available to the Operations ***TMR** upon request.
4.2.4.b	Journeyman Linemen Provide and use journeyman linemen or equivalent title to perform operations and services on the electrical transmission/distribution system and the 15kV facility switches.	A journeyman shall have successfully completed an apprenticeship training program. Specific experience shall include cable splicing, switchgear and line work, breakers, meters, transformers, and relays testing and calibration on high voltage.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.c	Plant/Operations Engineers Provide and use qualified personnel to perform duties of plant/operations engineers.	Engineers shall have successfully completed a 4-year Mechanical, Electrical, or Civil Engineering or Engineering Technology, Science, Mathematics or Physics program with a minimum of a Bachelor's degree and 3 years experience in plant operations in plants similar in size and type as those at JSC. Engineers shall have full certification within 6 months after contract award. See the following documents for details of the certification process for Operations Engineers: Building 48: ****Plant Operations Directive: MCPP Operations Qualification Requirements** ****Qualification Standard for Power Plant Operations Engineer** ****Qualification Checkoff Card MCC Power Plant Operations Engineer** ****Qualification Checkoff Card Subject Experts MCC Power Plant Operations Engineer** Building 24/28: NOTE: Certification documents for the Building 24/28 Plant Engineer are currently being developed and shall be similar to those for Building 48.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.4.d	Journeyman Boiler Operators Provide and use journeyman boiler operators and chiller plant operators or equivalent titled personnel to operate the central plant boilers and the OCC.	Boiler operators shall have successfully completed a 4-year technical training program or have two years specific experience with steam boilers in a plant similar in size and type as those at JSC. Central Heating and Cooling Plant, Auxiliary Plant, and OCC operators shall have successfully completed a 4-year technical training program or have two years experience in operating a plant similar in size and type as those at JSC. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Boiler operators and chiller plant operators shall have full certification within 6 months after contract award. See the following documents for details of the certification process for both boiler operators and chiller plant operators: Building 28: a. ****Plant Operations Directive: ACP/Tunnel Operations Qualification Requirements** b. ****Qualification Standard for ACP Operator** c. ****Qualification Checkoff Card ACP Operator** d. ****Qualification Checkoff Card Subject Experts ACP Operator** Building 24: a. ****Qualification Checkoff Card CH&CP Chief Operator** b. ****Qualification Checkoff Card CH&CP Operator**	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.e	Water/Wastewater Operator Provide and use Certified Water Operators	Water/Wastewater operators shall have the training and certification as required by the TNRCC to operate a non-transient, non-community public water/wastewater system. A Journeyman shall have successfully completed a 4-year technical training program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Specific experience shall include detailed working experience and knowledge of transmitters, switches, thermocouples, controllers, relays, calibration and all instrumentation and control of pneumatic, electro-pneumatic, electrical, and mechanical devices and systems. Operators shall have appropriate licenses required by the State of Texas.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.4.f	Electronic Technicians Provide and use journeyman electronic technicians or equivalent-titled personnel to perform operation or services on microprocessor and electronic systems or components and plant equipment.	An electronic technician shall have successfully completed a 4-year technical training program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Specific experience shall include detailed working experience and knowledge of electronics, microprocessors and interface systems, computer logic, communications, programmable logic controllers, instrumentation devices, controllers, traffic light systems, and automatic doors.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.g	Instrumentation Control Engineers Provide and use instrumentation control engineers or equivalent titled personnel to perform operations services and field programming on the EMCS Building Control Systems.	Engineers shall have successfully completed a 4-year engineering degree from an accredited university with a Bachelor of Science in Electrical Engineering (BSEE) or equivalent degree and at least 3 years experience with PLC's, Energy Management Systems, communications, programming of field devices (PLC's, Building Control Systems, etc.), and HVAC controls and instrumentation. One year applied communication experience is required.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.h	Computer Programmer/System Analyst Provide and use computer programmer/system analyst or equivalent title personnel to perform operations and services on Energy Management Computer Systems.	Programmers shall have at least four years experience and a strong background in PC applications environment. Programmer shall be very proficient in PC Windows applications (Excel, Access data base, data base queries), Dynamic Data Exchange (DDE) protocols, data manipulation and programming to develop application programs, data bases, reports, trends, listings for performance monitoring, data collection and energy management requirements/support. Additionally, programmer shall have network programming knowledge necessary to setup and retrieve data on multiple shared data bases from different platforms. Programmer shall have strong background in the above-mentioned computer applications programming utilizing tools. Familiarity with engineering principles and mathematical statistics is required.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.i	Electrical Manager Provide and use electrical manager with the qualifications, technical knowledge, demonstrated experience and skills required to efficiently manage, supervise, operate and maintain the JSC and EF electrical transmission, distribution, and facility systems.	The electrical manager shall have successfully completed a 4-year technical degree from an accredited engineering college, have a minimum of 5 years of experience, and be a registered engineer. Specific experience of 15 years in the operation and management of 120V to 138kV utility or large industrial electrical systems including generation may be substituted for a technical degree. Specific experience shall include design and cost estimating; knowledge and ability to generate and modify electrical and geographical system utility maps, one-line drawings, and shop drawings; perform trouble shooting and repair; system load and fault current analysis; relay coordination; tests and measurement; system operation and switching including operation of SCADA system and centrally located back-up generators.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
4.2.4.j	Journeyman Electricians Provide and use journeyman electricians or equivalent titled personnel to perform operations and services on the JSC electrical distribution system.	A journeyman shall have successfully completed an apprenticeship program. Specific experience shall include cable-splicing, switchgear and line work, breakers, meters, transformers, relays/circuit breaker testing, and calibration of systems less than 12kV.	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.4.k	Journeyman Power Plant Operators Provide and use journeyman power plant operators or equivalent titled personnel to operate the Emergency Power Building.	Power plant operators shall have successfully completed a 4-year technical training program or have three years journeyman specific experience with power systems in a plant similar in size and type as those at JSC. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Power plant operators shall have an interim operation certification at the end of the phase in period and full certification within 6 months after award. See the following documents for details of the certification process for power plant operators: Building 48: a. ****Plant Operations Directive: MCPP Operations Qualification Requirements** b. ****Qualification Standard for Power Plant Chief Operator** c. ****Qualification Checkoff Card MCC Power Plant Chief Operator** d. ****Qualification Subject Experts MCC Power Plant Chief Operator** e. ****Qualification Standard for Power Plant Operator** f. ****Qualification Checkoff Card MCPP Operator** g. ****Qualification Checkoff Card Subject Experts MCPP Operator**	Contractor determined.	Degrees, certification, licenses, and experience history are on file for Government review and approval.
4.2.5	Records, Reports, And Submittals			
4.2.5.1	Water Utility Report Provide Water Utility Report.	Provide a Water Utility Report - See DRD AN-4-1.	Per DRD.	Accurate report provided on time.
4.2.5.2	Required Submittals Develop/maintain/submit the submittals specified.	Provide, maintain and update the Mission Readiness Plan - See DRD AN-4-2. Provide, maintain and update a Fire Hydrant and Facility Flushing Program for JSC and EF - See DRD AN-4-3. Provide, maintain and update O&M Manuals for Water Supply Systems at JSC and EF - See DRD AN-4-4.	Per DRD.	Accurate information available for each mission. All fire hydrants scheduled and flushed per schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide, maintain and update EMCS Alarm Management Plan and Procedures - See DRD AN-4-5.		Accurate, up-to-date documents. Continuous tracking of system alarms available.

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5 ENGINEERING

5.1 General Information

5.1.1 Annex Description

This Annex identifies the facilities engineering support services required by the Government. Engineering called for in this Annex is exclusive of all engineering necessary to meet other Contract requirements as called for in other annexes. Days called out in this Annex are to be considered calendar days.

5.1.2 Reserved

5.1.3 Restrictions, Limitations, and Special Conditions

The Contractor shall plan and comply with appropriate personnel entry restrictions to secure facilities to accomplish the work called for in this Annex. These facilities are called out in the ****Alarmed, Card Reader, and Personnel Authorized Only Buildings** documents.

5.1.4 Professional and Non-Professional Engineering Services

Professional engineering services shall include, but not be limited to: civil, architectural, mechanical, electrical, structural, environmental, and fire protection. Some crane, instrumentation, electronic control, chemical, and other similar specialties will be required during the life of this Contract. Non-professional engineering services shall include, but not be limited to: drafters, detailers, Computer-Aided Drafting (CAD) operators, in-field testing and research, and other similar services required during the performance of engineering services.

5.1.5 Design Overview

This Annex addresses all engineering and design work where the construction value is less than $200,000. All designs for construction projects greater than $200,000 shall be covered by Annex 13. All designs and studies shall be prepared under the supervision of a professional engineer registered in the State of Texas and shall bear the seal and signature of the responsible registered engineer for each discipline worked. All designs and studies shall be in compliance with Federal, State, local, and JSC requirements and regulations. The Contractor shall coordinate designs and obtain approval signatures with the appropriate JSC organization which include, but are not limited to: the site Safety, Pressure Systems, Environmental, Fire Protection, the site customer, Government project engineer, etc., ensuring each design meets all appropriate codes and regulations. The Contractor shall retain sole responsibility for ensuring all designs comply with applicable regulations and also ensure all applicable designs meet ****NASA JSC Standards and Policies, 10 Code of Federal Regulations (CFR) 435 and 436, **E.O. 13123**, Section 401 and subsequent legislation. The contractor shall ensure that all energy efficient goods and materials are purchased in accordance with ****EO 131213**, Section 403-(b).

5.1.6 Design Reviews

The Government will request one interim review on a project-by-project basis for 20 percent of the projects with a construction value between $10,000 and $50,000. The Government may request a maximum of three interim design reviews, for example at 30 percent, 60 percent, and 90 percent for all projects with a construction value greater than $50,000. For each interim design review, the Contractor shall provide between three to five copies of the design drawings, specifications, and cost estimate. The exact number of required copies will be provided by the Government with the final scope of work for the design. The Government will provide its design review comments within 14 days of receiving the review drawings and specifications.

5.1.7 Scope of Work and Design Schedules

Periodically, high priority or emergency design tasks will be assigned by the Government requiring the Contractor to deliver a product earlier than the schedules called for in this Annex. If the Contractor can deliver the product at the earlier date without impacting the schedule of any other design work assigned to them, the Contractor shall so notify the Government, and proceed to perform the work to the earlier schedule. In this case, no adjustment will be made to the schedules of other work.

If, upon notification from the Government of a need for an earlier product delivery, the Contractor determines that meeting the earlier schedule will impact the schedules of other design deliverables, the Contractor shall identify and notify the Government within 1 day the affected task(s) where schedule slips are projected, along with the scope of work of slip for each affected task. The Government will, at its discretion, negotiate and procure an accelerated design as an IDIQ and delivery order per Annex 6.

5.1.8 Definitions

Master Facility Drawings - Drawings, hard copy or electronic, that act as the official record of the site's facilities and have not been vectorized.

Raster Master Drawings - Master facility drawings that have been scanned into an electronic format.

As-Building - Master facility drawings that accurately represent existing conditions in the field.

Work Authorization Document (WAD) - Single form used to authorize work, record site customer requests, **** SOW**, design requirements, status, costs and funding authorization.

Design Package (Final Design) - A final design package includes: Final ** **SOW**, engineering calculations, a copy of the relevant catalog cut sheets, design drawings (manually drawn or created by CAD), the specifications, and final construction cost estimate.

Construction - Any and all field work for the purpose of constructing new facilities, and modifying, rehabilitating or repairing existing facilities. Construction schedules incorporate Shuttle Transportation System (STS), International Space Station (ISS) flight and simulation schedules, outages, and any other known restrictions.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.2	**Scope of Work (** SOW)** Develop ** **SOW** to meet site customer requests.	Develop accurate facility modifications to meet site customer requests. Coordinate with appropriate Government personnel, site customers, and Contractor personnel to develop all requirements, perform field investigations, research facility drawings, and perform an engineering analysis to determine the facility modifications, new construction, or both necessary to meet the site customer requirements. The analysis shall include, but not be limited to: a review of Reliability Centered Maintenance (RCM), Life-Cycle Costs (LCC), good engineering practices, safety requirements, environmental impacts, asbestos abatement, hazardous waste generation, secondary containment, lead paint abatement etc. a. ** **SOW** shall be clear, concise, and completed with all required information to clearly define design requirements. Develop performance requirements within the ** **SOW** to specify pass-fail criteria for the final design package. ****SOW Examples.** Determine the construction cost-range and schedule completion for the final design package per Table 5-1. The ** **SOW** construction cost ranges shall be as indicated below: $0 – $2,500 $2,500 – $10,000 $10,001 –$25,000 $25,001 – $50,000 $50,001 – $100,000 $100,001 - $200,000 NOTE: Schedule provides for proper design review and comments by the Government if applicable.	300 ****SOW's** See Table 5-1	** **SOW** submitted on schedule and accurately identifies all facility design modifications and cost range.
		b. Submit ** **SOW**, construction cost-range, and schedule completion for the final design package to the Government and site customer via electronic mail per the schedule below: 1. Provide ** **SOW** and final design package within 28 days receipt of the WAD request when the facility project estimated construction value is less than $2,500. 2. Provide ** **SOW** within 10 days receipt of the WAD request when the facility project estimated construction value is between $2,500 and $25,000. 3. Provide ** **SOW** within 15 days receipt of the WAD request when the facility project estimated construction value is greater than $25,000.	Nothing additional	Process ** **SOW** on time and final design if required.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: Final design package timetable begins when WAD request is submitted to the Contractor from the Government and is not contingent upon Government approval of ** **SOW**. The final design package timetable is complete when the Government receives all deliverables that constitute a final design package.		
		c. If requirements change during the design, review the project to determine if the construction cost range or schedule are still valid. Reflect all changes in the project ** **SOW** and update the Government and site customer within 3 days of change discovery as to the scope change and the basis for the change. Increases in the construction cost range or schedule will require a revised ** **SOW** submitted to the Government and the site customer within 3 days of change discovery.	Nothing additional	** **SOW** changes are timely and accurate.
		d. Conduct bi-weekly meetings with the Engineering Technical Management Representative ***TMR** to present the status of the ** **SOW**'s, designs, studies, construction cost ranges or estimates, as-building status, and construction in work. Meetings shall cover all engineering work performed on the contract.	26 meetings	Meetings are organized and punctual. No unapproved meeting cancellations. The Contractor makes formal presentations of project status.
5.3	**Engineering Designs** Provide final engineering design package.	Ensure an accurate final engineering design package that reflects ** **SOW**. a. Provide the final engineering design package necessary to make the correct facility modifications and new construction to meet the requirements determined in the project scope of work. The designs shall accommodate the modification, repair of existing, and construction of new facilities necessary to meet the customer requirements identified on the ** **SOW**. All designs shall meet the scope of work requirements and in accordance with ** **NHB 7320.1B, Facilities Engineering Handbook.** Ensure all applicable designs meet ****NASA JSC Standards and Policies, 10 Code of Federal Regulations (CFR) 435 and 436, and subsequent mandated legislation.** All engineering design construction drawings shall be formatted per the ****Facility Type Drawing and Documentation Procedures Manual, JSCM 8823.2.** Utilize Government furnished specification book as required to produce designs for Contractor use. ** **Specification Book.** Produce final cost estimate based upon the final design and format per Annex 6.	300 designs	Final design package produced on schedule, reflects ** **SOW**, and has no design deficiencies that impact cost or schedule. Design package provides accurate detail to validate construction.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Produce copies of final design package for the Contractor construction personnel. Deliver one set of final design drawings and specifications to the site customer and two copies of final design package to the CO per the schedule on Table 5-1. ****Design Package Examples**.		Construction cost estimate is accurate and reflects final design
		c. Record engineering review comments on **** NASA Review Comments Sheet, JSC Form 97** for all interim or final design review comments by the Government. For the comments which the Contractor agrees are correct, the Contractor shall incorporate them into the design package without further direction from the Government. Respond to all comments as directed by the Government within 5 days after design review for all projects with a construction value less than $50,000 and within 5-10 days for all projects with a construction value greater than $50,000.		
		d. The COSS Contractor shall fix any construction or performance problems that may arise due to errors or omissions from designs performed by the COSS Contractor.		
		e. Maintain and update Government furnished specification book as required to produce designs. Update the ****Specification Book** per changes to Government-furnished ****Standard Policies and Procedures**, Government-furnished SPECSINTACT Submasters (See ****SPECSINTACT Submaster Index**), or the Construction Criteria Base (CCB) NASA SPECSINTACT master text, whichever is the latest and most applicable		Specification book is accurate.
5.3.1	Field Design Fix Correct field problems due to differing site conditions	Perform requirements gathering, field investigation, and engineering analysis, as required, to correct problems found in the field during construction, resolve discrepancies, and ensure facility modifications or new construction meet the Government's requirements. Notify the Government of all construction changes before deviating from the drawings funded for construction. Perform field check and problem analysis, and submit solution to Government within 24 hours of problem discovery. If drawn engineering fix is required by the Government, provide for Government review within 48 hours of problem discovery. Notify the Government of all construction deviations made from the drawings funded for construction.	20 field fixes	Field problems correctly identified and submitted on time.
5.4	**Submittal Shop Drawing Review** Provide miscellaneous equipment and detail drawings to the Government.	Conduct miscellaneous shop drawing and submittal reviews during construction as required to ensure designed facility modifications meet the Government's requirements. Ensure shop drawings and submittals are reviewed by registered professional engineers. Allow 36 hours minimum for Government review. The Government shall have final review and approval of all comments and changes of the shop drawings and submittals made by the Contractor.	15 reviews	Review of submittal drawings are accurate and timely.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.5	**Master Facility Drawing Updates** Ensure accurate master facility drawings.	Provide accurate NASA master facility drawings to reflect field conditions. a. Accurately review, revise, create, and update all affected NASA master facility drawings to accurately reflect the field conditions upon completion of any facility modification or new construction work. Update drawings when a facility modification or new construction results in a change to Government property including, but not limited to: facilities, electrical and climate control systems, controls, plumbing, utilities, roads, and grounds. As-build the color coding of the electrical wiring servicing equipment and panels shown on the one-line diagrams and panel schedules. See ****Electrical Panelboard Update.** As-build to the level of detail presently found on the master facility drawings. Review and research all available sources including, but not limited to: redlines, shop drawings, submittals, existing master facility drawings, CAD or hard copies, and field checks to determine those affected by each facility modification. See ****Master Facility Drawing** examples. As-build all constructed projects within 90 days of construction field completion as determined by the Contractor. As-building of all construction projects with a construction value greater than $200,000 or designs not performed by the COSS contractor will be addressed in Annex 13 or as directed by the Government. NOTE: Of the approximately 18,000 Government master facility drawings, about 10,000 are hardcopy only, about 5,000 are fully CAD (Intergraph – DGN format), and about 3,000 are scanned (TIF and CIT format). b. Once the master facility drawings have been updated, deliver final design drawings, redlines, any new master drawings, and the updated masters to the Engineering Drawing Control Center (EDCC) within 5 days of drawing completion or CO review approval. All updates shall be formatted per the **** Facility Type Drawing and Documentation Procedures Manual, JSCM 8823.2**, and the ****CAD Standards Manual for Facility Drawings, JSCM 8822**. c. Provide a weekly report showing a project's ongoing building status and verification that completion met the schedule. The report shall cover all as-building work performed on the contract.	2,500 drawings See Table 5-2	Accurate update of all master facility drawings and final delivery of drawings on schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.6	**Redline Verification Reviews** Ensure redline documentation for construction projects.	For open, competitive bid construction projects by the Government with a value between $50,000 and $500,000, participate with the Government in three redline verification reviews to ensure the construction redlines are clear and complete as the project progresses. Record discrepancies and indicate where clarification is required to produce accurate redlines.	5 reviews	Accurately document problems with redline discrepancies and clarity.
5.7	**Engineering Drafting Support Services**	Support Services provide over and above the requirements for engineering designs (CLIN 5.3)	See Below	See Below
5.7.1	Standard Detail Drafting Ensure accurate update of standard CAD engineering drawings.	Accurately create or update the standard CAD engineering drawing details to match redlined information provided by the Government within 2 weeks of assignment. ****Standard Details** and per the ****CAD Standards Manual, JSCM 8822.**	25 drawings	Accurately update the standard details on time.
5.7.2	Miscellaneous Design Drafting Support Accurate drafting services for all design tasks.	Perform drafting services for tasks given by the Government. Accurately revise, including but not limited to: the ****Standards for Identification Plaques Drawing**, the appropriate master facility drawings, Master Utility Plan (MUP), Construction of Facilities (CoF) project drawings, etc., to match redlined information provided. Accurately update tasks within 3 to 14 days. NOTE: The exact schedule for each task shall be given when the task is assigned.	120 drawings	Accurately update drafting tasks on time.
5.7.3	CAD file format support for AE / other contracts Ensure Architect-Engineer CAD File Review	Provide review of CAD file format received by the Government from outside Architect-Engineer (A-E) firms. A sampling of CAD files will be reviewed for compatibility with the Contractor's CAD system. Provide written suggestions to assure the outside A-E creates the best files possible to be read by the Contractor's system when the project is asbuilt. Provide written suggestions, which assures best compatibility within 5 days of each request. NOTE: The majority of the CAD file formats presently received are Auto-Cad (dwg or dxf) format.	5 reviews	CAD file format review provided when requested. Suggestions provided within 5 days.
5.7.4	Ensure Electronic File Distribution of drawings	Provide and deliver electronic file copies of the latest standard details, FHP's, and CAD as-built drawings as designated by the Government. Provide the files in the most compatible format available for the receiver's CAD System to read and modify.	Distribute 1,100 files	Files delivered in the proper format.
5.8	**Inspection, Permitting, and Documentation Services**			
5.8.1	Cable Permits Issue cable permits.	Perform review of construction drawings created by other contractors. Ensure installation, rerouting, or removal of cables, conduits, etc., from buildings or the site's tunnel system meets JSC's facility criteria. Upon design review approval, issue a building or tunnel access permit within 1 day. Upon design review rejection provide a written explanation to the requester within 1 day. Accurately document all requests for permit and their disposition.	25 tunnel permits	Accurately review construction drawings and issue documentation on schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.8.2	Inspect Cable Changes Ensure inspections for cable permits are issued.	Perform three inspections per permit issued for each installation, modification, and removal of cables, conduits, etc., by other contractors. Notify the Government within one ***workday** when the other contractor does not perform the work as shown on the drawings for which a permit was issued. The first inspection shall take place when the initial permit is requested to ensure the route picked by the other installation contractor is reasonable and workable. The second inspection shall take place between 40 and 60 percent of installation completion, and the third inspection within 1 day of work completion per the installation schedule.	35 permits	Inspections are accurate and on time. Work violations inspected and reported to the Government.
		For tunnel inspections, adhere to the JSC Tunnel Entry requirements. For building inspections, adhere to all codes and regulations necessary to enter the ceiling plenum where asbestos is present.		All requirements for tunnel and ceiling plenum entry are followed.
		Establish and maintain a database which tracks, including but not limited to: all site cable, conduit, routing information, cable owner, etc., within 3 days of any cable work completion. ****Tunnel Cable DataBase Record.**	25 records	Database is current and accurate.
5.8.3	Digging Permits Issue digging permits.	Review construction drawings created by other contractors to ensure installation, rerouting, or removal of cables, and conduits of the site's underground/buried utility systems meets JSC's facility criteria. Ensure that all potential hazards and position conflicts resulting from such installation are identified visually in the field with paint or tape and conveyed verbally to the Government or construction project manager and to the team physically handling the installation. Review submitted construction drawings and respond to the Government within 7 days of receipt.	50 digging permits	All requests for permits are documented accurately by the Contractor.
5.9.	**Facility Housing Plans** Provide accurate Facility Housing Plan (FHP) drawings.	Update FHP drawings, facility drawings, the Computerized Maintenance Management System (CMMS) database, and the Electrical Equipment (EE) database to reflect current room numbers and location of walls and partitions within Government and Government-leased buildings. Provide the data linking necessary for communication between the FHP's and the Space Utilization Management System (SUMS) Database in Fox-Pro or equivalent system. Format each update according to the ****FHP Drafting Standards**, and all room numbers shall be legible when photocopied.	See below	FHP accurately represents the current architectural configuration of the area. FHP is accurately linked to SUMS or equivalent system.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Field Check Updates - Perform field inspections of JSC onsite and offsite facilities per the **__FHP Field Check Schedule__ to verify all FHP drawings are accurate and/or to verify space-type usage of rooms in the buildings. Update FHP's, facility drawings, the CMMS database, and the EE database, to reflect current configurations resulting from wall modifications and room number changes identified during inspections.	525 drawings	Field check all onsite and offsite buildings within schedule. Accurately update FHP drawings within schedule.
		Complete field check updates within 7 days of field inspection during which the error is found.		
		Field check all onsite and offsite buildings at least once a year.		
		Revised FHP drawings shall be provided on 8-1/2" x 11" and 17" x 22" plots.		
		Plot drawings to the following scale:		
		1/32" = 1'-0" for 8-1/2" x 11"		
		1/16" = 1'-0" for 17" x 22."		
		Maintain one original copy of each size plot for own use and provide one original copy of each size plot to the Government. The Government shall be notified of any incorrect or missing room numbers.		
		Update the "Field Check Schedule" when buildings are added to or deleted from JSC. New buildings shall be field checked within 1 year of Government acquisition. Changes to the schedule, for reasons other than the addition or deletion of a building, are allowed only with the prior approval of the Government. Provide the Government a copy of the new schedule whenever the schedule is changed.		Provide schedule changes to the Government within schedule.
		Provide schedule changes to the Government within 7 days.		
		b. Redline Updates - Update FHP drawings, facility drawings, the CMMS database, and the EE database, per redlined drawings provided by the Government from bid construction work or from organizational modifications submitted by site customers. Field verify that red-lines are accurate.	75 drawings	Accurately update FHP drawings within schedule.
		Perform updates within 7 days of request by the Government.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Construction Updates - Create new or update existing FHP drawings affected by construction projects performed by this Contract. When notified that a design supports a furniture move, provide at the end of that design an updated FHP representing the future wall configuration. This "preliminary" FHP will be provided electronically to the Government for furniture layouts. A hard copy of the preliminary drawing will be provided to the Government for planning purposes.	80 drawings	Accurately update FHP drawings to reflect final configuration within schedule.
		Accurate preliminary drawings are provided electronically within 1 day of the Government approving final design. Accurate hard copies of preliminary drawings are provided to the Government within 7 days of final design. Once construction is complete, field verify the actual wall configuration and update the "preliminary" FHP to reflect final configuration.		Provide accurate preliminary FHP drawings to the Government within schedule.
		Perform field verification within 7 days of construction completion. Provide final FHP to the Government within 7 days of field verification.		Provide accurate final FHP drawings to the Government on time.
		d. Based on updates pertaining to (a) or (b) above, if changes to room number configurations are identified during field inspections or via red-line drawings, assign room numbers, as outlined in the JSC Master Plan, to reflect the new configurations. Based on updates pertaining to C above, if changes to room number configurations are necessary due to the construction of new facilities or modifications to existing facilities, assign room numbers as outlined in the JSC Master Plan, to AE Designs, In-house Designs, Project Managers, etc., to reflect the new configurations. Assign room numbers due to modifications in room configurations, as identified by field inspections, redlined drawings, or construction updates, within 7 days of error identification or as requested by the Government. Assign room numbers due to the addition of a new building at 60 percent design completion. NOTE: Customer requests for room number changes will be approved by the Government prior to assignment.	150 room number assignments	Room Numbers are accurately assigned within schedule and as outlined in the JSC Master Plan.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		e. Distribute Updated FHP Drawings - Distribute updated FHP drawings to the Government and to an established ****FHP Distribution List** within 7 days of updates. Updated FHP drawings with wall modifications or room number changes will be distributed with a redlined FHP drawing showing the location of the changes. Maintain and update the distribution list currently in Microsoft Excel. Personnel, drawing type, and quantity distribution changes to this list will be provided by the Government. The Distribution List shall be kept current within 1 day of receipt of changes. Report changes within 7 days.	100 requests	Distribute updated FHP drawings to the Government and to an established ****FHP Distribution List** within schedule. Update ****FHP Distribution List** within schedule. Changes are reported within schedule.
		f. Distribute FHP Document - Assemble updated FHP drawings into the existing ****FHP Document**, produce multiple copies, and distribute to the Government and to an established ****FHP Distribution List.** The Government will review and approve the assembled document before reproduction and distribution. Changes to the distribution list require prior approval by the Government. Provide the ****FHP Document** to the Government and other site customers upon request. All FHP drawing updates completed prior to November 30 of each year shall be included in the document. The first 100 documents shall be initially distributed by January 15 of each year. Distribute the remaining 100 as requested. Copies shall be legible and shall be provided on 3-hole paper. Customer requests shall be met within 72 hours. Maintain one original copy and 25 stock copies for inspection by the Government.	200 FHP documents	Distribute ****FHP Document** to the Government and to an established ****FHP Distribution List** within schedule. Available for inspection by the Government.
5.10	**Fire Evacuation Plans (FEP)** Provide newly created or updated FEP.	Create, update, and maintain ****FEP drawings** as requested by the Government.	See below	****FEP Drawings** are accurately created, updated, and maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Update ****FEP drawings** - Maintain and update ****FEP drawings**. Coordinate with Facility Managers to identify location and placement of key evacuation and safety features in all facilities located at JSC. Perform field inspections to verify locations of fire hose cabinets, pull stations, and fire extinguishers. Modify existing ****FEP drawings** based on the FHP's to include key evacuation symbols.	35 drawings	
		Accurately update ****FEP drawings** within 14 days of request by Facility Manager. Fire Safety items shall be properly located on ****FEP drawings**. Where appropriate, FEP data shall be consistent with FHP data.		****FEP drawings** are accurately updated within schedule.
		Create and maintain a current list to document current ****FEP drawing** status.		List is kept current and available for inspection by the Government.
		Plot the updated ****FEP drawings** to an appropriate scale to fit the existing 18" x 24" black wood frames located in the facilities. Provide Facility Managers with finished plot.		Full plots fit within existing frames.
		b. Create New FEP - Provide one original plot mounted in 18" x 24" black wood frame for new FEP installations. Mount the FEP to the wall of the facility. Coordinate location with Facility Manager.	15 drawings	****FEP Drawings** are properly mounted within schedule.
		FEP shall be properly mounted on the wall of the facility within 14 days of request by the Facility Manager and shall not hinder surrounding areas.		
		c. Distribute FEP – Distribute updated ****FEP drawings** to appropriate Facility Managers and to the Government within 7 days of FHP update.	75 drawings	Properly distribute ****FEP drawings** within schedule.
		Maintain one copy and distribute one original 8½" X11" to the Government.		
5.11	**Real Property Accounting**	Process ****Real property Vouchers** to reflect additions and deletions to the site's asset accounts due to facility changes made onsite.	250 vouchers	Asset record values are reported accurately
	Maintain Accountability Records Ensure changes to site's asset accounts are recorded in Real Property Accounting System (RPAS).	Update and maintain the JSC RPAS or equivalent database and all hard copy historical files necessary to document all asset value changes. Provide programming and system support for the RPAS used in the Information Technology (IT) section of this contract. Support includes, but not limited to: questions, trouble shooting, and assistance in printing.		
		NOTE: The RPAS database is in Dbase 3 Plus with a Clipper compiler.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Prepare all documentation to accurately capitalize expense costs associated with real estate including, but not be limited to: new construction, maintenance, repairs, additions, extensions, relocations, disposals, leases, permits, agreements, out-grants, and in-grants. Evaluate construction redline drawings, transfer documents, and periodic reports from the Government-furnished **Financial Management Report and the **Information Management Accounting Systems (IMAS), and other related documentation to assist in ascertaining the actual cost data and identification numbers required for real property accountability.		
		Report asset record values in accordance with NASA **Financial Management Manual 9252; ** NASA Handbook NPG 8800.15,** Real Estate Management Program Implementation Handbook; ** NPD 8800.14, ** Policy and Procedures for Real Property Management; and ** Data Base User's Guides. Provide final documentation for accounting transactions for Realty Officer Certification.		Reports are on time, clear, and accurate.
		Provide field inspection to verify all work related to facility improvement or disposal and equipment installation or removal shown on supporting documentation agrees with actual state of existence. Complete field inspections and recording to include any adjustments resulting from inspection and recordings to include any adjustments resulting from inspection within 30 days of receipt of construction and financial from the Engineering *TMR. See ** Completion Notification Documentation Package.	Nothing additional	All field equipment has correct identification tags.
		Maintain and update the RPAS and any existing NASA Headquarters databases for real property such as, but not limited to: Annual Reports of Real Property Owned by the United States, Quarterly Inventory Detail Listing, Annual Inventory Reports, Annual Replacement Values using the JSC and NASA Real Property Data Base (RPDB) Systems, Annual Unneeded, Underutilized-Properties, Annual Facilities Summary, Annual Real Property Growth Quarterly Voucher Register, Quarterly General Ledger, Quarterly Card Control Register, Annual In-grant and Out-grant, Monthly Construction In-Progress, and Monthly Construction Work-In-Progress. **Real Property Reports.		
5.11.1	Account Reconciliation Ensure an accurate account of the quarterly and semi-annual in-house reconciliation.	Maintain account accuracy with quarterly in-house and semi-annual reconciliation with Financial Management for all real property under the jurisdiction of JSC at its Houston locations. This also includes facilities acquired by the JSC Exchange Council through non-appropriated funds. Complete backlog within 30 days from notification of financial completion.	400 subsidiary accounts	Account accuracy maintained and backlog is completed on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.11.2	Real Property Inventory Perform a 3-year inventory and report of collateral equipment.	Perform a 3-year Facility Equipment Inventory cycle per the latest Government schedule to accurately indicate all existing equipment and prepare a report to indicate the current ****Collateral Equipment Inventory.** At the end of 3 years, the Contractor shall prepare and maintain a new 3-year, Facility Equipment Inventory cycle. The Engineering ***TMR** will approve this schedule prior to implementation. Schedule total inventory for monthly segments and completed within the 3-year cycle. ****Real Property Inventory Schedule.**	800 line items	Existing equipment accurately inventoried and tagged on time.
5.11.3	Inventory Tagging Ensure label and tag of all installed (collateral) equipment valued over $5,000.	Label and tag all installed (collateral) equipment and maintain inventory control lists of all collateral equipment valued over $5,000 within 30 days of installation. Current tagged inventory is given in CLIN 5.11.2. Remove, as part of the 3-year inventory cycle, any existing inventory tags on items valued at less than $5,000. Update inventory lists and make available for inspection by the Government. Present for annual certification. NOTE: Field verification by the Government shall include matching of the equipment serial numbers, manufacturer identification, and location within the facility to the inventory listing.	110 items tagged	New equipment accurately tagged on time. Inventory <$5,000 correctly detagged. Inventory lists are current and available for inspection by the Government.
5.11.4	Records Research Ensure complete Government forms for disposal of real property.	Perform technical researches in the RPAS and hardcopy historical files and prepare required Government forms for the disposal of real property, declarations of non-utilization of real property, land asset changes, NASA and General Accounting Office Inspections, Executive Order (EO) Surveys and other Agency, Center, and Directorate reviews. Conduct reviews in accordance with **** EO 12512, Federal Property Management Regulation (FPMR) 101-47.8** and other specific Government direction. Provide response of existing information within 1 day. Provide response of chart generation within 3 days and specified times for general report production.	75 researches	No violations during reviews. Accurately complete and on time. Accurate response of existing information retrieved on time. Accurate response of chart generation on time.
5.11.5	Real Property Accounting System Data Entry Ensure data entry to JSC's RPAS.	Maintain accurate data to JSC's RPAS including, but not limited to: posting, editing, creating accounts, and generating the reports specified above. Operating Instructions are published for operation of the menu-driven database. Create operational procedures as systems are developed and maintained by the Contractor for all real property records maintenance. The **** RPAS Sample Sheets** represent the data screens the Contractor completes per voucher. ****RPAS User's Guide.**	250 voucher entries	Data maintained in RPAS is accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Enter data by close of business of the last workday of each month. Error checks shall be correct, and records shall balance in accordance with established RPAS methods. Maintain records consistent with quarterly, semi-annual, and annual Financial Management primary accounts. Document operational procedure changes made by the Contractor within 2 weeks. Maintain the NASA Headquarters Real Property Database (RPDB) and prepare information used for data entry to generate the site's current replacement value. Operating instructions are provided by NASA Headquarters for data maintenance and reporting functions. Convert entries in database by the Contractor from the Center RPAS. ****RPDB User's Guide.**		Records are accurate and changes are made on time.
5.11.6	Update Real Estate Drawings and Facility Master Plans Ensure updates to real estate drawings.	Maintain and update the JSC/EF/SCTF real estate drawings and facility master plans upon receipt of supporting documentation. Accurate updates shall be completed within 30 days of receipt of supporting documents.	4 updates	Updates are accurate and completed on time.
5.12	**SPECSINTACT System Maintenance** Ensure NASA's SPECINSTAT Software System is updated and maintained.	Maintain and update the NASA's SPECSINTACT Software System to produce project specifications for Government bid projects. Update the JSC Submasters twice a year and master text quarterly per the latest SPECSINTACT texts updates and format changes from the Government. Update the software twice a year per the latest SPECSINTACT software updates. Assist the Government with questions concerning, but not limited to: SPECSINTACT, historical projects, or system. The Government will be given 5 days to review and approve the Submaster changes before they are made available for project design use. Update within 30 days of receiving the latest SPECSINTACT software or text updates when received by the Government. Maintain two copies and original of the latest master text and Submasters on the shelf for use by the Government. ****SPECSINTACT Submaster Index.** Maintain back version releases of software, User guides, etc., for projects starting in that version for future reference by the Government.	4 updates of master text 2 updates of submasters	Text updates are accurate and available on time.
5.12.1	SWT Meeting Support Participate in monthly SWT meetings.	Coordinate and participate in monthly SWT meetings, which include, but are not limited to, addressing solving problems with the specification text and processing system. Recommend improvements, offer advice, and act as a resource to substantiate the validity of suggestions made by the team.	12 meetings	All SWT meetings are supported.
5.12.2	Process SPECSINTACT Text Changes Ensure text changes are incorporated.	Incorporate text changes recommended by the SWT, complete ****Specification Change Request Form 1620**, obtain the proper Government signatures, and mail it to the Kennedy Space Center (KSC) within 2 weeks of Government requests.	30 changes	Text changes are accurately incorporated and processed on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
5.12.3	Specification Production Ensure project specifications are created and updated.	For construction projects between $200,000 and $500,000, create and edit project specifications using CCB NASA SPECSINTACT software and text. Each new or edited project specification shall be based upon Government-furnished marked-up specifications at various stages of design. Complete each new or edited specification along with the Project Report capability contained in the SPECSINTACT System within 5 days.	30 edits	The new or edited specification is accurate on time.
		Evaluate the Government-furnished marked-up specifications and proofread before editing begins to ensure a full understanding of what and how the specification is to be edited. The edited specification shall be reviewed for elements including, but not limited to: spelling, sentence structure, punctuation, clarity, unresolved references, submittals or sections and accuracy.		The edited product is accurate and on time.
		Retain each SPECSINTACT master text version a minimum of 3 years and be able to complete a specification package started 3 years before.		Accurately maintain the ability to process 3 years old specifications.
5.13	**Personnel Requirements**			
5.13.1	Design Discipline Supervisors or Leads Ensure Professional Engineer registration.	Maintain professional engineer registration in the State of Texas, with minimum of 5 years of experience working in their discipline. Supervisor/Leads shall have the ability to seal and sign the final design product of the discipline personnel under their supervision. Provide at least one each Electrical, Mechanical, and Civil (Structural) registered professional engineer to seal the drawings for their engineering discipline.	Contractor determined	All design supervisors or leads have evidence of professional engineer registration in the State of Texas on file.
5.13.2	Design Engineers Ensure design engineers have degree/experience in their technical discipline.	Maintain evidence of engineering degree or designer with 3 years minimum experience in their technical discipline on file for Government review.	Contractor determined	All design engineers have evidence of degree or experience on file.
5.13.3	As-Building Drafting Personnel Ensure as-build drafting personnel experience.	Maintain evidence of drafting personnel with minimum of an Associate Engineering Technology Degree or experience equivalent. Ensure drafting support personnel has general knowledge of MicroStation Intergraph 5.0 or higher software and latest version of Auto Cad or manual drafting expertise, personal computer operations, construction practices, the ability to accurately read construction drawings, and recognize building components including, but not limited to: architectural, mechanical, electrical, and structural disciplines.	Contractor determined	All drafting personnel have evidence of experience or degree on file.
		Ensure personnel have effective oral and written communication skills for interfacing with site customers.	Contractor determined	

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5.13.4	Real Property Accountability Personnel Ensure support personnel experience in Government real estate.	Provide support personnel with 3-years specialized experience in Government real estate transactions and real property practices, terms and accounting practices; knowledge of facility-type equipment and components for identification purposes; and a willingness to expand expertise in these areas. Support personnel shall also be able to read construction drawings and have general knowledge of construction practices, computer operation, and standard software packages including, but not limited to: Microsoft Word, Mail, Excel, PowerPoint, and TruForm. Effective oral and written communication skills for interfacing with customers are necessary.	Contractor determined	All Real Property Accountability Personnel have evidence of experience on file.

Table 5-1. Design Workload Per Year

Construction Cost Range	Number Of *Designs	Final Design Package Completion Schedule
$0 - $2,500	70	28 days
$2,501 - $10,000	120	35 days
$10,001 - $25,000	70	50 days
$25,001 - $50,000	20	70 days
$50,001 - $100,000	10	85 days
$100,001 - $200,000	10	100 days

NOTE: The above schedule begins when the WAD is received by the COSS Contractor per CLIN 5.2

Table 5-2. Facility Master Drawings To Be Updated Per Year

Manual drawings to be updated	1,000
CAD drawings to be updated	900
Raster Masters drawings to be updated	250
Mission Critical drawings to be updated	300
Security drawings to be updated	50
Total Number of Facility Master Drawings to be Updated per year	2,500

ANNEX 6
NON-ROUTINE FIXED PRICE IDIQ
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6.1 FIXED PRICE INDEFINITE QUANTITY

6.1.1 General Information

This Annex defines the non-routine, firm-fixed price, Indefinite Delivery / Indefinite Quantity (IDIQ) portion of this Contract. The services to be provided include the management, planning, accomplishment, and Quality Control (QC) of a broad variety of IQ Delivery Orders (DO). (See the "BOSS RFP List 1997" file within the ****Work Order History** document in the Technical Reference Library (TRL). These services shall be furnished on an as needed basis, in response to IQ DO's, which are issued and authorized by the Contracting Officer (CO) per Section F.

6.1.2 Services Acquired Under IQ Provisions

The Government may acquire services under this Annex when:

a. Additional quantities of any service described in Annexes 7 and 14 are needed after the Contractor has furnished the maximum amount required in the referenced annexes;

b. Purchasing services specifically described in this Annex;

c. Procuring unspecified services that fall within the broad scope of the entire Center Operations Support Services (COSS) contract.

If the Government requires services in category "a." above, furnish them in accordance with (i) the performance requirements called out in Annexes 7 and 14 that are applicable to the ordered service, and (ii) any additional or changed requirements negotiated into the DO issued by the Government to obtain the service. If the Government requires services in categories "b." or "c." above, the requirements shall be included in the DO issued by the Government.

6.1.3 IQ DO Ordering and Proposals

When IQ work is required, the CO will issue an IQ DO for pre-priced work, or will issue a Request for Proposal (RFP) for non-pre-priced work. An RFP will contain, at a minimum, a scope of work and schedule for the required services. For non-pre-priced work, an IQ DO will be issued upon the acceptance of the Contractor's proposal in response to the RFP, or after the conclusion of negotiations, if negotiations were necessary.

a. Upon receipt of each RFP from the CO, the Contractor shall prepare and submit a DO proposal to the Government. The Contractor's proposal shall consist of a detailed cost-estimate, project schedule, and other information details or plans required by the DO description of the work, and the necessary documentation to indicate that adequate engineering and planning to accomplish the work have been done. This documentation includes a sketch or written document describing the work that the estimate was based upon. Preparation of proposals by the Contractor shall not constitute an obligation by the Government to issue a DO for performance, nor is the RFP to be construed as the Contractor's authority to commence work.

Subcontractor proposals shall be part of the proposal package submitted to the Government. The Contractor shall provide a minimum of 3 subcontractor bids, or the documents required to demonstrate price reasonableness in accordance with its approved purchasing system.

If required by the Government, prior to proposal submission, the Contractor shall respond to the needs of the Government by visiting the proposed work site in the company of the Indefinite Quantity (IDIQ) Technical Management Representative (***TMR**) to further define the scope of work. Upon establishment of the scope of the work, the Contractor shall prepare a proposal to accomplish the task.

b. Transmit proposals electronically, by means of computer disk or local area network, when so directed by the Government. The software used to prepare such proposal submissions shall be Microsoft Windows compatible. Submit a minimum of three hard copies of all proposals.

c. Detailed proposals shall be submitted within the period specified by the "classifications" stated on each RFP. Due dates for proposals are based on the urgency of the Government's need for the required services and will be stated as one of the following "classifications:"

Class I: A complete proposal is required within 5 calendar days of receipt of an RFP.

Class II: A complete proposal is required within 14 calendar days of receipt of an RFP.

Class III: A complete proposal is required within 20 calendar days of receipt of an RFP.

d. If the Contractor cannot meet the requested schedule, notify the Government within 2 days of RFP receipt and explain the reason(s) why. Propose an alternate schedule, subject to approval by the Government.

6.1.4 Cost-Estimates

Use the Means Electronic Cost DataBases and computerized estimating software to prepare all cost-estimates for IQ proposals. Provide copies, documentation, and support of this automated estimating system software to the Government per CLIN 8.9.6.

6.1.4.1 Means Cost and Non Pre-Priced Work Coefficients

(a) Coefficient factors shall include the price elements specified below. Accordingly, the following shall not be separately priced in submitted proposals: bin materials described per CLIN 6.1.4.7.; compliance with environmental, health and safety laws; permits, licenses and fees; protection and moving of Government property; administrative support; submittals; proposal preparation;

price quotations; clean up; all waste and excess materials; signs, barriers, and barricades; project management and supervision; clerical; quality control; office management and equipment; labor, and payroll; depreciation of equipment, tools, office equipment; employee payroll taxes, insurance; overtime premium, shift differential; fluctuations of IDIQ work within the ranges permitted in this contract; risk of poor subcontractor performance and reperformance; other risks of doing business; memberships; profit; and corporate headquarters expenses of any type. In addition, the following conditions shall not be separately priced in submitted proposals:

1. Work in phases.
2. Work in areas restricted by security.
3. Work in occupied areas.
4. Working through/above ceiling grids. (Excluding above ceiling asbestos cleaning or abatement work)
5. Work in congested space.
6. Allowances for utility and equipment outages, including lockout / tagout and circuit verification in the field.
7. Work in critical areas.

(b) The following items listed in the Means Unit Price sections shall also be included in the coefficients, if required, and shall not be separately priced in submitted proposals:

Section	Title
01100	Summary
01200	Price & Payment Procedures
01300	Administrative Requirements
01510	Temporary Utilities
01520	Construction Facilities
01530	Temporary Construction
01540	Construction Aids
01550	Vehicular Access and Parking
01560	Barriers & Enclosures
01580	Project Sign
01740	Clean up

(c) In addition to the above listed Means Unit Price items, the following Non-Means items shall be included in the Contractor's coefficients and shall not be separately priced in submitted proposals:

1. All equipment and labor costs for work up to 15 feet above finished floors. (e.g. Ladders, rolling scaffolds, etc.)
2. Dumpster and loading charges for delivery orders with a total price of less than $25,000.
3. Equipment costs for traffic cones, caution tape, safety tape.
4. Equipment and labor costs for regular vacuums, HEPA vacuums and other cleanup work.
5. Equipment costs for small, commonly used tools.

6.1.4.2 Subcontracted Work Coefficient

This coefficient factor shall include all Contractor costs associated with the administration of the subcontract including, but not limited to:

1. Administrative and clerical support to solicit a subcontractor proposal and to prepare a proposal for the Government;
2. Subcontractor procurement; training the subcontractor for work on-site, management and supervision of the subcontractor;
3. Inspection, quality control, and any work associated with acquiring and ensuring poorly performed and warranty work is correctly completed.

6.1.4.3 Materials and Equipment Rental (MER) Coefficient

This coefficient factor shall include all costs related to securing materials and equipment leases to complete tasks directed on IDIQ Delivery Orders, including rollover maintenance Delivery Orders. No other coefficient shall be applied to these items. The MER Coefficient shall include all costs related to administrative support; procurement support including proposal preparation, solicitation of proposals, evaluation of proposals, placement of orders, tracking and expediting of purchase orders; receiving, handling, and storage of materials; and lease acquisition. Routine bin materials shall not be included in this coefficient.

6.1.4.4 Cost-Estimates for Unit Price Book (UPB) Work

a. The basis for the Contractor's cost-estimate shall be the prices published by the R.S. Means Company, Inc., herein after referred to as Means. Means Publications are available from the following source: R.S. Means Company, Inc., 100 Construction Plaza, P.O. Box 800, Kingston, MA 02364-0800, Telephone: 1-800-448-8182. Estimates and proposals shall be based on the edition of the R.S. Means Cost Data Publications current at the time of contract award and the respective quarterly updates. The Means Facilities Construction Cost Data, and the Means Facilities Maintenance and Repair Cost Data Publications shall be used for construction and maintenance and repair respectively. The Means Cost Data shall be used to determine the required trades, labor hours, materials (type, quantity, and base price), and the equipment type usage and price necessary to submit a detailed cost proposal to the Government. The Government will only be obligated to pay the lowest price derived from the various pricing methodologies described in this Annex.

b. The Means ***bare costs** for material, labor, and equipment, shall be adjusted by each CSI division per the City Cost Index (as published in the Reference Section of Means) for Houston, Texas, and the appropriate Contractor coefficient factor (see Section B). The resulting value shall be the fixed price value of the DO issued to the Contractor. Pricing methods and procedures in the Reference Section of the Means book shall be applied to applicable unit prices in the Unit Price Section.

c. The "remove and relocate" cost of an existing item shall be 115 percent of the Means bare labor cost of installation for a new item of the same type. The demolition cost of an existing item shall be 40 percent of the Means bare labor cost of installation for a new item of the same type.

d. The Contractor shall apply the MER coefficient to materials regardless of whether it is installed during core or non-core hours.

6.1.4.5 Cost-Estimates for Non-Pre-priced Labor Rate Work

a. Non-pre-priced work shall be priced per the following procedures:

Labor: Shall be priced per labor rates.

Prepare the estimate with a detailed line-item-by-line-item breakdown of each type craft hour required to accomplish the necessary work. The Contractor's fixed ***bare labor rates** shall be used first to calculate the Contractor's total labor cost. If one does not exist in Section B, the Contractor shall propose a reasonable ***bare labor rate.** The Non Pre-Priced Coefficient factor in Section B shall then be applied to the total bare labor costs.

b. Material & Equipment Rental:

In each proposal, submit line-item detail of the types and quantities of materials or equipment required to complete the proposed task. The number of units and each unit's cost shall be provided for each piece of equipment or material. If the proposed cost for any individual item of material or equipment exceeds $5,000, provide competitive vendor quotes to support the proposed cost of that line item, unless otherwise directed by the Government. For all proposed lease equipment, provide the name and number of leasing company with the proposals. Furthermore, use competition to the maximum extent practicable in the acquisition of material or equipment regardless of its estimated value. The MER Coefficient factor in Section B shall then be applied to the total cost of the materials and equipment. For materials and equipment in a subcontractor's bid, the MER shall be applied to the subcontractor's quoted price.

6.1.4.6 Subcontracted Services

For proposals based in part or solely upon subcontractor quote(s), show the costs divided into two categories, Materials and Other. MER coefficient shall be applied to the materials in the proposal and the Subcontractor coefficient shall be applied to the non-materials in the proposal. For subcontractor quote(s) that are not divided into the two required categories, the COSS Contractor shall apply the MER coefficient to the entire subcontractor quote(s).

6.1.4.7 Bin Materials
Bin materials and supplies shall not be separately priced in the submitted proposals. Bin materials and supplies are the minor materials and supplies that are incidental to the job. Examples of bin materials and supplies include, but are not limited to; solder, Lead (Pb), flux, electrical connectors, electrical tape, fuses, nails, screws, bolts, nuts, washers, spacers, masking tape, sand paper, solvent, cleaners, lubricants, grease, oil, rags, mops, glue, epoxy, spackling compound, joint tape, plumbers tape and compound, clips, welding rods, heat sinks, touch up paint, plumbing and refrigeration fittings.

6.1.5 Pricing Information

When preparing a proposal, the following pricing hierarchy shall be used:

(1) Price using Pre-priced Tasks – First, the Contractor shall include the appropriate services or products that were pre-priced under this contract. When ordering only pre-priced services or products, the CO will issue a completed DO specifying the number of units, expected delivery date (as stated in each applicable line item), and the scope of work. Discussions (negotiations) will not be required. Pre-priced work is not subject to the application of the Contractor coefficient factors.

(2) Price using Unit Price Book (UPB) – Second, the Contractor shall include the appropriate services or products that can be priced per the appropriate R.S. Means Cost Data Publication. The cost estimate for this work shall be as described in CLIN 6.1.4.4. The proposal prices shall be based on the edition in effect when the Delivery Order is issued to the Contractor. UPB work is subject to application of the appropriate Means and MER Coefficient Factors.

(3) Price using Non-Pre-priced Tasks and Labor Rates - Third, the Contractor shall include the appropriate services or products that are not pre-priced or covered by any UBP. The cost estimate for this work shall be as described in CLIN 6.1.4.5.

(4) Price using Subcontract Prices – Items not priced according to the first three categories shall be priced in accordance with CLIN 6.1.4.6. Although the Contractor may subcontract RFP work at any time, the Government will only be obligated to pay the lowest price derived by the four pricing methods. (e.g. If the Contractor subcontracts a pre-priced item, the Government will pay the lower price of either the subcontract value or the pre-priced value.)

For any particular DO RFP, application of all pricing methods may be necessary to complete the required pricing. Clearly identify by hierarchy within each proposal, and clearly indicate the application of City of Houston cost index and, if applicable, the various names and type of coefficient factors applied. Table 6-1, Coefficient Use clarifies when each coefficient shall be applied.

The Government may negotiate the Contractor's estimates. In the event the parties are unable to agree on the price of a proposal, or on any other matter concerning the proposal, the CO will unilaterally determine the price or the matter at issue. Any such determinations will be subject to the "Dispute" clause of this contract.

The Government may furnish any materials associated with work in an RFP. When furnished, the Contractor shall not include any cost for such materials in

its proposal. The Contractor shall also not apply a coefficient factor to any Government-furnished materials.

6.1.6 Inspection and Acceptance of DO's

Unless otherwise specified, the Government may accept, as promptly as practicable after completion and inspection, all work required by a DO or that portion of the work the CO determines can be accepted separately.

6.1.6.1 Daily Inspections

a. Notify the IDIQ ***TMR** at least 2 business days prior to any test or concrete placement. Inspection shall be made after notification that all items have been installed for the test or concrete placement. Should the inspection reveal that corrective measures are required or that the work is not complete, an additional 1 day shall be allowed for the Government to complete its inspection after all work has been corrected.

b. Notify the IDIQ ***TMR** at least 1 business day in advance of backfilling or encasing so that final location and elevations can be recorded by Government survey. Failure to provide such notification may require reopening of a trench to obtain survey data and further backfilling, all at the Contractor's expense.

6.1.6.2 Inspection Notification

Notify the CO in writing upon completion of each individual DO. Provide 1 day advance notice of the date the work will be fully completed and ready for final inspection. If the Government requires a means of access to perform a complete inspection before work is covered up, the Contractor shall provide such access. (e.g. Scaffold, manlift, ladder, etc.). The Government has the responsibility to respond within a reasonable time to inspect and accept the work.

6.1.6.3 Acceptance

The IDIQ ***TMR** will perform acceptance. The CO may designate a different Government Agent as the authorized representative. The Contractor shall be notified by a written notice or by a copy of the delegation of authority if a different representative is designated. The acceptance of IDIQ work will be based on whether the completed work satisfies the design SOW, final design package, and performs to meet the customer's requirements. Maintenance activation, when applicable to a DO, shall be completed before the Government will make final acceptance.

Coefficient Use

Table 6-1

Type of Work	Means Coefficient	Non Pre-priced Coefficient	Materials and Equipment Rental Coefficient	Subcontracted Work Coefficient	None
Pre-priced work					X
All Government Furnished Materials					X
Means Labor	X				
Total Bare Labor Costs (Per Schedule B or as proposed rates)		X			
Non Pre-priced Labor		X			
Subcontractor Labor				X	
Means Materials			X		
Non Pre-priced Materials			X		
Subcontractor Materials			X		
All Equipment Leases			X		

6.2 SERVICE ORDERS

6.2.1 General Information

6.2.1.1 Annex Description

This portion of this Annex identifies the use of Service Orders (SO) within this contract. A SO is a unit of Directed Services work that may be ordered by the Government to perform a discretionary task. SO's are essentially "pre-priced Delivery Orders" awaiting a Government scope of work description and task completion schedule. SO's will be used by the Government to quickly perform "small scope" jobs, while eliminating the administrative burden and length of time associated with issuing a Delivery Order per Annex 6 or 13.

6.2.1.2 Service Order Issuance

The Government will exclusively decide what work may be ordered by SO's. Work ordered may include, but not be limited to, maintenance, rigging, transportation, engineering services, janitorial, construction, repair, or any work within the general scope of the contract. The scope of work, dollar value level, and schedule priority will be set by the Government and provided to the Contractor when the SO is issued. If a SO is used for work that has a pre-priced value, that value will be used to determine the appropriate SO level. If a SO is used for work not covered by a pre-priced value, the ***bare cost** of the ordered work will be used to determine the appropriate SO level.

SO work shall not be charged to workload under other CLIN's or Delivery Orders by the Contractor. If the Contracting Officer (CO) determines that work provided by a SO should have been delivered under other terms of the contract, the SO shall be credited back to the SO workload.

At the Government's sole discretion, SO's can be used to pay for all or any portion of Government requested work. (Example: A SO might be used to pay for a minor change order to a Delivery Order.) SO's can be also used to pay for small scope jobs in a number of annexes to support one large requirement. (Example: To support an on-site activity, individual SO's may be issued to run additional power, prepare the grounds (normally ordered under Annex 7), and pay for the custodial clean-up (normally ordered under Annex 14)).

6.2.1.3 Service Order Receipt

For the purposes of meeting the task completion schedule, a SO shall be considered officially in work when the Contractor receives a written or electronic copy of the SO document from the Government.

6.2.1.4 Rollover Service Orders

Prior to beginning work, should the Contractor receive a SO where the ***bare costs** of the work exceeds the designated level, notify the SO Requester and furnish a cost estimate. For emergency SO's, the cost estimate shall be provided verbally within 1 hour of the Contractor's knowledge, and with enough detail for the Government to understand the cost. For urgent and routine SO's, the cost estimate shall be furnished per CLIN 6.1 within 3 ***workdays**. At this point, the Government may "roll over" the SO to a higher level (e.g., Level II to Level III), issue a delivery order if the ***bare costs** exceed the highest SO level, reduce the work scope, or some other administrative action. If either of the first two cases are chosen, the SO originally issued will be credited back to the SO workload.

6.2.1.5 Differing Site Conditions

If work has begun on a SO, the Contractor shall be responsible for its completion unless differing site conditions are encountered to cause the work price to exceed the issued SO dollar level. When this occurs, the Contractor shall notify the SO Requester and furnish a cost estimate. For emergency SO's, the cost estimate shall be provided verbally within 1 hour of the Contractor's knowledge, and with enough detail for the Government to understand the cost. For urgent and routine SO's, the cost estimate shall be furnished per CLIN 6.1 within 1 ***workday**. At this point, the Government may "roll over" the SO to a higher level (e.g., Level II to Level III), issue a Delivery Order if the ***bare costs** exceed the highest SO level, reduce the work scope, or some other contract action. If either of the first two cases are chosen, the SO originally issued will be credited back to the SO workload. NOTE: The Government will generally respond within 24 hours of notification of differing site conditions. Government contact information will be provided for non-core anomalies.

6.2.1.6 Schedule Delays

If for any reason the task completion schedule cannot be met, the SO Requester shall be notified by Email within 2 hours of the Contractor's knowledge. The notification shall include a clear reason for the delay, impacts of the delay to both customer and Contractor, and a proposed completion date and time. The SO priority category shall remain in effect with the revised completion deadline. Work performed by SO's shall not affect any other contract work schedules.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.2.2	Perform Service Orders Accomplish and track all Service Orders.	Perform work on all Service Orders scheduled by the COTR. Service Orders include all phases of work for completion such as, but not limited to: engineering, transportation, and lifting. Upon completion of the work, the Contractor shall notify the SO Requester via Email of the completion status within 2 ***workdays**.	See Below	Work was accomplished per requested scope and on time.
		a. Workload quantity is reflected in the number of requests or individual jobs. Size, scope, and mix of trades will vary significantly. Six levels established are:		
		Level I Service Orders are for services up to $250 ***bare cost.**	200 Level I requests	
		Level II Service Orders are for services from $251 to $500 ***bare cost.**	200 Level II requests	
		Level III Services Orders are for services from $501 to $1,000 ***bare cost**.	75 Level III requests	
		Level IV Service Orders are for services from $1,001 to $2,000 ***bare cost**.	75 Level IV requests	
		Level V Service Orders are for services from $2,001 to $3,500 ***bare cost.**	25 Level V requests	
		Level VI Services Orders are for services from $3,501 to $5,000 ***bare cost**.	25 Level VI requests	
		b. The Government will assign one of four priority designations when submitting Service Orders. They are as follows: **Emergency** - this priority Service Order requires a 15 minute response time and immediate mitigation (response times for Ellington Field (EF) and Sonny Carter Training Facility (SCTF) are 30 minutes) **Urgent** - complete within 10 days **Routine** - complete within 30 days **Government Specified** - complete by the date and time specified by the SO Requester.	Nothing additional.	Work was accomplished per requested scope and on time.
		c. The Contractor shall only accept work from the COTR.	Nothing additional.	Contractor only accepts work from COTR.
		NOTE: A copy of four years of Service Order workload history and a sample SO form are located in ****Service Order History** in the Technical Reference Library (TRL).		

6.3 CONSTRUCTION

6.3.1 General Information

6.3.1.1 Annex Description

This portion of this Annex identifies the Construction Support Services within this contract. The Contractor shall, upon receipt of an indefinite quantity (IQ) delivery order (DO), furnish Construction Support Services. The work required extends beyond a conventional, single construction effort, in that it involves the planning, scheduling, coordinating, accomplishing, and procuring of material for a fluctuating load of unrelated construction tasks.

6.3.1.2 JSC Non-Means Pre-priced Items

Additional JSC non-Means, pre-priced items and standard assemblies, are included in Section J, Attachment M. The costs of these items are * **bare costs**, adjusted for the local area. No further city adjustment factor shall be used. When used in a construction project, these items shall be totaled with the Means items and the Contractor's Coefficient Factor shall be applied to the total.

6.3.1.3 Deliveries or Performance

Delivery Schedule: The time for completion of the work required by each DO may be stated therein or shall be completed in accordance with the following schedule:

Amount of DO	Schedule
Under $5,000	20 Calendar Days
$5,001 - $25,000	30 Calendar Days
Over $25,001	Negotiated on an individual basis

NOTE: On a case-by-case bases, the Government may negotiate the schedules above if typical material delivery times do not support DO completion.

For any DO for construction work exceeding $25,000, the Contractor shall obtain performance bonds for the appropriate payments selected by the CO as prescribed in FAR 28.102-2. For this purpose, and for purpose of the "Additional Bond Security" clause FAR 52.228-2, the terms "original contract price" and "contract price" in the referenced FAR paragraphs shall be deemed to refer to the price of the DO. The Contractor may include in the pricing proposals in response to DOs for construction work exceeding $25,000, the price of performance and payment bonds as a separate expense. Such expense shall be additive to the total price of the work and shall not be subject to the application of any coefficient factor.

6.3.1.4 Warranties

Warranty enforcement shall remain with the Contractor and shall be documented within the electronic database. Comply with CLIN 2.5.

6.3.1.5 Records, Reports and Submittals

The Contractor shall maintain, and update records, databases, schedules, and documentation as defined in CLIN 1.2 Work Management and Control as listed in the TRL ****Index of IQ Construction Support Service Data Requirements.**

6.3.1.6 Operator and Linemen Support of Construction Activities

All operator support required to accomplish the construction ordered through this annex shall be covered in CLIN 4.1.4. CLIN 4.1.4 also covers lineman support for construction projects up to $300K. For construction projects above $300K, lineman support shall be separately priced in each proposal.

6.3.1.7 Contractor Construction Liability

All construction rework caused by construction errors shall be corrected at no expense to the Government. For projects both designed and constructed by the COSS Contractor, all construction rework caused by design errors shall also be corrected at no expense to the Government.

6.3.1.8 Restrictions, Limitations, and Special Conditions

All personnel performing construction work within any ***JSC** facility shall sign in and out on the Facility Managers building work log. Sign in/out is required for occupancy/evacuation purposes and shall be done for each separate activity even if performed on the same workday.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.3.2	**Construction Delivery Orders**			
6.3.2.1	Construction, alteration, and modification work. Perform construction, alteration, and modification work.	Provide a wide variety of construction, alteration, and modification work. This includes all work as directed by the CO. Pricing note: This CLIN will be priced per CLIN 6.1.	Per DO	Construction correctly completed on schedule.
6.3.2.2	Miscellaneous Construction Services Perform miscellaneous services	Perform pre-priced construction services listed below. These services may be ordered individually by the CO, or per 6.1.5 (1) as part of larger DO which requires these services.	Per DO	Correctly perform the services ordered on time.
		a. Cap floor receptacle	Each	
		b. Activate floor receptacle	Each	
		c. Install new floor receptacle	Each	
		d. Install new floor receptacle on asbestos vinyl tile	Each	
		e. Provide and hang whiteboards (3'x4')	Each	
		f. Provide and hang whiteboards (4'x6')	Each	
		g. Hang Government furnished pictures	Each	
		h. Construct Gyp Board walls (8'-6")	Linear Foot	
		i. Construct Gyp Board walls (10'-0")	Linear Foot	
		j. Paint Gyp Board walls and ceiling	Square Foot	
		k. Paint existing wood door	Square Foot	
		l. Install new vinyl tile	Square Foot	
		m. Remove / replace aggregate concrete sidewalk	Square Foot	
		n. Remove / replace broom-finish concrete sidewalk	Square Foot	
		o. Hang fire extinguisher	Each	
		p. Provide and install Cypher Lock	Each	
		See ****Miscellaneous Construction Services Data**		
		Pricing note: This CLIN will be priced in Section B.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.3.2.3	Erect and Dismantle Scaffolding Perform scaffolding installation greater than 15 feet.	For all scaffolding greater than 15 feet, provide a cost proposal to the CO in accordance with CLIN 6.1 within 3 days of identification of the scaffolding requirement. Upon receipt of a DO, plan, furnish, install, maintain, and perform other related services to accomplish the requirements of a Scaffold Support. The work shall be accomplished per pertinent OSHA and NASA JSC Safety Requirements. Complete work per DO schedule. Pricing note: This CLIN will not be priced in Section B.	Per DO	Accurately identify scaffolding services greater than 15 feet. Work completed on schedule.

ANNEX 7
GROUNDS MAINTENANCE
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7 GROUNDS MAINTENANCE

7.1 General Information

7.1.1 Annex Description

This annex defines the services required to provide grounds maintenance. Work methods and schedule will be defined in the Contractor developed Grounds Annual Work Plan.

The type of vegetation is typical to that found in the middle Gulf Coast. Grasses on lawns consist of St. Augustine mixed with Bermuda.

7.1.2 Location of Services

Services are required at ***JSC** and the NASA JSC Dock Facility. ****Grounds Location of Services Maps** delineating the locations and areas to be maintained for specific services are located in Section J, Attachment G Maps. Areas not maintained in this annex include the softball fields at the Gilruth Center, the fenced area inside the Child Care Center, the leased Building 47 grounds, and parts of the Agricultural Sciences Lab east of the ditch. In general, areas to be maintained are defined in 3 categories: Area A "Improved Grounds", Area B "Semi-Improved Grounds, and Area C "Unimproved Grounds".

Throughout the annex, there are references to watering grass, landscaped areas, and trees. ****Turf Irrigation Systems** are located in areas of the central mall, and in a few outlying areas including Buildings 207, 211 and the 400 area. The systems consist mainly of manually operated pop-ups and quick connects. There are a few automated systems at Rocket Park, Buildings 110, 111, 45 and 4S, and at SCTF. There is a low flow system at the building 30-demonstration landscape, and at Building 211. Maintenance of these systems is covered in Annex 2.

7.1.3 Limitations, Restrictions, or Other Exceptions

Grounds maintenance, including the procedures identified in contractor provided Grounds Annual Work Plan, shall conform to ****Executive Order (EO) 13148, Greening the Government Through Leadership in Environmental Management** which includes incorporation of the Guidance for Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds (60 Fed. Reg. 40837). Work procedures must also conform to ****NASA Procedures and Guidelines (NPG) 8570.X Energy Efficiency and Water Conservation Technologies and Practices**.

The principles identified in these guidance's provide a framework for the use of environmentally and economically beneficial landscape practices on managed federal lands. They are meant to improve and expand upon current principles of landscape design, implementation and management.

Applications of chemicals, pesticides and herbicides must conform to Texas Department of Agriculture, Texas Natural Resource Conservation Commission (TNRCC), Environmental Protection Agency (EPA), and other applicable guidelines. All applications must be in accordance with TNRCC Texas Pollution Discharge Elimination System regulations and in accordance with ****EO 13148.** No pesticide or herbicide shall be applied within two feet of any ground water wells.

Grounds maintenance will be impacted by 30 Texas Administrative Code (TAC) 114.152(a) which restricts equipment operations. The Contractor must assure compliance by the effective implementation date of April 1, 2005.

CLIN 1.1.7 Restrictions, Limitations and Special Conditions (i). Requires the contractor to promptly repair, at no cost to the government, any damage resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. All damaged areas caused by operations of the contractor shall be restored to original conditions within 2 working days of the damage. All shrubs, trees or plants that die resulting from failure to comply with the requirements of this contract shall be replaced within two weeks of plant or tree removal unless prohibited due to drought conditions. If drought conditions exist, then when it dies the trees, plants or shrubs should be replaced during suitable planting conditions.

CLIN 1.1.7 (f) requires the Contractor to leave the work area in a clean, neat and orderly condition. For the purpose of this annex, this includes but is not limited to keeping rubbish and trash generated clear of vehicular and pedestrian traffic. All paved surfaces shall be cleaned of debris and the site shall be cleaned up at the end of each workday. All contractor equipment shall be stored in the contractor assigned areas when not in use.

The contractor shall maintain the work area in a safe condition at all times. During work operations, pedestrian and vehicular traffic shall be safeguarded against moving equipment.

7.1.4 Definitions

***Pesticides** are any substance or mixture of substances, including herbicides and fungicides, that prevent, destroy, repel or mitigate any pest, or for use as a plant regulator, defoliant, or desiccant.

***Pests** are any insect, rodent or other animals, unwanted plants (weed), fungi, or microorganisms like bacteria and viruses that are detrimental to plant growth.

***Landscaped Areas** are defined as areas that contain shrubs, hedges, ground covers, plants, flowers, and other areas with mulch.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.2	**Grounds Annual Work Plan** Provide and Implement a Grounds Annual Work Plan.	Develop, submit, and implement a Grounds Annual Work Plan to document the schedule and work methods used to perform grounds maintenance. Submit the plan for approval by the Grounds ***TMR** within 30 days of contract award. Update and submit the plan annually 30 days prior to the start of each contract year. The plan shall include the following information: Provide a schedule for all categories of service contained in this annex. The schedule shall reflect one year of work, and it shall document the location of work. Document the standards and criteria used to implement work methods for each service provided. Work methods shall include implementation of ****EO 13148** that includes incorporation of the Guidance for Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds (60 Fed. Reg. 40837). Work methods shall also incorporate ****NPG 8570.X.** Water Conservation measures must be documented as required by DRD AN-1-3 Section 3.12. The plan shall show how the Contractor will incorporate: Use of regionally native plants for landscaping. Implementation of water and energy efficient practices for landscape irrigation. Implementation of pollution prevention practices which contain the following initiatives: Manage and select fertilizers. Manage ***Pests** and ***Pesticides** through an Integrated Pest Management (IPM) program. The plan shall reflect the use of control measures for chemical selection and use, including management of insects and weed control. Recycle landscape trimmings. Purchase environmentally preferable and recycled content products, including EPA- designated items such as compost and mulch. Implementation of TNRCC Texas Pollution Discharge Elimination Systems Regulations to control application of ***pesticides.**	1 plan	Plan is complete, approved and documents compliance with guidances and federal, state and local regulations. Plan submitted timely.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Implementation of 30 TAC 114.452(a) effective April 1, 2005 that requires equipment powered by handheld and non-handheld spark ignition engines below 25 horsepower (hp) are not operated between the hours of 6:00 am and noon during the time period from April 1 to October 31. The Contractor may, at no expense to the Government, seek exemption from this restriction by preparing and submitting to the ***TMR** a site-specific emission reduction plan by May 15, 2003. The plan must be developed in accordance with TNRCC guidance and demonstrate equivalent emission reductions, as provided by 30 TAC 114.452(c). The affected handheld equipment includes, but is not limited to: trimmers, edgers, chain saws, leaf blowers/vacuums, and shredders. Non-handheld equipment includes, but is not limited to: walk-behind lawn mowers, lawn tractors and tillers. Emergency use of equipment is allowed to protect human health and safety or the environment.		
7.3	**Miscellaneous Unscheduled Support Tasks** Support is provided to perform miscellaneous unscheduled tasks.	Accomplish miscellaneous unscheduled tasks generated by customer requests to Work Control Center. Tasks provide for services that are not in the normal contractor established schedule. Examples include, but are not limited to: removal of debris such as pine needles and leaves on sidewalks which present a slip hazard; application of pesticide for bees and other outdoor pests; trapping and relocation of nuisance animals and reptiles; removal of dead animals, and removal of debris, fallen trees and branches after windstorms or heavy rains. Begin response within 1 hour of notification and work until completion. Note: Average time for completion of requests is two man-hours.	200 requests	Timely and complete response.
7.4	**Remove Surface *Debris** Collect and remove surface ***Debris**	Collect and remove surface ***debris** at least once a week. Remove ***debris** from lawns, landscaped beds, and sidewalks and roads prior to mowing, trimming and edging.	52 occurrences Area A and B: 315 acres	Clean Areas per schedule. No visible ***debris**.
7.5	**Recycle Landscape Trimmings**	Recycle landscape trimmings by composting in the designated area. Reuse the composted materials on site during maintenance activities. Area to be used for composting will be designated by Government and is located north of Building 241.	One compost area	Landscape trimmings are recycled and reused.
7.6	**Landscape Timbers and Edging** Replace landscape timbers and edging.	Replace 3,000 linear feet of wooden 4X4 and metal landscape edging per year. This represents replacement of approximately 20% of the total edging material per year. Edging to be replaced shall be identified by the Contractor based on deterioration. Materials used shall be similar to existing materials.	3,000 linear feet of edging	Edging is replaced in proper quantity and good workmanship is used.
7.7	**Lawns**			

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.7.1	Mow and Trim Lawns Maintain uniform lawn height.	Grass Cutting: Cut lawn areas to a neat, uniform height of 1 to 3 inches. Distribute grass cuttings evenly with no windrows, matting or clumps. Grass Trimming: Grass surrounding fixed objects in lawns and adjacent to buildings and structures, including trees, shrubs, utilities, etc. are included in the mowing and should be maintained up to the base of the object. Trimming accomplished with herbicide treatment shall be confined to an area extending no further than 6 inches from the object being trimmed. Trimming also includes removal of vegetation in surrounding swales and ditches which is not cut during the mowing process. Trimming operations are considered a part of grass cutting and shall be accomplished concurrently (same day) with grass cutting. Note: Perimeter fences are included in Contract line item number 7.10.1.	Nothing additional	
		a. Mow and trim Area A "Improved Grounds" Mow weekly 1 April thru 31 October at 6 to 8 calendar day intervals. (30 cuttings). Mow bi-weekly 1 Nov. thru 31 March at 12 to 16 calendar day intervals (11 cuttings.)	218 Acres 41 occurrences	Finished lawn is clean, evenly cut to the required height with all obstacles trimmed. Work is performed per schedule.
		b. Mow and trim Area B "Semi-Improved Grounds" Mow at 21 calendar day intervals 1 April thru 31 October. (10 cuttings) Mow ***Monthly (M)** 1 Nov. through 31 March. (5 cuttings).	97 acres 15 occurrences	Finished lawn is clean, evenly cut to the required height with all obstacles trimmed. Work is performed per schedule.
7.7.2	Edge Grass Grass adjacent to paved areas is edged.	Edge lawns adjacent to all sidewalks, parking lots, streets, curbs and driveways to achieve a straight vertical edge where the grass meets the edge of the obstacle. Remove all vegetation in sidewalks and street expansion joints, curbs and cracks during edging. Herbicide may be used to control growth in these areas. Maintain lateral growth of grass on streets, parking lots and driveways where pavement edge is not discernable in a straight and even line by approximating the edge of the pavement.	Nothing additional	

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Edging should be accomplished in an area the same day it is mowed. Areas A and B include approximately 107,000 linear feet of sidewalk edging and 60,000 linear feet of curb edging.		
		a. Edge Area A "Improved Grounds"	218 acres	Edging is done on schedule and lines along edged surfaces are neat and clean and no grass extends over any paved surface.
		Edge weekly 1 April thru 31 October at 6 to 8 calendar day intervals. (30 edgings).	41 occurrences	
		Edge bi-weekly 1 Nov. thru 31 March at 12 to 16 calendar day intervals. (11 edgings.)		
		b. Edge Area B "Semi-Improved Grounds"	97 acres	Edging is done on schedule and lines along edged surfaces are neat and clean and no grass extends over any paved surface
		Edge every 21calendar day intervals 1 April thru 31 October. (10 edgings)	15 occurrences.	
		Edge ***Monthly (M)** 1 Nov. through 31 March. (5 edgings).		
7.7.3	Water Lawns Maintain healthy lawn appearance and growth by watering.	Water the lawn in areas where ****Turf Irrigation Systems** are provided to maintain healthy plant growth.	Contractor determined	Grass is watered to maintain healthy condition per Grounds Annual Work Plan.
7.7.4	Fertilize Lawns Maintain healthy grass growth by fertilizing.	Fertilize lawns in areas described below. Fertilizer shall be slow release and soil testing shall be performed to determine what added nutrients the fertilizer should provide.	3 occurrences	Proper fertilizer is applied per schedule and per Grounds Annual Work Plan.
		Fertilize 69 acres of Area A 3 times per year in late spring, summer, and early fall.	69 acres	
		Fertilize the remainder of Area A (129 acres) once per year in late spring.	129 acres one occurrence	
7.7.5	Dethatch Lawns Maintain healthy grass growth by dethatching.	Control thatch by removing decomposed plant matter to maintain healthy grass growth. The specific area for dethatching shall be determined by the Contractor based on the condition of the grass.	20 acres of Area A	Thatch is removed per Grounds Annual Work Plan to maintain grass in healthy condition.
7.7.6	Aerate Lawns Maintain healthy grass growth by aerating.	Aerate in areas of heavy traffic to eliminate compacted soils to sustain healthy grass growth. The specific location for aeration shall be contractor determined based on site conditions.	20 acres of Area A	Aeration is performed per procedures established in Annual Work Plan.
7.7.7	Control ***Pests** on Lawns Maintain healthy grass growth by controlling ***pests.**	Control pests on lawns to maintain healthy grass growth based on IPM.	69 acres of Area A	***Pests** are controlled to maintain healthy grass per IPM.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.8	**Trees**			
7.8.1	Maintain Mulch Around Trees Maintain mulch ring around trees at a uniform depth.	Maintain bark mulch around the base of trees such that a 3-foot radius exists from the base of the trunk. If the root structure of the tree extends above the ground further than 3 feet, the ring shall be enlarged to accommodate the tree. Maintain the mulched circle at a uniform depth between 2 and 4 inches. Apply herbicide to treat mulch area to control vegetation growth. When new mulch is not required, turn and rake existing mulch to present a fresh and clean aesthetic appearance. Service shall be provided twice per year at 6-month calendar intervals. The locations of service are those trees where tree rings already exist in areas A and B.	1,900 trees 2 occurrences	Mulch is maintained at required depth; tree rings are uniform in shape; work is accomplished per schedule.
7.8.2	Water Trees Maintain healthy tree growth by watering.	Water trees to maintain healthy growth and prevent damage during drought conditions. Trees in danger of dying from drought stress shall be watered using turf irrigation systems or hoses from fire hydrants or other available sources for all Area A and B grounds. Note: The majority of trees are established and mature and do not require water except during severe drought conditions. Pecan grove (approximately 100 trees) is not included in the workload quantity because there is not a source of water available for use. Workload data represents trees in areas A and B.	2,100 trees	Trees are watered to maintain healthy condition.
7.8.3	Control ***Pests** on Trees Maintain healthy tree growth by controlling ***pests**.	Control pests on trees to maintain healthy tree growth. Note: Workload data includes trees in Area A, B, and pecan grove.	2,200 trees	***Pests** are controlled to maintain healthy trees per IPM.
7.8.4	Prune Trees Prune trees to maintain proper size, shape, and to maintain walkway clearance.	a. Prune and shape to maintain a uniform appearance, enhance the trees natural growth pattern, and remove nuisance growth and dead/dying limbs. Trees shall also be shaped to provide the proper clearance over streets and roads. Crepe Myrtle trees shall be trimmed as needed but at least on an annual basis. Approximately one third of all others shall be pruned each year. Note: Trees included are those in area A, B and the pecan grove. Trees not maintained are located in natural wooded areas or outlying areas and are not included in this count.	800 trees	Trees pruned to maintain specified appearance and per schedule.
		b. Prune trees over pedestrian walkways and jogging trails. Maintain 10 feet of overhead clearance over the width of the sidewalk and jogging trails extending two feet adjacent on to the grass next to the paved surface. All walkways and jogging trails shall be surveyed, and trees and shrubs trimmed ***Monthly (M)** to maintain the designated clearance.	12 occurrences	Specified clearance is provided over pedestrian walkways and jogging trails at all times.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.8.5	Remove Dead Trees Remove dead trees and restore surrounding conditions.	Remove dead trees. Grind stump to a level below the ground and restore the area to similar surrounding conditions. Trees shall be removed within 4 weeks after they die.	24 trees	Trees are safely removed in a timely manner and ground restored to surrounding conditions.
7.8.6	Plant New Trees Plant and maintain 24 new trees per year.	Plant and maintain 24 new trees per year. Twelve trees shall be minimum 3-inch caliper and 12 trees shall be minimum 2-inch caliper. Species shall be Texas native or adapted trees. The location for the newly planted trees shall be proposed by Contractor and approved by the Grounds ***TMR.**	24 trees	Specified trees are planted and maintained.
7.9	**Landscaped Areas**			
7.9.1	Maintain Mulch in ***Landscaped Areas** Maintain mulch in ***landscaped areas** at proper depth.	Maintain bark mulch in ***landscaped areas** between 2 and 4 inches thick. When new mulch is not required to maintain the proper depth, turn and rake existing bark to present a fresh and clean aesthetic appearance. Service shall be provided semi annually - once between March 1 and April 30, and again between October 1 and November 30.	2 acres 2 occurrences	Bark mulch is maintained between specified depths and applied per schedule.
7.9.2	Control and Remove Weeds Control and remove undesirable vegetation in ***landscaped areas.**	Control and remove unwanted vegetation from ***landscaped areas** ***Monthly (M)**. Control unwanted vegetation through use of pre-emergent herbicide. Undesirable vegetation includes but is not limited to: grass, ***weeds**, fungus, thistle, dallis grass, clover, chickweed, and other vegetation not initially planted or maintained for aesthetic value.	12 Occurrences 2 acres	Weeds are removed in ***landscaped areas** per schedule. Weeds are controlled per Grounds Annual Work Plan.
7.9.3	Water Water plants in ***landscaped areas** to sustain healthy growth.	Water hedges and shrubs, flowers and plants in ***landscaped areas** to sustain healthy plant growth. Plants shall be watered with the established ****Turf Irrigation Systems** or other available fire hydrants and hose bib sources for all Area A and B grounds.	Area A and B 315 acres	***Landscaped areas** and hedges are maintained healthy by watering.
7.9.4	Fertilize Fertilize ***landscaped areas** to sustain healthy plant growth.	Fertilize ***landscaped areas** to maintain proper plant tissue color and enhance growth. Provide bi-annual fertilization of shrubs and pH soil adjustment as needed by the plants.	2 acres 2 occurrences Contractor determined pH adjustment	***Landscaped area** plants are maintained healthy by fertilization.
7.9.5	Provide ***Pest** Control Control ***Pests** in ***landscaped areas.**	Control ***pests** in ***landscaped areas** to maintain healthy plants and shrubs.	2 acres	***Pests** are controlled on plants, shrubs, and flowers per Integrated Pest Management.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.9.6	Trim Hedges Trim hedges and apply growth regulator to maintain proper size and shape.	Trim hedges ***Monthly (M)** to maintain a straight line of growth. Height shall not impede pedestrian or vehicle visibility. Apply growth regulator as needed to control growth.	12 occurrences 290,000 cu. ft. hedges, Area A and B	Hedges are maintained in uniform appearance and trimming accomplished per schedule
7.9.7	Prune Shrubs Maintain proper size and shape of shrubs by pruning.	Prune and trim shrubs * **Yearly** to maintain natural growth, proper size, shape and appearance. Height shall not impede pedestrian or vehicle visibility. Schedule shall be determined by type of shrub. Note: The majority of shrubs are located in the central mall area.	One occurrence Area A and B 315 acres	Shrubs are pruned per schedule and natural growth is maintained.
7.9.8	Replace Plants and Shrubs Replace dead plants and shrubs in ***landscaped areas**.	Replace plants and shrubs that have died in ***landscaped areas** or hedges within two weeks after they die. Replace with similar type plant and with a size that is suitable for the replacement area (5 to 15 gallon). Maintain the newly planted plants and shrubs.	20 plants or shrubs	Plants or shrubs are provided in a timely manner and meet specified criteria.
7.9.9	Maintain Building 30 Demonstration Landscape Building 30 Demonstration Landscape is maintained.	Maintain the Building 30 demonstration landscape. Fertilize the area 4 times per year using organic fertilizers. Control pests through use of IPM and organic pesticides. Replace all dead plants with native Texas or adapted plants of similar types within two weeks of plant loss. Note: The Building 30 demonstration landscape was installed to meet the requirements of ****Executive Order 13148**. The landscape consists of three beds and contains low maintenance, Texas native or adapted plants. One bed contains xeriscape plants. The landscape is watered through a low flow irrigation system set on timers. The trimming, mulching, watering and control of weeds in this landscape are accomplished in the CLINs contained in other landscaped area requirements.	1,550 square feet	Demonstration landscape is maintained, fertilized, and controlled for pests in a timely manner. Dead plants are replaced timely.
7.9.10	Maintain Flower Beds Maintain flowerbeds to a "full garden" appearance.	Plant and maintain (fertilize, water, control ***pests**, deadhead blooms/ replace dead plants) seasonal flowering plants to maintain a "full garden" appearance in planters and beds containing flowers. Note: A "full garden" appearance means seasonal year round color using growers spacing and planting recommendations to present a pleasing visual effect. Plant "annuals" no less than 3 times per year. Note: Perennials may be used in conjunction with "annuals" but year round color must be provided. Area of 0.4 acres includes planters at Buildings 2, 3, 4, 45 and 30. The 0.4 acres of flowers is included in the 2 acres of landscaped areas for other required maintenance.	0.4 acres.	Continual display of seasonal flowers.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.10	**Maintain Ponds and Connecting Canals** Maintain ponds and connecting canals at proper level and free of ***debris**.	The central mall has 3 ponds of approximately 70,400 sq. ft. with 2,880 sq. ft. of connecting canals. The surface is lined with concrete gunite and edged with rocks. Maintain ponds and canals free of ***debris** and all undesirable surface scum, vegetation and animals. Maintain water level to allow free water flow through canal at all times. Maintain water plant life.	Maintain 365 days.	Areas kept free of ***debris** with proper water level maintained.
		Drain and clean ponds and canals bi-annually. Move fish prior to draining. Clean gunite surface and rocks with water to remove debris, mildew and algae. to remove debris. Remove all trash and debris. Refill ponds and test water for chlorine and ammonia prior to moving Koi and other fish back to assure a healthy environment.	Cleaning in Contract Year 1, 3, and 5.	Ponds and canals cleaned per schedule.
7.11	**Mow and Trim Unimproved Grounds** Unimproved grounds are mowed and trimmed.	Mow and trim unimproved grounds 2 times per year: once in the spring to early summer and once in the fall to winter. Grass surrounding fixed objects in lawns and adjacent to buildings and structures should be maintained up to the base of the object. Cut height shall be established by equipment used. ***Debris** shall be picked up and removed during the mowing process. Trimming accomplished with herbicide treatment shall be confined to an area extending no further than 36 inches from the object being trimmed. Trimming operations are considered a part of grass cutting and shall be accomplished the same week as grass cutting. Note: Hay baling removal of cuttings/trimmings is also acceptable and permitted for an economic method to mow the fields.	2 occurrences 629 acres	Mowing and trimming accomplished completely and per schedule.
7.12	**Vegetation Control**			
7.12.1	Maintain Fence Line Maintain fence line free of vegetation and maintain grade elevation.	Remove vegetation growing on the fence line ***Monthly (M)**. Apply herbicide to control vegetation growth. Maintain grade elevation under fence lines ***Monthly (M)** by restoring eroded soil to provide security. Includes a minimum width of 2 feet on each side of the fence, for a total of 4 feet.	12 occurrences 17 miles of fence.	No vegetation on fences after cleaning. No eroded areas under fence.
7.12.2	Mow and Remove Ditch Vegetation Vegetation in ditches is removed to maintain drainage.	Mow ditch banks and remove vegetation from the bottom of the ditch 4 times per year with intervals spaced at least 60 days apart. Do not mow ditch slopes when the ground is wet. Note: Herbicide application shall not be applied in ditches.	4 occurrences 46 acres of ditch, including bank and water area.	Perform all maintenance procedures completely and per schedule.
7.12.3	Maintain "Right of Ways" Maintain trees, shrubs and vegetation near overhead power transmission lines.	Maintain trees and shrubs 10 feet away from towers and 20 feet on each side of overhead conductors. Trees, shrubs and vegetation shall be maintained at a height of less than 2 feet above ground level.	3 miles 365 days	Trees, shrubs and vegetation maintained at proper height in the specified area.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.12.4	Maintain Fire Lanes Maintain fire lanes free of obstructions.	Mow fire lanes ***Monthly (M)** and maintain free of obstructions to allow access for emergency vehicles. Lanes shall be maintained a minimum width of 16 feet and a minimum clearance height of 16 feet.	12 occurrences 5.8 miles.	Lanes are maintained per schedule and with proper clearances.
7.12.5	Maintain Gravel Areas Free of Vegetation. Control vegetation in gravel areas and surrounding structures.	Control and remove vegetation from gravel surfaces which include, but are not limited to: lift station yards, transformer yards, parking lot islands, gravel walkways, roads and road shoulders, equipment pads, and gravel areas adjacent to buildings such as 32, 221, 223, 322, Longhorn Field, T586, and T588.	13 acres Remove weeds 12 occurrences	Gravel areas are treated and weeds removed per schedule.
		Control includes application of pre and post-emergent herbicide to control weeds on a 3-month interval. Additionally, weeds shall be removed ***Monthly (M)**.	Apply herbicide 4 occurrences	
		Note: Vegetation control activities around electrical switchgear shall conform to ****Maintenance or Construction on or Near Electrical Distribution Equipment.**		
7.13	***Pesticide Application**			
7.13.1	Control Fire Ants Fire ant infestations are controlled.	Control fire ant populations.	Area A 213 acres	Fire ants are controlled and treated per schedule and as required.
		Apply broadcast baits at 6-month intervals.	Broadcast bait application 2 occurrences	
		Treat individual mounds adjacent to sidewalks and areas where pedestrians work ***Monthly (M)**.	12 occurrences	
7.13.2	Mosquito Control	Control Mosquitoes. Provide fogging of ***JSC**. Schedule will be proposed by contractor and approved by CO. Provide 12 services per year.	12 foggings.	Site is completely and per schedule.
7.14	***Pesticide and Herbicide Handling**			
7.14.1	Dispose of ***Pesticide** Waste ***Pesticide** waste is disposed of properly.	Dispose of ***pesticide** waste. Whenever possible, ***pesticide** quantities shall be calculated and mixed in such a way that all the prepared solution will be used on the job, minimizing or eliminating leftover "waste" solution. Container and tank rinsate shall also be used whenever possible. All waste shall be considered Industrial Solid Waste and shall be processed accordingly. (See Annex 9).	Contractor determined.	***Pesticides** are managed and regulated substances are identified, controlled, and turned in for proper disposal.

ITEM NO.	CLIN TITLE/ OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.14.2	Chemical Usage Report Maintain chemical usage reports to track ***pesticide** application.	Maintain chemical usage reports per the applicable regulations as designated by the Texas Department of Agriculture and other applicable guidelines. The data on the form should be verified for accuracy by the pesticide application supervisor. Complete reports with all pertinent information within 24 hours of pesticide application. The reports shall be available upon request for review by the government. Note: See ****Pesticide Usage Records** for typical application records.	Contractor determined.	Reports maintained completely, timely and accurately.
7.15	**Personnel Requirements**			
7.15.1	Provide Trained ***Pesticide** Applicators Provide personnel who have proper certification and licensing requirements.	Obtain a State of Texas Commercial Pesticide Applicator's license from Texas Dept. of Agriculture or the Structural Pest Control Board for all individuals who will either apply or supervise the application of pesticides.	Contractor determined.	Current certification, or evidence of license(s), is on hand for all categories of pesticides being applied.
7.16	**Records, Reports and Submittals**	Provide a Grounds Annual Work Plan per CLIN 7.2	Nothing additional	See CLIN 7.2

ANNEX 8
INFORMATION TECHNOLOGY
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8.0 INFORMATION TECHNOLOGY

8.1 GENERAL INFORMATION

8.1.1 Annex Description

This Annex identifies the Information Technology Support Services that cannot be identified with a single annex or may be related to the performance of services throughout this Contract. Even though this Annex contains certain guidelines, the Contractor has the responsibility to establish a management program that is effective, innovative, and uses to full advantage the facilities and equipment provided by the Government.

8.1.2 Information Technology Systems

It is at the discretion of the Contractor to utilize the Government-provided systems or to initiate new systems for the purpose of increasing efficiency and to meet contract requirements. However, the new systems must parallel and act in the same manner as the Government-provided systems. If the Contractor proposes to deviate from the existing systems, including workstations (CLIN 8.1.5), all proposals shall be submitted in writing, through the Information Technology Technical Management Representative (***TMR**), for approval prior to implementation. (NOTE: The Government will normally provide a response within 10 working days. Rationale will be provided for any request that is "disapproved"). If the contractor elects to provide a new system rather than use the existing Government system, the new system will become the property of the Government, however, if the software / hardware is leased, it will be the responsibility of the contractor to prepay the lease, including technical support, for one year after the end of this contract.

8.1.3 Special Rights For Licensed Software

In the event the Contractor uses licensed software, the Contractor is required to prepay a license, including technical support, for Government use, for 1 year beyond the end of the Contract.

8.1.4 Hardware Configuration

GENERAL: The Information Technology (IT) System consists of:

(1) Installation-provided hardware
(2) A computer room with 24-hour cooling and adjacent office space is included as part of the space provided to the contractor.
(3) A JSC Institutional Network System (INS) linking all onsite computer systems via Ethernet with 100 Base-T cabling, site PCs have 10/100 base cards. The site backbone is being upgraded for higher bandwidth and over time the routers / concentrators are being replaced. This is a multi-year effort and will generally be completed in areas with higher population first.
(4) Installation-provided off-the-shelf programming software (some contractor maintained and / or upgraded).
(5) Installation-provided systems, which include programs, databases, on-line systems and report generating programs (some contractor maintained and / or upgraded).
(6) Contractor-provided systems.
(7) IT Hardware
(8) Installation operated Web Based Applications.

These Installation-provided systems are integrated with and necessary for the performance of the overall contract. See Section J, Attachments I and K, for a listing of Installation-provided hardware, off-the-shelf programming software and systems. The Government does not warrant that the equipment as currently configured is optimal for the needs of this contract. The contractor may modify the configuration of this equipment to meet the needs of this contract except for the workstations in CLIN 8.1.5.

8.1.5 Government-provided Computer Services

The Government will provide computer services up to 225 seats (workstations) including monitors, keyboards, CDROM, mice, and network cards. These services are equivalent to those provided for Civil Servants. The service provides for workstations to be refreshed on a three-year cycle, loaded with a recent version of a Windows based operating system and a standard version of Microsoft Office, antivirus software, and various viewers. These workstations will be upgraded to more current operating system versions, as the Government deems necessary. The Contractor will provide any miscellaneous hardware over and above what is provided with a standard seat. The contractor shall provide any workstations required above the quantity listed above.

NOTE: The Government will provide the network connection for each contractor PC. The contractor may purchase from the Government additional services at the same delta cost above the Government network cost. The Government cost for a seat and for a Network connections are documented catalog prices in a Seat Contract (known as Outsourcing Desktop Initiative for NASA (ODIN). Many items from the Seat contractor remain the property of the Seat contractor and as such will not become the property of the COSS contractor.

NOTE: The Government provided workstations will come with software indicated above and 8.1.7 Standard Software Installation / Usage. Some software like the 3270 emulation is only needed on a few of the contractor workstations that support the NEMS, NSMS, and NPDMS applications on the IBM Mainframes. The Contractor is responsible for loading this Government provided software or Contractor provided software on Contractor User Workstations.

8.1.6 Workstation Hardware and Software Audits / Push, Pull or Automatic updates of software.

The Government uses an automated electronic equipment auditing system of all computer workstations (hardware and software) connected to the network. The Contractor will be provided access to the data for their computer workstations. The Government also uses an automated process to push, pull, or do automatic upgrades to workstations. For example, the Government does automatic periodic upgrades of the virus definitions. The contractor will cooperate with the Government for the upgrades and audits.

8.1.7 Standard Software Installation / Usage

Use software that is compatible with the Center standard (type and version) to permit the flow of information back and forth with other COD elements with minimal impact. Use a software load on the computer workstations that is compatible with the software used by other COD elements.

NOTE: Each of the existing user computer workstations is configured with the Center standard software, including a recent version of Microsoft Windows with access to the server-based administrative applications (Microsoft Office, Web Browsers), the Center Electronic Mail System, News Readers, and 3270 emulators (where applicable). Where necessary a project scheduler is also provided. . The Government will provide an e-mail account for contractor personnel, as required.

NOTE: It is illegal to pirate software. Contractor personnel are not to use the Government Internet system for non-Government-related business or personal use.

8.1.8 Network Connections

The Government will provide the network interface for all Government provided and contractor provided workstations, with one exception. The exception is that no workstations with modems will be connected to the center network.

8.1.9 Server- based Storage

8.1.9.1 Server-based Storage for General Use Applications

Government supplied space will be provided for server-based general use applications and databases. The Government will perform administrative functions for these servers. Reasonable amounts of storage will be provided to the Contractor (equivalent to the same capability and capacity provided to Civil Servants).

8.1.9.2 Server-base Storage for General Web Applications

Space will be provided on Government servers for server-based Web applications and databases. The Contractor is required to follow policy guidelines including: NPG2801.1, Security of Information Technology, JPD 2800.4, IT Program Management, and JPD 2800.1A, JSC Information Technology Policy. The Government will perform server administrative functions for these servers. The contractor will be responsible for all of the data / data input. Storage will be provided to the Contractor (not to exceed 50 Meg).

8.1.9.3 Maintenance (clean up and removal of old files) / usage

The contractor will cooperate with the Government to remove / archive old files from Government supplied space that are needed only for historical reasons. The intent is to provide reasonable storage, and yet be able to enforce reasonable storage housekeeping rules. Server space is provided to support necessary contractor operations, however, the server storage is only to be used for current needs.

8.1.10 Printer Support

8.1.10.1 Networked Laser/Mainframe Laser/ Impact Printers

General use networked Black and White laser printers/impact printers will be made available to the Contractor. These printers will be maintained and replaced with current center standard equipment by the Government as the printers become obsolete. The requirement for providing Networked printers does not include any buildings / locations where the total number of users in the area is less than 5. For areas with 5 or less users, it will be the contractor's responsibility to provide local direct connect or local shared printers.

Any additional printers will be the responsibility of the Contractor. The Contractor is responsible for all CMMS networked impact printers / special printers / special use (personnel, payroll, etc. where privacy concerns might preclude the use of network printers by other users).

NEMS, NPDMS, and NSMS use mainframe impact or laser printers for reports. The Government will provide printers for these purposes where Networked General use printers are not appropriate.

8.1.10.2 Contractor provided printer supplies

Provide all printer consumables (toner, inkjet ink, ribbons, paper, etc.). The consumables shall be compatible with the printers.

8.1.11 Data Integrity

Design and maintain databases to have data field integrity. This requires that the field used is the right type (i.e. numbers for number fields, dates for date fields, etc.). Text fields shall not be used for fields that should be another type to maintain data integrity.

Ensure all data entered into the system is appropriate, accurate, and current. Provide accurate data input. The highly desired User Input method is for the database to restrict related data to predetermined values. Where this is not appropriate, the contractor will incorporate quality processes to identify errors. All errors whether found by the contractor or the Government will be corrected by the contractor.

8.1.12 Building Number Standard

Maintain building data integrity in all databases by using a standard method to reference buildings. The contractor must use the building numbers as specified by the Government.

Buildings shall be related in the database(s) structure using a 7 character fixed length designation. Examples are as follow:

J*001**
J*009NW
JT585**
E*990**
S*920L*

NOTE: The first character represents the site "J" for Johnson Space Center, "E" for Ellington Field, and "S" for the Sonny Carter Training Facility at Ellington Field. The second character represents the building Prefix with "T" for Temporary and an "*" for "No Prefix". Characters 3, 4, and 5 are the building number with leading zeros to pad the data. The last two characters are the suffix with "**" as "no suffix" for the character spacing and either on suffix followed by an "*" or a two letter suffix. It is intended that the users will see the generic number for a building (example 1, 2, 3, 4S, 11, 30S).

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.2	**Main Frame Application Support**			
	Provide IT Support for the Government-furnished IT Systems.	Provide IT support for the Government furnished systems described in Section J Attachment I and K. Use NASA agency-wide applications, including NEMS, NSMS, and NPDMS. Ensure that data entered into the systems are appropriate, accurate, and current. Call the ISD helpdesk when there is a system access problem. Advise the IT ***TMR** if there are repeated breakdowns or the system has an unscheduled outage of more than 4 hours.	365 days	Agency-wide applications are used exclusively.
8.3	**Computerized Maintenance Management System**			
8.3.1	Provide IT support for the CMMS Accurately track and document all contract work.	Provide IT support for the CMMS system. Maintain, control and protect "key" data/information to ensure the integrity of the CMMS program. These data will include Master Equipment Inventory, Preventive and Predictive data, task, the Work Element Codes, criticality code, the schedule dates, start dates, completed dates, ***total cost**, ***bare cost,** maintenance, and other current data in fields of the database (see DRD AN-1-10 for scope of this data). Write reports, query the databases, perform quality checks, and trouble shoot database problems. Provide routine IT support and training to Government employees that need to use the CMMS Data. Maintain a set of user manuals (and/or equivalent on-line help) in the Facility Technical Reference Library (TRL). Provide software utilities to permit the Government to export data to Excel, Access, CSV, TSV, etc. Using the CMMS Program, provide ***daily (D7)** reports in electronic web based format for work schedules, including scheduled maintenance, repair, construction, and outages. Query and reporting shall have, at a minimum the capabilities as the ****Building Maintenance and Repair Report** search on the current COD homepage. Upon breakdowns, advise the IT ***TMR** of all scheduled actions to bring the system back on-line.	365 days	CMMS is fully functional and data is accurate Training for Government employees is available when requested CMMS accessibility to contractor operated systems. Backups are performed daily.
8.3.2	CMMS Capability	Provide a CMMS capability that includes all hardware, software and software provider's technical support capability. This system shall be available, on-line and fully operational at the start of the contract. The system shall be capable of handling the load required by the CMMS software and provide reliable and responsive service to the Government.	365 days	CMMS system fully operational at start of contract. Server online at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The CMMS software license with software provider's technical support shall be provided by the Contractor for each year of the contract and for one year beyond the end of the contract. The contractor shall provide, in addition to the licenses he requires, 15 additional concurrent licenses for Government access to the CMMS. If proposed CMMS is web based then license must allow for 15 Government computers online at one time. NOTE: The existing contractor has prepaid a license for 50 concurrent sessions of MP2 for the first year of the COSS contract. The version of the CMMS in use is not the latest and is no longer supported by the software provider. The server that MP2 is installed on is owned by the BOSS contractor and will not be available. Provide the Government mandated fields, listed in Table 8-1, as part of the CMMS. The fields shall be setup and configured as listed and any changes must be approved by the Information Technology ***TMR** and the Maintenance & Repair ***TMR**. These fields are in addition to fields that the contractor needs to perform contract functions. The fields shall be fully searchable and sortable.		
8.3.3	Maintain the CMMS. Ensure the CMMS Program remains accurate and up-to-date.	Identify, report and incorporate changes, errors, deficiencies, or recommended improvement to the CMMS Program to ensure the Program remains accurate and up-to-date. This includes providing programming support on a continual basis to "troubleshoot," correct minor programming bugs, etc. NOTE: To encourage improvement and effectiveness, the Contractor's work force is encouraged to identify improvements or changes to the CMMS Program. As a minimum, this includes work that is reasonably visible to any Contractor personnel performing any related service. Evaluate proposed changes identified by the IT ***TMR**. Perform actions necessary to identify change, research (including field verification to validate the information), develop associated maintenance documentation (e.g., Annual Maintenance Plans and Schedule, PM and PT&I Maintenance Work Description for each task, critical spares data, etc.) and to submit to the IT ***TMR** for consideration and approval..	365 days	Program changes submitted within 14 days. CMMS program available continuously.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Submit proposed changes in electronic format. NOTE: Contractor-proposed recommendations will be subject to Government-approved format and will include proposed maintenance documentation changes. Submit changes to the IT ***TMR** within 14 days of (1) completion of work performed under the terms of this contract; (2) notification of change; or (3) first observation of change, whichever is first. Ensure changes include all backup or supporting documentation.		
		Provide, implement, and maintain the necessary process analysis, data gathering, and reporting software to meet contract requirements (DRD's, reports, metrics, etc.). Provide on-line connectivity to the Government and integrate the data with CMMS.	Contractor determined	CMMS data accessible to Government at all times.
8.3.4	Maintain History Files Maintain history files to reflect all Contract Services	Maintain History Files History files include, but are not limited to, Facility Condition Assessment (FCA), MA, PT&I, PM, and Repair, databases, records, and logs. Assume management of existing on-line history files from the preceding Contractors and create and incorporate new history files. Continue maintaining files and data fields for all services provided under the terms of this contract; e.g., maintenance and repair actions, construction and alteration projects, inspection results, Predictive Testing and Inspection (PT&I) Data, PT&I Baselines, PT&I Trends, equipment condition, Maintenance Activation, accomplished Preventive Maintenance (PM), etc. Ensure and maintain a filing/maintenance system that provides quick and easy access to existing files. All previous data must be incorporated and accessible. Maintain on-line access to files; ensure that hard copies are easily obtainable with no loss of pertinent data. Submit improvement recommendations to the IT ***TMR** for approval.	365 days	Files are recorded, accurate, and current. Files are complete, centrally located, and readily available for review or obtained via hard copy at all times.
8.4	**Environmental Management IT Support**			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
	Environmental Web based / client application support	Provide IT support to install environmental web based / client applications that are used either by the contractor or NASA Environmental Office. Current applications include NETS, STEERS, ISW database, web-based training, EO/EMS website and EMS database. All upgrades or updates will be installed within 7 calendar days of receipt. Test the upgrades to ensure it works properly prior to full implementation. All personnel requesting user-ids and passwords receive them within 7 calendar days. Maintain / update the data including but not limited to (help data, train modules, FAQ, help) on the COD Environmental Web page. NOTE: The programming for these applications and help desk is provided by the owning organization (State of Texas, Other Government Agencies, or Other NASA Centers). Generally, these applications access a web page via a browser; however, they may require a local client to be loaded on the user PC. At least one application requires a database to be installed and maintained on COD server space that is backed up by others. It is the user responsibility to interface with the appropriate help desk to report an initial problem. Provide local user help and troubleshooting whenever a change to the software or when problems occur. The NASA Environmental Office will be responsible for requesting and maintaining user-ids / list, conducting beta tests as requested. NASA or regulatory agency authorizations, licenses, requirements and restrictions will be followed at all times for all aspects of the software and programs. NOTE: Programming changes to the Environmental Web Page, the impacts database or the program database will be done by others.	365 days	All environmental software and websites are fully functional and available at all times NASA or regulatory agency authorizations, licenses, requirements and restrictions will be followed at all times for all aspects of the software and programs
8.5	**Energy Management Control System (EMCS) System Support**			
	EMCS database support	Provide IT support to manage the EMCS databases that support day-to-day operations of the EMCS system (excludes hardware such as RTU's, Metasys hubs, Woodward Smart 3000, etc.). The COSS contractor shall maintain existing Microsoft Access and Excel data status files. NOTE: The EMCS is primarily a real-time system that is used for control of facilities (HVAC, boilers, chillers, Power, etc.) and is partially the responsibility of the COSS contractor, the Honeywell contractor and other contractors. For the sake of clarity the operations support for this system is primarily covered in the EMCS Operations section of the contract (Annex 4).	365 days	IT support of day-to-day operations / database support of contractor users is provided. Databases are formatted correctly.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.6	**System Operations / Maintenance**			
		Provide support and operate IT systems while ensuring the programs are functioning properly and in the same manner as the programs provided. Maintain and protect all IT systems and maintain data integrity in all databases and other programs/systems. Upon termination of the Contract, return to the Government all current source/compiled programs, documentation, data, or similar software data, in a usable format consistent to the manner in which the Government originally provided it. Maintain installation-provided systems separately from the Contractor's proprietary systems such as the Contractor's financial management, personnel and other like systems. Upon breakdowns, advise the IT ***TMR** of all scheduled actions to bring the system back on-line.	365 days	Contractor operated IT systems accessible at all times.
8.7	**Online System Access and Support**			
8.7.1	Provide and maintain Government access and support to all existing contractor operated on-line computer systems.	Provide, maintain, and support continuous Government on-line access to all contractor operated computer systems (except payroll and personnel) including, but not limited to contract required databases, data, records, plans, metrics, schedules, and history, and to all Government-provided applications and databases. Access is to be compatible with server configurations and loads such that COD users may utilize, analyze, and extract data, etc. Notify the IT ***TMR** in case of system failure and provide status updates to the IT ***TMR** every four hours. Scheduled downtime for short periods of up to 4 hours to allow for upgrades, repairs and maintenance are acceptable exceptions to "continuous" on-line access. Where possible these periods should be in the evening after ***Core Hours**. NOTE: Systems with on-line support: See Section J, Attachment K List 1.	365 days	Government access to any required data in any system or database is maintained. Contractor operated systems accessible at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.7.2	Web Based Management Information System Provide a Web Based Management Information System	Provide a web based Management Information System on JSC web servers which displays the required data as shown in Table 8-2. The data shall be maintained for access by the JSC user community (see Table 8-2 for restricted data) and the Contractor. The web page shall be updated to display the latest reports, plans, metrics, procedures, etc. within 3 ***workdays**. All other data, (e.g. work orders) shall be updated as required to keep the data current and meaningful.	365 days	Data shall be accurate, understandable and available.
8.8	**Facility CAD System / Space Utilization**			
8.8.1	CAD Software support	Provide support for the CAD software versions used to support the Facility Cad System. Support includes, but is not limited to, response to questions, trouble-shooting problems, installing the server application, installing the client application and assistance in printing. Provide application support within 8 hours of the request. Maintain for the capability for the current and two previous CAD software versions of all CAD drawings.	200 hours	Requested programming support provided at all times. Support provided within 8 hours of request.
8.8.2	CAD Software Licenses	Provide 2 AutoCAD licenses (latest version) and retain 5 concurrent MicroStation user licenses (latest version) exclusively for use by the Government. **NOTE: The government will provide 23 MicroStation licenses at contract start.** Provide a new capability within the first 6 months of the contract to produce drawings in AutoCAD format. Upgrade existing licenses within 6 months after a new version is released. NOTE: The Contractor shall upgrade licenses in the proportion needed (MicroStation vs AutoCAD) to adequately perform the CAD drafting requirements identified in Annex 5. It is anticipated that the number of each application will vary during the contract as the number of AutoCAD facility drawings will increase and the number of MicroStation facility drawings will decrease.	2 AutoCAD licenses	Correct number of concurrent licenses is provided. New capability provided on time. Upgrades are provided within 6 months of release.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.8.3	CGM Viewing Support / facility drawing database	Maintain the databases for all facility drawings and Facility Housing Plans (FHP). Update the databases within 5 working days after each drawing is updated. If the drawing being updated, is needed to provide current information about a particular facility, update the database in real-time. Convert any updated drawings at least once a week to Computer Graphics Metalife (CGM) format and place them in a predetermined location on JSC_COD_CAD01 or other designated server. NOTE: The existing conversion is presently being done with an automated process (macro) that has minimal user effort. The contractor will maintain an automated conversion capability.	365 days	CGM files are available within 5 days after update.
8.8.4	Space Utilization Management System Programming Support Data Entry Ensure data entry assistance	Provide programming support for Space Utilization Management System (SUMS) including response to questions, trouble shooting problems, and assistance in printing. Support shall be provided within 8 hours of the request. Create new or modify existing reports on an as needed basis.	40 hours	Programming support provided within 8 hours of request.
8.9	**Other Applications**			
8.9.1	Gas Cylinder Tracking System	Replace the existing Gas Cylinder Tracking System within the first 6 months of the contract with a new system that is compatible with Microsoft Access, SQL Server or Oracle. Provide the same capability in the new system that exists in the present system and further detailed in the following: 1. Provide the capability to barcode, and the necessary scanners (equivalent to or newer than the latest Intermec Scanners used by the NEMS personnel). 2. Install the new application on one of the Contractor-Operated Contractor Maintained servers. Provide two users licenses for NASA. Provide reports that show the number, type, serial numbers, gas, and quantity of gas, delivered each month. Provide a report that includes the cylinders returned to the suppliers, serial number, type of gas, date delivered, date returned, if rejected, why cylinder was rejected. Provide an ad hoc query capability for the Government to write reports.	1 tracking system	Gas Cylinder Tracking system is converted in year 1 and data and reporting capability is as specified. Data is accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.9.2	Barcode Scanners Support and Maintenance	Provide barcode scanner capability that includes all hardware, software, and support capability. This capability shall be available and fully operational at the start of the contract.. NOTE: See Section J Attachment I, List 3 for the listing of government provided scanners to be used for the Transportation Inbound Freight Log (TIFL) and the Gas Cylinder Tracking. NOTE: All scanners required to support NASA agency-wide applications (i.e., NEMS, NSMS, and NPDMS) will be provided by the government.	365 days	Barcode scanner capability fully operational at start of contract.
		Provide support to write the menus, maintain, and load all bar code scanners and the scanners used by the JSC Security Forces on another contract. Provide all maintenance for the barcode scanners, docking units, and power supplies. NOTE: The support will be for 31 scanners. The general use breakdown is for 12 scanners used to support NEMS, 6 scanners to support TIFL, 4 scanners to support Gas Cylinder Tracking, and 9 scanners to support the JSC Security Forces. The scanners are multipurpose devices that can be used on several systems by activating a different menu.	365 days	Menu updates are available within 5 working days of request
8.9.3	Themography Data	Maintain and operate the existing thermography data. Provide a new capability to make the thermoghrapy data available on the web within the first 6 months of the contract. Data will be updated within 7 days of data collection.	365 days	Applications are available within 6 months of contract start. Data is accurate and timely.
8.9.4	Vibration Data	Maintain and operate the existing Vibration Data Application. Keep the software current within 6 months of the issuance of new version. Data will be updated within 7 days of data collection. Within 6 months of the start of the contract, provide a new capability to have a Web based database that will list the vibration data that is being accumulated. Additionally, link all equipment items to the equipment numbers in the CMMS system. Provide a user-friendly interface that will permit a CMMS user to determine if Vibration data is available.	365 days	Applications are available within 6 months of contract start.. Data is accurate and timely
8.9.5	Real Property Database	Provide programming and system support for the Real Property Accounting System (RPAS) used in annex 5. Support shall include, but not be limited to, responding to questions, trouble-shooting problems and assistance in printing. Provide support within 2-4 hours of the request. The exact schedule for each task shall be given when the task is assigned.	40 hours	No occurrences of failure to provide programming support when requested. Support provided within 2-4 hours of request

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.9.6	WinEst / Means	Provide all support to maintain the server-based application of WinEst and the Means cost data using clients / icons on user work stations. Maintain the current copy (and one version back) of the WinEst estimating applications and current yearly and quarterly updates of Means Electronic Cost Databases. Provide 5 concurrent licenses for Government use. The Contractor's computerized estimating software shall be compatible with Microsoft Windows and WinEst Pro Plus, by WinEstimator, Inc estimating software or equal. NOTE: Presently, there are 12 licenses being used for Contractor and CS support.	40 hours	Applications are available when server access is available. Most current version of software is available.
8.10	**NEMS System Scanning**	a. Provide at contract start a scanning capability for support of COD Activities. Scanning capability will have a non-proprietary database (SQL Server, Oracle, or database approved by the Contracting Officer). NOTE: Current system uses a workstation and flatbed scanner with data stored on CDR's. The Contractor shall provide the workstation and scanner system.	1 system	System is ready at start of contract. System is sized adequately to handle number of scans.
		b. Provide IT support for the existing NEMS Scanning system. Continue to operate the existing historical portion of that system and continue to have the information available to the NEMS users. Meet with the Government to agree on the data to be scanned, keyword search, identification, interfaces, etc. Design, implement, and maintain the data necessary to recover and display the data, via ad hoc search capability. Repeat the above process as new systems are identified that need scanning support. NOTE: See CLIN 11.2.2.2 for current scanning requirements.	80 hours	Data scanned is available. Database has correct keyword search capability.
8.11	**IT Security**			
8.11.1	Computer Systems and Data Security Maintain Government-furnished computer systems and data security for Contractor-operated systems.	Provide support necessary to ensure Contractor-operated systems and data remain secure at all times. Backup daily all applications and data stored on Government-furnished Contractor-operated servers or Contractor-furnished Contractor-Operated Servers. NOTE: The Government will backup each Government-operated server and mainframe application.	365 days	On-line systems and data security are maintained at all times. All data or system applications maintained and secure. Changes approved prior to implementation.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
8.11.2	Computer Security Manager	Appoint, in writing, a Computer Security Manager (CSM). CSM duties include: 1. Have knowledge and background experience in IT Security. 2. Have knowledge of contractor systems. Prepare contractor risk assessment packages and security plans. 3. Attend and support Center Security or COD security meetings. 4. Fully cooperate with Government Security Officials. Provide "supervisory access" on an as needed basis to Government Computer Security Official(s). NOTE: The Government does not intend to use this supervisory access right except where there is an indication of security violation or indication of unacceptable security risks.	365 Days	CSM is appointed in writing. CSM experience and background commensurate with task. CSM passes background checks.
8.12	**Documentation / IT Help Support**			
8.12.1	IT Help Support	a. Provide and maintain ***daily (D)** IT Help Support capability for routine IT issues. Provide access via phone (human, voicemail, pager, electronic mail, and web page). This support is to be separate from the normal facility type support provided for site facility issues (e.g. IT help for CAD or WinEst software questions). Provide initial response to calls within 4 hours. Maintain a database that documents all issues that are not addressed within one business day. Provide access to this data to the NASA IT personnel. Track outstanding issues by user, person initiating the call, date, time, resolution, date resolved, and time resolved. Put the issues on the web with Government access. Cooperate with and interface with the site Seat contractor for IT problems. NOTE: The site has a Seat contractor that users can call to resolve IT issues. If the issue is not the responsibility of the Seat contractor then the problem is forwarded to the responsible group. It is expected that the COSS users will normally call the Seat contractor for issues that the Seat contractor is responsible for and the COSS users will normally call the COSS contractor IT support for those systems for which the COSS contractor is responsible.	52 weeks	Response is within 4 hours Track help requests and put on web

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Provide a continuous ***daily (D7)*** emergency IT Help Support capability to handle emergency IT issues. Provide access via a pager and cell phone. Provide the name of a prime and two alternate contacts to call that can address emergency IT problems. Designate a permanent prime and alternate contact that can address emergency IT security issues.	365 days	List is posted in the facility helpdesk. IT Help Support phone message provides correct numbers for emergencies. Prime and alternate contact has been designated in writing to COD OCSM and one is available at all times
8.12.2	Documentation Maintenance / Update for Major Systems Continually update and maintain all computer system documentation for all Contractor-provided and operated systems.	Provide and maintain copies of all updated computer system documentation for major systems (CMMS, EMCS, and Scanner System), Keep all documentation in neatly bound volumes with title covers and table of contents. Maintain a copy of all updated manuals in the IT Reference Annex TRL in the main COSS IT area. Validate all documentation no less than once every six months. Update documentation within two weeks of change implementation.	365 days	All documentation is current and accessible.
		Run Manuals – Ensure all System Operator Manuals, job flow configurations, and other flow charts are updated and validated, including batch programming manuals and instructions.	Contractor Determined.	Audit shows run manuals are up to date.
		Terminal Operation Manuals - Ensure all on-line systems operated by both the Government and the Contractor have detailed narrative descriptions, system flow charts, menu flow charts, access codes and other pertinent user information. Provide a point of contact to answer questions in case of system problems.	Contractor Determined.	Audit shows terminal operation manuals are up to date.
		Data Element Dictionary - Ensure data element dictionaries contain comprehensive listings by data of all fields including field name, length, character type, etc. Provide revisions to all documentation when changes occur.	Contractor Determined.	Audit shows that data element dictionary is up to date.
		System Configurations - Provide and maintain system configuration flow charts that accurately portray all functions, links, and relationships between the different components. Hardware Configuration: Accurately reflects all terminals, connections, modem communication links, mainframe and ancillary supports, and other supplementary items. Databases and Program Configuration: Show the relationships between the programs, databases, and other components.	Contractor Determined.	All system configurations are accurate and current with a complete audit trail of all changes/updates.
		Program Listings - Provide a hard copy of source programs. Provide revisions to all programs when changes occur.	Contractor Determined.	All source programs are current and accessible.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Programmer Manuals - Ensure all programmer maintenance manuals provide detailed information about the original program requirement, flow chart of program development, hard copy of source programs, etc. NOTE: These manuals are developed for the purpose of aiding future programmers in the organization and philosophy of the existing program.	Contractor Determined.	Manuals are maintained and updated as changes occur.
8.12.3	Documentation, Minor Systems	Maintain a folder, or other data as appropriate on the minor applications that are supported by the IT group. Maintain a database that lists each supported application, the owner, organization, number of users, description, support method, how to get access, server where application is stored, etc.	365 days	Database of supported applications are available to the COD IT Personnel via read only access to the database or a web page
8.12.4	Documentation, Minor Applications	Perform a yearly survey to list the minor applications that are being used by the COSS (i.e. these are applications that are not normally supported by the IT group) to ascertain whether the data in the applications is being properly protected and location of data. Requirement is to list user, owner, description, type (Access2000, Excel 2000, etc.)	1 survey	List is available to COD IT Personnel.
8.13	**Records, Reports and Submittals**			
8.13.1	Provide IT Security Plan	IT Security Plan DRD AN-1-15 (initial plan within 90 days of contract start – subsequent plans as required before system configuration is changed)	1 plan	Accurate and detailed plan, complete and on time.

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 8-1

Table : EQUIPMENT

Field Name	Field Type	Field Length	Comments
MAINTID	Text	10	Unique record combination of number and/or alpha characters identified as the specific level that individual maintenance records must be kept. Also Alphanumeric text that identifies system level assignment when no specific number ID is available. Will be used as a space holder for contractor until actual equipment is identified. Example: J*009NWHAC – Bldg 9NW HVAC System
EQUIPID	Text	25	Smart number used for quick identification and recognition of equipment. Assigned by design engineering. Contains three codes. First code indicates the type of equipment. The second code represents the building the equipment is installed in. The third code represents the sequence of this unit in the overall count of similar units in the resident building.
DESCRIPTION	Text	50	Air Handler, Chiller, etc...Consistent with the noun descriptor first and the primary pertinent information following a comma and if needed secondary pertinent information following a comma. (Air Handler, PTOA) (Tank, Hot Water, Gas)
INSERVICE	Text	1	(Y or N) If N then operating status (OPERATINGSTATUS) should be used to indicate why.
EQTYPE	Text	3	Alpha legend that indicates the equipment being described. Examples: (CHP – Chilled Water Pump, AHU – Air Handler Unit, HWG, Hot Water Generator) , allows grouping of similar items to run metrics for group failure analysis.
SITE	Text	5	ELL (Ellington Field), JSC (Johnson Space Center), SCTF (Sonny Carter Training Facility)
BLDG	Text	12	Alpha numeric to indicate building as follows: S*924** or JT585**. The * is used as a placeholder to allow proper sorting.
SYSTEM	Text	20	Contract labeled system, Codes used are identified in Section J, Attachment N, Exhibit N-1 Table 1.0. This code allows running of metrics report to assess availability/reliability of contact systems.
LOCATION	Text	30	Physical location, Room, Floor, O/S.
SYSTYPECODE	Text	10	M Mechanical, E-Electrical, X-Environmental, O-Other, UE-User Equipment etc...
PKGFTR	Numeric	5	Limit of Financial Liability for Repairs. Multiplied by $5000.00 per factor.
SERIALNUM	Text	30	Unique ID code from manufacture
MODELNUM	Text	30	General group from manufacture
MANUFACTURER	Text	20	Manufacturers name
COSTCENTER	Text	6	Contractor Defined
PURCHDATE	Short Date	10	Format: 11/26/2000. Original Purchase date.
STARTUPDATE	Short Date	10	Format: 11/26/2000. Building Occupancy Date.
WARRANTYDATE	Short Date	10	Format: 11/26/2000. One year past Building Occupancy date.
ORIGINALCOST	Integer	10	Original purchase cost If available.
OPERATINGSTATUS	Text	10	Used when the INSERVICE field has a N for equipment being in service. Examples: OOSMR – Out of Service Major Repair, OOSMB – Mothballed, OOSOB – Obsolete to be excessed, OOSEC – Energy Conservation
PERSONRESPONSIBLE	Text	10	Used to indicate past Union and Non-Union work jurisdiction set by presidence.
PRIORITY	Integer	1	Could be used to represent Mission Criticality. (Contractor option)
CLASS	Text	1	(N or C) Collateral or Non-Collateral
SAFETY	Text	1	(Y or N) If Y then equipment is a safety critical item (e.g. elevator, man rated crane)

Table : TASK

Field Name	Field Type	Field Length	Comments
TASKNUM	Text	20	Unique ID code for task.
DESCRIPTION	Text	80	Text statement that describe the required Scheduled Maintenance activity.
WOTYPE	Text	8	SM (Scheduled Maintenance)
PRIORITY	Integer	1	"3" All SM work will have a priority of 3 for the initial input into the CMMS system.

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 8-1

INSERVTASK	Text	1	(Y or N) Only "N" if task is being created or removed in order to keep it from generating a WO in the mean time.
RACCODE	Integer	1	RAC code for safety tasks
EXPENSECLASS	Text	6	Contractor Defined
MULTITASK	Text	1	(Y or N)
ASSIGNEDTO	Text	8	Contractor Defined
INSTRCODE	Text	12	Unique ID for instruction assigned to perform task.
CRAFT	Text	8	Craft to perform task
CRAFT EST	Integer	3	=number of workers X hours/person

Table : EQTASK

Field Name	Field Type	Field Length	Comments
MAINTID	Text	10	See EQUIPMENT Table
EQUIPID	Text	25	See EQUIPMENT Table
TASKNUM	Text	20	See TASK Table
DUEDATE	Short Date	10	Format: 11/26/2000. Next date that a Work Order has to be created in the CMMS for this Activity.
PERFDATE	Short Date	10	Not Used
DURATION	2	numeric	Days to perform task from start to finish. Not necessarily the actual hours of work. Used to plan the number of days to spread the activity over in the daily schedule.
DOWNTIME	2	numeric	Total number of hours the equipment must be down for this activity. Used to plan equipment outages.
MUSTBEDOWN	Text	1	(Y or N)
FREQ	Text	10	Cyclic time based code that allows the CMMS to generate this work again after each completion on the next correctly scheduled date. See Contract reference for Deferred Maintenance codes for the appropriate frequency codes.

Table:TASK INST TABLE

INSTRCODE	Text	12	Unique ID for instruction assigned to perform task.
INSTRUCTIONS	Text	12	Text page with consistent format for instructions used.

COSS Organization Chart*

Metrics – All metrics related to this contract
Examples include:
- All AN-1-10 metrics
- Metrics for High Visibility Items
- Contractor-created metrics
- Result from Customer Surveys

Reports - All reports requested within this contract
Examples include:
- Mishap Reports*
- Daily Reports*
- Flash Reports*
- Spill Reports
- Operations Logs
- Open Constraints (MCC)

Plans - All plans requested within this contract
Examples include:
- FCA Plan
- Hurricane Plan
- Environmental Compliance Plan
- Mission Readiness Plan

Schedule Information - All schedule-related information requested within this contract
Examples include:
- Inspection schedules*
- Maintenance Schedules (Daily / Weekly / Monthly)*
- Maintenance Annual Work Plan*
- Outages*
- Crane Certifications*

Procedures - All procedures information requested within this contract
Examples include:
- Work Methods
- Utility Procedures
- Mission Exceptions*
- Hot Work Permits
- Tunnel Access*
- Confined Space Access*
- Excavation and Boring Permits*

Safety - All safety related information requested within this contract
Examples include:
- Safety Procedures
- Safety Inspection Reports (Internal / External)
- Corrective Action Plans*
- Lost Work Day Cases*
- Mishaps*
- OSHA Recordables*

Work Orders – All data related to open and closed work orders
Examples include:
- CMMS Queries*
- Work Authorization Document (WAD)*
- Move Requests*

Quality Control - All quality control information requested within this contract
Examples include:
- Quality Control Plan
- ISO Procedures / Work Methods
- Inspection Reports (Internal / External)
- Corrective Action Plans*

Facility Data – Facility Related Data
Specific Items are:
- Panel Schedules*
- Equipment/System List*

Who To Call
NASA (Information to be provided by the Government)
- Managers
- Maintenance and Operations
- Environmental
- Logistics
- Grounds
- Information Technology

Contractor
- Managers
- Maintenance and Operations
- Environmental
- Logistics
- Grounds
- Information Technology

*Accessible to all JSC/EF/SCTF employees. All others are accessible by COD / COSS personnel only.

NOTE: All data requested electronically within the contract scope of work that fits the identified categories above shall be placed on this website.

NOTE: The exact location of information to be placed on this website may vary based upon CO direction.

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9 ENVIRONMENTAL PROGRAM

9.1 General Information

9.1.1 Annex Description

This Annex covers the services necessary to manage and implement the site-wide environmental program listed below. Annex 9 identifies the requirements the Contractor must meet to ensure that the Government is in compliance with all Federal, State, and local, environmental requirements and NASA JSC directives, procedures and policies. In contrast, the Annex 1 Environmental Program CLIN identifies the requirements that the Contractor must meet to ensure it complies with the same environmental requirements, directives, procedures and policies while performing work across the entire COSS contract.

- Environmental Compliance Management;
- ***Industrial Solid Waste (ISW)**;
- Air Quality;
- Water Pollution Control and Prevention;
- Lead (Pb);
- Asbestos;
- Petroleum Storage Tanks (PST);
- Groundwater Protection;
- Emergency Response;
- Pollution Prevention and Resource Conservation;
- Communication, Training, and Participation in Work Groups;
- Environmental Management System (EMS); and
- Toxic Substances Control Act (TSCA).

For the purposes of this Annex, Johnson Space Center (***JSC**) includes JSC, EF, SCTF. Some work shall also be performed at the El Paso Forward Operating Location (EPFOL) and will be clearly called out. A full time presence at EPFOL is not required. Activities shall be planned to be completed during quarterly visits lasting 1 or 2 days to EPFOL, and include two regulatory inspections per year at EPFOL. All other work identified for EPFOL can be accomplished by fax, phone, or other remote methods.

The Director, NASA JSC, is the designated owner, responsible official, and generator of record at locations of services covered by this contract and, as such, retains the responsibility for the establishment and accomplishment of the Environmental Program. The activities identified in this Annex are in support of JSC's Environmental Program. In order to accomplish the identified support, the Contractor shall establish and accomplish a comprehensive program, which ensures all necessary environmental, safety, and regulatory specifications and criteria are implemented in a manner that offers maximum protection to human life, the environment and property, and minimizes pollutants generated.

All activities, products and services (aspects) shall be developed and performed in a manner consistent with and inclusive of all JSC's environmental management system elements and the JSC environmental policy. All programs and aspects shall result in reducing risk to the environment, reducing NASA's liability and providing cost effectiveness, as appropriate **(**EMS Policy Manual)**.

Certain key activities, specific to JSC systems and procedures, are included in this Annex in order to provide details which are unique to ***JSC** and EPFOL or to better define the workload. The Contractor shall implement minor additional elements as necessary to achieve comprehensive and effective programs.

The Contractor shall administer all environmental transportation and Treatment, Storage, Disposal, and Recycling facilities (TSDR) subcontracts to ensure that all subcontractors are properly certified, licensed, permitted, and approved by NASA.

In the event that a Federal, State, or Local authority assesses a monetary fine or penalty against the Government for violations of environmental, health, or safety laws, regulations, or requirements caused by Contractor negligence or failure to comply with the contract terms and conditions, the Contractor shall reimburse the Government for the amount of that fine and all other Government-incurred expenses. Government incurred expenses, include, but are not limited to, all actual, direct and indirect costs incurred by the government, (e.g. personnel time expended in gathering information and preparing responses, copying, application fees, travel expenses, development of presentation materials, mail delivery costs), negotiations to final settlement, and costs of implementation of all regulatory required corrective actions whether completed by the government or other support contractor until JSC is restored to full compliance for the cited violation. The contractor shall be responsible for that portion of the assessed fine or penalty applicable to the violation alleged, minus any fine escalation for a repeat occurrence due to a previous contractor or Government violation.

For the purposes of this Annex, ***core hours** are defined as 7:30am to 5:00 pm Monday through Friday, excluding holidays. The Contractor shall be present on-site and shall conduct all work required by this Annex during ***core hours,** unless specified. The Contractor shall have a designated Environmental Manager and sufficient personnel on-site and available for duty to accomplish all work in this Annex. The Environmental Manager (or designee) will be available via telephone, pager, or cellular phone after hours, weekends, and holidays to

respond to emergencies, spills, releases and other environmental issues as may arise.

9.1.2 Limitations, Restrictions, or Other Exceptions

The Contractor shall comply with the terms and conditions of all environmental permit requirements and other authorizing documents (see ****Environmental Regulatory Permits**) held by the Government. The Contractor shall address any questions, concerns, or problems which prevent compliance with the applicable permits or any terms of this Annex to the Contracting Officer (CO) and Environmental Technical Management Representative (***TMR**) immediately.

Work shall be in compliance with all applicable Federal, State, and Local laws, permits and permit conditions, Presidential Executive Orders, and NASA procedures. In addition, all maintenance and operations of environmental systems and equipment shall be conducted in accordance with Annex 2, existing Operations and Maintenance (O&M) manuals and procedures, and all regulatory requirements.

The COSS contractor shall be required to coordinate with the JSC Environmental TMR on compliance issues pertaining to JSC facilities. Coordination with the Environmental TMR may preclude discussion with the regulators, result in a request for additional information or discussions with other organizations and agencies, result in the JSC Environmental TMR contacting the regulators or requiring the contractor to deal directly with the regulators.

Except where otherwise specified, all environmental samples collected as a requirement of this Annex shall be submitted to the Environmental Health Laboratory at JSC for analysis at no cost to the Center Operations Support Services (COSS) Contractor.

This Annex does not include the management of the following: radioactive materials; medical and infectious wastes and materials; and explosives. All regulated environmental media originated, generated, or handled by the Contractor through services performed under this contract are subject to the terms and conditions of all ***JSC** permits, NASA procedures, and this contract.

9.1.3 Description of Facilities

Historical Data for Routine and Recurring Environmental Services:

JSC Main Site: Facility Operations and Permits

1. JSC is a large quantity generator of hazardous wastes and is considered an industrial facility in Texas, generating approximately one million pounds of hazardous waste in addition to one million pounds of Class 1 non-hazardous waste per year. The largest quantities of waste are generated in the photographic laboratory at Building 8 and the metal finishing shop at Building 9. Building 8 has a tank system for storage of non-hazardous waste and hazardous wastes. Non-hazardous waste is stored in one 475-gallon sump tank and one 3,400-gallon above ground tank. Hazardous wastes are stored in one 475-gallon <90-day sump tank and one 1,100 gallon <90-day above ground tank. One 7,000-gallon tank contains wash water that is processed and reused. Building 9 has a tank system for storing hazardous waste. All tanks are <90-day tanks: one 800-gallon rinse water tank, one 320-gallon dye waste tank, one 60-gallon battery acid tank, one 325-gallon caustic waste tank, one 325-gallon acid tank, one 4,780-gallon caustic tank, and one 4,780-gallon acid tank. There is a Memtek pretreatment system for treating all rinse waters prior to discharge to the sanitary sewer. A non-hazardous filter cake is generated from the pretreatment process. A 1,500-gallon non-hazardous tank is used to store rinse water from metal finishing operations at Building 356. All other ISW is generated in containers from numerous locations, regular and intermittent across the site. Most other wastes generated in large quantities are derived from facility O&M activities. JSC has approximately 100 buildings where wastes are accumulated in satellite accumulation areas. JSC has one permitted hazardous waste container storage area at Building 358 operated IAW <90 day requirements in anticipation of eliminating the TSD permit by FY04.
2. JSC conducts activities regulated under Texas Pollutant Discharge Elimination System (TPDES) regulations for discharge of storm water related to industrial activity. This includes the management and transportation of hazardous wastes, fueling operations, equipment and vehicle maintenance, and some warehousing operations.
3. All wastewaters generated at JSC are discharged to the sanitary sewer for treatment offsite at the Clear Lake City Water Authority (CLCWA). Discharges must meet CLCWA guidance and federal and state regulations.
4. JSC is a "major source" of air pollution under Titles I and V of the Clean Air Act operating approximately 40 permitted/registered air emission units with various record keeping and reporting requirements. The site is located in a "Severe-17" ozone non-attainment area. Existing air emission units fall into the following categories: seven boilers [three boilers are subject to federal New Source Performance Standards (NSPS), and there are four (4) boilers at JSC which currently have federally-applicable requirements under Title V. These boilers are: B24-2, B24-3 and B24-4 in the Central Heating and Cooling Plant (Building 24), and B222-1 at the Atmospheric Reentry Materials Structure and Evaluation Facility "ARMSEF" (Building 222)], 25 stationary internal combustion engines, 11 diesel storage tanks, three surface coating operations, 15 solvent cleaners, one solid waste incinerator, seven dust collectors for woodworking shop operations, and 117 other miscellaneous/fugitive sources. JSC received a Working Draft Clean Air Act Title V permit in August 2000.
5. JSC contains 11 petroleum storage tanks with a combined capacity of 134,000 gallons. Five of these are registered tanks, two of them are registered and operated by others. See the SPCC Plan in the TRL for photographs and location of tanks.

Ellington Field (EF) and Sonny Carter Training Facility (SCTF): Facility Operations and Permits

1. EF is a large quantity generator of hazardous waste and operates one < 90-day container storage facility. Approximately 200,000 pounds of industrial solid waste are generated at EF, including 130,000 pounds of hazardous waste. Wastes are generated in approximately 25 buildings, including SCTF. Waste generation and accumulation at SCTF is considered as satellite accumulation areas for EF. Wastes are picked up and transported to EF via non-public roads.
2. EF conducts activities regulated under TPDES regulations for discharge of storm water related to industrial activity. Primarily these operations include fueling operations and aircraft and equipment vehicle maintenance.
3. All wastewater discharges at EF are routed to the sanitary sewer for treatment at a Publicly Owned Treatment Works (POTW). Discharges must comply with City of Houston Sewer Ordinances and state and federal requirements.
4. EF and SCTF are both "minor sources" of air pollution under Titles I and V of the Clean Air Act. EF and SCTF air emission units are operated under Permit-by-Rule (exemption) with limited record keeping and reporting requirements. Both sites are located in a "Severe-17" ozone non-attainment area. Existing air emission units at EF fall into the following categories: 40 external combustion units, three diesel backup generators, three storage tanks for diesel or Jet A fuel, two surface coating operations, and 20 miscellaneous/fugitive sources. Existing air emission units at SCTF fall into the following categories: 12 external combustion units, two abrasive blasting operations, one dust collector for woodworking shop operations and one fugitive source.
5. EF has one 250 gallon registered storage tank.

El Paso Forward Operating Location (EPFOL)
Located at the El Paso International Airport on Boeing Drive in El Paso, Texas.

1. The EPFOL is a small quantity generator of ISW. There are two accumulation areas where wastes are accumulated prior to transportation. There are three buildings.
2. Wastewaters are discharged to the sanitary sewer and must meet City of El Paso discharge requirements.
3. EPFOL conducts activities regulated under TPDES regulations for discharge of storm water related to industrial activity. Primarily these operations include fueling operations and aircraft and equipment vehicle maintenance.
4. EPFOL has only minor air emissions sources and operates under standard exemptions. Sources include a small abrasive blast booth and a spray-coating booth.

9.1.4 Definitions

Document: Includes, but is not limited to (paper or electronic format): reports, submittals, plans, logs, lists, records, analytical results, photographs, maps, O&M manuals, and procedures.
Occupational Medicine-Occupational Health (OMOH): Life Sciences Directorate (SA) contractor.

Procedure: Any (paper or electronic format) documented record of how work is to be accomplished. For the purposes of this Annex, a procedure may include, but is not limited to: Work Method (WM), Standard Operating Procedure (SOP), System Level Procedure (SLP), or Common Work Instruction (CWI).

Site-wide compliance: Adherence to all applicable federal, state and local laws, Executive Orders and NASA policies by all on-site organizations, Government and Contractor personnel in the execution of their respective duties, responsibilities, programs, projects and activities. ***JSC** is owned and operated by NASA; therefore NASA is the regulated entity and responsible party, notwithstanding who actually performs the work.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.2	**Environmental Compliance Management** Ensure compliance with environmental regulations.	Implement a comprehensive Environmental Compliance Program to ensure compliance with environmental regulations and including all elements contained in the COSS Environmental Compliance Plan (DRD AN-9-1). Major elements of the program include: 1. Corrective Action 2. Compliance Audits and Inspections 3. Audit Environmental Programs Minor elements necessary to accomplish and complete the program shall be contractor determined. All elements of this program are currently in place, except audit environmental programs.	One program.	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		Ensure that all elements of the Environmental Compliance Management program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions (****Environmental Regulatory Permits**). Programs and procedures shall be updated to include new or revised requirements. Programs include ISW, Air Quality, Water Pollution Control and Prevention, Lead, Asbestos, PST, Groundwater Protection, Emergency Response, Pollution Prevention and Resource Conservation, Communication, Training, and Participation in Work Groups, EMS, TSCA.		Environmental ***TMR** receives on time notification of new or revised procedures.
		All work must be conducted in accordance with existing procedures **(**SOPs for Environmental Activities)**. Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		No deviations from procedures.
		Create and make available for inspection to the Government and any federal, state, and local environmental authority upon demand, all ***documents** as required by contract or to demonstrate compliance with environmental laws. All such documents shall be maintained and accessible for the life of the contract, provided to the Government upon request or per contract requirements and turned over to the Government upon completion or termination of the contract. This requirement applies to all ***documents** throughout Annex 9 Environmental Programs.		Documents are complete, accurate, maintained, and readily accessible.
		Track data required for all documents and develop and submit all required documents.		
		NOTE: All required reports, data, plans, submittals and deliverables for the Environmental Compliance program are listed by program in Contract Line Item Number (CLIN) 9.16.1 Records, Reports and Submittals.		

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.2.1	Corrective Action Ensure that problems or non-compliances are promptly reported to NASA and corrected.	All non-compliances or noncompliant conditions shall be reported to Environmental ***TMR** within 24 hours by phone, email or fax. Initiate appropriate corrective action to mitigate the problem ***immediately** and provide a recommended corrective action plan to the Environmental ***TMR** within 2 days for approval for items requiring additional time or resources. The recommended corrective action must be based upon root cause analysis and a full review and inclusion of regulatory requirements. Create and maintain a log of all problems or non-compliances (including, but not limited to: date, who was notified, nature of problem, location of problems, and corrective action taken). Log shall be maintained electronically in Excel or other format approved by the Government. Update log within 1 working day of receipt of updated information. NOTE: Corrective repairs for all environmental systems shall be performed as an "emergency repair" in accordance with Annex 2.	Contractor determined	All noncompliances reported accurately and on time. Corrective action plans are provided on time. Log is complete, accurate, maintained, and readily accessible.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.2.2	Compliance Audits and Inspections Participate and assist in regulatory audits and inspections	Participate in compliance audits and inspections, and external audits and assessments as they occur at ***JSC** and EPFOL. Perform pre-inspections prior to scheduled regulatory inspections or NASA functional assessments to identify and correct any deficiencies. Complete pre-audit/inspection checklists as required by agency or Environmental ***TMR**. Escort and provide tours of facilities to auditors/inspectors. Schedule tours and meetings with other personnel to support audits and inspections. Provide access to all documents or information to inspectors and auditors. Provide copies of all requested documents to auditors and inspectors. Initiate immediate correction of all noted or cited deficiencies, violations, or non-conformances. Develop corrective action plans, conduct corrective action, develop responses and document corrective action for all findings from audits and inspections. Provide 2 trained auditors to participate in EMS internal audits. Auditors will use JSC specified protocols for internal audits (****EMS Policy Manual**). NOTE: Up to a 3 day EMS auditor course may be required and include participation in two training audits prior to conducting unsupervised audits. ISO 14000 Lead Auditor training will also meet this requirement. Auditor knowledge and familiarity with the JSC EMS documentation is additionally recommended, but not required. Enter information about the each regulatory inspection into NETS database Functional Management Module within 10 days of inspection and update the required information, as it becomes available. A list of fields that must be completed is included as Inspection Summary and Detail and as Non-Compliance Summary and Detail in ****Environmental Functional Management Report Items**. Note: Typical audits and inspections at JSC and EF are 2 to 3 days in duration, 1 day or less at EPFOC. Once every 3 years environmental functional reviews occur and last up to 8 days (the next reviews are scheduled for 2004 and 2007).	Eight inspections (two at EPFOL) Three internal EMS audits Two external EMS Audits One external audit Four pre-audit checklists	Pre-inspections are conducted and all problems accurately identified and corrective action is initiated on time. All auditors and inspectors are provided with escorts. Meetings are scheduled to facilitate audits and inspections. All documents are available upon request. Copies are provided upon request. Corrective action is taken immediately for problems identified during inspections and audits. Corrective action plans are developed and completed for all findings. All documents and databases are complete, accurate and accessible at all times.
9.2.3	Audit Environmental Programs Conduct audits of environmental programs at ***JSC** and EPFOL.	Conduct self-assessment audits of environmental programs at ***JSC** and EPFOL. All individuals performing assessments or audits must be trained in auditing techniques and in the environmental regulations and program areas for which they will responsible. Training must be documented. a. Conduct the Environmental portion of Health, Safety and Environmental audits of each building on an annual basis.	186 building audits One environmental program assessment	Each building at ***JSC** and EPFOL is assessed for compliance with environmental rules, requirements and procedures each year.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Conduct a self-assessment of environmental program compliance. Typically 4-6 environmental media will be assessed per year. The Environmental ***TMR** will determine which programs are conducted each year. Conduct self assessments in accordance with the ****US Army Corp of Engineers Construction Engineering Research Laboratory Environmental Assessment and Management (TEAM) Guide,** most current edition. Develop a proposed assessment plan prior to initiating each program assessment. The Environmental Office must approve the plan prior to initiation of the assessment. State and Federal regulations must be included in the assessments.		All audit findings are documented and are accurate, complete and accessible. Findings are entered into EMS tracking system, as required.
		c. Document all findings on checklists and input information into EMS tracking system, as requested by Environmental ***TMR**. Maintain a hardcopy file of audit findings and completed checklists.		All individuals performing audits or assessments are accurately and completely trained.
		NOTE: Past building audits took an average of 3 hours per audit.		Audits and assessments are completely and accurately conducted.
9.3	Industrial Solid Waste Management Program. Manage all Industrial Solid Waste (ISW) in Compliance with all applicable requirements	Implement a comprehensive program to manage all industrial solid waste generated at ***JSC** and in limited instances EPFOL. Major elements of this program include: waste pickup, waste stream administration (characterization, tracking, recordkeeping), developing and maintaining the Notices of Registration (NOR), operation of container storage areas and tanks and satellite accumulation areas, waste treatment systems, inspections, waste transportation and disposal, and performing audits of TSDRs. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. All elements of this program are currently in place.	One program.	No instances of violation of current local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		Ensure that all elements of the ISW program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. **(**Environmental Regulatory Permits, **Miscellaneous Environmental Documents, **SOPs for Environmental Activities)** Programs and procedures shall be updated to include new or revised requirements.		
		All work must be conducted in accordance with existing procedures **(**SOPs for Environmental Activities).** Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		No deviations from procedures.
		Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.		Environmental ***TMR** receives on time notification of new or revised procedures.
		Track data required for all documents and develop and submit all required documents.		
		NOTE: All required reports, data, plans, submittals, and deliverables for the ISW program are listed by program in CLIN 9.16.2 Records Reports and Submittals.		

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.3.1	Waste Pickup Provide containers and pickup ISW on schedule.	Pickup ISW from any generator on-site at ***JSC**. Waste is generated from numerous buildings and will be moved to designated storage areas at ***JSC**.	1920 pickups	
		Use JSC forms, methods and procedures (Form 27 and Form 1161, see **** Miscellaneous Environmental Documents** and ****SOPs for Environmental Activities).**		All required documentation and forms are complete, accurate, and readily accessible
		All wastes are picked up from satellite accumulation areas and placed in designated storage areas within 72 hours of request.		Waste pickups are completed on time.
		Provide assistance to generators when needed to properly package or label wastes.		
		Provide verbal assistance, via email, phone or fax to EPFOL generators when requested or needed to properly accumulate, package or label wastes.		
		Provide generators of waste at ***JSC** the appropriate type, size and number of containers as requested within 72 hours.	1080 containers	Appropriate containers are provided on time.
		Institute a container reuse program to minimize the purchase of new containers, as appropriate.		Containers are reused.
9.3.2	Administer ISW waste streams Ensure waste codes are kept current to comply with regulations.	Manage the administrative aspects of all ISW waste streams generated at ***JSC** and EPFOL. This includes, but is not limited to: characterization, tracking all necessary information, developing and keeping required records, in accordance with all permits, regulations, regulatory agency guidance documents and JSC requirements. NOTE: There are approximately 160 waste codes, and up to 50% of waste codes may be inactive or intermittently generated.	365 days	All ISW generated at ***JSC** and EPFOL is completely and accurately characterized and documented as recommended in current Texas Natural Resource Conservation Commission (TNRCC) guidance.
9.3.2.1	Waste Stream Characterization Characterize all Waste Streams.	Characterize all waste streams. Characterization includes but is not limited to: collecting samples as needed for characterization, identifying all pertinent process knowledge as needed for characterization (including process flow diagrams or other means of identifying waste generation processes), documentation of sampling techniques and rationale, and documentation of all information in accordance with current regulations and TNRCC guidance "Guidelines for the Classification and Coding of Industrial and Hazardous Wastes" **(**Environmental Reference Information)**. Characterization shall be initiated on all new or changed waste streams within 5 working days of receipt or determination of new or changed waste stream. Where practical, the Contractor must assign the lowest accurate waste code (hierarchy from high to low is: class 1 hazardous, class 1 non-hazardous, class 2, class 3) to each waste.	See above.	All required samples are collected and characterization initiated on time, accurately and completely, with lowest practical waste codes. All required information on all wastes received in ISW storage or <90-day accumulation area is available and accurate at all times.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		It is the contractor's responsibility to interview or request the necessary information from process owners to complete waste characterization in full compliance with applicable regulatory requirements. The contractor shall adequately determine process knowledge at each point of waste generation to if it does not exist. All waste streams require a process description, but not all waste streams require an engineering analysis or flow diagrams. All waste streams require periodic review for accuracy and updating, generally on an annual basis, along with the characterization information. The COSS contractor, as part of the site-wide program management requirements, shall identify segregation problems, areas to be improved, and conduct or provide training and guidance to improve waste segregation by generators. NOTE: Generators are responsible for waste segregation. Another contractor on site will provide analytical services and sampling containers at no cost. Also included, is any sampling or information required to meet TSDR requirements for sampling or analytical information.. Transporting or shipping the samples from EPFOL to JSC's onsite laboratory shall be performed by the Contractor. Also included, is any sampling or information required to meet TSDR requirements for sampling or analytical information.		
9.3.2.2	Accomplish Waste Tracking	Accomplish waste tracking. All ISW generated at ***JSC** shall be tracked in order to know how wastes are managed from generation to ***disposition**. This includes but is not limited to the following information: a) date pick of waste was requested; b) the building and room number or tank number, as applicable; c) the organization where the waste originated; d) where the waste is currently stored; e) the amount of waste picked up on a daily basis (in pounds); f) the amount of waste stored in each tank on a daily basis (listed in pounds and gallons); g) how it was managed (e.g., container type, whether it was combined or moved once received);	See above	All required information on all ISW generated is complete, accurate and accessible at all times. Documents are complete, accurate and accessible at all times.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		h) common name of waste; i) Texas Waste Code Number; j) date received at storage facility; when and how it was ***dispositioned**; k) manifest or bill of lading number; and l) Information that demonstrates that all wastes are removed in accordance with the <90- day regulation or permit requirement. This information shall also be tracked in a database format, in Microsoft Access or SQL Server, where information can be searched, sorted, and accessible to the Environmental ***TMR**. This information shall be tracked manually on a ***Daily (D5)** basis for B358 container storage area in the **B358 Waste Receipt Log** and for EF on the **EF Waste Receipt Log (**Miscellaneous Environmental Documents)**.		
9.3.2.3	Maintain Notice of Registration (NOR) Keep the NOR updated to comply with regulations.	Maintain the JSC, EF, and EPFOL NOR via State of Texas Environmental Electronic Reporting System (STEERS) or legally allowable alternate if STEERS is not functioning. Updated characterization information for new and existing wastes shall be input into STEERS to update the NOR within 7 days of waste determination and prior to shipment of any waste stream. Follow guidance provided by STEERS Users Manual, most current edition **(**Environmental Reference Information).** Notify and provide data to the Environmental TMR within 5 working days of making updates to NOR in STEERS for review and transmission prior to submittal to the State. Hardware and software requirements are provided in the TRL document - STEERS Reference Manual. NOTE: Up to 50% of waste codes may be inactive or intermittently generated.	365 days	NORs are accurate and up-to-date at all times. The status of all changes to the NORs is known and documented. NOR updates are completed on time via STEERS whenever possible.
		When updated hard copies of the NOR are received from TNRCC, review the information to make sure that the updates were done correctly. Provide written correction notice to submit to TNRCC for updates that were done incorrectly by TNRCC. The review and written correction notice must be completed within 10 working days of receipt of the updated NOR.		Review of NORs and written correction notices are complete, accurate and accessible at all times.
		Develop and maintain a spreadsheet or database to track all changes to the NOR, update status and the method for providing the information to the TNRCC. The NOR tracking record must be updated within 24 hours of change.		NOR tracking record is correct and updated on time.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.3.3	Maintain waste satellite accumulation areas Maintain ISW satellite waste accumulation areas in compliance with regulations and requirements.	Mark with signs, paint or tape the delineation of all routine or permanent satellite accumulation areas at ***JSC** and EPFOL. If multiple satellite accumulation areas are adjacent or in close proximity to one another, mark each with a designator (name or number). Maintain these markings so that they are visible and clearly delineated and identified at all times. Inspect all ***JSC** satellite accumulation areas on a monthly basis to ensure compliance with regulations. Correct all problems identified during inspections within 24 hours. If problems need generator assistance to correct, immediately notify generator and work together to correct problems. Maintain a list of all satellite accumulation areas by site. Maintain logs of satellite accumulation area inspections by site. Include documentation of findings and corrective action on logs. Update logs and lists within 24 hours of receiving updated information. NOTE: Others will conduct required satellite accumulation area inspections at EPFOL. During the regularly scheduled visits at EPFOL, review the inspection logs periodically to ensure they are complete and accurate, and inspect accumulation areas for compliance with regulations. Any deficiencies shall be reported to EPFOL manager and Environmental ***TMR**.	150 satellite accumulation areas	All satellite accumulation areas are identified by markings and names or numbers at all times. All logs and lists are complete, accurate, maintained, and readily accessible. All satellite accumulation areas are inspected on time and for all required items. All problems are corrected on time.
9.3.4	Operate and manage all ISW storage facilities. Operate and manage all ISW storage and <90 day facilities in compliance with regulations.	Operate and manage all ISW storage and <90-day accumulation facilities (containers and tanks) at JSC and EF according to federal, state and local regulations; SOPs; and O&M Manuals (****SOPs for Environmental Activities, ****B8 Tanks O&M Manual, ****B9 Tanks O&M Manual**). Operate and manage the B358 permitted ISW storage facility as a <90 day storage facility. This includes, but is not limited to: all required inspections, inventory control, recordkeeping, labeling, segregation, container type/ condition, containment management, and keeping the official operating record of the ISW facilities. Inventory control means that facilities shall be operated at all times to stay below regulatory limits and to remove wastes from tanks so that tanks never go into high-level alarm. Non-hazardous waste accumulation and storage areas and tanks shall be operated in accordance with equivalent hazardous waste requirements. The B358 container storage area must be manned from 8:00 am to 3:30 pm ***Daily (D)** and operated as a < 90 day occulation facility. B358 and EF container storage facilities must be secured and locked at any time that there is no one on duty at the facility.	Two container storage areas, 13 tanks	Facilities are operated and managed in compliance with regulatory and permit requirements and SOPs at all times. Tanks are operational at all times. Wastes are removed so that there is no instance of high-level alarm or within 90 days, whichever occurs first. Documents and databases are complete, accurate and accessible. B358 Storage facility is manned during required hours. Container storage areas are locked when no one is on duty.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All accumulation and storage facilities (including berms, containments, tanks and vaults) must be clean, properly marked, in good condition and in good operational status and integrity at all times. Exterior surfaces must be free of dirt and stains and all coatings must be maintained. If any cracks, coating deterioration or other problems are found, initiate corrective repairs in accordance with Annex 2. Document all findings on ISW inspection logs.		No evidence of dirt, stains or deteriorated coatings on exteriors of tanks, vaults, berms, and containment structures. No instance of structures or cracks or deterioration of coatings are found on ISW containment berms. All findings are documented.
		Perform tank integrity testing on each ISW storage tank to ensure that the tanks are not leaking. Tanks must be tested at least once per contract year (at intervals between 11 and 13 months). Use testing methods identified in regulatory guidance documents or industry reference standards if cited in regulations. The interior of each tank shall be cleaned prior to integrity testing. Cleaning includes, but is not limited to: taking the tanks out of service, pumping out all wastes, removing and ***disposition** of any built up sludge or sediment, and cleaning lines and drains. If problems are found during testing, cleaning or inspection, initiate corrective repairs in accordance with Annex 2.	13 tank tests	Each ISW tank is tested for integrity on time. Corrective repairs are initiated on time.
9.3.5	Waste treatment system Operate and manage waste treatment system in compliance with requirements.	Manage, operate, inspect, sample, perform record keeping and documentation, in accordance with regulatory requirements, manufacturers instructions and documented procedures for the system: Memtek Metal Finishing Waste Pretreatment System: Operate and manage the system in accordance with the ****Memtek O&M Manual**, ****Memtek Filter Press O&M Manual**, and ****SOPs for Environmental Activities**, and the Clear Lake City Sanitary Sewer Ordinance (****Miscellaneous Environmental Documents**).	One pretreatment system	No instance of unscheduled system downtime. No instances of discharged wastewater exceeding effluent limits or Clean Water Act requirements.
		Treatment system shall be fully operational ***Daily (D7)**. All treatment shall be completed within 24 hours of generation by Metal Finishing Shop and as often as needed to prevent tank overflows. Inspect system ***Daily (D7)**. All inspections are performed in accordance with SOPs and regulatory requirements. All information collected for inspections are accurately documented.	20,000 gallons treated	No instance of tanks overflowing.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Samples are collected for each treated batch prior to discharge for pH and metals analysis. All samples must be managed from collection through analysis using proper chain of custody techniques. Review all analytical results. All information collected is accurately documented. NOTE: Samples are counted by location, e.g. the Memtek effluent tank is considered one sampling location and all parameters, containers etc. are included in this definition of a sample.	52 samples	Each treated batch is sampled prior to discharge. 100% accuracy of inspections and documentation logs.
9.3.6	Arrange for ISW transport and disposition Prepare shipments and arrange for transportation and disposition of ISW.	Arrange for transportation and disposition of all ISW generated at ***JSC** and EPFOL at authorized Treatment, Storage, Disposal, or Recycling facilities (TSDRs). Use approved and authorized facilities that re-use, recycle and treat wastes rather than disposing of them where practical, utilizing the Environmental Protection Agency (EPA) pollution prevention hierarchy (reuse, recycle, treat, dispose), in that order of preference. This includes, but is not limited to: 1. Scheduling and preparing shipments for transportation and disposition in accordance with all regulations and TSDR requirements; 2. Preparing and signing all manifests, bills of lading, required supporting documents, forms and certifications; 3. Ensuring that all DOT requirements are in place prior to transporting ISW offsite; 4. Tracking and managing shipments and manifests and other required documents; 5. Reviewing and tracking invoices and ensuring that they are accurate prior to submission for reimbursement; and 6. Arranging and obtaining the use and location or re-location of any container, truck, tank, rolloff, vehicle, etc, used to temporarily store or accumulate ISW. NOTE: Historical ISW generation is provided in Annual Waste Summaries for JSC, EF, and EPFOL found in ****Miscellaneous Environmental Documents.** All shipments of ISW leaving ***JSC** and EPFOL shall be placed in a transportation vehicle containing wastes only from ***JSC** or EPFOL and not from any other facility or location unless specifically authorized by the Environmental ***TMR**. All shipments of ISW shall be transported directly to the TSDR facility designated on the manifest or other shipping document.	2.5 million pounds of ISW generated	All ISW is prepared for shipment and transported in accordance to applicable regulations, TSDR requirements, JSC policy and contract requirements. All required documents are completely and accurately prepared and provided. All shipments and manifests and related shipping documents are tracked, managed, and retained in accordance with regulations and policy. Required vessels, containers and vehicles are obtained and located to manage all ISW. All wastes are transported directly to designated TSDRs.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Trucks or tankers of ISW from ***JSC** or EPFOL shall not be held over in any location except for ***JSC** or EPFOL unless specifically authorized by the Environmental ***TMR**.		No wastes are loaded into transportation vehicles and held over at any location except at ***JSC** or EPFOL.
		ISW from ***JSC** or EPFOL shall not be mixed in any tanker or other container for shipment with wastes from non-NASA generators. All trucks, tankers and containers shall be certified clean by the off-site provider.		No ***JSC** or EPFOL waste is shipped or mixed with waste from other generators.
		Inspect all trucks, containers or tankers provided by the transportation contractor to ensure they are clean. Reject any trucks that are not clean. Replacement trucks shall be at no cost to the government. Provide the transporter with all required loading, transporting, unloading, and safety equipment related to shipment of ISW generated at ***JSC** and EPFOL.	See above	All trucks, tankers and containers provided by transporters for shipments of ISW completely and accurately inspected prior to use and certified clean.
		All trucks shall be weighed in and out at the onsite scale at B417a for shipments of JSC ISW. All trucks transporting wastes from EF shall be weighed using the Martin Scale located directly across State Highway 3 from EF, unless directed by the Environmental ***TMR**. Make all required arrangements for the accurate weighing of shipments originating from EPFOL at the nearest location.		All trucks of transported ISW are accurately weighed.
		Provide for the necessary transportation, roll-off and storage containers support within 24 hours for routine requests and 4 hours for emergency requests. Ensure that transporters are able to provide, upon request, any of the following, but not limited to: open-top and closed-top rolloffs of 20 and 30 cubic yard size, storage tanks from 500 to 20,000 gallon capacity, 5000-gallon vacuum trucks, and other associated tractors and trailers for transportation.	See above	Requested trucks and containers are provided on-time
		Obtain certificates of reclamation, disposal or destruction and place with appropriate manifests. Prepare manifest discrepancy reports containing required information for every manifest that exceeds regulatory time limits or for other regulatory requirements, as identified in 30 Texas Administrative Code (TAC) 335.12-13. All discrepancy reports must be forwarded to the CO, allowing enough time to submit it within regulatory time limits.		
		All above activities must be accomplished in a way to maximize efficiency and utility and to meet all rules, regulations, permit conditions and JSC requirements.		

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9.3.6.1	Obtain Contracts for Transportation and Disposal of ISW Obtain transportation and TSDR contracts for ISW generated at ***JSC** and EPFOL	Obtain and maintain contracts for the following: a. Obtain and maintain contracts with transporters for ISW. b. Obtain and maintain contracts with authorized TSDR facilities to provide for disposition of each waste generated at *JSC and EPFOL. c. Obtain and maintain contracts or provide for lab-packing services if a turn-key service is utilized. d. Maintain active profiles with two TSDRs (one primary and one backup) for each active waste stream on JSC, EF and EPFOL NORs. TSDR facilities may be required for, but not limited to: Energy Recovery, Fuels Blending, Incineration, Lab-packing, Landfilling, Land Treatment, Used Oil Recycling, Neutralization Battery Recycling, Metals Reclamation, Stabilization, Lamp Recycling, Solvent Reclamation Use only approved TSDRs. If TSDR fails an audit, obtain new TSDR within 6 months. Sufficient numbers of contracts with ISW transporters and TSDR facilities shall be in place by the effective start date of the contract to allow for shipment and disposition of ISW on the first day of the contract. For TSD facilities used for incineration or land disposal, only facilities that meet the Off-Site Hazardous Waste Disposal Policy (****Environmental Reference Information**) requirements shall be used unless specifically authorized by the Environmental ***TMR**.	Contractor Determined	All ISW is dispositioned at an approved and authorized TSDR. Active contracts and waste profiles are in place for each active ISW waste generated. New TSDR facility contracts are obtained on time. Active contracts are provided for all types of dispositioning required.

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9.3.6.2	Audit ISW Transporters Conduct verification audits of all Transportation subcontractors	For each transporter used check and verify that all regulatory requirements are current and valid. Obtain copies of all referenced documents. The information to be verified includes, but is not limited to the following: 1. The transporter's current Texas National Resources Conservation Committee (TNRCC), other applicable state(s), Environmental Protection Agency (EPA), and Department of Transportation (DOT), permits, licenses and certificates. 2. The listing of drivers certified to operate vehicles transporting industrial solid waste(s), 3. An outline of the driver certification training, 4. A description and proof of vehicle maintenance programs, Proof of adequate and current insurance. If the transporter utilizes a transfer station prior to the final disposition facility, the transfer facility must be audited in accordance with CLIN 9.3.8 prior to use. Provide an annual certification statement to the Environmental ***TMR** that all transporters are properly permitted or authorized, that all transportation personnel are properly trained and hold valid licenses. Failure to include sufficient information for the Environmental ***TMR** to adequately and accurately assess each proposed TSDR may result in NASA not approving a provider.	Contractor determined	All transportation companies, drivers and vehicles are compliant with federal, state, and local laws, JSC procedures and contract requirements Only certified and verified transportation companies are used to transport ISW for disposition offsite. All transportation companies are accurately and completely evaluated and verified.
9.3.6.3	Lab-packing Services Provide lab-packing services for ISW generated at *JSC and EPFOL	Provide the services to lab-pack ISW generated at ***JSC** and EPFOL. Lab-pack services include: providing containers and packing materials, sorting and compiling waste containers in appropriate containers, labeling drums, preparing manifests and all other shipping documents, and transporting the lab-packs to an approved TSDR within 1 day of completion of the lab-packing operation. Obtain certificates of treatment and disposal for each manifested shipment. If an offsite subcontractor provides this service, the subcontractor shall perform the entire service. Provide a certification to the Environmental ***TMR**, annually on April 30, and prior to initial use, for any lab-pack subcontractor used, that they have all required permits and authorizations and that personnel training is current.	See above	All required lab-pack services are provided. All required documents are complete, accurate and readily accessible at all times. A certification is provided for each lab-pack subcontractor on time.

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9.3.7	Conduct Audits of TSDRs Facilities Conduct audits of TSDRs to ensure primary and backup approved facilities for each active waste stream	Conduct physical audits of each TSDRs facilities used to disposition wastes generated by ***JSC** and EPFOL. Audits must be conducted on each facility before waste is transported or sent to a TSDR. The government shall be notified not less than two weeks prior to each audit conducted to allow the government to make arrangements to attend as an observer. Audits must be conducted on each facility utilized or propose to be used, at least once each contract year. The Environmental ***TMR** must approve any deviations from this requirement in advance of use of a facility. All audits shall be conducted in accordance with ****NASA Procedure for Evaluating TSD Facilities and Disposal Site Evaluation Questionnaire**. Any variances from the audit protocol shall be approved by the Environmental ***TMR** prior to the initiation of the audit. Document the audit and findings in a narrative report and on the referenced checklists. Other checklists may be used once approved by JSC Environmental Office. All field notes, reports, and findings of the Contractor's audit become Government property and shall be available upon request by the Government.	10 audits	All TSDRs facilities are audited according to the specified protocol. No instance of waste transported or sent to an un-audited or unapproved TSDR. Audits are conducted and documented completely, accurately and on time. No instance where there is no available approved facility for a waste.
		In addition to the requirements in ****NASA Procedure for Evaluating TSD Facilities and Disposal Site Evaluation Questionnaire**, review and verify the status of each of the following for each TSDR audited and used for disposition of ISW: a. Compliance with Federal, State, and local laws regarding ISW; b. Current regulatory compliance status, including final disposition of current or pending enforcement actions; c. Notices of Violation, penalties and administrative orders, including TSDR responses, rebuttals, and corrective actions that have occurred in the last 3 years; d. Ability of TSDR to perform the totality of services required for the prescribed recycling, treatment, or disposal of ISW; e. The number of extra associated charges and surcharges assessed; f. All waste streams generated by the TSDR during management of accepted wastes, how these wastes are dispositioned, and all treatment and disposal facilities used to disposition these wastes; g. For fuel blenders, include a review of cement kilns used; h. TSDR ability to provide alternative or contingency services in case of facility failure or extended scheduling delays; and i. All required permits, registrations, certificates, and licenses.	See above	See above

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		Provide a recommendation on approval or disapproval for use of the TSDR to the Environmental ***TMR** for each audited facility, but the final approval/ disapproval authority will be the Government. Maintain a list of approved facilities. Maintain a list of facilities scheduled for auditing, by order of necessity. Research and identify facilities at the top of the Pollution Prevention hierarchy (Re-use, Recycle, Treat, Dispose) for use and approval. At least one facility and one back up facility must be on the approved list for each active waste stream on the NOR.		
		NOTE: In some cases the Environmental ***TMR** may allow ISW to be dispositioned at a TSDR audited by another NASA facility or where an audit has been purchased from another agency or company.	See above	See above
		Failure to include sufficient information for the Environmental ***TMR** to adequately and accurately assess each proposed TSDR may result in NASA not approving a provider.		
9.4	**Air Quality Program** Manage Air Emissions in Compliance with all applicable requirements	Implement a comprehensive program to manage all air emission sources. Major elements of this program include: operating the Building 222 Continuous Emissions Monitoring System (CEMs), verify boiler operations data, tracking surface coating operations, keeping records of exempted source operations, and performing calculations, inspections, and recordkeeping, and making visible emission readings to comply with regulations. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. All elements of this program are currently in place.	One program.	No instances of violation of local, state and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		Ensure that all elements of the air emissions program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. **(**Environmental Regulatory Permits)**		
		Programs and procedures shall be updated to include new or revised requirements.		
		NOTE: JSC is a "major source" of air pollution as defined under the Clean Air Act (CAA). EF, SCTF, and EPFOL are all "minor sources".		
		All work must be conducted in accordance with existing procedures. **(** SOPs for Environmental Activities, **Classified Waste Incinerator, **QA/QC Procedural Manual for CEMS)** Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		Environmental ***TMR** receives on time notification of new or revised procedures.
		Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.		

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		Track data required for all documents and develop and submit all required documents. NOTE: All required reports, data, plans, submittals and deliverables for the air quality program are listed by program in CLIN 9.16.3 Records Reports and Submittals.		
9.4.1	Operate the Building 222 CEMs Properly operate the Building 222 CEMS to comply with regulations	Operate and maintain the Building 222 CEMS to comply with all operation, calibration, maintenance, recordkeeping, and reporting requirements. Requirements are listed in Building 222 Boiler Permit No. C-19670, Operating Permit #O-01552 **(**Environmental Regulatory Permits),** and Work Method WM-1040-025 Operate, Maintain, and Test B222 CEMs **(** SOPs for Environmental Activities).**	One CEMS System	Building 222 CEMs complies with all regulatory and permit requirements.
		Operate the CEMS to ensure that nitrogen oxide (NOx) emissions do not exceed 0.10 lb per million BTU heat input on an hourly average basis (per C-19670).		
		CEMS shall be operational at all times except for scheduled maintenance.		No unscheduled CEMs downtime.
		NOTE: CEMS includes, but is not limited to: dual redundant NOx analyzer, oxygen (O2) analyzer, in-stack sample probes, sampling lines, sample conditioning, pumps, filters, data acquisition system KVB Enertec NT-DAHS.		
		a. Inspect the CEMS to ensure Quality Assurances/Quality Control (QA/QC) calibration checks of O2 and NOx Analyzers have passed. Follow corrective action procedures in Work Method WM-1040-025 Operate, Maintain, and Test B222 CEM **(** SOPs for Environmental Activities)** if analyzers do not pass calibration checks. Accomplish ***Daily (D)** plus 10% contingency for critical unplanned test activity on weekends. NOTE: For this CLIN, the count of 286 days is based on 52 weeks per year, 5 days per week + 10% = 286 days/year.	286 days	CEMs are inspected on time and for all required items.
		b. Building 222 CEMS Records – Collect and maintain boiler operation records and fuel usage data. Records include, but are not limited to: computer printouts, daily calibration drift data, records of adjustments of CEMS calibration, maintenance logs, and quality assurance assessments. Records must be updated ***Daily (D)** plus 10% contingency for critical unplanned test activity on weekends.	See above.	Records are complete, accurate, and readily accessible.

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		c. Building 222 Rolling Average Calculations	52 calculations	Records are complete, accurate, and readily accessible.
		On a weekly basis, calculate and record CEMS rolling average NOx emission rates in accordance with Permit #C-19670 Special Condition 6, paragraph A.3 **(**Environmental Regulatory Permits).**		
		On a monthly basis, calculate and record boiler rolling average capacity factor in accordance with Title 40 Code of Federal Regulations (CFR) Part 60.49b(d).	12 calculations	
		d. Building 222 CEMS Relative Accuracy Test Audit (RATA) -- Conduct RATA on both primary and secondary CEMS systems.	One test	Test conducted accurately and on time.
		At least 45 days prior to conducting RATA test, submit written notification to Environmental ***TMR**. Notification is required so that TNRCC regional office can be afforded the opportunity to witness the RATA test in accordance with Permit #C-19670 Special Condition 7, paragraph F **(**Environmental Regulatory Permits).**		Written notification of upcoming RATA test provided to Environmental ***TMR** on time.
		Conduct once annually during the first quarter of each calendar year. Tests shall be conducted in accordance with 40 CFR 60 and Work Method WM-1040-026 RATA Test B222 CEMS **(**SOPs for Environmental Activities).**		No incident of non-reporting
		Immediately report all RATA inaccuracy greater than +/- 20% accuracy to Environmental ***TMR**.		No incident of excessive audit inaccuracy.
		e. Building 222 CEMS Cylinder Gas Audit (CGA) – Conduct CGA on both primary and secondary CEMS systems.	Three tests	Test conducted accurately and on time.
		Conduct three times per year, during last three quarters of each calendar year. Tests shall be conducted in accordance with 40 CFR 60 and Work Method WM-1040-027 CGA Test B222 CEMS **(** SOPs for Environmental Activities).**		No incident of excessive audit inaccuracy.
				No incident of non-reporting
		Immediately report all CGA inaccuracy greater than +/- 15% accuracy to Environmental ***TMR**.		
9.4.2	Building 24 Boiler Records Ensure Boiler records are kept to comply with permit	Ensure air emissions from Building 24 Boilers meet regulatory requirements.	Three Boilers	See below.
		Requirements are listed in Building 24 Boiler Permit No. C-19211 and Operating Permit #O-01552 **(**Environmental Regulatory Permits),** and Work Method WM-1040-028 Maintain B24 Boiler Records **(**SOPs for Environmental Activities).**		

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		a. Building 24 Boiler Data Entry and Records – Keep records of boiler operation to prove compliance with regulatory requirements.	12 records	Records are complete, accurate, and readily accessible.
		On a monthly basis, retrieve daily Building 24 boiler operating records from Operations (see Annex 4). Organize data from daily record to create monthly Boiler compliance record and enter required data into Government provided spreadsheet. Information shall include but is not limited to: daily run-time on natural gas, daily natural gas consumption, daily run-time on diesel fuel, daily consumption of diesel fuel. Include daily record as supporting documentation.		
		NOTE: There are 365 daily operating records created by Operations (Annex 4 – Building 24 Central Plant Steam/ Boiler System)		
		b. Building 24 Boilers Sample and Data Collection – Collect and maintain certificates or letters from fuel suppliers (i.e., natural gas and diesel fuel) and obtain fuel system information from Operations.		
		Obtain an updated certificate/letter from the natural gas fuel supplier certifying total sulfur and hydrogen sulfide (H2S) content once per year.	One natural gas supplier certificate	
		Collect and analyze a sample of natural gas for total sulfur and H2S content once per year. Ensure that natural gas does not exceed 0.25 grains H2S and 5 grains total sulfur per 100 dry standard cubic feet.	One sample analysis for natural gas.	All required samples are collected.
		For each delivery of fuel to the Building 24 diesel tank, obtain certificate/letter from diesel fuel supplier stating the name of the supplier and statement that fuel complies with **ASTM D-396-98 "Standard Specification for Fuel Oils" (**Environmental Reference Information).**	Ten diesel supplier certifications	
		On a monthly basis, retrieve information from Operations (see Annex 4) that includes, but is not limited to: fuel truck delivery date/time, quantity dispensed to Building 24 Diesel Tank, and results of diesel fuel sample analysis. Ensure that sulfur content of No.2 diesel fuel does not exceed 0.5 wt% sulfur. Organize data to create monthly Boiler compliance record and enter required data into Government provided spreadsheet.	12 monthly fuel records	No instances of fuels exceeding allowable sulfur content. Records are complete, accurate, and readily accessible.
		NOTE: Diesel fuel sample analysis for each delivery is performed by Operations (Annex 4 – Operate the Site Fuel Systems).		

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9.4.3	Surface Coating Facilities Ensure surface coating activities comply with regulations.	Ensure air emissions from surface coating activities at JSC, EF, and EPFOL meet regulatory requirements of TNRCC Standard Exemption #75 in accordance with WM-1040-029 Surface Coating Activities (****SOPs for Environmental Activities**).	365 days	Continuous compliance with applicable regulatory requirements and permit terms & conditions.
		NOTE: Surface coating facilities are located at JSC Buildings 9, 43, 304; EF Building 136; and EPFOL (5 facilities).		
		a. Collect and maintain logs from building users, maintain operational data, and perform calculations for each surface coating facility and enter data into Government provided spreadsheet.	60 records	Records shall be up-to-date, complete and accurate.
		Using completed Surface Coating Log Forms provided by others, organize data from Log Forms to create monthly surface coating compliance record. Perform monthly calculations as required by TNRCC Standard Exemption #75 by the 15th day of each month for the previous month's data.		
		See sample of Surface Coating Log Form (****Miscellaneous Environmental Documents**).		
		NOTE: There are about 500 surface coating log forms per year completed by building users.		
		b. On a monthly basis at JSC and EF, and quarterly at EPFOL, inspect and maintain inspection log for each surface coating facility. Inspection shall ensure minimum paint booth air velocity compliance records are maintained, equipment is properly maintained, and waste drums are closed.	52 inspections	Perform inspections monthly and maintain logs.
9.4.4	TNRCC Standard Exemption Activities Ensure Standard Exemption activities comply with regulations.	Ensure air emissions from exempted sources at ***JSC** and EPFOL meet regulatory requirements of 30 TAC Chapter 106 in accordance with WM-1040-030 TNRCC Standard Exemption Activities (****SOPs for Environmental Activities**).	See below	Continuous compliance with applicable regulatory requirements and exemption criteria.
		This work includes, but is not limited to: developing and implementing a system to track all air emissions activities authorized under TNRCC standard exemption, performing reviews of new or modified activities, and providing recordkeeping to completely satisfy regulatory requirements.		

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		a. Track all air emission activities operated under Standard Exemption at ***JSC** and EPFOL.	250 air emission sources at JSC and EF.	Records are complete and available upon request.
		It shall be the contractor's responsibility to identify new air emission points, and develop, maintain, and keep a current log of all air emission points at ***JSC** and EPFOL. Log shall be maintained electronically in Excel or other format approved by the Government. Update log within 24 hours of receipt of updated information.	16 sources at SCTF. Five sources at EPFOL.	No instances of air emission sources added or changes without authorization.
		NOTE: This work may be accomplished as follows: (a) incorporate findings from CLIN 9.2.3 - annual HSE audits of all buildings at *JSC and EPFOL, (b) internal communication and coordination with other COSS Annex functions (e.g. design & construction), and (c) input from NASA and other on-site organizations. Separate "blanket" site inspections to indentify new sources are contractor determined.		
		Each emission point shall be identified by its Universal Transverse Mercator (UTM) coordinates and include a narrative description of the process associated with the emission. Track removal and addition of air emissions sources. Maintain records.		All air emissions sources are identified.
		b. Perform TNRCC Standard Exemption Reviews. Review new or modified facilities, activities, and design reports/drawings to determine standard exemption applicability.	One review	All facilities and operations are compliant.
		Perform activity on an annual basis to ensure operations and facilities are compliant.		
		c. Building 262 Data Collection. Collect and maintain on a monthly basis operational records for Building 262 incinerator as required by standard exemption including, but not limited to: incinerator temperature monitoring circular chart, and daily burn logs.	12 records	Records are complete, accurate, maintained, and readily accessible.
		d. JSC and EF Oil/Water (O/W) Separators Sampling. Collect samples of O/W separators at JSC and EF.	18 samples	All required samples are collected.
		JSC O/W separators shall be sampled quarterly, and EF O/W separators shall be sampled annually.		
		Samples shall be analyzed for True Vapor Pressure (TVP) and Reid Vapor Pressure (RVP). Report analytical results to Environmental ***TMR**. Results shall be provided within 1 week of sampling.		Results are complete and accurate Results are provided on time.
		NOTE: JSC O/W separators are located at Building 417 and Building 329. There are 10 O/W separators located at EF.		

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		e. Emergency Generators Data. Collect and maintain operational data, which is recorded for emergency power generators. Data shall include, at a minimum, run-time of generator and fuel consumption. Records shall be collected from each location on a monthly basis. Monitor generator data to ensure maximum operating hour limits are not exceeded in accordance with TNRCC Standard Exemption No. 5. NOTE: Approximately 40 units are located at various locations on ***JSC**.	480 records	Records are complete, accurate, maintained, and readily accessible.
		f. Building 383 Air Stripper System. In accordance with WM-1040-003 Groundwater Treatment System Inspections (****SOPs for Environmental Activities**), perform weekly test for breakthrough of carbon filter using freon-specific detector tube. All test results and corrective action information shall be kept electronically in Excel or other format approved by the Government. Update logs immediately after readings are taken.	52 records	All required samples are collected. Results are complete and accurate. Records are complete, accurate, maintained, and readily accessible.
9.4.5	Perform Calculations for ****Emissions Inventory Report**.	Perform emission calculations ***monthly** to estimate the actual quantity of pollutants emitted from all air emission activities at ***JSC** and EPFOL. This includes surface coating activities but excludes certain fugitive activities such as incidental consumer product usage. This includes criteria pollutants as well as toxic/hazardous air pollutants. Use actual activity or throughput data for previous month for each source. Emission estimates shall be kept electronically in Excel or other format approved by the Government. Update spreadsheet by the 10th work day of each month with updated information.	250 air emission sources at JSC and EF. 15 sources at SCTF. Five sources at EPFOL.	Calculations are complete, accurate, and readily accessible.
9.4.6	Opacity Readings Perform opacity readings of stacks and vents and maintain documentation	Perform opacity readings of ***JSC** stacks and vents to ensure compliance with regulations. Opacity readings must follow EPA Method 9 (40 CFR Part 60 Appendix A). Only personnel holding a current, valid TNRCC Visible Emission Evaluator certificate may perform readings. NOTE: TNRCC offers initial certification course and subsequent recertification courses. Recertification is offered free of charge in the Houston area every 6 months. Opacity readings are required whenever visible emissions (smoke) are present. This includes but is not limited to the following events: (a) Upon initial start up for any new source at ***JSC**, (b) Once per year for all stationary vents at JSC for presence of Visible Emissions, and	18 opacity readings	All opacity readings are performed by qualified personnel. All opacity readings are performed accurately and on time.

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		(c) Whenever any source at JSC is operated on liquid fuel for 24 consecutive hours.		
		Maintain logs of opacity readings at ***JSC** by site. Include documentation of exceedances and corrective action on logs. Update logs immediately after readings are taken. Log shall be maintained electronically in Excel or other format approved by the Government.		All logs are complete, accurate, maintained, and readily accessible.
		NOTE: Average opacity reading time is less than 30 minutes, occurs only during daylight hours, and requires no special equipment.		
9.5	**Water Pollution Control and Prevention Program** Manage activities regarding storm water and sewer discharges in Compliance with all applicable requirements	Implement a comprehensive program to control and prevent water pollution. Major elements of this program include: sanitary sewer discharge management, storm water management, spill prevention, and miscellaneous tasks. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined	One program	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		Ensure that all elements of the water quality program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. (****Environmental Regulatory Permits**) Programs and procedures shall be updated to include new or revised requirements.		
		All work must be conducted in accordance with existing procedures associated with water quality program. (****SOPs for Environmental Activities**). Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		No deviations from procedures. Environmental ***TMR** receives on time notification of new or revised procedures.
		Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.		
		Track data required for all documents and develop and submit all required documents.		
		NOTE: All required reports, data, plans, submittals and deliverables for the water quality program are listed by program in CLIN 9.16.4 Records Reports and Submittals.		
9.5.1	Manage Sanitary Sewer Discharges Manage all industrial-type discharges to the sanitary sewer at ***JSC** and EPFOL	Ensure that industrial-type discharges to the sanitary sewer at ***JSC** and EPFOL meet all applicable requirements and regulations. All discharges shall meet the sewer ordinances for Clear Lake City Sanitary Sewer Ordinance and City of Houston Sanitary Sewer Discharge Limits at all times. (****Miscellaneous Environmental Documents**).	400 discharge points	All discharges are in compliance with sewer ordinances and TPDES rules.

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		a. Develop a complete list of all discharges to the sanitary sewer from existing data within 4 months of contract start date. Additional buildings and sewer discharge locations shall be surveyed in order to identify all industrial type discharges. Update the list to include all new or changed discharges within 15 working days of identification. The list shall include, but is not limited to:		The list of industrial discharges is accurate, complete and accessible at all times.
		1. The source or process generating the discharge, 2. An estimated volume of discharge, 3. The potential or actual pollutants and concentrations, 4. The location of the discharge, 5. The organization responsible for oversight of activities generating the discharge, 6. A determination of whether the discharge is appropriate; and 7. The identification of any requirements for sampling or reporting for each discharge (based on regulation or local requirement).		All required documents are developed, complete and accurate.
		b. Implement the Sanitary Sewer Industrial Discharge Management Plan. Develop all required reports and notifications in accordance with all local, state and federal regulatory, Publicly Owned Treatment Works (POTW) and JSC requirements.	1 plan	The Sanitary Sewer Industrial Discharge Management Plan is accurate, complete and accessible at all times.
		c. Review all requests for new or changed discharges to the sanitary sewer for appropriateness and regulatory requirements. Reviews are completed and finding communicated within 1 week of receipt of request.	50 reviews	New or changed discharges are identified and added to the Sanitary Sewer Industrial Discharge Management Plan. All reviews of new or changed discharges are complete and accurate.
		d. Collect one grab sample of representative sewer discharge per week at JSC, one per month at EF and SCTF, and one per quarter at EPFOL. The sample shall be representative of combined sanitary sewer discharge to POTW to monitor effluent quality for compliance with sewer ordinances. The sample will be collected and submitted to the Environmental Health lab testing for parameters identified in previous reports. Collect samples at point of generation for discharges requiring monitoring by pretreatment discharge requirements in accordance with regulatory schedule.	100 samples	Samples are accurately collected and delivered to the lab or shipped on time.

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		Samples are delivered to lab within 30 minutes of collection for ***JSC** samples. Samples collected at EPFOL shall be shipped in order to meet all holding times and preservation requirements for wastewater samples.		
		Copies of all analytical results shall be maintained as a part of the facility operating record. Report results from ***JSC** on monthly Wastewater Utility Report.		Copies of analytical results are complete, accurate, and readily accessible at all times.
		Any noncompliance results shall be reported in accordance with Annex 9.2.1 requirements.		
9.5.2	Storm Water Management Develop and Implement a Storm Water Management Program for ***JSC** (and limited activities at EPFOL).	Develop and implement a storm water management program that meets the requirements of TPDES rules and JSC policies and requirements. This includes, but is not limited to: taking all action required by and ensuring compliance with the ****JSC Storm Water Pollution Prevention Plan (SWPPP), **EF SWPPP (includes SCTF).** The program also includes, but is not limited to: conducting inspections, managing containments, evaluating sewer discharges, conducting audits and managing the Sedimentation and Erosion Control program.	One program	All activities are compliant with regulatory requirements and the appropriate SWPPP at all times
		a. Conduct inspections, as required by appropriate SWPPP, of areas at ***JSC**. Maintain log of inspections in accordance with SWPPPs. Initiate corrective action as necessary in accordance with Annex 9.2.1.	40 locations	All areas covered under SWPPP are completely and accurately inspected.
		Inspect and manage rainfall for all containments at ***JSC** where hazardous wastes and hazardous materials are stored, as required. Inspection and management includes but is not limited to:	50 containments	Corrective action is initiated.
		1. Visual inspection, as well as, sample for pH prior to releasing accumulated uncontaminated rainfall so that rainwater is removed within 24 hours of accumulation,		Containments are accurately and completely inspected.
		2. Replacing draincaps immediately or pumping out contaminated rainwater and dispositioning it appropriately,		Rainwater is accurately removed from containments on time.
		3. Cleaning containments that are contaminated,		Containments are free of contamination at all times.
		4. Providing notice to owner of containments where problems are found.		
		Maintain log of containments inspected and document actions, including but not limited to; date, time, location, person conducting inspection, and actions taken.		Documents are complete, accurate and accessible at all times.

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		b. Conduct periodic field investigations, upon request, to identify discharges that are inappropriately routed to either sanitary or storm sewer systems. Methods to identify sewer connections and cross connections may include review of engineering drawings, dye testing, smoke testing or other industry standard technique. Notify Environmental ***TMR** of all such discharges that are incorrectly plumbed in accordance with Annex 9.2.1.	20 investigations	Sewer connections are accurately determined and identified. Environmental ***TMR** is notified of all inappropriate discharges.
		c. Conduct annual audits against the ****JSC SWPPP** and ****EF SWPPP (includes SCTF)** at ***JSC** and EPFOL to determine compliance with plans, as required, and perform corrective action where non-conformance with plans are found. Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.	3 audits	Audits are accurate, complete and on time.
		d. Sedimentation and Erosion Control (SEC) Program: Review each Government provided SEC Plan for completeness and inclusion of required elements. NOTE: The SEC Plans are prepared by others. SEC Plans are required for projects requiring de-vegetation or stockpiling of soil or similar materials. SEC Plans will cover activities at ***JSC**. Once the above SEC Plans are approved by the Government, perform weekly inspections against the approved plans for compliance with regulations. When problems are identified, notify the Environmental ***TMR** in accordance with Annex 9.2.1. Maintain a list of SEC projects, date of start and completion, name of responsible person for project, status of plan, dates and results of inspections. The list must be updated weekly when there are any active projects with SEC plans. The list must be accessible to Environmental ***TMR**.	20 plans	All plans are completely and accurately reviewed. Accurate and complete comments are provided. Reviews and comments are provided on time. Each project requiring a SEC plan is inspected completely, accurately and on-time. All documents are complete, accurate and readily accessible.
9.5.3	Spill Prevention Control and Countermeasure (SPCC) Program Develop and implement a Spill Prevention Control and Countermeasure program	Develop and implement a SPCC program that meets the requirements of 40 CFR Part 112 and JSC policies and the SPCC plans at JSC and EF. This includes, but is not limited to: planning, conduct all inspections, implement corrective actions, provide for spill containment as required by SPCC plan **(**Spill Prevention, Control and Countermeasures Plan, JSC Emergency Response Plan Addendum 40 CFR Part 112 Oil Pollution Prevention).**	One program	100% compliance with regulatory requirements and SPCC plan.

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		Conduct all inspections and perform all duties listed on inspection logs within the ****Spill Prevention, Control and Countermeasures Plan, JSC Emergency Response Plan Addendum 40 CFR Part 112 Oil Pollution Prevention** and complete all inspection logs. When problems are identified, notify the Environmental ***TMR** in accordance with Annex 9.2.1. NOTE: The JSC SPCC plan applies to the following: 11 Petroleum tanks, 18 standby generators, 12 portable generators, seven portable compressors, one fuel truck, 26 container storage areas, two grease traps, three oil water separators, and three transfer units. The EF SPCC plan will address 1 petroleum tank and approximately 100 pieces of ground support equipment such as air start units, compressors, 2 generators, tugs, fuel bowsers, and gas tanks.	60 Monthly inspections of grease traps and oil water separators 3,016 weekly inspections of tanks, stationary generators, container storage areas, and transfer units Daily inspections of portable units:	Documents are complete, accurate, maintained, and readily accessible. All inspections are conducted. Logs are complete, accurate, maintained and readily accessible.
9.5.4	Operation and Maintenance of Impoundments	a. Perform the annual cleaning of the Building 222 cooling water impoundment within 3 weeks of request from user. This includes pumping down the water, removing the built up sediment, sediment sampling and disposal. Sediment from the cleaning shall be disposed of in accordance with ISW regulations.	One impoundment cleaning	Cleaning completed on time with no incidents of damage or customer complaints. Sediment is sampled and dispositioned in accordance with regulations.
		b. Operate the 10,000-gallon and the 500,000-gallon impoundments at Building 358. Operation of the impoundments includes, but is not limited to: 1. Managing the wastewaters to ensure water can be collected at all times; 2. Ensuring all water discharged to the sanitary sewer (from the impoundments) meets the Clear Lake City Sanitary Sewer Ordinance discharge limits found in ****Miscellaneous Environmental Documents**; 3. Making sure that the impoundments do not overflow;	Two impoundments	Specified maximum volume levels are maintained at all times. Discharges meet limits set in Clear Lake City Sewer Ordinance.

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		4. Aerating wastewaters, pumping wastewaters to sewer, and operating the underliner dewatering system. Any wastewater that does not meet the discharge limits after aeration or other operations must be disposed of at an authorized offsite facility. All activities must be documented in an operating log on a **Daily (D7)** basis. Addition of any wastewater other than from normal sources to the impoundment must be approved by the Environmental ***TMR** prior to collection. NOTE: The small impoundment collects all stormwater and pad washdown water from the Building 358 facility. The larger impoundment collects process and stormwater from the Energy Systems Test (EST) Area via gravity flow. These impoundments are scheduled for removal in FY2003.		Impoundments are operational at all times and do not overflow. Documents are complete, accurate and accessible at all times. No unauthorized discharges are made to the impoundments.
		c. Clean accumulated sediments from two water knives at Building 10. Perform annual cleaning of each water knife equipment at Building 10 within 3 weeks of user request. Water knives are cleaned at the user's request on an annual basis. This includes removing the built up sediment, sediment sampling and disposal. Sediment from the cleaning shall be disposed of in accordance with ISW regulations.	Two cleanings	Cleaning completed on time with no incidents of damage or customer complaints. Sediment is sampled and dispositioned in accordance with regulations.
9.6	**Lead Program** Implement a comprehensive lead program to track, abate, and manage lead at ***JSC**	Implement a comprehensive program for ***JSC** to eliminate or minimize worker and JSC employee exposures to Lead (Pb) dust, particulates, vapors, and any lead contaminated articles, and to eliminate or minimize releases of Lead to the environment during any contractor and subcontractor ***lead activity**. Major elements of this program include: 1. Develop procedures for comprehensive lead program, 2. Tracking and oversight (including sitewide logs), 3. Coordinating with other Contract annex managers, 4. Sampling for COSS ***lead activities**, 5. Preparation of COSS lead notifications. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. Partial elements of Items #3 and #4 above are currently in place.	One program	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.

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		Ensure that all lead program elements meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. Programs and procedures shall be updated to include new or revised requirements.	365 days	
		Any noncompliance shall be reported to the Environmental ***TMR** in accordance with Annex 9.2.1.		
		Track data required for all documents and develop and submit all required documents.		
		NOTE: ***Lead activity** includes, but is not limited to the following: Abatement, abrading, cutting, demolition-renovation-rehabilitation, dismantling, hotwork-torch cutting and welding, paint removal by any method, resurfacing, sanding, and any other process creating fugitive or nuisance dust, vapors, or contaminated water or other substances and articles, or combination thereof which contain lead.		
		a. Develop written procedures for major lead program elements #2 through #5 above: i.e., tracking and oversight, coordination with other Annex managers, sampling for COSS lead activities, and preparation of notifications.	4 procedures	Procedures are developed and implemented on time.
		Implement new procedures within 60 days of contract start.		No deviations from procedures.
		Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		Environmental ***TMR** receives on time notification of new or revised procedures.
		All work must be conducted in accordance with approved procedures for lead program.		
		b. Perform tracking and oversight of all COSS lead work occurring at ***JSC**, and develop and maintain the following information in a database format, in Microsoft Access or SQL Server, where information can be searched, sorted, and accessible to the Environmental ***TMR**:	365 days	In accordance with (IAW) EPA, OSHA, TNRCC, and applicable local requirements
		Lead Notification/ Work Database for all activities requiring removal, abatement/ disturbance, hotwork-cutting/welding of suspected and lead containing materials and lead painted surfaces. Database shall contain a brief description of:		Log is complete, accurate, maintained, and readily accessible.
		1. Work to be performed, 2. Date and location of sampling, 3. Date sample results received, 4. Analytical results, 5. Date of work start of ***lead activity**.		

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		Enter information about the each lead activity into database within 1 working day of receipt and update the required information, as it becomes available.		All database information is complete, accurate, maintained, and readily accessible.
		c. Coordinating with other Contractor annex managers (i.e. O&M, Construction, Logistics, Rigging, and subcontractors, etc.) to ensure there are pre-job checklists evaluating all work for the presence of lead prior to work start.	365 days	No instance of work start without pre-job checklist for presence of lead.
		d. Inspect and sample all suspect lead containing materials and lead painted surfaces prior to removal or disturbance. Identify appropriate number and locations for lead samples. Obtain or arrange for sampling. Submit samples for analysis. Interpret test results. Report all lead positive sample results. This includes COSS O&M, Designs, Construction, Logistics, and all reconfiguration, rehabilitation, renovation, modification, or demolition work on JSC facilities performed by the COSS contractor and subcontractors.	365 days	No instance of suspect lead containing materials and lead painted surfaces disturbed or removed prior to inspection for lead and receipt of sample test results.
		Test results shall be reported to Environmental ***TMR** and project manager within one day of obtaining results.		Test results are on time and accurate.
		e. Prepare lead notifications. Make effective notifications to the Occupational Health Office and the appropriate Facility Manager in advance of all lead work including, but not limited to: removal, abatement, or hot work. Notifications due within 1 working day of receipt of information.	365 days	Lead work notifications submitted on time, with accurate information regarding the date, time, and location of the lead work to be performed.
9.7	**Asbestos Program** Implement a comprehensive asbestos program to track, abate, and manage asbestos at ***JSC**	Implement a comprehensive program for ***JSC** to eliminate or minimize human exposure to asbestos containing materials (ACM) and potential asbestos containing materials (PACM) at ***JSC**. This includes eliminating or minimizing releases to the environment of asbestos fibers during all COSS contractor and subcontractor ***asbestos activities**. This program applies to all Annexes in this Contract performing asbestos work at ***JSC**. Major elements of this program include: 1. Annual sitewide inspection, 2. Tracking and oversight (including sitewide logs), 3. Sampling for COSS asbestos activities, 4. Providing vacuum cleaner servicing, and 5. Preparation of COSS asbestos notifications.	One program	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.

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		Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. Partial elements of Items #2 through #5 above are currently in place.		
		Ensure that all asbestos program elements meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. (****Asbestos Control Manual**) Programs and procedures shall be updated to include new or revised requirements.	365 days	
		All work must be conducted in accordance with existing procedures associated with asbestos program (see WM-1040-049 Asbestos Program, **** SOPs for Environmental Activities)**. Any noncompliance shall be reported to the Environmental ***TMR** in accordance with Annex 9.2.1.		No deviations from procedures.
		Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		Environmental ***TMR** receives on time notification of new or revised procedures.
		Track data required for all documents and develop and submit all required documents.		
		NOTE: All required reports, data, plans, submittals and deliverables for the asbestos program are listed by program in CLIN 9.16.5 Records Reports and Submittals.		
		NOTE: ***Asbestos activities** includes but is not limited to the following: any disturbance, abatement, demolition- rehabilitation-renovation, removal of asbestos, ACM or PACM during any O&M, project, or construction work.		
		a. Perform visual inspection and assessment of ACM at ***JSC** once each contract year, IAW 40 CFR 763, Subpart E, Appendix C, item 3, "Inspections", for planning future asbestos management, abatement, removal and corrective action responses. Record results of inspection and assessment electronically.	One sitewide inspection and assessment of ***JSC**	Annual inspections and assessments are complete, accurate.
		b. Perform tracking and oversight of all asbestos work (COSS and non-COSS) at ***JSC**. Develop and maintain a procedure to obtain information on all other asbestos work occurring at ***JSC**. Implement procedure to effectively obtain information on all other asbestos work within 60 days of contract start.	365 days	Procedure is developed and revised to be complete and accurate. Procedure is developed and implemented on time.
		Develop and maintain the following information in a database format, in Microsoft Access or SQL Server, where information can be searched, sorted, and accessible to the Environmental ***TMR**:		All database information is complete, accurate, maintained, and readily accessible.

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		Track asbestos work information by: • Start and finish date, • Asbestos Control Manual JPR number, • OSHA Asbestos Class number, • COSS annex or other contractor activity (i.e., O&M, construction, custodial, cabling, etc.), • Asbestos work type description (i.e., disturbances, cleanups, abatements, removals, ceiling and floor tile replacements, etc.), • Cumulative asbestos removed annually during O&M and total asbestos removed for all work, and • All asbestos work requiring notification to the OMOH contractor and to the TDH for ACM and PACM. Enter information about the each asbestos activity into database within 1 working day of receipt and update the required information, as it becomes available.		
		c. Inspect and sample all PACM for asbestos prior to removal or disturbance. Identify appropriate number and locations for asbestos samples. Obtain or arrange for sampling. Submit samples for analysis. Interpret test results. Report all asbestos positive sample results. This includes COSS O&M, Designs, Construction, Logistics, and all reconfiguration, rehabilitation, renovation, modification, or demolition work on JSC facilities performed by the COSS contractor and subcontractors. . If hazardous materials (asbestos) are present, the COSS contractor shall take additional precautions and control measures necessary to protect all personnel occupying the area from harmful exposure during COSS work activities. Test results shall be reported to Environmental ***TMR** and project manager within one day of obtaining results.	365 days	No instance of suspect asbestos materials disturbed or removed prior to asbestos inspection and receipt of sample test results. Test results are accurate and on time.
		d. High-efficiency particulate arresting (HEPA) Vacuum decontamination and servicing. Provide HEPA vacuum decontamination and servicings, to include the following: Replace paper element, check all electrical and mechanical parts and connections, and clean and decontaminate the HEPA vacuum following applicable sections of the ****Asbestos Control Manual**, OSHA, EPA, and TDH Asbestos regulations.	150 HEPA vacuum decons and servicings	HEPA vacuums after cleaning are free from asbestos contamination, proper HEPA filter elements replaced, and the vacuums are restored to service in good working condition.

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9.8	**Petroleum Storage Tank Program** Develop and Implement a Petroleum Storage Tank Program in compliance with all applicable requirements	Develop and implement a comprehensive Petroleum Storage Tank (PST) program at JSC and EF. Major elements of this program include: develop and maintain an electronic log of all regulated and unregulated storage tanks (including maintenance), conduct tank integrity testing, review all new tank and containment designs and constructions, prepare notification forms, registration forms, and closure reports, and prepare General Land Office discharge prevention and response certificates and applications. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. All elements of this program are currently in place except the General Land Office Discharge prevention and response certificates and applications, which must be developed by the Contractor.	One program	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		NOTE: Tank inspections are covered under the SPCC Plan found in Water Pollution Control program (CLIN 9.5.3)		
		Ensure that all elements of the PST program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. Programs and procedures shall be updated to include new or revised requirements.		
		All work must be conducted in accordance with existing procedures (** **SOPs for Environmental Activities).** Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		No deviations from procedures. Environmental ***TMR** receives on time notification of new or revised procedures.
		Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.		
		Track data required for all documents and develop and submit all required documents.		
		NOTE: All required reports, data, plans, submittals and deliverables for the PST program are listed by program in CLIN 9.16.6 Records Reports and Submittals.		
		a. Develop and maintain a log of all petroleum storage tanks (both regulated and unregulated) to track all maintenance activities, notification and registration forms and fee submittals. Log shall be maintained electronically in Excel or other format approved by the Government. Update log within 24 hours of receiving updated information.	One log	Log is complete, accurate, maintained, and readily accessible.

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		b. Perform annual tank integrity testing in accordance with regulatory guidance documents and regulatory cited industry standards, of all tanks to ensure that tanks are not leaking. Testing shall be performed by certified and licensed personnel.	Five integrity tests	Integrity tests are accurate and follow appropriate regulatory guidance and industry standards. Test personnel are certified and licensed
		c. Review and provide technical comments for all new tank and containment designs and constructions for compliance with state, federal, NASA, JSC and contract requirements, prepare notifications, registration forms and closure reports, and cover letters for all new tank installations, tank closures.	Contractor determined.	Designs are reviewed and comments provided within 10 days of request. No instances of non-compliance for any notifications, registrations, designs, constructions or closures.
9.9	**Groundwater Protection Program** Protect and manage groundwater resources in accordance with all applicable requirements	Implement a comprehensive groundwater protection program at JSC. Major elements of this program include: manage the groundwater treatment system, and perform statistical analysis/ trend tracking. Minor elements necessary to accomplish a comprehensive program shall be Contractor determined. All elements of this program are currently in place.	One program	No instances of violation of local, state, and federal regulations, NASA and JSC policy, directives, procedures, permits and Contract provisions.
		Ensure that all elements of the groundwater program meet all requirements of the latest applicable local, state, and federal regulations, policies, directives, permits, and all Contract provisions. (****Environmental Regulatory Permits**) Programs and procedures shall be updated to include new or revised requirements.		
		All work must be conducted in accordance with existing procedures (****SOPs for Environmental Activities**) associated with groundwater program. Provide a copy of any new or revised procedure to the Environmental ***TMR** 10 days prior to becoming effective.		No deviations from procedures. Environmental ***TMR** receives on time notification of new or revised procedures.
		Any noncompliance shall be reported to Environmental ***TMR** in accordance with Annex 9.2.1 requirements.		
		Track data required for all documents and develop and submit all required documents.	See above	See above
		NOTE: All required reports, data, plans, submittals and deliverables for the groundwater program are listed by program in CLIN 9.16.7 Records Reports and Submittals.		

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9.9.1	Manage groundwater treatment system Manage groundwater treatment system in accordance with all applicable requirements	Manage, operate, inspect, sample, perform recordkeeping and documentation, in accordance with regulatory requirements, manufacturer's instructions and documented procedures for the systems.	365 days	No unscheduled system downtime.
		a. Groundwater Treatment System: Operate and manage the system in accordance with the ****Groundwater Treatment System O&M Manual,** and WM-1040-034 Operation of the Building 383 Groundwater Treatment System, **(SOPs for Environmental Activities),** Clear Lake City Sanitary Sewer Ordinance found in the ****Miscellaneous Environmental Documents.** Ensure that system is maintained to prevent and remove calcium carbonate scale buildup so that maximum efficiency and effectiveness of the system is achieved. System shall be fully operational 7 days per week. Samples are collected in accordance with regulatory standards.		No instances of system not operating due to scale build up. No instances of system not operating due to preventative maintenance not being performed. No instances of waste water exceeding effluent limits or Clean Water Act requirements being discharged to sewer. No instances of tank overflows No instance of break through on carbon absorption units.
		b. Inspect the groundwater treatment system ***Daily (D7)**. Components or items to be inspected includes but is not limited to the following: all extraction wells; air stripper towers; tanks; pumps; carbon adsorption units; fans; motors; valves; all flow meters; pressure gauges; piping and insulation; outer well casing; electrical panels and all electrical equipment (alarms, etc.) to ensure proper operation in accordance with ****Groundwater Treatment System O&M Manual**. All inspection information and corrective action information is accurately documented in a written log. Data shall also be maintained electronically in Excel spreadsheet or other format approved by the Government. Spreadsheet shall be updated ***Daily (D7)**. NOTE: Inspections are not included in ISW program inspection requirements.	One inspection log completed 365 days One Excel spreadsheet completed 365 days	No instance of inspection log not completed for each component on a daily basis. No instances of inaccurate inspection logs or spreadsheet information. Spreadsheet is complete, accurate, maintained, and readily accessible.

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		c. Collect samples quarterly by the 5th day of the month, from Air Stripper 1, Air Stripper 2, Tank 1, and either Tank 2 or Tank 3. Samples collected in accordance with EPA sampling protocol and submitted to lab under proper chain of custody. Review all analytical results; input all analytical results into in Excel spreadsheet. NOTE: Samples are counted by location, e.g. Air Stripper 1 is considered one sampling location and all parameters, containers etc. are included in this definition of a sample.	16 samples	No instances of groundwater being discharged to sanitary sewer that contains greater than 1 ppb of Freon 113. No instances of late or no sample collection.
9.10	**Emergency Spill Response** Provide Spill Response.	Provide emergency response for chemical spills/ releases of regulated hazardous wastes and materials at ***JSC**. Asbestos spill/release response shall include cleanup, removal, abatement of asbestos containing material (ACM) and potential ACM (PACM) to eliminate, minimize or mitigate potential adverse exposures of personnel to asbestos. All responses shall be IAW all JSC Emergency Response Plans and Management Directives. **(**Hazardous Substance Release/Spills, JSC Emergency Response Plan, **Environmental Regulatory Permits).** Response personnel shall mobilize immediately upon notification and begin conducting spill-scene containment and response actions: 1. Within 10 minutes of notification of a spill at JSC. 2. Within 30 minutes of notification of a spill at EF and SCTF. Workload Data does not include any spills or releases caused by the COSS contractor. All costs associated with response to COSS spills or releases shall be paid by the COSS contractor. COSS spills and release response shall be managed in the same manner that all other spills and releases are managed, except for cost. NOTE: TNRCC reportable spills average =5/year. Historically, chemical spills consist of 40-50 small & incidental chemical spills, 10 moderate spills, and 0-5 large spills annually, AND approximately 40–60 small asbestos spill cleanups. See **Spill Response Historical Record.	60 chemical spills 60 asbestos spill cleanups	Mobilize immediately to begin on-scene response within 10 minutes notice of all spills at JSC and 30 minutes at EF and SCTF, using EPA, TNRCC and OSHA protocols.

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9.10.1	Establish Emergency Response Team Establish an emergency spill response team to respond to all spills of regulated hazardous wastes and materials found on ***JSC** sites.	Provide sufficient, adequately trained and experienced personnel to support and accomplish Chemical and Asbestos spill response at any ***JSC** location 24 hours a day, 7 days a week, 365 days per year. Level B protective gear training is required; which includes but is not limited to ability to don full face mask and respirator with SCBA supplied air.	Nothing additional, see above.	The team shall respond to all spill calls. All team members shall be trained IAW all applicable and appropriate regulations and NASA policies. Response available 24 hours per day, 365 days/year.
9.10.2	Respond to Spills and Releases Respond and cleanup spills and releases of regulated materials.	The Emergency Spill Response Team will respond to all spills and releases of regulated wastes and materials. Immediately notify: 1. The Emergency Operations Center (EOC) at x-33333, or x-34658; 2. The Environmental ***TMR** by telephone and/ or pager; 3. For Asbestos spill/ releases, also contact the OMOH contractor at x-36726. Perform cleanup and removal of spilled material and contamination; dispose of material generated during cleanup; and decontaminate personnel, equipment, and all property affected by the spilled material in accordance with all applicable EPA and OSHA protocols.	Nothing additional, see above.	Respond IAW JSC Emergency Response Plan, 29 CFR 1910, 40 CFR, 30 TAC 335. No failures to notify the EOC, Environmental Office and the OMOH contractor of spills/ releases at ***JSC** facilities. All wastes shall be managed IAW Annex 9. Cleanup shall be completed prior to leaving the spill site.

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9.10.3	Spill Response Documentation Accurately document all spill response actions.	All spills shall be reported to the Government and all spill response actions documented. Provide Flash Reports within 2 hours of the spill IAW Work Method WM-1040-038 Emergency Spill Response **(**SOPs for Environmental Activities).** Include an assessment as to whether or not the spill is reportable to the TNRCC. Maintain a spill response log of all spills and releases including, but not limited to, response action details, size of the spill, corrective action, responsible party, cause of release, and ***total cost** of clean-up. Submit to the Environmental ***TMR** within 18 hours a written initial spill response notification report which meets the requirements of TNRCC State of Texas Oil and Hazardous Substance Spill Contingency Plan **(**Environmental Reference Information)** for required regulatory notifications. Enter information about the each release or spill into NETS Functional Management Module within 3 days of each release or spill and update the required information as it becomes available. A list of fields that must be completed in included as Release Summary and Release Detail in ****Environmental Functional Management Report Items.**	Nothing additional, see above.	All TNRCC notifications shall be complete and provided on time. All documentation is complete, accurate, easily accessible, and up-to-date.
9.10.4	Spill Equipment and Supplies Provide all equipment, supplies, and materials necessary for spill response activities.	Maintain an adequate supply of materials necessary for spill response activities and ensure that adequate supplies are transported to each spill scene as necessary. Includes equipment and supplies for use by Emergency Personnel for the decontamination of responders and victims/bystanders (example: disposable kiddies pools, 1-5 gallon pump-up H2O sprayers with neutralizing agents, etc.) Adequate supplies shall be available to support 24-hour spill response. Required reference materials shall be maintained as part of the inventory; e.g., guidebooks, blank forms or permits, MSDS's, chemical reference manuals.	Nothing Additional, see above.	Inventory and equipment shall be maintained in adequate quantity and type to respond to any spill that may occur at ***JSC**. Transport for spill supplies shall be available at all times to support spill response efforts.
9.11	**Pollution Prevention and Resource Conservation** Minimize pollutants with Pollution Prevention program initiatives	Develop and implement an aggressive and comprehensive Pollution Prevention and Resource Conservation program to minimize the generation of wastes, water pollutants and air emissions at ***JSC** and EPFOL and meets the requirements of federal, state and JSC requirements. This includes implementing the ****JSC Source Reduction and Waste Minimization (SR&WM) Plan, ****EF SR&WM Plan** and ****EPFOL SR&WM Plan**. Elements include: tracking and evaluating information, conducting pollution prevention opportunity assessments, tracking the use of ozone depleting substances, Emergency Planning and Community Right-to-Know Act compliance, developing and providing training and awareness, and participating on committees and work groups.	One program	JSC's pollution prevention and resource conservation program includes all elements required by regulation, NASA HQ policy, JSC policy and plans.

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		Track data required for all documents and develop and submit all required documents. Pollution prevention and resource conservation efforts shall target or emphasize materials or media identified as high priority by the Agency and Center. These include; ozone depleting substances, TRI chemicals, EPA 17 priority chemicals and Executive Order lists. NOTE: All required reports, data, plans, submittals and deliverables for the Pollution Prevention and Resource Conservation program are listed by program in CLIN 9.16.8 Records Reports and Submittals.		
9.11.1	Track and Evaluate Information Track Information Required to Assess Progress and Effectiveness of Program	Track all information required at ***JSC** and EPFOL, on a monthly basis, required to assess progress towards P2 goals, the effectiveness of the Program, to develop agency and regulatory reports, and to submit award applications. Conduct an evaluation of this information to evaluate if the Program is on track to meet goals, to determine if quantities of emissions or waste are higher or lower than expected or normal and determine reasons for changes, and using the information to recommend new P2 targets or opportunity assessments. This includes, but is not limited to: a) amounts of ISW generated by waste stream b) amounts of solid waste generated c) amounts of each solid waste and ISW recycled, reclaimed or reused d) new initiatives or projects implemented e) costs savings and cost avoidances gained from implemented P2 projects f) constraints on implementing P2 initiatives Enter information into NETS database Pollution Prevention module no later than August 1 each year for previous year pollution prevention activities and progress. A list of fields that must be completed is included as ****NASA Annual Pollution Prevention Progress Report Items and Fields.**	12 months	All necessary information is accurately tracked. All information is accurately and completely entered into the NETS database.

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9.11.2	Pollution Prevention Opportunity Assessments (PPOA) Conduct PPOA at ***JSC** and EPFOL	Conduct pollution prevention opportunity assessments (PPOA) and evaluations at ***JSC** and EPFOL in accordance with applicable Executive Orders and EPA guidance documents. These assessments shall include field surveys using data collection survey forms from which the contractor shall evaluate pollution prevention opportunities for technical, economic and environmental feasibility for implementation. Conducting the PPOA includes contacting and teaming with process owners, scheduling field assessments, reviewing documents, developing teams with process owners, completing forms, developing recommended improvements to effect pollution prevention, conducting cost and payback evaluations for each recommendation, and all other elements required to complete a PPOA. PPOAs shall be completed within 30 days of initiation.	20 PPOAs	Survey form includes all relevant elements found in regulatory guidance. All documents are complete, accurate and easily accessible. PPOAs are completely and accurately performed. PPOAs are conducted in accordance with stated priorities.
		Develop a standard data collection survey form to be used as a checklist or guideline for conducting PPOA.	One form development	
		Priority shall be given to processes using materials or wastes included on Agency or Center priority lists (e.g., ozone depleting substances, TRI chemicals, EPA 17 priority chemicals) and areas under regulatory scrutiny. PPOAs may be performed upon the request of process owner.		
		Team with process owners to implement selected opportunities. Implementation includes but is not limited to activities such as development of procedures, developing and providing training, and providing technical expertise.	Six PPOA implementa-tions	
		Maintain a list of summarized PPOAs conducted and a list of upcoming PPOAs. PPOA summaries shall be added to list within 30 days of completion of field assessment.		
9.11.3	Ozone depleting substances (ODS) Track the use of ODS at ***JSC** and EPFOL.	Develop and implement a program to track the use and emissions of ODS in accordance with Executive Order and Federal regulations.	365 days	The use and release of all ODS are tracked.

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		a. Identify all sources where ODS, as identified in 40 CFR Part 82 Subpart A (§82.3 "Controlled Substances" as listed in Appendix A and B), are used at ***JSC** and EPFOL. Maintain an electronic log of sources, how the ODS are used, the full charge of refrigeration and comfort cooling appliances, the annual amount used, the annual amount released to air/water/waste and replacement or elimination status. Include in the log a list of all equipment containing ODS, and owners of the equipment. b. Identify all ODS recycling or handling equipment, owners of the equipment and a status of notification/certification of equipment and personnel using the equipment. c. Compile information from COSS Contractor and obtain information from all other users of refrigeration and comfort cooling appliances containing more than 50 pounds of refrigerant charge to show compliance with ODS leak repair regulations (40 CFR 82.156). On a monthly basis, prepare an updated summary listing: date of leak discovery, calculated leak rate relative to 15% loss of charge during a 12-month period, date of repair, date of follow-up test, date of submittal of request for delay of repair. d. Track all data required to compile the annual agency ODS usage report for all sources of ODS. e. Provide guidance for Center employees on the proper handling, notification, certification, replacement alternatives, reporting, disposal of ODS for personnel using ODS in their operations. This information shall be provided in pdf format in a COD provided web server folder, as directed by the NASA Environmental Office (JA-131).		No instances of violation of EPA required practices in 40 CFR Part 82.

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9.11.4	Emergency Planning Community Right-to-Know Act (EPCRA) Track and conduct EPCRA activities in full compliance	Develop a program to ensure compliance with EPCRA in accordance with Executive Orders and Federal regulations. This work includes, but is not limited to: determine which chemicals exceed reporting thresholds, provide updated notices to LEPC-HFD-TDH, review annual Section 312 Tier II report for JSC and prepare cover letters, prepare annual Section 313 toxic release inventory (TRI) Form R reports for ***JSC** and EPFOL, and perform quality assurance (QA), and prepare background report. Maintain records including compliance documentation, inventories, and reports. All records shall be turned over to the Government upon request/ at termination of contract. a. Using government-provided Chemical Inventory Reports, determine if applicable thresholds are met. b. Perform quality assurance (QA) to ensure reports are accurate.	1 program	All required information is accurately and completely tracked. All required documents are accurate and complete and readily accessible at all times.
9.12	**Communication, Training and Participation in Work Groups** Provide outreach and Training Support services	Develop and implement a comprehensive program of environmental training and participation in work groups at JSC. Elements include Providing Training, Assistance and Participating in Committees and Work Groups. Track data required for all documents and develop and submit all required documents. NOTE: All required reports, data, plans, submittals and deliverables for this program are listed by program in CLIN 9.16.9 Records Reports and Submittals.	See Below	See Below

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9.12.1	Training and Awareness Develop and provide environmental training and awareness programs.	Develop and provide training programs for the Government and contractor employees at * **JSC** and EPFOL in all environmental programs. Develop and maintain an environmental training plan that identifies activities or job titles and the associated training requirements (including frequency) for all JSC employees. Develop training courses and conduct training for ***JSC** and EPFOL personnel, as required by regulation or JSC policy. Provide all training materials and tracking of all personnel trained. Types of training include, but is not limited to: RCRA generator training, SPCC Plan training, SWPPP training, Pollution Prevention Plan training, recycling training, affirmative procurement training; Facility Manager (FM) training, and EMS auditor training. Training shall be consolidated into other training requirements where possible in order to reduce the number and the length of training required for individuals. Training shall be consolidated to include as many environmental programs as possible where practical. Training shall be provided as requested by organizations at ***JSC** or EPFOL or the Environmental TMR. When developing training include all regulatory required elements to achieve program needs.	1 training program 78 training classes 10 web-based training modules	All required training is provided to Government and contractor employees. All training is effective, complete, accurate and conducted with a content and frequency to meet regulations and JSC policy. All training requirements and a schedule of all training provided on time and in the correct format. Training documentation for JSC government and contractor employees is complete, accurate and readily accessible. Only approved training materials are used.
		All required training shall be developed in two modes, in-person training and web-based training. Training shall be interactive and pertinent to specific job duties where possible. Advertisement or solicitation to attend targeted classes shall be provided. Training shall be effective, well organized and concise. All training modules and materials shall be approved by the Environmental ***TMR** prior to use. The training plan shall be updated as required by changes to regulations or policy. Training modules shall be updated within 15 working days of a change in regulation or policy. A list of all training requirements, type of training provided and schedule of training shall be provided in pdf format and placed in a COD provided web server folder. All updates shall be made to the folder copy within 15 working days of changes. NOTE: Training classes may be held at the JSC Learning Center that has space for approximately 25 trainees at a time. In addition, larger training venues, such at the B2 Teague Auditorium are available for training up to 300 individuals at one time.	See above	See above

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9.12.2	Participate in Committees and Work Groups Provide technical and regulatory personnel to participate and contribute to meetings, work groups and committees	Attend and participate in committees, work groups, studies and design reviews that address environmental issues as required. This includes environmental committees and work groups within JSC, agency-wide, and external organizations or partnerships that JSC subscribes to. Work within these groups to solve problems and develop recommendations, plans, programs and procedures to achieve agency and JSC environmental objectives, goals and requirements. Participating on committees and work groups also includes attending scheduled meetings, volunteering for ad hoc teams where contractor experience or knowledge is needed, doing work assigned outside of meetings as assigned and within scheduled times, developing and making presentations regarding committee work, and other activities common and expected for members of committees and work groups. Some meeting may be via teleconference or video teleconference. This includes participating in meetings of the Environmental Stewardship Subcommittee (ESS) and Pollution Prevention (P2) Teams at JSC and EF. For the ESS and P2 teams only, provide meeting support (schedule conference rooms, maintain member distribution lists, distribute agendas in advance of meetings, record and distribute meeting minutes, and other similar administrative duties). This also includes participating in meetings and reviewing studies and designs for accuracy, technical content, and adherence to project scopes of work, operation aspects, and maintainability, compliance with regulatory requirements and JSC policies and procedures.	100 meetings 36 meetings with agency work groups 8 meetings with organization/ partnerships. (NOTE: Frequency may vary from weekly to quarterly.) 2 conferences 10 studies 10 designs	Contractor attends and contributes on assigned committees and work groups. Individuals with pertinent experience or knowledge participate on committees. Assigned action items are completed accurately and on time. For P2 and ESS, agendas and meeting minutes are accurate, complete, and distributed on time. Studies and designs are completely and accurately reviewed. Comments are accurate, complete, and submitted on time.

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		Committees other than P2 and ESS may include the JSC Recycling Team, the NASA Recycling and Affirmative Procurement Team, the Agency Geographic Information System Team, the NASA Environmental Tracking System Team, the Texas Pollution Prevention Partnership, and others which may be permanent teams or ad hoc teams, as needed or as requested by the Environmental ***TMR**. Participating also includes attending and making presentations at conferences or workshops sponsored by committees or partnerships.	See above	See above
		Personnel assigned to work groups must be knowledgeable in the area being addressed by the committee or work group (i.e., a person experienced and qualified in air compliance would participate in a work group working on agency air issues).		
		NOTE: Some meetings will require travel. In the past, 1-2 personnel have attended one-day meetings at various locations in Texas, 3-5 times per year. Out-of-state meetings of 2-4 days occur at various locations 3-5 times per year and require the support of 1-2 personnel. Assume one conference will be for 2 days in a city in Texas and one conference will be for 4 days in another city in the U.S. NASA Environmental Conferences occur biennially, with the last 3 held near KSC, Fl; ARC, S.Fran; and SSFC, New Orleans. The meeting and conference duration does not include travel time.		
9.13	**Environmental Management System (EMS)** Administer elements of JSC's EMS Program	Administer the elements of the ***JSC** Environmental Management System (EMS) for the Government. Activities include: maintaining the information in the EMS databases, managing and tracking information to measure the performance of the EMS, developing and revising procedures, and providing EMS information for JSC employees.	1 program	All information required to measure performance of the EMS is accurate and complete.
		a. Maintain the EMS Impact and Program databases. This includes:		
		1. Reviewing new information entered by others into database, weekly, for accuracy and inform NASA Environmental Office (JA-131) if further information is needed;		
		2. Providing administrative user access functions (setting up user accounts and rights) within 2 days of request,	150 users	All approved users of EMS databases are provided user access functions within 2 days of request.
		3. Track and trend EMS metrics and targets/objectives,		
		4. Weekly review and status of environmental Close Calls/HATS/QPID or other EMS non-conformance, corrective and preventive action reporting systems to track and pursue closure of non-conformances and corrective action,		Close Calls/HATS/QPID/ are reviewed and actions taken to ensure closure for EMS items.
		b. Participate in and lead impact team meetings,	26 meetings	

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		c. Develop or revise EMS or environmental procedures as necessary to have a robust EMS.	25 procedures	EMS procedures are complete and accurate.
		d. Develop presentations for the Government on EMS,	20 presentations	Presentations are complete and accurate.
		e. Provide information and update the EMS web page weekly.	52 web-page updates	
9.14	**Toxic Substances Control Act (TSCA) Program** Manage all equipment and materials containing PCBs in accordance with regulations and JSC policy	Develop and implement a program to meet the requirements of TSCA. Track data required for all documents and develop and submit all required documents. Identify, track, label and report all chemical compounds and equipment containing polychlorinated biphenyls (PCB's) at ***JSC** and EPFOL. Tracking includes all equipment that contains oil that may contain PCB's in concentrations over 1 ppm in accordance with all applicable regulations. Tracking includes maintaining an accurate inventory of all electrical and other equipment that could possibly contain PCBs. Initiate sampling for PCB compounds annually for all equipment that contain PCBs over 1 ppm, unless sampling will result in damage to the equipment. Maintain and keep current the PCB Containing Equipment (****Environmental Reference Information**). Update the list within 10 working days of when electrical equipment is added or removed or changes occur in concentrations of PCBs Ensure all PCB equipment/materials are properly stored, labeled and dispositioned. Ensure labels or additional information on containers does not obscure required warnings, instructions, or product information. NOTE: All required reports, data, plans, submittals and deliverables for the TSCA program are listed by program in CLIN 9.16.10 Records Reports and Submittals. NOTE: PCBs are specified in the Toxic Substances Control Act (15 U.S.C. Section 2601 et seq.) and in 40 CFR Part 761 Subpart A.	One program	The JSC TSCA Program is compliant with all federal, state and local regulations and with JSC policies and procedures All PCBs accurately and completely tracked, labeled, and accounted for at all times. No instances of improperly stored or labeled equipment or material. Sampling is conducted on time.
9.15	**Personnel, Training, and Certifications** Contractor shall provide personnel meeting minimum education, experience, and training for listed critical job functions.	Provide personnel meeting minimum education, experience, and training for listed critical job functions. Maintain sufficient staffing level to provide **core hour** coverage either on-site or accessible via pager to on-site within one hour.	Contractor determined	See below

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		Critical personnel functions are listed in this Annex Section. Each individual shall obtain all applicable environmental and other pertinent training as identified in Annex 1. Functional job descriptions are minimum qualifications to meet the listed key and critical job functions and does not relieve the Contractor from providing such additional personnel of sufficient experience, education, and training to accomplish all work prescribed in this Annex. If one person is responsible for more than one position, that individual shall meet every qualification stated in the performance requirements for each position. One person shall not serve in the capacity of more than one other critical or key personnel position.		No instance or incident of a person serving in the capacity of more than two critical positions.
9.15.1	Environmental Manager Provide a properly trained and qualified Environmental Manager to oversee and manage the Environmental Program	Shall have a B.S. Degree in Environmental or Chemical Engineering, Chemistry, or other related science degree. An advanced degree is required. Engineers must possess and maintain valid registration by Texas Board of Professional Engineers as a Professional Engineer (P.E.). Shall have no less than a minimum of 5 years continuous work experience as an environmental manager at a large, multi-employer and multi-discipline federal aerospace and/or commercial manufacturing facility, operating with an EPA/State RCRA Treatment/Storage/-Disposal permit as a large quantity generator of hazardous wastes, and plant operations preferably in an ozone non-attainment area. Shall possess and demonstrate no less than 15 years of total continuous experience in multiple, major, environmental programs with a demonstrated record of continual improvement in environmental compliance. Shall demonstrate that they have recent Texas environmental experience working with the TNRCC, TDH, EPA Region VI, OSHA, DoT, and local regulatory agency laws, standards, and guidance materials. Shall ensure that all contractor environmental ***documents** , and presentations are certified as true, complete, and accurate, and are provided on-time, and of such professional quality to represent the ***JSC** and NASA as an efficient, effective, and innovative leader in the environmental field. Interacts effectively with NASA and regulatory personnel. Shall possess excellent written and verbal communication skills. Shall be an effective negotiator and communicates credibly and persuasively at all levels in the organizations and across all functions. Shall delegate authority to an Assistant/Deputy during all absences away from JSC who will be held responsible in the same manner and degree as the Environmental Manager.	Contractor determined	No instance of unqualified personnel being assigned.

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9.15.2	Hazardous Waste Operations Supervisor Provide a properly trained and qualified Hazardous Waste Operations Supervisor to manage ISW operations	Shall have a B.S. Degree in Environmental Science/ Management or Environmental or Chemical Engineering, Chemistry, or other related science degree. Shall demonstrate no less than 5 years continuous and recent work experience as an effective supervisor of operations of a RCRA permitted Treatment-Storage-Disposal (TSD) hazardous waste facility or at a large quantity industrial waste generating facility. Shall demonstrate 7 years continuous experience in hazardous waste management and environmental programs. Must demonstrate knowledge of and recent work experience with TNRCC, TDH, EPA Region VI, OSHA, Department of Transportation (DoT), and local regulatory agency laws, standards, and guidance materials. Recent pertinent experience of at least 3 years of profiling and characterizing, segregating, packaging, transportation, and disposal of diverse industrial solid wastes is required. Responsible for signing hazardous waste manifests on behalf of ***JSC** and EPFOL.	Contractor determined	No instance of unqualified personnel being assigned.
9.15.3	Spill Response Supervisor/Specialist Provide a properly trained and qualified Spill/Response Supervisor/Specialist to manage and respond to spills and releases	Shall have a B.S. Degree in Environmental Science/ Management or Environmental or Chemical Engineering, Chemistry, or other related science degree. Shall have a minimum of 5 years experience in hazardous material spill response, with experience directing spill response teams and managing spill response resources. Shall be able to demonstrate working knowledge, and apply spill response principles and meet regulations in the field. Shall have all necessary training and applicable certifications and demonstrate working knowledge of the following:	Contractor determined	No instance of unqualified personnel being assigned.

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		• Applicable Federal, State, and Local regulations; • HAZWOPER, Incident Command System; • Determining reportable quantities for EPA CERCLA,-EPCRA,-RCRA,-CWA,-CAA,TDH,-spills,-releases,-discharges and upsets/emissions and exceedances. • Preparing spill release and response notification reports to federal, state and local, I regulators and external response personnel; • Demonstrate working knowledge and ability to apply TNRCC Risk Reduction Rules and risk based assessment to affected cleanups; • Participate in EPCRA local emergency response committee (LEPC) meetings offsite; • Demonstrate knowledge regarding selection, proper use, and maintenance of Personal Protective Equipment (PPE) and • Identifying, obtaining, and maintaining current training for all spill response personnel; • Tracking and evaluating spill/release incidents for corrective action to eliminate or reduce recurrence of similar incidents sitewide.		
9.15.4	Air Program Specialist Provide a properly trained and qualified Air Program Specialist to manage the Air Program.	Shall possess a B.S. Degree in Environmental, Chemical, Mechanical, or Civil Engineering from an Accreditation Board for Engineering and Technology (ABET)-accredited college or university with major or concentrated study in air issues, advanced degree preferred. Shall possess and maintain valid registration by Texas Board of Professional Engineers as a Professional Engineer (P.E.), and shall possess and maintain valid certification by TNRCC as a Visible Emissions Evaluator. Shall have a minimum of 5 years experience working with the Texas air program regulations and the federal Clean Air Act as a regular part of a job. Shall have a minimum of 5 years industrial air pollution control experience. Experience working in a severe non-attainment jurisdiction area preferred. Requires broad experience with air quality, compliance, and permitting issues.	Contractor determined.	No instance of unqualified personnel being assigned.
9.15.5	Asbestos/Lead Programs Specialist Provide a properly trained and qualified Asbestos/Lead Programs Specialist to manage the Asbestos and Lead Program	Shall possess a B.S. Degree in Environmental Science, Chemistry, Laboratory Analytical/Technologist. Must have a minimum of 5 years experience in management of asbestos and lead abatement programs.	Contractor determined	No instance of unqualified personnel being assigned.

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		Shall possess and demonstrate current OSHA and Texas Department of Health (TDH) training certifications: a. Asbestos abatement operations, class I-IV. b. Asbestos Site Supervisor; c. Asbestos Competent person; d. Asbestos Inspector/evaluator; e. Asbestos Designer/Planner - Serves as the on-site single point of contact with ***JSC** for all contractor related asbestos work that occurs in all Annexes. Shall demonstrate working knowledge and experience in preparing, submitting, and tracking all required TDH, OSHA, and EPA asbestos notifications, submittals and reports.		
9.15.6	Environmental Operations Engineer Provide a properly trained and qualified Environmental Operations Engineer to design, operate, and review environmental treatment systems.	Shall have a B.S. Degree in Environmental, Chemical or Civil Engineering. Shall demonstrate 5 years successful experience designing, operating, maintaining, reviewing and optimizing liquid chemical processes and treatment systems, waste, and water treatment systems, and making recommendations for component and system upgrades to existing systems.	Contractor determined.	No instance of unqualified personnel being assigned.
9.15.7	Environmental Project Manager/ Specialist Provide a properly trained and qualified Environmental Project Manager/Specialist to manage environmental projects.	Shall have a B.S. Degree in Hydrogeology, Geology, Chemistry, Environmental or Chemical Engineering or related science. Shall have a minimum of 7 years experience in RCRA or CERCLA project management, site assessment, site restoration and restoration technologies, corrective action and closure plans. Demonstrate additional work experience in managing hazardous waste storage facilities, developing policies, plans, procedures, developing and implementing pollution prevention, affirmative procurement, waste minimization programs, activities, plans, and recommending new technologies. Shall have working knowledge of TNRCC regulations and guidance especially the Texas Risk Reduction rules, EPA, OSHA and DOT regulations.	Contractor determined.	No instance of unqualified personnel being assigned.
9.15.8	Pollution Prevention/ Recycling/ Affirmative Procurement Program Manager/ Specialist Provide a properly trained and qualified Pollution Prevention/Recycling/Affirmative Procurement Program Manager/Specialist to manage Pollution prevention, recycling and affirmative procurement programs.	Shall have a B.S. Degree in Environmental Science or Management or Chemistry, Environmental or Chemical Engineering. Shall have a minimum of 5 years experience in developing pollution prevention and policies, plans, and procedures, and in implementing pollution prevention, and waste minimization programs, activities, plans, and recommending new technologies. Shall have a working knowledge of EPA and TNRCC regulations and guidance regarding source reduction and waste minimization. Additional experience in developing and implementing affirmative procurement programs is preferred. If no experience in affirmative procurement, training must be provided within 6 months of contract award.	Contractor determined.	No instance of unqualified personnel being assigned.

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9.15.9	Training Program Specialist Provide a properly trained and qualified Training Program Specialist to develop and implement environmental training.	Shall have a B.S. Degree in Chemistry, Environmental Science/Management or in Chemical or Environmental Engineering. Shall have a minimum of 5 years experience developing and conducting training in environmental training. For example, pollution prevention/waste minimization and RCRA awareness training. Must have a working knowledge of EPA/TNRCC regulations and guidance in order to develop and provide training programs. Shall have specialized training in developing training programs.	Contractor determined.	No instance of unqualified personnel being assigned.
9.15.10	Water Pollution Compliance Manager/ Specialist Provide a properly trained and qualified Water Pollution Compliance Manager/Specialist to manage the Water Pollution Control and Prevention Program.	Shall have a B.S. Degree in Chemistry, Environmental Science/Management or in Chemical or Environmental Engineering with major or concentrated study in water or wastewater issues. Shall have a minimum of 7 years experience in NPDES or Texas wastewater compliance programs. Must have a working knowledge of EPA/TNRCC Clean Water Act (CWA) regulations and guidance regarding wastewater and storm water discharges and management.	Contractor determined.	No instance of unqualified personnel being assigned.
9.16	**Records, Reports, and Submittals** Develop and Provide Environmental Reports and Submittals	Regulatory guidance shall be used and followed in the gathering of data and information, the manipulation of data, the development of the report and preparation and formatting of the report. All reports shall be submitted within the time frame specified. All reports shall be provided and submitted in an electronic format, including all graphics, photos, and other attachments, unless otherwise specified. All reports required by the regulatory agency or other specifying entity will be formatted in accordance with guidance or regulation. In addition, a hard copy for all reports and plans shall also be provided to the Environmental ***TMR**. Provide a copy of all plans in pdf format to allow for placement on website. All submittals, unless otherwise specified, shall be letter size (8 1/2 x 11), all attachments will be clear and legible and also provided as letter size. Where NASA will submit a hard copy or disk copy of a document to an agency, a cover letter shall be provided to accompany the document. The cover letter shall be in the most current version of Microsoft Word unless otherwise specified. All reports will include a cover page with a signed certification that all information contained in the report is accurate and complete and meets regulatory requirements. Corrections are made in time to allow for the Government to make timely submission.	See below	All documents listed in this section are complete and accurate when submitted to the Environmental ***TMR**. All documents are submitted on time. Information and corrected reports and submittals are provided for all follow-up agency inquiries. Documents are provided in the requested or required format and type.

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		All background information used to develop the report and its findings shall be provided along with the report. All requested information shall be provided to support follow-up agency inquiries regarding any report or submittal. All reports and submittals shall be updated to include the new and/or corrected information and resubmitted to the Environmental ***TMR** within the requested time frame. Specific requirements for each report are identified in the CLINs listed below.		All necessary background information used to generate the documents is provided with the submittal.
9.16.1	Environmental Compliance Management Records, Reports and Submittals Submit Environmental Compliance Management Records, Reports, and Submittals	Develop and submit the following reports and submittals required for management of the Environmental Compliance Management program.	See below	See above
9.16.1.1	COSS Environmental Compliance Plan Develop and Submit COSS Environmental Compliance Plan.	Develop and submit a COSS Environmental Compliance Plan according to DRD AN-9-1.	1 Plan with annual updates.	See DRD and above.
9.16.1.2	Annual Building Inspection Report Develop and Submit Annual Building Inspection Reports	Report findings from Environmental portion of Health, Safety and Environmental building audits in a narrative format. Reported information shall include but is not limited to; name of auditor, date of audit, name or number of facility being audited, and the scope of the auditor's review; specific positive and noncompliant findings, including citation of federal or state regulation affected; suggested corrective action, where available; and indicate which items will be entered into EMS tracking system for correction. Findings shall be submitted to the lead auditor and the Environmental ***TMR** within 5 calendar days of conducting the audit.	186 reports	See above
9.16.1.3	Self Assessment Findings Report Develop and Submit Self-Assessment Findings Report.	Compile, develop and submit a report for the 4 to 6 programs assessed, as required in CLIN 9.2.3.b and c. The report shall include both a narrative report that gives program health indicators and common findings, and a detail description for each regulatory finding. The regulatory detail includes but is not limited to, the following:	One report	See above

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		• Environmental Program or Media • Specific details on the finding identified • The specific location of the finding (e.g., building, room) • The affected regulatory citation for the finding • A root cause explanation • A recommended solution • Name of evaluator • Date of finding The Report shall be submitted to the Environmental ***TMR** within 10 working days of completing the self-assessment.		
9.16.1.4	Environmental Resource Documents Develop and Update Environmental Resource Documents for JSC, EF, SCTF and EPFOL.	Develop new Environmental Resource Document (ERD) for EPFOL in first contract year. Review, update and maintain a current ****JSC ERD, ****EF ERD, ****SCTF ERD** (and also include update of EPFOL ERD after first contract year). The ERDs shall be reviewed and updated at least once each contract year to include new information or changes. All maps, data and tables must be updated to include the most recent agency information during the annual review and update. ERDs shall comply with the National Environmental Policy Act, 14 CFR 1216 and Implementing the Provisions of the National Environmental Policy Act, NPG 8840 (found in ****Environmental Reference Information**) including, but not limited to; information on the history, cultural factors, archeology, geology, soils, climate, air resources, water resources, land resources, ecological resources, endangered species, floodplains, wetlands, solid and hazardous waste, toxic substances, radioactive materials, noise, along with economic factors. The information is used as a baseline in the determination of environmental impact assessment. The plans shall completely address all factors required in the preparation of an environmental impact statement. Place a copy of each document in pdf format in a COD provided web server folder. Update the folder copy of the document within 10 working days of updating of each document.	One new ERD (Year One only) One updated ERD (Year 2 - 5)	See above
9.16.1.5	Standard Operating Procedures Develop and update Standard Operation Procedures for environmental activities conducted by COSS Contractor.	Develop new procedures and update existing procedures required for all environmental programs. Procedures shall follow the format of Work Methods and Standard Operating Procedures found in ****SOPs for Environmental Activities.**	10 procedures	See above
9.16.2	ISW Records, Reports and Submittals	Develop and submit the following reports and submittals required for management of the ISW program.		

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9.16.2.1	Annual Waste Summary Submit the Annual Waste Summary for ISW for JSC, EF and EPFOL.	Develop and enter Annual Waste Summary Report for JSC, EF and EPFOL into STEERS following current STEERS Users Manual (****Environmental Reference Information**). The report shall be entered into STEERS no later than February 10 of each year for ISW management activities of previous calendar year. In addition, provide a hard copy of the report and the tabular development, along with any necessary explanations on how numbers were derived to the Environmental ***TMR** to review no later than February 1 each year.	Three reports	See above
9.16.2.2	Annual Site Activity Report Submit the Annual Site Activity Report for JSC	Submit the JSC Annual Site Activity Report to the Environmental ***TMR** no later than January 10 each year for activities of previous calendar year. Follow format of JSC Annual Site Activity Report, ****Miscellaneous Environmental Documents**, and include all information required by JSC's Hazardous Waste Storage Permit, ****Environmental Regulatory Permits**. Provide as electronic Word document. NOTE: This report is due as long as JSC has a RCRA TSD permit. It is anticipated that the permit will be canceled by November 2003.	One report	See above
9.16.2.3	Monthly Waste Shipment Report Submit Monthly Waste Shipment Report for JSC, EF, and EPFOL.	Submit a monthly summary report, due to Environmental ***TMR** no later than the 20 of the month, for all shipments of ISW from JSC, EF and EPFOL during the previous month. The report shall include, but is not limited to, the following information: manifest number, transportation company name, TSDR name, date shipped, common name and waste codes of wastes shipped, quantity in pounds. Provide the original and returned copies of manifest and copies of all associated forms and notifications to Environmental ***TMR**.	36 reports	See above
9.16.2.4	Monthly Waste Receipt Summary Submit Monthly Waste Receipt Summary for JSC.	Develop and enter data to complete TNRCC Monthly Waste Receipt Summary report into STEERS for all ISW received at JSC from EF. Data shall be entered into STEERS no later than the 15th of each month for the wastes received the previous month. Follow TNRCC regulations and ****STEERS Users Manual** to develop the report and enter it into STEERS.	12 reports	See above
9.16.2.5	Monthly ISW Generator Report Submit monthly ISW Generator Reports for wastes generated at JSC, EF, SCTF and EPFOL.	Develop a report by Directorate divisions for all ISW generated during the previous month. The report shall include, but is not limited to, the following information; the common name of the waste, the waste code, the directorate generating the waste, the building the waste was generated in, the amount in pounds generated of each waste, and the total amount of all waste (lbs) generated during the month for the directorate. Information shall be in a spreadsheet format, sorted first by Directorate. Within each directorate sort by building and then common name of waste along with the amounts.	12 reports	See above

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		The report shall be submitted to Environmental ***TMR** no later than the 15th of the month for the preceding months waste generation activities. This report shall also be posted on the Environmental homepage on the 15th the month.		
9.16.2.6	ISW Contingency Plan Develop, review, update and maintain ISW Contingency Plans for JSC, EF, and EPFOL.	Review, update and maintain a current JSC ISW Contingency Plan **(**JSC Part B RCRA Permit Application)** and **EF ISW Contingency Plan** (EF Plan includes SCTF) at least annually. Develop an ISW Contingency Plan for EPFOL and review, update and maintain a current version annually, thereafter. Place a copy of each plan in a pdf format in a COD provided web server folder. Contingency Plans must include all elements required by state and federal regulations. In the submittal to the Environmental ***TMR**, include a summary of each change made to the plan and the justification for each change. Identify any RCRA permit modifications and the class of modification for each update for the JSC ISW Contingency Plan. If no changes are required to the plan, then an annual memo to the Environmental ***TMR** shall be submitted stating that each plan has been reviewed and that no changes are required.	Three plans	See above
9.16.2.7	ISW Waste Analysis Plans Review, Update and Maintain ISW Waste Analysis Plans for JSC, EF, and EPFOL	Review, update, and maintain current JSC ISW Waste Analysis Plan **(**JSC Part B RCRA Permit Application)** and ****EF ISW Waste Analysis Plan** (EF Plan includes SCTF) at least annually. Develop an ISW Waste Analysis Plan for EPFOL and review and update annually, thereafter. Place a copy of each plan in a pdf format in a COD provided web server folder. The Waste Analysis Plans must include all elements required by state and federal regulations. In the submittal to the Environmental ***TMR**, include a summary of each change made to the plan and the justification for each change. Identify any RCRA permit modifications and the class of modification for each update for the JSC Waste Analysis Plan. If no changes are required to the plan, then an annual memo to the Environmental ***TMR** shall be submitted stating that each plan has been reviewed and that no changes are required.	Three plans	See above
9.16.2.8	TSDR and Transportation Facility Audit Reports Submit summary reports for all audits conducted on TSDR and transportation facilities.	Document all audits and findings in a narrative report in format found in ****Audit of Rollins Environmental, Deer Park, Texas.** Submit the report to the Environmental ***TMR** within 15 working days of audit. Include a recommendation as to whether or not NASA should use the facility based on audit findings. Provide a copy of all checklists and materials gathered during the audit (e.g., copies of permits, photos, agency inspection reports, plans, etc).	10 reports	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.2.9	ISW Tank Inspection Reports Submit Annual Tank Integrity Test Reports	Prepare, review and submit the annual Tank Integrity Test Reports to Environmental ***TMR** within 10 days of receipt of test receipts. Include a narrative summary that discusses the results of the testing (tanks passed/failed), any problems found during the testing, all corrective repairs performed, conclusions and recommendations. Follow the format of JSC Tank Integrity Test Reports found in ****Miscellaneous Environmental Documents**. Provide report in hard copy and electronic format.	One report	See above
9.16.2.10	ISW Tank Cleaning Plans and Reports Develop and Submit Tank Cleaning Plans and Reports	Develop, maintain and submit a bi-annual plan for cleaning all ISW tanks that includes a performance standard for determining the cleanliness of each tank following the cleaning step, a cleaning procedure for each tank and associated piping, and sampling and analysis plan.	One plan	See above
		Develop, maintain and submit a report of the results of the cleaning. Reports shall include a narrative summary of all problems found cleaning, and any corrective repairs that were performed. Provide ***documents** (plan and report) in hard copy and electronic format.	One report	
9.16.2.11	Manifest Exception Reports	Develop and submit reports to the Environmental ***TMR** in accordance with 40 CFR 262.42 and 30 TAC Chapter 335.12 and 13 on any occasion that original copies of manifests are not received from TSDRs within 45 of shipment. The report is due to the Environmental ***TMR** no later than 46 days after manifests are not received back from the TSDR.	Three reports	See above
9.16.2.12	Submit Biennial Hazardous Waste Report Submit Biennial Hazardous Waste Report for JSC and EF.	Develop and submit a biennial report containing supplemental information to the Annual Waste Summary, as required by 40 CFR 262.41 and 30 TAC 335.71. This report is due each even numbered year for activities in previous odd numbered year upon request and is due 2 weeks prior to the date it is due to the TNRCC. Information requested may change between reporting years, but is included in data required to be tracked for ISW program.	Two reports every even numbered year.	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.2.13	Closure Plans Update and Submit Closure Plans for JSC and EF ISW permitted and <90 Day accumulation areas.	Review, update and maintain current closure plans (see **Class 2 Permit Modification #1 to JSC RCRA Hazardous Waste Storage Permit) all permitted or <90 day accumulation areas at JSC and EF. The plans shall be reviewed and updated as required to include new conditions or regulatory requirements, as applicable. The updates must be completed within any designated regulatory timeframe. The Closure Plan must include all elements required by state and federal regulations and guidance documents. Submit the updated plans to the Environmental *TMR within 10 working days of completing the changes to the plans. In the submittal to the Environmental *TMR, include a summary of each change made to the plan and the justification for each change. Identify any RCRA permit modifications and the class of modification for each update for the JSC Closure Plan. If no changes are required to the plan, then an annual memo to the Environmental *TMR shall be submitted stating that each plan has been reviewed and that no changes are required.	4 plans	See above.
9.16.2.14	RCRA Training Plan Develop and maintain RCRA Training Plans for JSC, EF, and EPFOL.	Review the existing JSC RCRA Training Plan and update it for current conditions and employees as required by regulations, but at least annually. Develop RCRA Training Plans for EF (including SCTF) and EPFOL, and then update them as required by regulations, but at least annually. Place a copy of each plan in pdf format in a COD provided web server folder. The RCRA Training Plans must include all elements required by state and federal regulations. In the submittal to the Environmental *TMR, include a summary of each change made to the plan and the justification for each change. Identify any RCRA permit modifications and the class of modification for each update for the JSC RCRA Training Plan. If no changes are required to the plan, then an annual memo to the Environmental *TMR shall be submitted stating that each plan has been reviewed and that no changes are required.	3 Plans	See above
9.16.3	Air Emission Reports	Develop and submit the following reports and submittals required for management of the Air Emissions program		
9.16.3.1	Develop and Submit **Relative Accuracy Test Audit (RATA) Report	Prepare report, which contains data, formatted per **RATA Report provided in TRL. Includes all attachments. Submit by end of 15th day of the first month after end of the first quarter of the year.	One report	See above
9.16.3.2	Develop and Submit Quarterly **Cylinder Gas Audit Report	Prepare report, which contains data, formatted per **Cylinder Gas Audit Report provided in TRL. Includes all attachments. Submit by the 15th day of the first month following the end of a quarter.	Three reports	See above
9.16.3.3	Develop and Submit **40 CFR Subpart Db Semi-Annual CEMS and Excess NOx Emission Report	Gather data to complete the semi-annual NOx excess emissions report. Prepare report, which contains data, formatted per **40 CFR Subpart Db Semi-Annual CEMS and Excess NOx Emission Report. Includes all attachments. Submit by January 15 and July 15 of each year.	Two reports	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.3.4	Develop and Submit **40 CFR Subpart Dc Semi-Annual Excess Emission Report	Gather data to complete the semi-annual NOx excess emissions report. Prepare report, which contains data, formatted per **40 CFR Subpart Dc Semi-Annual Excess Emission Report. Includes all attachments. Submit by January 15 and July 15 of each year.	Two reports	See above
9.16.3.5	Develop and Submit **Emissions Inventory Report	Develop and submit annual Air Emissions Inventory Report for JSC, EF and SCTF. Separate reports shall be prepared for each facility. Collect emissions data for each air emission source. Input data into spreadsheet provided by the Government. Obtain copy of Hazardous Materials Inventory. Analyze data for final emissions report applicability. Compile data and prepare report, which contains data, formatted per **Emission Inventory Report and in accordance with TNRCC guidance. Includes all attachments including updated Emissions Inventory Questionnaire forms. Each report shall be submitted to NASA Environmental Office no later than March 15 of each year for activities of previous calendar year. In addition, provide a hard copy of the report and the tabular development, along with any necessary explanations on how numbers were derived to Environmental *TMR to review no later than March 15 each year	Three reports	See above
9.16.3.6	Develop and Submit Air Inspection Preparation Guidelines and Site-Specific Questions as Provided by TNRCC	Gather data to address each section of TNRCC Inspection Preparation Guidelines questions. Prepare report, which contains data, formatted per TNRCC Air Inspection Preparation Guidelines (** Environmental Reference Information). Submit 2 weeks after delivery to Contractor.	One report	See above
9.16.3.7	Report Analytical Results of Samples of O/W Separators at JSC and EF	For standard exemption compliance verification, take samples and have them analyzed for true vapor pressure (TVP) and Reid vapor pressure (RVP). Report analytical results for two O/W separators at JSC (Building 329 and 417) on a quarterly basis. Report analytical results for ten O/W separators at EF on an annual basis.	Five reports	See above
9.16.4	Water Pollution Prevention Control Records, Reports and Submittals	Develop and submit the following reports and submittals required for management of the Water Pollution Control program	See below	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.4.1	Sanitary Sewer Industrial Discharge Management Plan Develop and submit Sanitary Sewer Industrial Discharge Management Plan	Develop a Sanitary Sewer Industrial Discharge Management Plan, using the list developed in 9.5.1. The plan shall identify all pertinent discharges and requirements to monitor; submit reports to regulatory agencies; conduct sampling; identify any non-compliances; identify required steps to achieve corrective action; and a schedule for meeting each step to meet all environmental regulations, Center requirements and sewer agency limits. The Plan shall be completed within 6 months of contract start up using existing data and shall be updated as new or changed discharges are identified. The plan shall be updated within 15 working days of identification of new or changed discharge, change in required corrective action or schedule changes or completion. The initial plan shall be submitted on October 15 (or the 15th of the sixth month after contract start if it is later than October) of year one of contract. Updated pages shall be sent to the Environmental ***TMR** within 5 days of updating the plan. Place a copy of the plan in pdf format in a COD provided web server folder, and update the plan in the folder with updated information monthly.	One plan combined plan for ***JSC** and EPFOL.	See above
9.16.4.2	Annual Storm Water Plan Compliance Report. Submit an Annual Storm Water Pollution Prevention Compliance Audit Findings Report for JSC, EF and EPFOL.	Develop a report of findings from annual audits of Storm Water Pollution Prevention Plans (SWPPP). The report format shall be determined by the contractor but must include, but is not limited to, the following: • Audit date (s), • Auditor name, • Scope of audit, • Findings, • Recommended corrective action for all non-compliances including a schedule • Changes required to SWPPP, and • Estimated cost and schedule to complete each corrective action item Due to Environmental ***TMR** on February 15 each year.	Three reports.	See above
9.16.4.3	Update the JSC and EF Storm Water Pollution Prevention Plans. Review and update the JSC and EF Storm Water Pollution Prevention Plans.	Update the JSC and EF Storm Water Pollution Prevention Plans annually following the annual audit identified in 9.9.5.2.c. The plans must follow the format of the ****JSC Storm Water Pollution Prevention Plan, ****EF Storm Water Pollution Prevention Plan** and must include all regulatory requirements. Place a copy of the plan in pdf format in a COD provided web server folder.	Two plans.	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.4.4	Sedimentation and Erosion Control (SEC) Plan Reports Submit reports for each SEC Plan forwarded for review	Provide written comments, in a form format developed by the Contractor, for each plan reviewed. The form shall include, but is not limited to, the following elements: Project Name, Building or Location, Project Manager; Name of Contractor Company, On-site Company Project Manager's Name; Specific comments on items that need to be added to plan to make it acceptable; a decision on whether the plan is acceptable (for example, Plan Approved, Plan Approved with Conditions Stated, No Plan Required, Additional Information is Required as Stated), Name of person reviewing plan, and date reviewed. Submit comments to Environmental ***TMR** within 10 working days of receipt of a plan.	20 reports	See above
9.16.4.5	Spill Prevention Control and Countermeasure (SPCC) Report Review, update and maintain SPCC Plan	Review, update and maintain the ****Spill Prevention, Control and Countermeasures Plan, JSC Emergency Response Plan Addendum 40 CFR Part 112 Oil Pollution Prevention** twice annually. Review, update and maintain the EF Spill Prevention, Control and Countermeasures Plan. Reviews are conducted semi-annually no later than January 31 and July 31. Updated/amended reports shall be submitted to Environmental ***TMR** no later than six months after a change in design, construction, operation or maintenance occurs that has a significant effect on the potential for oil discharge, or the plan proves to be ineffective. All reviews and revisions shall be documented in the SPCC Plan Revision/Review Sheet in Table 1 of the plan. PE certifications are documented on all updates/amendments. All updated/amended SPCC plans shall be certified by a professional engineer per 40 CFR 112.3(d) before being made effective. Complete Plan (including drawings, procedures etc. and updates/amendments) are submitted in electronic format. Place a copy of the plan in pdf format in a COD provided web server folder.	Four plan reviews Four updates	See above
9.16.5	Asbestos Program Records, Reports and Submittals	Develop and submit the following reports and submittals required for management of the Asbestos Program		
9.16.5.1	Annual Sitewide Asbestos Inspection and Assessment	Submit results of inspection and assessment electronically within 10 working days of completion to the Environmental ***TMR** and the OMOH contractor for entry into the JSC Asbestos locations database. Inspection and assessment shall fulfill all elements of 40 CFR 763, Subpart E, Appendix C, Item 3 "Inspections".	One sitewide inspection and assessment of ***JSC**	Annual inspections and assessments are complete, accurate, and results submitted on time.
9.16.5.2	Asbestos Notifications	Submit ACM and TDH notifications.		
		a. Submit ACM work notifications electronically to the OMOH contractor and Facility Manager for each job with ACM.	1200	ACM work notifications submitted on time, with accurate information regarding the date, time, and location of the ACM work to be performed.

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		b. Submit TDH ACM Demolition/ Renovation and RACM Abatement Original 10 Day Notification (**Environmental Reference Information) to the Environmental ***TMR** 15 working days before due to the TDH. Amendments to original notifications will be submitted to the Environmental ***TMR** the next working day after new of changed information is known.	15	
		c. Submit TDH Annual O&M Notification on Projected Asbestos Renovation and Demolition. Report is due December 16 each year.	1	TDH notifications and amendments are accurate, complete, and submitted on time.
9.16.6	PST Program Records, Reports, and Submittals	Develop and submit the following reports and submittals required for management of the PST Program	See below	See above
9.16.6.1	Annual Petroleum Storage Tank (PST) Integrity Report Submit PST tank integrity reports	Prepare and submit the Tank Integrity Test Report to Environmental ***TMR** within 10 days of receipt of testing results. Report shall follow the format of JSC Tank Integrity Testing Reports found in ****Miscellaneous Environmental Documents** and shall include a narrative of the results of the integrity testing and provides recommendations for all corrective actions and maintenance activities.	One report.	See above
9.16.6.2	General Land Office Applications and Certificates Submit General Land Office application for discharge prevention and response certificates and applications.	Prepare and submit the General Land Office application discharge prevention and response certificates and applications for JSC and EF, to Environmental ***TMR** within 60 days of contract start date. Updates shall be submitted within 5 years or within 60 days of a change of status.	Two application Two response certification	See above
9.16.6.3	Regulated and Unregulated Petroleum Storage Tank (PST) Database Submit PST database	Obtain and enter the following information into an electronic database and provide a hard copy report by May 1: Tank Identification number and tank location, tank capacity, tank containment type and volume, tank, piping and containment construction material, leak detection system (where applicable), tank registration forms, tank construction forms, General Land office application and certificate information, fee submittal information, maintenance activities per tank, closure information, integrity test information, new tank design and installation information.	One report	See above
9.16.7	Groundwater Protection Records, Reports, and Submittals	Develop and submit the following reports and submittals required for management of the Groundwater Protection Program	See below	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.7.1	Groundwater Monitoring Well (MW) Statistics and Recovery Trends Report Perform a statistical analysis on all groundwater analytical results and recovery results from the Energy Systems Testing Area (ESTA).	Perform a statistical analysis on all groundwater analytical results from the ESTA groundwater monitoring well analytical results and the groundwater treatment system recovery results in accordance with EPA 's most current version of RCRA Groundwater Technical Enforcement Guidance Document (TEGD) and TNRCC's Texas Risk Reduction Program requirements and guidance documents. Obtain and use groundwater analytical results from monitoring wells provided by the Environmental Health Laboratory and from the sampling and operating the from Groundwater Treatment system. Provide a report in hard copy and electronic format. Reports follows the format of JSC Groundwater Quality Statistical Analysis and Assessment of Groundwater Recovery Trends Report found in **Miscellaneous Environmental Documents.	One report	See above
9.16.8	**Pollution Prevention and Resource Conservation Records, Reports and Submittals**	Develop and submit the following reports and submittals required for management of the Pollution Prevention and Resource Conservation program.	See below	See above
9.16.8.1	Source Reduction and Waste Minimization Report Submit Source Reduction and Waste Minimization Annual Progress Reports for JSC, EF and EPFOL.	Collect and compile all required data to complete and submit Annual TNRCC Source Reduction & Waste Minimization Report for JSC, EF and EPFOL in accordance with TNRCC guidelines and requirements **TNRCC Source Reduction and Waste Minimization Annual Progress Report Instruction Manual and Forms. The current method of reporting is via the TNRCC Web-page, which includes guidance on the elements of the report. Enter the information into the TNRCC website and provide a hard copy and backup data to the Environmental *TMR no later than May 1 each year for the previous calendar year activities.	Three reports.	See above
9.16.8.2	Pollution Prevention Plans Develop, update and maintain Pollution Prevention Plans for JSC, EF and EPFOL	Develop and maintain Pollution Prevention Plans for JSC, EF (including SCTF) and EPFOL. Each plan shall include all elements required by state and federal requirements and agency and center policy. Each plan shall include all relevant elements, including but not limited to; solid waste, recycling, industrial solid wastes, ozone depleting substances, air emissions, storm water, hazardous materials management, storm water, industrial wastewater discharges, and affirmative procurement. Each plan shall include all goals, objectives and targets developed by the center and agency, a summary of relevant rules and requirements, strategy and implementation plan for achieving goals, references for finding resource, and an annual progress report.	Three plans	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Each plan shall be modular, with the first module being the existing ****JSC, EF and EPFOL Source Reduction and Waste Minimization Plans**. Other modules shall be developed and added to the plan within the first 12 months of the contract. An updated Executive Summary will be prepared, as required by state regulation, each time the Plans are updated. Submit the Executive Summary to the Environmental ***TMR** with 15 days of date the plan was changed for submission to the TNRCC. The Plans shall be updated annually, at a minimum. Place a copy of the plan in pdf format in a COD provided web server folder and update the folder copy within 15 days of updating the plan.		
9.16.8.3	NASA Recycling and Affirmative Procurement Report Submit Annual NASA HQ Report on Recycling and Affirmative Procurement Status for activities at JSC, EF, SCTF and EPFOL.	Collect, compile and enter all required data to complete the annual Recycling and Affirmative Procurement Report into NETS. The report includes a summary of activities regarding the purchase of materials containing recycled content and actual recycling activities for all of ***JSC** and EPFOL. See ****Recycling and Affirmative Procurement Report Items** for a list of all items and fields that are included in this report. Enter all required data into NETS within 25 calendar days of receipt of call letter from HQ, annually for previous fiscal year activities. NOTE: Due date varies from year to year but is usually due on March 1.	One combined report.	See above
9.16.8.4	Pollution Prevention Opportunity Assessment (PPOA) Reports Develop and submit reports for each PPOA conducted.	Submit a report for each PPOA that includes all elements listed in Annex 9.11.2. Include a one-page summary of the nature of the PPOA, findings, recommendations, cost of implementing, and payback period. The report shall be submitted within 30 days of initiation of PPOA. Post the one page summary of each PPOA in a pdf format in a COD provided web server folder.	20 assessments.	See above
9.16.8.5	Annual ODS Usage Report Submit Annual NASA HQ ODS Usage Report for activities at **JSC** and EPFOL	Input the information required to complete the annual ozone depleting substances (ODS) usage report into NETS. The report is for each class 1 and class 2 ODS, as defined by federal regulation, used at ***JSC** and EPFOL. This includes, but is not limited to the following: • ODS Name and CAS number • Identify Any Substitute Testing Conducted • Quantity Stored (lbs) • % of ODS Recycled	One combined report	See above

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		• % of ODS Recovered • Quantity Used • User Type and Distribution Percentage • Container Type, Quantity (lbs), Average Cost per Pound • How the ODS Was Used Enter required data to generate the report in NETS no later than July 15 each year for previous calendar year activities.		
9.16.8.6	Develop Environmental Award Applications Develop and Submit Environmental Award Applications	Develop nomination applications for JSC's programs to federal, state and agency environmental awards (such as White House Closing the Circle Awards, Texas Environmental Excellence Award), as applicable. Completed applications shall be submitted to the Environmental ***TMR** within 21 calendar days of request.	Three award applications	See above
9.16.8.7	Notification to Agencies Submit Notifications to Emergency Agencies.	Prepare updated notification for local emergency planning committees (LEPC), Houston Fire Department (HFD), and TDH.	Contractor determined	See above
9.16.8.8	Toxic Release Inventory (TRI) Report Submit Annual TRI reports for JSC, EF, SCTF and EPFOL.	Prepare for and conduct an annual Section 313 Toxic Release Inventory (TRI) Form R hardcopy and electronic reports with cover letter for each installation (JSC, EF, SCTF, and EPFOL). Submit to the Government fifteen working days prior to the deadline date for submittal (normally July 01). Each report shall include an assessment noting trends in increases, decreases, and the variety/type chemicals over the past five years of all EPA TRI listed chemicals at the facility under the reporting threshold. Each report shall also provide recommendations for viable chemical substitutions or replacements. Submit background reports explaining methodology, assumptions, and exceptions used in developing each Tier II and TRI Form R reports. Background reports shall include all field notes, logs, inspection sheets. Background reports are due within 10 working days of completion of the annual report.	Four reports	See above
9.16.8.9	Communication, Training and Participation in Work Groups Records, Reports, and Submittals	Develop and submit the following reports and submittals.	See below	See above

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
9.16.9.1	Study and Design Review Comments Submit review comments for studies and designs that have environmental impacts and requirements.	Review and provide written accurate comments within the specified timeframes, for all studies and designs stating that all applicable environmental requirements standards, regulations, ***JSC** policies or procedures are included. If not included, the comments shall state the exact environmental requirement, regulation, standard, procedure, which must be followed and incorporated into the study and design. Comments shall be provided in the format specified by the government project manager. Submit comments to the Environmental ***TMR** within 5 days of request for review.	10 studies, 10 designs	See above
9.16.10	TSCA Records, Reports, and Submittals	Develop and submit the following reports and submittals required for management of the TSCA program.	See below	See above
9.16.10.1	Submit Polychlorinated Biphenyl Annual Written Document Log Submit Polychlorinated Biphenyl (PCB) Annual Written Document Log to NASA for JSC and EF.	Submit the PCB Annual Written Document Log for JSC and EF to the Environmental ***TMR** no later than June 15 of each year. The document log shall include all elements identified in 40 CFR 761.180(b)(2)(i)-(iii).	Two reports.	See above

ANNEX 10
SUPPLY
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10.1 SUPPLY

10.1.1 General Information

10.1.1.2 Annex Description

This Annex identifies supply services including acquisition, cataloging, stock control, inventory, storage and issue, and warehousing of supply items. This annex also includes temporary storage, program stock, office furnishings, carpet operations and radio communications.

10.1.1.2.1 Hours of Operation

Hours of operation for the supply annex are from 7:30 a.m. to 4:00 p.m., ***daily.** Hours of operation for program stock (CLIN 10.2.1.9) are 7:30 a.m. until 6:00 p.m., ***daily**.

10.1.1.2.2 Limitations, Restrictions, and Other Exceptions

Contractor employees' private vehicles shall not be used to transport Government property and supplies.

10.2 SUPPLY OPERATIONS

10.2.1 General Information

10.2.1.2 NASA Supply Management System (NSMS)

NSMS is a mainframe application located at NASA Marshall Space Flight Center in Alabama. NSMS is a total supply system database for the tracking and visibility of a complete catalog of stock items and asset information including, but not limited to: availability, warehousing, usage history, procurement lead times, reorder points, replenishment, economic order quantity, demand history, shelf life, manufacturer's lot information, serialization, inventory, hazardous material control and coding, accounting data, potential excess, receipts, issues, due ins, due outs, backorders, and total item management capabilities. NSMS electronically initiates document tracking for the accountable transactions associated with receipts, issues and turn-ins. The transactions are tracked from the time of issue or receipt generation, through staging and delivery to the final destination. See ****NASA Supply Management Systems (NSMS) User and Operations Guide.**

10.2.1.3 Location of Services

Supply operations are performed primarily at JSC, with pickups and deliveries at Ellington Field and the Sonny Carter Training Facility.

10.2.1.4 Cataloging

Cataloging operations include but are not limited to the identification, cataloging, and standardization of installation property, material, and supplies. Responsibilities include transmission and receipt of cataloging data from Federal, Military, and other civilian agency sources, as well as interface with the Defense Logistics Service Center (DLSC) to maintain registration with DLSC of JSC items.

10.2.1.5 Acquisition and Inventory Management

Acquisition and inventory management operations include but are not limited to the procurement, replenishment, accounting, record reconciliation, and maintenance of supply items. Demand items are direct delivery material that does not meet the criteria for stocking and are procured and delivered directly to the customer. The Contractor is expected to use good judgment in the replenishment and inventory management process, being a good steward of the Government's money. The Contractor may be directed by the Supply ***Technical Management Representative (TMR)** to delay or reduce procurement actions. The Contractor is encouraged to expand JSC's Just-In-Time (JIT) Program by identifying more stock items which meet approved criteria. Management of inventory in this annex shall be in accordance with ****NPG 4100.1, NASA Materials Inventory Management Manual.**

10.2.1.6 Stores Stock

Stores stock is material which is repetitively procured, stored, and issued on the basis of recurring demand. There are approximately 800 ***line items** of stores stock. Stock levels on store stock items are determined by monthly demand and calculated by NSMS.

10.2.1.7 Storage and Issue

Storage and issue operations include, but are not limited to: operations of a warehouse that facilitates the storage, stock selection, bin maintenance, issue and inventory of stores stock, and critical spares. Storage and issue shall be performed in accordance with ****NPG 4100.1, NASA Materials Inventory Management Manual.**

10.2.1.8 Temporary Storage

Temporary storage operations include, but are not limited to: the addition, removal, tracking, inventory, review and processing of material. Requests to add or remove temporary storage material must have Supply ***TMR** approval. A case file is a record to maintain an official record concerning customer's material in temporary storage. A case file folder contains, but is not limited to: ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document**, or ****JSC Form 961, Temporary Storage Document**, retention level letters and responses, and a copy of all documents associated with the case file. Data in the file is cumulative. Manage materials in the temporary storage warehouses in accordance with ****NPG 4200.1, NASA Equipment Management Manual** and ****NPG 4200.2, NASA Equipment Management Procedures and Guidelines for Property Custodians.**

10.2.1.9 Program Stock

Program stock operations include, but are not limited to: receipt, storage, issue, inventory, and continuous tracking of flight-related hardware and flight support equipment in accordance with ****JSCM 26549, Manual for the Control of Program Stock.** Program stock is owned by the using organizations and is not subject to automatic replenishment. There are approximately 32,000 ***line items** of hardware located in an 8,000 square foot designated bonded storage facility, commonly known as a bondroom. See ****Bondroom 421** and ****Program Stock Flight Hardware Listings for NASA Tagged Equipment**. NASA tagged equipment designated as program stock is physically stored in bonded storage and is subject to the same receipt, storage and issue criteria as non-tagged program stock; however, actual physical inventory responsibility as referred to in CLIN 10.2.3 does not lie with the Contractor. Of the approximately 32,000 ***line items**, approximately 1,200 are NASA tagged equipment. The bondroom must be temperature and humidity controlled, and secured to authorized personnel only.

10.2.1.10 Critical Spares

Critical spares are standby stock held for emergencies for which there is no recurring demand. They must be immediately available to prevent delay which might result in loss, damage, destruction of property, or danger to life due to an interruption of operations. Critical spares and their stock levels are Contractor recommended and Supply ***TMR** approved and owned. ***Mission Critical** items are those critical spares that have been identified as necessary to have available in the warehouse at all times. All critical spares will be maintained in NSMS. There are approximately 3,540 critical spare ***line items** in ****JSC Critical Spares Catalog for Plant Engineering Division,** and ****JSC Critical Spares Catalog for Occupational Safety and Institutional Assurance Division.** Withdraw and use this stock to maintain critical systems per Annex 2.

10.2.1.11 Physical Inventories

Inventories are conducted according to the requirements listed in the ****NPG 4100.1, NASA Materials Inventory Management Manual.** The transition inventory performed at contract start will be a wall-to-wall inventory, administrated in NSMS, and will serve as meeting the 5 year requirement for lot inventories. The inventory shall be accomplished within 90 days from start of contract phase-in.

10.2.1.12 Gas Cylinders

Gas cylinder operations include, but are not limited to: the acquisition, receipt, inspection, analysis, acceptance, storage, issue, and handling of gas cylinders. The Contractor shall purchase all gasses needed for the performance of work on this Contract through NSMS.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
10.2.2	Manage Supply Operations Manage the stores stock, critical spares, and program stock supply activities.	Manage stores stock, critical spares and program stock supply activities. (See ****Historical Workload Data for Annex 10, CLIN 10.2.2)**	See below	See below
		a. Shelf life:		
		Ensure shelf life material is tracked, maintained and updated in NSMS. Ensure catalog record indicates item is shelf life controlled if indicated by either the manufacturer of the item or by DLSC. Ensure sufficient shelf life is remaining when received in accordance with ****NPG 4100.1, NASA Materials Inventory Management Manual**. If not, return to the vendor. Use the NSMS shelf life program to track shelf life information and expiration dates from the time of receipt through storage life. Enter both the manufactured date and shelf life expiration date in NSMS at the time of receipt. Mark the expiration date on all shelf life material before it is stored and mark locations as containing shelf life material. Issue stores stock and critical spares based on the first in, first out (FIFO) method. Label all flight hardware shelf life items. Adhere label to the container the flight hardware is stored in, rather than attached directly to the material.	840 ***line items**	Shelf life material is managed accurately and on time.
		Run the NSMS "Expiring Shelf Life Report" the first week of each month to find records that will expire within the times specified in ****NPG4100.1, NASA Materials Inventory Management Manual**. Use the report to verify if material for that expiration date is on the shelf, and update the NSMS shelf life program with the current information. Determine if extension is possible, if material will be consumed by expiration date, or if excess action is required. In addition to condition of material, usage history and customer satisfaction should be considered. Customer approval is required for any extensions. Complete any required actions or updates resulting from the review within 10 ***workdays** from the date of the report.	Nothing additional	
		b. Document Tracking (applies to Stores Stock and Critical Spares only):		
		Update the NSMS document tracking system on the same day that any change in status occurs to provide current and continuous status visibility of all transactions. Run the "Delinquent Document Tracking Report", perform research, and resolve all delinquent transactions daily.	27,000 transactions	Maintain document tracking accurately and on time.
		c. Inventory Reconciliation:		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Make inventory adjustments on individual stock items in NSMS anytime the Contractor becomes aware that the on-hand quantity does not match the NSMS balance and that immediate research and corrective action cannot be taken. Perform thorough research and documentation on all adjustments. Complete the adjustment through the first level of approval (Contractor) within 5 ***workdays** after discovery. Perform the actual adjustment in NSMS within 1 ***workday** after second level of approval Supply ***TMR**.	Contractor determined	Inventory adjustments are performed accurately and on time.
		d. Document Control:		
		Organize, maintain and file on same day as received, a variety of supply documentation including, but not limited to: supply requisitions, inventory folders and letters, daily transaction register, excess disposal documents, material release orders, and material movement tickets.	12,250 documents	Organize and maintain documentation accurately and on time.
		e. Signature Verification:		
		Upon receipt of a ****JSC Form 1710, JSC Warehouse Supply Requisition**, verify signature through NSMS. If invalid, contact customer for resolution. Process in NSMS, resolving any discrepancies as quickly as possible. If request received by noon, process same day; if received after noon, process next ***workday**.	3,000 forms	Requisitions are processed accurately and on time.
		f. Cataloging:		
		Maintain a supply publications and research library including, but not limited to: current manufacturer's brochures and catalogs, Federal and military specifications, qualified products, and miscellaneous engineering standards and drawings to ensure sufficient sources are available for competitive pricing and customer assistance. The library shall include: 1. DLSC's Logistics Remote Users Network (LOGRUN) to research Federal Catalog data and other logistics information. 2. DLSC's Federal Logistics Data on Compact Disc (FEDLOG) which is a compact disc (CD) based system to research Federal catalog data and other logistics information. Serves as backup to LOGRUN with CD's updated monthly by DLSC. 3. The General Services Administration (GSA) Multi-use File for Interagency News (MUFFIN), as on-line system to research stock number, GSA schedule information, manufacturer's supply and schedule information, and other information on products supplied by GSA. 4. Other CD products from DLSC including files on medical supplies, hazardous material information, etc. CD's are updated monthly by DLSC.	Contractor determined	Library is current and maintained accurately.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		g. Research Form 500:		
		Receive and research **** JSC Form 500, Addition of Stores Stock Item,** through the Supply ***TMR** for approval. If stores stock item, ensure ****JSC Form 1710, JSC Warehouse Supply Requisition**, is attached; if missing, contact the customer same day. If critical spare item, verify stock levels, mission-related items, repairable items, building and system components. If item already exists in JSC catalog, notify the customer of the National Stock Number (NSN), annotate it on the ****JSC Form 1710, JSC Warehouse Supply Requisition,** and forward for issue processing same day. File the Form 500. If the items are hazardous, ensure a completed ****JSC Form 500B, Attachment to JSC Form 500 For Stock Item Which is Hazardous,** is attached before forwarding; if missing, contact customer same day. If the item is not in JSC stock forward ****JSC Form 500, Addition of Stores Stock Item**, and ****JSC Form 1710, JSC Warehouse Supply Requisition** and ****JSC Form 500B, Attachment to JSC Form 500 For Stock Item Which is Hazardous**, if applicable, for Acquisition and Inventory Management processing, annotate NSN if available.	10 forms	**** JSC Form 500, Addition of a Stores Stock Item,** processed accurately and on time.
		If Supply ***TMR** disapproves addition, notify customer and file for records on same day. If approved, create catalog record and purchase description order card in NSMS on same day, using NSN if available; if not, assign locally assigned number. Track assigned number.	Nothing additional	
		NOTE: If ****JSC Form 500, Addition of Stores Stock Item** is for office supplies, therefore a potential JIT item, contact Supply ***TMR** for instruction on whether to continue process.	Nothing additional	
		h. Prepare and Submit Form 1303		
		Prepare and submit ****Standard Form 1303, Request for Federal Cataloging/Supply Support Action,** and transmittal letter, to GSA requesting assignment of NSN within 2 ***workdays**. Upon receipt of NSN, update NSMS and notify Acquisition and Inventory Management within 1 ***workday**.	10 submissions	Submissions are accurate and on time.
		i. Assign Stock numbers:		
		Assign local stock numbers for program stock items that have no NSN on same day as requested. Do not obtain Federal NSN's for program stock items. Track locally assigned numbers.	1,300 ***line items**	Stock numbers are assigned accurately and on time.
		j. Identify Actions:		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Perform Add/User/Withdraw User (LAU/LDU) actions monthly by identifying items added to or deleted from stock. Format information on disk per DLSC requirements; prepare transmittal letter and forward to GSA. Upon notification by GSA, update NSMS and notify Acquisition and Inventory Management and warehouse functions within 1 ***workday**.	12 LAU/LDU actions	LAU/LDUs are completed accurately and on time.
		k. Determine Item User:		
		Upon receipt of a ****Department of Defense (DD) Form 1685, Collaborations from Other Cataloging Activities,** make determination if JSC is a user of the item and return to requesting activity within 2 ***workdays**. Update NSMS with changes, notify item management and warehouse functions of NSMS updates within 1 ***workday**.	12 forms	****Department of Defense (DD) Form 1685, Collaborations from Other Cataloging Activities,** completed accurately and on time.
		l. Update NSMS Catalog:		
		Update NSMS catalog records using the information contained in DLSC's Simplified File Maintenance (SFM) Basic Catalog Tape Record within 5 ***workdays**.	10 tapes	Tapes are processed and records are updated accurately and on time.
		m. Research Items:		
		Research items for Standardization (Item Reduction) Studies to compare like items and respond to requesting Federal Agency within 2 ***workdays**.	12 studies	Studies are completed accurately and on time.
		n. Manage Inventory:		
		Acquisition and Inventory Management (Applies to Stores Stock and Critical Spares only): Manage the inventory of all supply items in accordance with ****NPG 4100.1, NASA Materials Inventory Management Manual.** Purchase required stock items in accordance with applicable Federal Acquisition Regulation (FAR) requirements.	See below	See below

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		1. Review all commercial and Military/Federal (MIL/FED) replenishment recommendations daily on the NSMS Reorder Notice Report. Determine if usage indicates that any or the entire amount should be procured. Ensure purchase description order card contains current information. Initiate procurement within 1 ***workday**, with no incidents of items being procured when procurement should not have been made. Utilize the Internet to place orders for MIL/FED items. Before automatically reordering hazardous materials, contact customers to confirm need and document justification prior to ordering. Utilize recyclable toner cartridges whenever available unless unsatisfactory past performance is documented. Establish due-ins in NSMS and follow up on all delinquent orders within 2 ***workdays**. Adhere to the Affirmative Procurement Program for purchasing recycled products as mandated by ****Executive Order 13101, Greening the Government Through Waste Prevention**, Recycling, FAR, NASA Supplements, and ****NPG 8830.1, Affirmative Procurement Plan for Environmentally Preferable Products**. Ensure that catalog records reflect that designated items contain recyclable contents. Ensure items purchased meet the recovered content minimum percentages found in ****Environmental Protection Agency (EPA) 530-SW-91-011, 40 CFR Parts 250, 252, 253, 248, and 249**.	800 purchases	Review and purchase actions are completed accurately and on time.
		2. Review and process suspended receipt and issue transactions. Situations that can cause suspended transactions include, but are not limited to: discrepant or damaged material upon receipt, single customer order in excess of center-wide monthly demand, manual control by inventory manager, or controlled item. Use accurate instruction codes on issues and receipts. Justify decisions to hold a suspended transaction longer than 2 ***workdays**.	Contractor determined.	Suspended transactions are reviewed and cleared accurately and on time.
		3. Upon receipt, review requests for stock, ****JSC Form 500, Addition of Stores Stock Item**, to ensure they meet the criteria as stated in the ****NPG 4100.1, NASA Materials Inventory Management Manual.** Complete a ****JSC Form 500A, Recommendation on an Addition to Warehouse Inventory**, attach it to the Form 500, and submit to the Supply ***TMR** for approval within 1 ***workday**. Upon receipt of approved ****JSC Form 500, Addition of Stores Stock Item** activate asset record in NSMS and initiate purchase within 1 ***workday**.	10 forms.	****JSC Form 500,Addition of Stores Stock Item** processed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		4. Generate and review the NSMS "Complete Excess Report" the first week of each quarter to determine if items should be retained or excessed. Contact past users to see if they will take the material and if so, issue to them. Create an excess transaction in NSMS, documenting the reason for the excess anytime an item does not meet the criteria for stockage. Complete the process through the first level of approval (Contractor) within 30 days after date on the report.	4 reports	Perform review and complete the disposal action in NSMS accurately and on time.
		NOTE: Items appear on this report only when they no longer meet the criteria for stockage based on usage. Discontinue assets in NSMS when disposal has been accepted by the NASA Property Disposal Management System (NPDMS) and item is no longer going to be stocked.		
		5. Create excess disposal transaction in NSMS within 2 ***workdays** of discovery for reasons including, but not limited to: critical spares over the level, damaged material, etc.	120 transactions	Perform disposal transaction accurately and on time.
		NOTE: See 10.2.2.a for shelf-life excess and 10.2.2.n.4 for excess resulting from "Complete Excess Report."		
		o. Cost Accounting System (Stores Stock/Critical Spares only):		
		Establish and maintain a Supply ***TMR** approved cost accounting system. Update same day any change in status occurs. Prepare and maintain purchase request (PR) folders containing any and all documentation relating to purchase within 1 ***workday** after confirmation of order. Pay vendor ensuring no incidents of failure to receive discounts or penalties due to late payment. Ensure all discounts are reflected in NSMS on same day awarded. Use the NSMS "Commercial Purchase and Receipt Verification Report" to verify purchase orders match invoices. Resolve discrepancies and if correction is required, make comments in NSMS clearly explaining problem and resolution prior to invoice submission.	1 system	System is accurate and on time.
		p. Storage and Issue (Stores Stock/Critical Spares only):		
		1. Receive Material Release Order (MRO) and Excess Disposal Ticket, select and deliver stock to customer's location within 2 ***workdays**.	8,000 issues	Material is selected and delivered accurately and on time.
		2. Determine disposition of customer returns and return to stock or initiate disposal action within 3 ***workdays**.	156 returns	Returns processed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		3. Provide a work stoppage counter for customers to walk up and receive immediate service. Ensure document contains proper signatures, verify average monthly demand (AMD) for item and check for asset freeze, on-hand quantity, or asset control prior to issue. Notify Supply ***TMR** if more than 3 ***line items** for approval prior to processing. If customer chooses to hand carry the supplies, process within 15 minutes. If customer chooses delivery, pull item and deliver to customer's location within 4 hours.	100 work stoppages	Work stoppages are processed accurately and on time.
		NOTE: The majority of work stoppages are for customer hand carry. COSS Contractor requests for material shall not be counted against this CLIN.		
		q. Program Stock:		
		Establish a Supply ***TMR** approved Designated Verification (DV) Program by contract start date in accordance with ****JSCM 26549, JSC Manual for the Control of Program Stock,** that authorizes bondroom storekeepers to perform an acceptance identification and damage (quick look) inspection, verifying all receiving paperwork is in order, and material is undamaged and properly accounted for. Perform a DV Inspection on all receipts, address discrepancies to the initiator or Safety, Reliability and Quality Assurance (SR&QA), whichever is appropriate, on same day. Determine if equipment meets tagging criteria per ****NPG 4200.1 Equipment Management Manual**, and contact the Supply ***TMR** for tagging action on same day as received if item is not already tagged. Perform accurate count of all receipts. All manufacturer's packages must be opened and all pieces counted except under the following circumstances:	1 DV program	Receipts are processed accurately and on time and material stored in a safe, secure manner providing easy identification and access.
		1. Unless directed otherwise, in writing, by the owner of the hardware or the Supply ***TMR**.		
		2. Flight hardware that is in a sealed container or bag as a result of being processed through the clean room.		
		3. Flight wire shall not be measured; manufacturer's count will be accepted.		
		4. Rivets may be weighed rather than counted.		
		r. Program Stock Receipts:		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Verify signatures on receipts against authorization letters provided by Supply ***TMR** and address discrepancies to the initiator same day. Process the receipt in NSMS. Notify the catalog function if NSN needs to be assigned. Mark the electronically assigned transaction number on source document paperwork. Record the source document receipt data on the ****JSC Form 911, Parts Identification Tag.** Affix storekeeper stamps to both the ****JSC Form 911, Parts Identification Tag** and the source document maintaining cross reference between source document, NSMS and ****JSC Form 911, Parts Identification Tag.** For NASA tagged items, write NASA tag number on documents if missing.	3,000 receipts	Receipts are processed accurately and on time.
		s. Program Stock Discrepant Hardware:		
		Hardware identified as discrepant by SR&QA must be segregated at all times from non-discrepant hardware, clearly marked and shall only be released with SR&QA approval. Notify SR&QA and coordinate for the disposition of discrepant hardware within 30 days of receipt. Initiate and document follow-up action within the first 10 days of each month thereafter.	25 ***line items**	Discrepant hardware is processed accurately and on time.
		t. Program Stock Temporary Hold:		
		Accept and physically segregate material for temporary hold for reasons including, but not limited to: material in transit, failed DV inspection, or safekeeping. Do not enter into NSMS. Maintain a log containing the following data: part number, serial and lot number, if applicable, customer name, date of receipt, and the date the material is released. Retain log for length of contract. Contact customer for disposition within 3 ***workdays** of receipt. If disposition is not obtained, contact Supply ***TMR**. Release temporary hold material only to the person who put it into bond.	60 pieces	Temporary Hold hardware is processed accurately and on time.
		u. Program Stock Issues:		
		1. Verify signatures on requests for issues against authorization letters provided by Supply ***TMR**. Address discrepancies to the initiator same day. Pull material and process the issue in NSMS and mark the electronically assigned transaction number on source document paperwork. Record the source document receipt data on the ****JSC Form 911, Parts Identification Tag,** and affix storekeeper stamps to both the ****JSC Form 911, Parts Identification Tag** and the source document maintaining cross reference between source document, NSMS, and ****JSC Form 911, Parts Identification Tag**. Contact the Supply ***TMR** for tagging within 4 hours of receipt if equipment meets tagging criteria per the ****NPG 4200.1**, **NASA Equipment Management Manual**, but no tag is present.	8,000 issues	Issues are processed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		2. Complete same day processing of receipts and issues, including pick up and delivery from designated locations, for all requests received by 12:00 p.m. Complete next ***workday** processing for all requests received after 12:00 p.m. Supply ***TMR** may request, on occasion, faster processing time.	Nothing additional	
		3. Pick up/drop off documentation and/or material in designated route locations at least twice daily; once in the morning between 11:00 a.m. and 12:00 p.m. for same day processing, and once in the afternoon for next *workday processing. See ****Bondroom Route**.	Nothing additional	
		NOTE: Requests are received by fax, customer drop off at bond, route drop box, or phone.		
		v. NASA Tagged Hardware:		
		Annotate NASA tag number on issue and receipt documents for tagged equipment if not already present.	Nothing additional	
10.2.3	Sample Physical Inventory of Assets Perform sample physical inventories.	Conduct sample inventories according to the approved schedule (see CLIN 10.2.6.3) and administer through NSMS. Perform counts, taking ongoing issue and receipt activity into consideration prior to entering counts in NSMS. Generate another count, or if the Contractor is satisfied with the results (a dummy adjustment may be requested from Supply ***TMR**), notify the Supply ***TMR** for electronic adjustment action. Turn in count sheets to the Supply ***TMR** at time of request to adjust the items. Thoroughly research and document adjustments for Government upper management signature. Complete count, research, and analysis through first level of approval (Contractor) within 30 days of freeze date for sample inventories. Results must be acceptable per ****NPG 4100.1 NASA Inventory Management Manual** pass/fail criteria. A failed sample shall result in a wall-to-wall inventory, which must be completed through first level of approval (Contractor) within 90 days. Operate the supply system throughout the inventory process, ensuring customer support is maintained.	3 Sample Inventories, (1 each Critical Spare, Store Stock, and Program Stock)	Inventories are completed accurately and on time.
		Use the NSMS suspense functions for issue and receipt activity during the inventory releasing suspense when freeze is lifted. Annotate paperwork with actual issue or receipt document number, not suspense document numbers.	Nothing additional	
10.2.4	Temporary Storage Manage temporary storage.	Maintain a current folder for every case file in Temporary Storage. Submission of the folder is required to Supply ***TMR** during the annual retention review process and upon request.	125 case files	Temporary storage is managed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain and update an existing spreadsheet containing case file number (Contractor assigned), responsible organization, property custodian, equipment control number (ECN) if applicable, identification and dollar value of each item, location, square and cubic feet of location, date put into storage, date of last review, total case file dollar value, and storage cost. NOTE: This spreadsheet is used to create the Master Case File Listing (See CLIN 10.2.6.1) and the Case File Listing (See CLIN 10.2.6.2).	Nothing additional	
		Process requests to add new case files, add or remove items to existing case files, or remove items for temporary storage on ****JSC Form 961, Temporary Storage Document,** for non-tagged material/equipment; or ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document,** for tagged equipment. Review items to be stored for storage location and packing requirements. Assign a case file number if one does not already exist. Write the case file number on the ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document** or ****JSC Form 961, Temporary Storage Document**.	Nothing additional	
		For adds, pick up from customer's location, pack and transport and put items in storage as indicated and update database. For removals, remove the item from storage, pack or unpack as requested, and transport to customer's location per ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document** or ****JSC Form 961, Temporary Storage Document**. Complete add or remove actions within 3 ***workdays**. Submit original ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document** to Supply ***TMR** and copy to Property Custodian the same day add/or remove takes place.	Nothing additional	
10.2.5	Gas Cylinders Manage gas cylinder program.	a. Notify the Operations Quality Assurance Division (OQAD) when purchasing special blends for a ****JSC Form 1313, Attachment No. 1 Quality Purchase Order Addendum for Fluids Replacement** and attach to purchase order. Prepare list of all demurrage (rental cost on all vendor owned cylinders) and process purchase order for payment.	500 gas purchases	Gas cylinder program maintained accurately and on time.
		b. Inspect cylinders monthly for repainting or possible refurbishment and notify the item manager on the same ***workday** the requirement is known.	120 cylinders	Inspections accurate and on time.
		c. Scrub and scrap cylinders identified as bad. Contact the JSC Environmental Officer prior to proceeding with scrubbing action. See ****Gas Cylinder Scrubbing Specifications**.	50 cylinders	Scrub and scrap accurate and on time

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. Place a copy of documentation provided by the Environmental Health Laboratory (EHL) for rejected cylinder contents indicating failure analysis and corrective action to be taken in the procurement folder. Contact vendor for pickup/replacement of rejected cylinders.	130 cylinder rejects	Rejects processed accurately and on time.
		e. Perform triennial inventory per ****NHB 4100.1, NASA Materials Inventory Management Manual**, utilizing the Gas Tracking System (GTS) and notify the Supply ***TMR** of the results within 1 week.	1 inventory – Contract Year 3 prior to October	Inventory is performed accurately and on time
10.2.6	Records, Reports and Submittals			
10.2.6.1	Master Case File Listing Provide accurate master case file listings.	Provide 3 copies by the third day of the month, of a report generated from the Temporary Storage database containing the following information: case file number, responsible organization, property custodian, equipment control number (ECN) if applicable, identification and dollar value of each item, location, square and cubic feet of location, date put into storage, date of last review, total case file dollar value, and storage cost. Sort the data by case file number. See ****Temporary Storage Master Case File Listing.**	12 reports	Reports are accurate and on time.
10.2.6.2	Case File Listing Provide accurate case file listings.	Generate a Temporary Storage Case File Listing (a printout of all data elements contained in the database, reference CLIN 10.2.4) and attach to the case file folder. Submit to Supply ***TMR** 30 days prior to the anniversary date of the oldest item in the case file. Physically verify each item is in the proper location and annotate the listing as such prior to submission to the Supply ***TMR**.	125 Reports	Reports are accurate and on time.
10.2.6.3	Physical Inventory Schedule Provide annual inventory schedule.	Develop and make available to the Supply ***TMR** an annual inventory schedule that covers the inventory of store stock, flight hardware, and critical spare items in compliance with ****NPG 4100.1, NASA Materials Inventory Management Manual.** The schedule must conform to the NSMS Inventory program. See ****Sample Inventory Schedule.**	1 schedule	Schedule shall be accurate and on time.
10.2.6.4	Critical Spares Catalogs Create current critical spares catalog.	Create and prepare for publication the following catalogs: ****Critical Spares Catalog for Facility Engineering Division** and ****Critical Spares Catalog for Occupational Safety and Institutional Assurance Division**. Update catalogs as required with change bulletins. Catalogs shall contain all elements in current catalogs with up-to-date information.	2 catalogs consisting of 3,540 ***line items**	Prepare catalogs accurately and on time.
10.2.7	Personnel Requirements Provide DV trained bondroom personnel	Personnel shall be trained prior to handling flight hardware and be issued an individually identifying DV stamp.	Contractor determined	No instances of personnel without proper training.

10.3 OFFICE FURNISHINGS

10.3.1 General Information

10.3.1.1 Annex Description

This Annex identifies the office furnishings operations including, but not limited to: inventory, receipt, storage, staging for issue and delivery, repair, determination of scrap metal, field and warehouse assembly and disassembly; receipt, storage, installation, removal, and repair of carpet.

10.3.1.2 Definitions

Furniture includes, but is not limited to: all types of office furniture, acoustical panels, refrigerators, shelving, lockers, racks, window coverings, task lights, etc.

Furniture repair includes, but is not limited to: reupholstering; lock and/or key replacement; caster, pneumatic cylinder, or under-seat mechanism replacement, etc.

Carpet repair includes, but is not limited to: stretching, cove base repair, carpet tile replacement, tear repair, etc.

10.3.1.3 Location of Services

Office furnishing operations are primarily performed at ****JSC,** with minimal activity of less than 1% of workload at local office buildings within a 50 mile radius.

10.3.1.4 Limitations, Restrictions, or Other Exceptions

All office furnishings operations, except furniture and carpet repair shall be referred by the Supply ***TMR**.

The Contractor shall provide parts and supplies for furniture repair including, but not limited to: casters, pneumatic cylinders, under-seat mechanism, keys, locks, refinishing products, wood fillers, screws, and/or fabric for reupholster of acoustical panels, refrigerant, etc.

The Contractor shall provide materials and supplies for carpet installation and repair including, but not limited to: cove base, metal for thresholds, releasable glue for carpet tiles, padding and tape for rolled carpet, vacuum cleaners, etc. The Government shall provide the carpet.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
10.3.2	Furniture Operations Maintain furniture operations.	a. Uncrate new furniture, inspect for damage, assure a key is kept on file on locking items and stock within 2 ***workdays** of receipt. Ensure no damage during handling. Update inventory same day furniture added to stock.	3,200 pieces	Process accurately and on time.
		b. Inspect furniture items returned to warehouses. Identify and segregate as usable, needing repair, or excess. 1) Useable: Restock usable furniture. Update inventory same day returned to stock. 2) Needing Repair: Repair and restock furniture. Update inventory same day returned to stock (See 10.3.3 for in field furniture repair). The workload for furniture repair includes 30 Hoover acoustical panels and 400 conference chairs yearly. 3) Excess: Prepare ****JSC Form 25A, Request for Turn-In or Reissue of Excess Property To/From Redistribution and Utilization**, with the appropriate ****NASA Form 811, Determination for Classification of Property as Scrap or Salvage,** or ****NASA Form 812, Determination and Authorization to Abandon or Destroy Surplus Property.** Accomplish these actions within 5 ***workdays** of receipt of furniture in warehouse. Ensure no damage during handling.	13,000 pieces	Process accurately and on time.
		c. Prepare furniture for delivery, which may include, but is not limited to: providing keys, cleaning, polishing, assembling, etc., prior to Supply ***TMR** scheduled date.	11,750 pieces	See above
		d. Connect/disconnect furniture at customer location per Supply ***TMR** direction or per a Supply ***TMR** approved office layout on scheduled date.	11,000 pieces	See above
10.3.3	In-Field Furniture Repair Provide in-field furniture repair.	Repair furniture at customer location within 2 ***workdays**; if the repair needed is a safety issue, complete/mitigate repair within 2 hours of receipt of request. Ensure furniture repaired meets or exceeds safety and use requirements. If repairs exceed 66 percent of the replacement cost of the item or cannot be performed on site, notify the Supply ***TMR** before repairing.	4,000 pieces	Process accurately and on time.
10.3.4	Carpet Operations Maintain carpet operations.	Inspect new carpet for damage, ensuring correct as ordered and stock within 2 ***workdays** of receipt and update inventory the same day added to stock.	2,000 square yards	Process accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Survey Supply ***TMR** designated area/location to determine materials/quantities necessary to install, remove, and/or repair carpet. Deliver carpet and work materials to designated area and complete carpet installation, removal, or repair on scheduled date(s). Remove, replace, disconnect/connect affected furniture as needed for the job. Complete repairs within 5 ***workdays** of receipt of request; if the repair needed is a safety issue, complete/mitigate repair within 2 hours of receipt of request. Coordinate all carpet activities with the customer prior to beginning work. Ensure work quality meets or exceeds safety and use requirements. Ensure no damage during handling. Dispose of or return to warehouse removed carpet per Supply ***TMR** direction and update inventory. NOTE: Contractor may expect approximately 20 installation/removal jobs and approximately 12 repair carpet jobs per year.	Nothing additional	
10.3.5	Inventories Maintain accurate furniture and carpet inventories.	Conduct monthly physical inventory of carpet and furniture. Provide on-call request information of stock quantities within 1 ***workday**. See CLIN 10.3.6.	12 inventories	Inventories accomplished accurately and on time.
		Prepare a work request according to room design requirements and inventory use plan; attach final floor plan design. Obtain Supply ***TMR** approval. Distribute work request with floor plan design to Contractor transportation and furniture warehouse functions, JSC Move Coordinator (if applicable), customer and Supply ***TMR**. Complete entire process per Supply ***TMR** provided or customer coordinated date.	Nothing additional	
		NOTE: Contractor may expect 800 room/cubicle designs per year averaging 3 workstations per room. A workstation includes, but is not limited to a desk, overhead, computer table, wedge, acoustical panels, etc.	Nothing additional	
10.3.6	Records, Reports and Submittals Provide inventory report.	Provide to Supply ***TMR** an inventory report including, but not limited to: furniture and carpet quantities, descriptions, stock numbers (if available), and locations by the third business day of the month.	12 reports	Inventory reports are accurate and on time.
10.3.7	Personnel Requirements Provide personnel with required expertise.	Contractor personnel shall have expertise in using Microstation software, which is the computer program, used to develop floor plans and furniture designs. Contractor personnel shall have expertise in carpet installation, carpet and furniture repair, and the assembly/disassembly of furniture.	Contractor determined	All personnel have proper expertise.

10.4 RADIO COMMUNICATIONS

10.4.1 General Information

10.4.1.1 Annex Description

This Annex identifies the conventional radio communication requirements, which include, but are not limited to: furnishing all resources necessary to maintain and repair Government-owned radios and related equipment in accordance with the following requirements.

The three categories for maintenance are: (1) Government-owned, joint-use equipment operated by both the Government and COSS Contractor personnel, reference Section J, Attachment L, Exhibit 2; (2) Government-furnished equipment operated by COSS Contractor personnel within the Center Operations Directorate, see Section J, Attachment I, List 1; (3) Government-owned equipment operated by either Government personnel or non-COSS Contractors, reference Section J, Attachment L, Exhibit 3.

All Contractor-owned radios shall use Government provided frequencies. The Contractor shall not be authorized to use any other means of radio communications (leased, personal, or business-band radio communications) for conducting business under this contract. The Contractor shall use the licensed radio network provided by JSC.

All radio communication equipment shall be turned over to the Government when no longer required or at contract termination. Reference Section J, Attachment L, for a listing of radios that shall be initially provided to the Contractor.

10.4.1.2 Location of Services

Radio communications services are performed at ***JSC.**

10.4.1.3 Hours of Operations

Hours of operation for maintenance and repair of priority 1 requests (see CLIN 10.4.2) shall be 24 hours, 7 days a week including holidays. All other work performed in this annex will be 7:30 a.m. to 4:00 p.m. ***daily**.

10.4.1.4 Limitations, Restrictions, or Other Exceptions

Contractor shall be authorized to use Government established and licensed-approved radio frequencies. There are 20 approved licensed networks, which operate on various approved operating frequencies assigned to JSC. The current Installation-Accountable Government Property (IAGP) is configured at these approved frequencies. Complete list of frequencies and networks shall be provided to the Contractor upon award.

No radio transmissions are permitted in Buildings 30, 30South, 5, 35, TTA 350 and posted buildings that indicate that no radio transmissions are allowed in that building. The radio must be turned off before entry to building(s).

Maintenance and repairs of all equipment shall be accomplished using only the specified manufacturer's numbered parts or industry standard equivalent.

Repairs for equipment shall not include repair or replacement of batteries, ferrite devices, transmission lines (coaxial, fiber, etc.) that are installed and maintained by another contractor, towers, or tower lighting.

Damage resulting from accidents, unauthorized transportation between sites, neglect, misuse, failure of electrical power, air-conditioning, or humidity control, or causes other than ordinary use, shall be reported to the Government in a survey report.

The Contractor shall ensure that maintenance activities do not alter the system integrity of the network.

The Government anticipates replacement of all conventional radio network equipment with digital/analog trunking radio network equipment during Fiscal Year 02 (portable and mobiles) and FY03-FY04 (infrastructure, remotes, etc.). A fully installed and operational system is expected to be in place by start of FY05.

The network listing in ***Radio Communications** indicates the priority of repair for the simulcast broadcast system, repeaters, duplexers, base stations, remote control units, Emergency Response Team Minitor II pagers, and any associated ancillary equipment. Portable radios and chargers brought to the drop-off point for routine maintenance and repair are not subject to the priority indicators in ***Radio Communications**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
10.4.2	Maintenance and Repair - Categories 1 and 3. Ensure radio equipment is functional.	Provide maintenance and repair of radio communications equipment. Respond to calls based on assigned priority. (See ***Radio Communications**)	See below	Maintenance and repair completed accurately and on time.
		a. Priority 1 - Arrive at the user location within 1 hour and complete work within 6 hours of receipt at Work Control.	15 requests	
		b. Priority 2 - Arrive at the user location and complete work within 1 ***workday** of receipt at Work Control.	15 requests	Equipment performance shall meet or exceed original manufacturer's specifications.
		NOTE: Accomplish multiple repairs of same priority in the following order:	Nothing additional	
		a. Repeater/Duplexer		
		b. Base Station		
		c. Remote Controls		
		d. Other Ancillary Equipment Affecting an Entire Net		
		e. Emergency Response Team Minitor II Pagers		
		f. Mobiles		
		g. Portables		
		h. Other		
10.4.3	Maintenance and Repair - Portable Radios and Chargers - Categories 1 and 3 Ensure radio equipment is functional.	Provide maintenance and repair for portable radios, chargers, or other ancillary equipment and return to customer within 5 ***workdays** of receipt of request. (See ****Radio Communications**)	30 requests	Maintenance and repair completed accurately and on time. Equipment performance shall meet or exceed original manufacturer's specifications

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
10.4.4	Installation and Removal – Categories 1 and 3 Ensure radio equipment is functional.	Perform operations (removal and/or installation) of fixed and mobile radio communication equipment which includes, but is not limited to: removing or installing transmission lines, repeaters, antennas; decommissioning or commissioning telephone radio service circuits for remote or base station systems. Removals and/or installations shall start and be completed on same day as scheduled. NOTE: Transmission lines mentioned in this CLIN are the radio network system transmission lines that connect the radio network system to the antenna. (See ****Radio Communications**)	28 operations	Removals and installations completed accurately and on time. Equipment performance shall meet or exceed original manufacturer's specification.
10.4.5	Preventive Maintenance (PM) Ensure radio equipment is functional.	Prepare PM schedule to ensure all network repeaters, base stations, remote control units, and simulcast broadcast system equipment are operational prior to start of hurricane season. Obtain Supply ***TMR** approval on PM schedule 30 days prior to scheduled start date of PM. Coordinate and notify the customer and the Facility Manager 2 weeks prior to the PM scheduled start date. Complete PM on the scheduled day. PM's must not interfere with Mission pre- and post-flight schedules.	20 networks - repeaters, base stations, remote control units, simulcast broadcast system and associated network equipment.	Preventive maintenance completed accurately and on time. Equipment performance shall meet or exceed original manufacturer's specification.
10.4.6	Personnel Requirements Provide licensed technicians.	Ensure technicians have a valid certificate of competency issued by the Federal Communications Commission (FCC) for the Land Mobile Radio (LMR) Industry or a valid certificate from the National Institute for Certificate of Engineering Technology (NICET).	Contractor determined	All technicians have proper certification.

ANNEX 11
PROPERTY AND EQUIPMENT
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11.0 PROPERTY AND EQUIPMENT

11.1 General Information

11.1.1 Annex Description

This Annex identifies property and equipment functions for acquisition, accountability, and redistribution and utilization of the property and equipment areas. The Contractor shall operate and maintain a total system database of documentation and disposal functions for the ***JSC**. It is to the Contractor's benefit to purchase pallets from a vendor who sells recycled pallets and who will remove the Contractor's unserviceable pallets.

11.1.2 Hours of Operation

For the purpose of this annex work hours are 7:30 a.m. to 4:00 p.m. ***daily**.

11.1.3 Location of Services

Property and equipment functions are performed primarily at ***JSC** with some activity at Contractor facilities within a 50-mile radius.

NOTE: One way pickup distances from JSC are as follows: SCTF is approximately 3 miles, Ellington Field is approximately 8 miles, and Clear Lake Studio is 1 mile. P & U pickups are done on a weekly basis, with the majority of pickups within the Clear Lake City area. Pickups total approximately 100 –200 miles per month.

11.1.4 Limitations, Restrictions, or Other Exceptions

The Contractor shall ensure that all services protect the integrity of the Government's interests.

11.1.5 Definitions

Clear Lake Studio

Clear Lake Studio is an off-site contractor – leased facility that houses ***JSC** Public Affairs Office exhibits, located at 18018 Point Lookout, Nassau Bay, TX 77058.

11.2 NEMS ACCOUNTABILITY

11.2.1 General Information

11.2.1.2 Annex Description

This Annex identifies the NASA Equipment Management System (NEMS) documentation processing operations for ***JSC**. NEMS is a mainframe application located at NASA Marshall Space Flight Center (MSFC) in Huntsville, Alabama. NEMS is a total equipment system database for the tracking and accountability of equipment functions including, but is not limited to location changes, acquisitions, adds/deletes, inventory, archival, and history. NEMS transactions are tracked from receipt to turn-in for disposal. Compliance with all applicable Government regulations is required. See ****NPG 4200.1, NASA Equipment Management Manual and ****NEMS User and Operations Guide.**

11.2.1.3 Inventories

The Contractor will be required to conduct an annual wall-to-wall and annual sensitive inventories on equipment. Bar code scanners will be provided by the Government to conduct the wall-to-wall inventories. NEMS listing only will be provided by the Government to conduct the sensitive inventory. Inventories are conducted in multiple ***JSC** locations in accordance with ****Cyclic Inventory Schedule** and ****20% Sensitive Inventory** schedules.

Note: For FY2001 - 2003 equipment inventories are spread out over a 3-year period. All equipment must be inventoried in this 3-year period.

11.2.1.4 Limitations, Restrictions, or Other Exceptions

The Contractor shall be held accountable for NASA Equipment Control Number (ECN) tags provided by the Government. Contractor employee's private vehicles shall not be used to transport Government property and equipment.

11.2.1.5 Definitions:

Property Custodian – a Government-assigned individual who coordinates equipment assigned to their areas.

Controlled Equipment - equipment with an acquisition cost of $1,000 or more, that has an estimated service life of 2 years or more, which will not be consumed or expended in an experiment, and selected items of equipment with an acquisition cost less than $1,000 that are designated, and identified as sensitive by the holding Center.

Sensitive Equipment - equipment that, due to its pilferable nature or the possibility of its being a hazard, requires a stringent degree of control. A sensitive item can be capital or noncapital equipment. Generally, sensitive items are controlled at an acquisition cost of $500 or more.

11.2.1.6 Authorizations

It is the Contractor's responsibility to request a letter of delegation from the JSC Supply and Equipment Management Officer (SEMO) authorizing specific personnel to receive Government property on behalf of the Government.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.2.2	NEMS Reports Process and distribute all NEMS reports.	a. Generate and distribute to Equipment Technical Management Representative (***TMR**) all requested NEMS reports. Process same day if request received before 2:00 P.M.; process next day if received after 2:00 p.m.	5,100 reports	Accurate and on time.
		b. Distribute NEMS generated quarterly and monthly reports next day. Upon receipt of Borrow-Out Return Candidate Report and Repair-Out Return Candidate Report from Property Custodian update NEMS next day.	65,000 reports	Accurate and on time.
		c. Generate and distribute NEMS User Lists annually. NOTE: Allow a minimum of 6 months before new report is issued to same user.	10,000 user lists	Accurate and on time.
11.2.2.1	NEMS Documentation NEMS database reflects equipment status.	Receive source document, complete ****JSC Form 122, NEMS Control Transmittal**, and update NEMS database with transactions including, but is not limited to: changes, adds, deletes, table updates, and inventory updates. Source documents received include, but are not limited to: ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document, ****DD Form 1149, Requisition and Invoice/Shipping Document**, and ****JSC Form 290 Shipping Document.** Verify that all NEMS entry reference numbers are accounted for and in numerical sequence. Make a copy of all source documents for capitalized equipment ($100,000 and above) and forward to the Financial Management ***TMR** daily. Complete entire process in 3 days.	37,000 transactions	Accurate and on time.
11.2.2.2	CD-Recordable Archive Archive NEMS documents on CD-Recordable media	a. Scan source document, assign index number using Equipment Control Number (ECN) and Entry Reference Number (ERN). NOTE: ERN is NEMS-generated number comprised of fiscal year, Julian date, and processing sequential number. Verify for legibility, print hardcopy of index and file with source document within 1 ***workday** of all previous days transactions. Download stored data to a CD-Recordable for permanent storage. NOTE: The scanner system and IT support is covered under CLIN 8.10.a and CLIN 8.10.b.	50,000 items	Accurate and on time.
		b. Scan NEMS-generated ****401, Financial Reconciliation Summary** and the ****581, Daily Transaction Register**. Forward hardcopy of reports to Equipment ***TMR** daily. Download stored data to a CD-Recordable for permanent storage.	See above	
		c. Receive end of year documents from Equipment ***TMR**, check table of contents log, verify contents, and obtain any missing documents. Scan log and all documents; dispose of documents. Process all documents scanned within 30 days. Download stored data to a CD-Recordable for permanent storage.	See above	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.2.2.3	Equipment Inventories Perform equipment inventories.	a. Conduct annual inventory by scanning and affixing fiscal year sticker, at property location, on all NASA tagged equipment in a designated property account. Download scanned information to a disk same day inventoried. Upon completion of entire inventory process, upload disk to NEMS within 1 ***workday**. Research, reconcile, and update NEMS on all adjustments. Maintain an inventory folder for every inventory. Prepare final results on completed inventory on ****Recapitulation of Cyclic Inventory, ****Final Recapitulation of Cyclic Inventory,** and ****Cyclic Inventory FY20XX** and submit to Equipment ***TMR.** NOTE: Missing items must be reported to the Equipment ***TMR** per ****NPG 4200.1, NASA Equipment Management Manual.**	18,000 items	Accurate and on time.
		b. Sensitive: Conduct annual sensitive inventories, without scanners through visual verification at property location, and affix a fiscal year sticker. Research, reconcile, and update all items on NEMS-generated discrepancy list. Maintain an inventory folder for every inventory. Prepare final results on completed inventory on ****Recapitulation of Sensitive Item Inventory, ****Summary of Sensitive Item Inventory, and ****Sensitive Item Inventory 20XX**. NOTE: A 100% sensitive item inventory must be performed if all items on the 20% are not located. Missing items must be reported to the Equipment ***TMR** per ****NPG 4200.1, NASA Equipment Management Manual**. Sensitive items are barcoded.	5,000 items	Accurate and on time.
11.2.2.4	Tagging/Detagging of Equipment Ensure tagging and detagging of equipment is performed.	a. Tag – Receive source document, locate and tag in-place equipment that meet the criteria for tagging per ****NPG 4200.1, NASA Equipment Management Manual.** Source documents include, but are not limited to: ****DD Form 1149, Requisition and Invoice/Shipping Document, ****DD250, Material Inspection and Receiving Report,** and **JSC Form 966, Bank Card Purchases Record.** Acquire appropriate Property Custodian signature on the source document after tagging and forward to Equipment ***TMR** for approval. Obtain Debit Voucher (D-Voucher), complete ****JSC Form 122, NEMS Control Transmittal,** and input to NEMS database. Distribute completed copies of source documentation. Process completed within 3 days of receipt.	500 items	Accurate and on time
		b. Detag – Locate and detag equipment per Equipment ***TMR** provided listing. Remove the NASA tag and replace with a ****NASA Form 1517, Property US Government Decal.** Affix the NASA tag to the provided list. Prepare ****DD Form 1149, Requisition and Invoice/Shipping Document,** acquire Equipment ***TMR** signature, obtain a Credit Voucher (C-Voucher), complete ****JSC Form 122, NEMS Control Transmittal,** and input to the NEMS database within 3 days.	1000 items	Accurate and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Found on Station – Receive and process ****NASA Form 1618, Found on Station,** from organizations for any equipment found not tagged on the Center which meets the criteria for tagging. Complete recommendation actions Part II. Submit to Equipment ***TMR** for signature approval, obtain D-Voucher, complete ****JSC Form 122, NEMS Control Transmittal**, and input into NEMS database. Distribute completed copies of source documentation. Process shall be completed within 3 days of receipt.	15 items	Accurate and on time.
		d. Cannibalization/Modification - Receive and prepare ****NASA Form 1617, Cannibalization/Modification,** complete recommendation action, forward to Equipment ***TMR** for approval, obtain C-voucher, and input to the NEMS database. Distribute completed copies of source documentation. Process shall be completed within 3 days of receipt.	50 items	Accurate and on time.
11.3	**Customer Service**			
11.3.1	Customer Service Desk Staff and operate a Customer Service Desk.	Staff and operate a Customer Service Desk for the processing of ****JSC Form 290, Shipping Document,** and ****JSC Form 537, Employee Clearance.** a. Process ****JSC Form 290, Shipping Document.** Processing includes but is not limited to: verification of authorized signatures, acquisition documents, and tagged equipment verification. Obtain Equipment ***TMR** signature and assign C-Voucher number within 1 hour of receipt. b. Maintain and track a C-Voucher log of ****JSC Form 290, Shipping Document** on a ****JSC Form 345, Equipment Transfer/Shipment Control Register** and record data in the columns daily. NOTE: C-Voucher numbers shall not be assigned over the phone with the following exceptions: Safety, Reliability, and Quality Assurance (SR&QA) and onsite Bond Room Storekeepers. c. Create a daily file folder consisting of a suspense copy of the ****JSC Form 290, Shipping Document,** and the log sheet record of that ***workday**. d. After receipt of completed original ****JSC Form 290, Shipping Document** from Equipment ***TMR**, annotate date shipped, GBL number, date original filed, on existing ****JSC Form 345, Equipment Transfer/Shipment Control Register**. Original ****JSC Form 290, Shipping Document** will be forwarded to Equipment ***TMR** for filing daily.	2,670 Forms	Accurate and on time.
		e. Process ****JSC Form 537, Employee Clearance**. Maintain clearance binder with clearance copies and a monthly log of all cleared personnel and forward to Equipment ***TMR** on the last ***workday** of each month. Research NEMS database to determine if employee has equipment in their name and accomplish the following actions:	106 Clearances.	Accurate and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		1. If NEMS indicates no equipment is in the employee's name: sign the clearance form, make a copy of the document and file it in the clearance binder. Delete employee from the NEMS database User Number Table.	See above	
		2. If NEMS indicates the employee still has equipment in their name: instruct the employee to return to their Property Custodian for properly authorized ****JSC Form 1602, NASA Equipment Management System Transaction Document** and Property Custodian signature. Sign the ****JSC Form 537, Employee Clearance** to clear the employee, file a copy in the clearance binder and forward a copy to the Equipment ***TMR** with the ****JSC Form 1602, NASA Equipment Management System Transaction Document Form,** same day. Update NEMS per CLIN 11.2.2.1.		

11.4 REDISTRIBUTION AND UTILIZATION OPERATIONS

11.4.1 General Information

11.4.1.1 Annex Description

This Annex identifies the functions necessary to operate and maintain a total mechanized inventory control system, as well as a total storage function for all excess Government property from time of initial receipt of incoming documentation through accomplishment of final disposal activities. The NASA Property Disposal Management System (NPDMS), an Agency-wide automated disposal management system, shall be used for all functions. All functions shall be performed in compliance with all Government regulations, policies, and procedures including, but not limited to: 41 Code of Federal Regulations (CFR) Parts 101 and 102; ****NPG 4200.1, NASA Equipment Management Manual; **NPG 4300.1, NASA Personal Property Disposal Procedures and Guidelines; **NPG 4310.1, Identification and Disposition of NASA Artifacts; **JHB 4300.2, Johnson Space Center (JSC) Personal Property Excess and Disposal User's Handbook**; and ****NASA Property Disposal Management System Users and Operations Guide.** See ****Historical Workload Data for Redistribution and Utilization.**

11.4.1.2 Limitations, Restrictions, or Other Exceptions

The Contractor shall ensure that all services protect the integrity of the Government's interests. Contractor employee's private vehicles shall not be used to transport Government property and equipment. It is to the Contractor's benefit to purchase pallets from a vendor who sells recycled pallets and who will remove the Contractor's unserviceable pallets. The handling of all precious metals shall be restricted according to the following:

a. The Redistribution and Utilization (R&U) Contractor supervisor shall accompany Contractor personnel during pick up of all precious metals;

b. All required information from the turn-in document (Source Document) shall be recorded in the precious metals logbook;

c. All precious metals shall be secured in the Government designated location;

d. A monthly inventory of all precious metals or precious metal-bearing materials shall be conducted, in the presence of the Property Disposal ***TMR**, verifying the physical count with the appropriate logbook.

11.4.1.3 Definitions

Precious Metals – Including, but not limited to metals in the platinum, gold, silver, and rhodium families.

Source Document - Documentation for turn-in of excess Government property including, but not limited to: ****NASA Form 1602, NASA Equipment Management System (NEMS) Transaction Document, **JSC Form 25A, Request for Turn-in or Issue of Excess Property To/From JSC R&U, **Department of Defense (DD) 1149, Requisition and Invoice/Shipping Document.**

Hazardous Material – For the purposes of this annex, hazardous material consist of items as defined in the clause JSC 52.223-92 (see Section G.3.b) and are listed below:

(1) Those materials defined as "highly hazardous chemicals" in Occupational Safety and Health Administration Process Safety Management Regulation, 29 Code of Federal Regulation 1010.119, without regard for quantity.

(2) Those "extremely hazardous substances" subject to the emergency planning requirements in the Environmental Protection Agency Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 355, Part 355, without regard for quantity.

(3) Those "hazardous substances" subject to the release notification requirements under Environmental Protection Agency's Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 302.4, without regard for quantity.

(4) Any radioisotope material or device that produces ionizing radiation.

(5) Any Class II, III, or IV laser as defined by the American National Standards Institute No. Z136.1 (1986).

(6) Any explosive or any pyrotechnics.

(7) Any pesticide

NPDMS – The NASA Property Disposal Management System is an agency wide comprehensive automated disposal management system which supports operational requirements for the utilization, transfer, donation, sale, abandonment or destruction of excess foreign and domestic NASA personal property which is no longer required by the using center or contractor.

Freeze List – Listing of excess property placed on hold by screeners.

Line Item – For this annex, the individual item(s) of government property/equipment identified on the various source documents.

11.4.1.4 Location of Services

All facilities within the perimeter of the NASA Johnson Space Center, Sonny Carter Training Facility, Ellington Field, and any other facility within a 50 mile radius of ***JSC** as required by the Government.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.4.2	Reutilization and Disposal	Ensure all actions required from original receipt of Source Documents through final disposition activity for the reutilization and disposal of excess Government property are accomplished completely, accurately, and on time.	See below.	See below.
11.4.2.a	Reutilization and Disposal Operations Perform all actions required from original receipt of Source Document through final disposition activity.	Time/date stamp all incoming documentation immediately upon receipt. Assign control number comprised of fiscal year, Julian date, and processing sequential number to all Source Documents immediately upon receipt. Such documentation includes, but is not limited to: Source Documents, freeze lists, requests for issuance of property, tile request letters, letters requesting screening authorization. All documentation must be maintained as official Government records with no instance of missing documents. All documentation shall be available to the Property Disposal Technical Management Representative (***TMR**) at all times. NOTE: Processed is defined as all actions required from original input to reutilization or final disposal. NOTE: Approximately 80 – 100 requests per year are received for the reissuance of excess property onsite. Approximately 1,200 – 1,300 line items of excess property are disposed of as scrap per year; multiple line items are usually place in a scrap metal container at one time. GSA sales are conducted on a monthly basis (12 sales per year).	20,500 ***line items** processed in NPDMS	All requirements completed accurately, on time, with all documents available to the Property Disposal ***TMR**.
		All returns of Source Documents to the customer/initiator prior to pickup will be for approval signature discrepancies only, and will be forwarded to the Property Disposal ***TMR** for approval of return within 1 ***workday** of initial receipt of Source Documents. Copies of all original Source Documents returned to the customer/initiator and documentation showing date of return shall be kept for a minimum of 1 year and shall be available to the Property Disposal ***TMR** at all times. All other discrepancies on Source Documents including, but not limited to complete commercial description, quantity, federal supply class, condition code, and original acquisition cost shall be resolved in-house by R&U Contractor personnel.	See above.	All requirements completed accurately and on time.
		Pickup excess Government property from all ***JSC** locations and any other Government designated facility within a 50 mile radius of ***JSC** within 5 ***workdays** of initial receipt of Source Document. Coordinate date and time of pickup with customer/initiator to ensure pickup of excess Government property within 5 ***workdays** of initial receipt of Source Document	See above.	All requirements completed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All returns of Source Documents to the customer/initiator due to unavailability of property for pickup shall be forwarded to the Property Disposal ***TMR** for approval of return within 5 ***workdays** of initial receipt of Source Document. Documentation showing all efforts by the Contractor to successfully coordinate the pickup of property with the customer/initiator shall be provided with the original Source Document to the Property Disposal ***TMR.**		
		NOTE: Requests for pickup of excess office supplies are received from the customer by phone. Excess office supplies are consolidated into tri-wall boxes, vouchered into NPDMS as one line item, and reported to the General Services Administration (GSA) for sale.		
		Enter all information, including warehouse storage location, for each line item of excess Government property vouchered into the NPDMS within 10 ***workdays** of initial receipt of Source Document. Obtain written/Email approval from the Property Disposal ***TMR** in advance of all reversals of NASA tagged property from NPDMS to NEMS.	See above.	All requirements completed accurately and on time.
		Upon physical receipt, all hazardous material shall be placed in the designated storage area (Building 380 or as determined by the Property Disposal ***TMR**) on the same ***workday**.	See above.	Hazardous material stored in the designated storage area upon physical receipt.
		Upon physical receipt, all artifacts/historically significant items will be placed in the designated secure area (Building 422 Vault or as designated by the Property Disposal ***TMR**) on the same ***workday**. Enter an artifact freeze into NPDMS on all artifacts/historically significant items on the same ***workday** as items are vouchered into NPDMS. All artifacts/historically significant items shall be screened in compliance with all NASA regulations, policies, procedures and requirements including, but not limited to ****NPG 4310.1, Identification and Disposition of NASA Artifacts**. E-mail notification including, but not limited to digital pictures, complete descriptions detailing all historical information, screening dates, and previous requests shall be sent to designated Government personnel at all NASA installations and the Smithsonian Institution, National Air and Space Museum.	See above.	All requirements completed accurately, on time; with artifacts/ historically significant items stored in the designated secure area upon physical receipt.
		Provide for NASA Agency internal screening, redistribution, and marketing of NASA owned excess, surplus, and exchange/sale personal property. This includes contractor-held and grantee held property. Assist and advise in freezing assets for further NASA needs. Interface and access DLA Plant Clearance Automated Reutilization Screening System (PCARSS) to view, print, distribute and freeze assets. Interface with JSC Functional Managers and possible users for reutilization.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Coordinate clearance of screeners, other than current ***JSC** personnel, with the NASA JSC Security Visitor Control. Ensure all personnel visiting the NASA JSC R&U facilities provide all required information on sign-in log and Emergency Response and Safety Briefing, and obtain R&U badge upon arrival at Building 422.	See above.	Requirements completed accurately and on time.
		Forward all original documentation requiring NASA signature of receipt (ex: ****Department of Defense (DD) 1149, Requisition and Invoice/Shipping Document**) to the Property Disposal ***TMR** within 5 ***workdays** of initial receipt of Source Document. All documentation shall include NPDMS voucher numbers, warehouse storage locations, and correct original acquisition costs.	See above.	Requirements completed accurately and on time.
		Enter all information on all line items requested on freeze lists into the NPDMS within 2 ***workdays** of initial receipt of each freeze list. Forward one copy of each freeze list to the Property Disposal ***TMR** on same ***workday** as received.	See above.	Requirements completed accurately and on time.
		Process all requests for reutilization and authorizations for disposal including, but not limited to: ****Standard Form (SF) 122, Transfer Order Excess Personal Property, ****JSC Form 25A, Request for Turn-In or Issue of Excess Property To/From JSC R&U, ****JSC Form 997, Request for Excess Personal Property, ****Department of Defense (DD) 1149, Requisition and Invoice/Shipping Document, ****NASA Form 811, Determination for Classification of Property as Scrap or Salvage, ****NASA Form 812, Determination and Authorization to Abandon or Destroy Surplus Property**, and forward to the Property Disposal ***TMR** within 5 ***workdays** of availability of property for issue according to screening timeframes if request for reutilization; within 5 ***workdays** of initial receipt of documentation if authorization for disposal. Ensure authorization signature in Block 9 of ****Standard Form (SF) 122, Transfer Order Excess Personal Property** is no more than 90 days old; if signature is more than 90 days old, contact initiator and obtain current properly authorized ****Standard Form (SF) 122, Transfer Order Excess Personal Property**.	See above.	Requirements completed accurately and on time.
		Determine if any excess property to be issued at ***JSC** meets NEMS tagging criteria as defined in ****NPG 4200.1, NASA Equipment Management Manual**. If NEMS tagging criteria are met, coordinate the NEMS tagging of all applicable property, including adding the NEMS tag number to the issuing documentation, prior to delivery.	See above.	Requirements completed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Deliver excess property to all ***JSC** locations per approved ****JSC Form 25A, Request for Turn-In or Issue of Excess Property To/From JSC R&U** and ****Department of Defense (DD) 1149, Requisition and Invoice/Shipping Document** requests within 3 ***workdays** of initial receipt of documentation; forward one complete copy of issue documentation to the Property Disposal ***TMR** within 2 ***workdays** of issuance of property.	See above.	Requirements completed accurately and on time.
		Complete all final NPDMS disposition transactions for all issues of excess Government property within 5 ***workdays** of physical issue (pickup/delivery/shipment) of property to the requester.	See above.	Requirements completed accurately and on time.
		Prepare a ****NASA Form 811, Determination for Classification of Property as Scrap or Salvage** or ****NASA Form 812, Determination and Authorization to Abandon or Destroy Surplus Property** for all property received in other than scrap condition which is downgraded to scrap condition by the Property Disposal ***TMR**. Forward all ****NASA Form 811, Determination for Classification of Property as Scrap or Salvage** and ****NASA Form 812, Determination and Authorization to Abandon or Destroy Surplus Property** documents, both customer and R&U initiated, to the Property Disposal ***TMR** for approval within 5 ***workdays** of initial receipt of Source Document listing applicable property.	See above.	Requirements completed accurately and on time.
		Place all property approved by the Property Disposal ***TMR** for scrap/abandonment/destruction in the appropriate scrap metal/sanitary landfill bin or crusher and complete all final NPDMS transactions for scrap/abandonment/destruction within 5 ***workdays** of date of Property Disposal ***TMR** approval of ****NASA Form 811, Determination for Classification of Property as Scrap or Salvage** or ****NASA Form 812, Determination and Authorization to Abandon or Destroy Surplus Property**.		
		NOTE: If any property is disapproved for scrap/ abandonment/ destruction, proceed according to direction from the Property Disposal ***TMR** (ex: report to GSA for sale) on the same ***workday** of receipt of disapproval.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Perform all activities necessary to complete all types of sales including, but not limited to GSA sales, exchange sales, and online (Internet) sales. Such activities include, but are not limited to: respond to all GSA inquiries (ex: availability listings, faxes, phone calls, E-mails) within 1 ***workday**; ensure electronic reporting of property to GSA is accurate and complete each ***workday**; enter a sale freeze into NPDMS and report availability of items for sale to GSA within 1 ***workday** of initial GSA notification; provide digital pictures of all line items to GSA within two ***workdays** of initial GSA notification, enter all sales related information into NPDMS including, but not limited to date of sale, sale number, lot number, freezes; complete all final NPDMS disposition transactions within 5 ***workdays** of physical pickup of property by the buyer/buyer's representative. Provide all information required by the NASA Agency-wide Logistics Information Management System to complete the "Cost of Sales" data including, but not limited to: Clerical, Contract Administration, Advertisement, Warehousing, Security, Supervision, to the Property Disposal ***TMR** on the first ***workday** of each month for the previous month's activity. NOTE: Types and dates of sales will be determined by the Property Disposal ***TMR**.	See above.	Requirements completed accurately and on time.
		Perform all activities necessary to complete GSA contracts (currently scrap metal and aluminum) including, but not limited to: accompany trucks to JSC truck weighing scale during pickup and delivery of scrap metal/aluminum containers, coordinate placement of additional bins throughout ***JSC** as required, forward truck weight tickets to the Property Disposal ***TMR** on the first ***workday** of each month for all pickups of property applicable to all GSA contract sales for the previous month.	See above.	Requirements completed accurately and on time.
11.4.2.b	Pick Up of Scrap Metals Pickup scrap metals throughout ***JSC** as required	Pick up scrap metals throughout ***JSC**; deliver to the R&U facility at Building 422; return containers to assigned locations throughout ***JSC**. Receive requests for pickups by phone from the customer. Pickups shall be made at Buildings 7, 9N, 10, 24, 30, 30M, 30S, 32, 33, 241, 329, 353, 356, and other locations as required by the Government. The scrap metals may be contained in, but not be limited to: metal trash cans, wooden boxes, bins of all kinds. Due to changing program requirements, the pickup of scrap metals from additional locations may be required. All pickups of scrap metal shall be completed within 2 ***workdays** of customer's initial request. NOTE: The typical bin size is 2 –3 cubic yards. There is no maximum size of pickups as multiple bins may be picked up at the same time from one or multiple locations. The customer shall sort the scrap metal and separate the aluminum from the other scrap metal.	250 pickups.	Pickups performed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.4.3	Stevenson-Wydler Program and Computers for Learning Program Perform all actions required to operate the Stevenson-Wydler Program and the Computers for Learning Program.	The Stevenson-Wydler Program (NOTE: ****Executive Order 12999, Education Technology: Ensuring Opportunity for all Children in the Next Century**) and the Computers for Learning Program allow the donation of excess research and technological items (including computer equipment) to educational institutions throughout the nation. NOTE: Specific equipment, including computers, is available to qualified educational institutions under the Stevenson-Wydler Program; only computer equipment is available under the Computers for Learning Program. 95% of requests received involve the transfer of computer equipment.	50 to 75 requests from educational institutions (school districts/ colleges/univers ities).	See below.
		Process letters requesting participation in the Stevenson-Wydler Program and the Computers for Learning Program by performing actions including, but not limited to: (1) time/date stamp all incoming documentation immediately upon receipt, (2) assign sequential log numbers to first request letters and enter into electronic log, (3) assign first request letter log number to subsequent letters from same educational institution and update electronic log, (4) forward all letters to the Property Disposal ***TMR** within 1 ***workday** of receipt. Each electronic log entry shall include, but not be limited to: date of receipt of letter, log number, name and address of school/district /college /university, name of authorizing official. Subsequent letters from any educational institution shall be assigned the same log number as the first request letter from the same educational institution. The electronic log shall be current within 1 ***workday** and shall be available to the Property Disposal ***TMR** at all times. Upon approval/disapproval, the Property Disposal ***TMR** will return the request letter to the Contractor for filing.	See above.	Requirements completed accurately and on time.
		Maintain complete file of all letters requesting participation in the Stevenson-Wydler Program and the Computers for Learning Program received in the NASA JSC R&U Section. Request updated letters from currently participating (within the previous 6 months) educational institutions, when needed, to ensure that letters are no older than 1 year. After completing electronic log update, forward all updated letters to the Property Disposal ***TMR** within 1 ***workday** of receipt.	See above.	Requirements completed accurately and on time.
		Authorize clearance for all Stevenson-Wydler/Computers for Learning visitors with the NASA JSC Security Visitor Control only upon verification of written authorization on file in the NASA JSC R&U Section. Ensure all Stevenson-Wydler/Computers for Learning visitors provide all required information on sign-in log and Emergency Response and Safety Briefing, and obtain R&U badge upon arrival at Building 422.	See above.	Requirements completed accurately on time, with all clearances having current written authorization on file.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Verify all educational institutions submitting freeze lists for computer and related equipment are registered in the Computers for Learning electronic database. Forward one copy of each freeze list to the Property Disposal ***TMR** on the same ***workday** as received. Forward the original pull copy for issuance of property to any educational institution to the Property Disposal ***TMR** for approval prior to physically preparing the property for issue.	See above.	Requirements completed accurately and on time.
		Enter all required data into the Computers for Learning electronic database within 2 ***workdays** of physical pickup/shipment of property.	See above.	Requirements completed accurately and on time.
11.4.4	Shuttle Orbiter Tile Program Perform all actions required to operate the Shuttle Orbiter Tile Program.	NASA/JSC provides thermal tile (non-flown) in nominal amounts to non-profit educational organizations (schools) under the authority of the Stevenson-Wydler Technology Innovative Act. Request letters for issuance of tile are received from schools and should be processed as follows: Process request letters including, but not limited to: the assignment of sequential log numbers and electronic log entry, and forward to the Property Disposal ***TMR** within **1 *workday** of receipt. The electronic log entry shall include, but not be limited to: date of receipt; log number, name and address of requesting organization. The electronic log shall be current within 1 ***workday** and shall be available to the Property Disposal ***TMR** at all times.	350 – 400 tiles shipped	See below.
		NOTE: Approximately 125 letters received requiring 350 – 400 tiles shipped per year.		
		NOTE: Response letter will be prepared by the Property Disposal ***TMR** and one copy forwarded to the Contractor for filing with the original request letter.		
		Prepare appropriate documentation for pulling of tile and forward to the Property Disposal ***TMR** within 1 ***workday** of original receipt of signed Use Acknowledgment form.	See above.	Requirements performed accurately and on time.
		Prepare tile for shipment including, but not limited to: (1) select the tile and record the serial number of each tile on the original Use Acknowledgment form, (2) enter complete information, including the serial number, into NPDMS for each tile and record the NPDMS voucher number on the original Use Acknowledgment form, (3) prepare a ****JSC Form 290, Shipping Document** and forward to the Property Disposal ***TMR** for approval within 1 ***workday** of receipt of Property Disposal ***TMR** approved Use Acknowledgment form.	See above.	Requirements completed accurately and on time.
		Forward Government approved ****JSC Form 290, Shipping Document** to the Property Disposal ***TMR** within 1 ***workday**.	See above.	Completed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.4.5	Physical Inventory	Perform a physical inventory of the NASA JSC R&U warehouse and all related facilities including the Laydown Yard and the Scrap Yard on a triennial basis. The first inventory shall be completed during Fiscal Year 2002. Next inventory shall be conducted during Fiscal Year 2005. NOTE: Approximately 8,000 line items with an original acquisition cost of approximately $65,000,000 on hand as of 11/30/2000.	See below.	See below.
11.4.5.a	Perform Physical Inventory Perform a physical inventory of the NASA JSC R&U warehouse and all related facilities including the Laydown Yard and the Scrap Yard on a triennial basis.	The actual physical count of all property shall be completed within 5 ***workdays**. All services required in this annex shall incur no interruptions or limitations during the complete inventory process.	One inventory (Year 1) One inventory (Year 4)	Physical count completed accurately, on time with no interruptions or limitations of any contract required services in this annex.
		Enter all data into the NPDMS Inventory Module within 20 ***workdays** of completion of physical count of property. Reconcile all data in the NPDMS Production Database to agree with the NPDMS Inventory Module within 20 ***workdays** of completion of physical count of property.	See above.	Requirements performed accurately, on time with no interruptions or limitations of any contract required services in this annex.
11.4.5.b	Final Inventory Report Prepare and submit a final inventory report.	Prepare a final inventory report and forward to the Property Disposal ***TMR** within 20 ***workdays** of completion of physical count of property. The final inventory report shall include, but not be limited to: (a) NPDMS voucher number, item name, quantity, NEMS tag number, warehouse location, and original acquisition cost of all line items on hand at start of inventory; (b) NPDMS voucher number, item name, quantity, NEMS tag number, warehouse location, and original acquisition cost of all line items located; (c) NPDMS voucher number, item name, quantity, NEMS tag number, NPDMS designated warehouse location, and original acquisition cost of all line items not located; (d) item name, complete commercial description, quantity, NEMS tag number, and warehouse location of all items located but not vouchered in NPDMS at beginning of physical count of inventory.	One report (Year 1) One report (Year 4)	Accurate report submitted on time.
11.4.5.c	Inventory Adjustment Record for Shortages Prepare and submit one ****NASA Form 1256, Inventory Adjustment Record** for shortages.	Prepare one ****NASA Form 1256, Inventory Adjustment Record** which includes, but is not limited to: NPDMS voucher number, item name, quantity, NEMS tag number, NPDMS designated warehouse location, and original acquisition cost of each line item of property not located; and submit to the Property Disposal ***TMR** within 20 ***workdays** of completion of physical count of property.	One record (Year 1) One record (Year 4)	Requirements completed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
11.4.5.d	Inventory Adjustment Record for Overages Prepare and submit one ****NASA Form 1256, Inventory Adjustment Record** for overages.	Prepare one ****NASA Form 1256, Inventory Adjustment Record** which includes, but is not limited to: item name, complete commercial description, quantity, NEMS tag number, estimated original acquisition cost and warehouse location of each item located but not vouchered in NPDMS at beginning of physical count of property; and submit to the Property Disposal ***TMR** within 20 ***workdays** of completion of physical count of property.	One record (Year 1) One record (Year 4)	Requirements completed accurately and on time.
11.4.6	Records, Reports, and Submittals	Prepare and submit the reports listed below at the required times. Keep one copy and all documentation used in preparation of each report on file in the NASA JSC R&U Section.	See below.	See below.
11.4.6.a	Contractor Monthly Production Report	Develop and produce a monthly production report which includes, but is not limited to: number of Source Documents received, number of line items per Source Document, type (form number) of each Source Document, NEMS tag number of each line item if the item is a NEMS tagged item, location (building) of excess property prior to pickup, JSC organization or contractor which submitted each Source Document, date of original receipt of each Source Document. Submit the original report to the Property Disposal ***TMR** by close of business (COB) on the 3rd ***workday** of each month for the previous month's activity.	12 reports.	Accurate reports submitted on time.
11.4.6.b	****Property Held by the Property Disposal Officer Report**	Prepare and submit original report to the Property Disposal ***TMR** by COB on the 3rd ***workday** of each month for the previous month's activity.	12 reports.	Accurate reports submitted on time.
11.4.6.c	****Annual Report of Exchange/Sale Transactions**	Prepare and submit original report to the Property Disposal ***TMR** by COB October 7 of every year.	One report.	Accurate report submitted on time.
11.4.6.d	****Annual Report of Utilization and Disposal of Excess and Surplus Personal Property**	Prepare and submit original report to the Property Disposal ***TMR** by COB October 7 of every year.	One report.	Accurate report submitted on time.
11.4.6.e	****SF 291, Report of Activities Generating Precious Metals**	Prepare and submit original ****SF 291, Report of Activities Generating Precious Metals** to the Property Disposal ***TMR** by COB October 7 of every year.	One report.	Accurate report submitted on time.
11.4.6.f	****Annual Report of Personal Property Provided Non-Federal Organizations**	Prepare and submit original report to the Property Disposal ***TMR** by COB October 7 of every year.	One report.	Accurate report submitted on time.
11.4.6.g	****Performance Measures Report**	Prepare and submit original report to the Property Disposal ***TMR** by COB October 7 and April 7 of every year.	Two reports.	Accurate reports submitted on time.
11.4.6.h	****Semiannual Report of Personal Property Management Operations**	Provide the specified data elements for semiannual time periods (October-March; April-September) and submit to the Property Disposal ***TMR** by COB October 7 and April 7 of every year.	Two reports.	Requirements completed accurately and on time.

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TRANSPORTATION
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12 TRANSPORTATION

12.1 General Information

12.1.1 Annex Description

This annex describes the responsibilities for Moving and Hauling, Packing and Shipping, Rigging and Heavy Hauling, Driver Services, and Receive/Deliver Inbound Freight. It is the Contractor's benefit to purchase pallets from a vendor who sells recycled pallets and who will remove the Contractor's unserviceable pallets.

12.1.2 Background

All equipment and vehicles necessary to accomplish the work required will be the responsibility of the Contractor. Contractor employee's private vehicles will not be used to transport Government property and supplies.

12.1.3 Location of Services

Transportation services are primarily performed at ***JSC**, with minimal activity at other specified locations within a 50 mile radius.

12.1.4 Hours of Operation

Hours of operation for this annex are from 7:30 a.m. to 4:00 p.m. Monday through Friday, except as otherwise specified.

12.1.5 **Moving and Hauling Services**

These Contract requirements identify moving and hauling, nitrogen delivery and quick dispatch services. Moving and hauling services include, but are not limited to: loading, unloading, transportation and arrangement of items. See ****Historical Workload Data for General Transportation Work Requests.**

12.1.5.1 Hours of Operation

There will be times when moving and hauling services are requested outside hours of operation.

12.1.5.2 Location of Services

Moving and hauling work performed outside of ***JSC** is covered under 12.3.4 Nitrogen delivery services are performed at, but not limited to, Buildings 7, 9, 13, 15, 31, 36, 260, 350, 352, 343, 354 and 356. Building 222 lab requires high-pressure gaseous nitrogen.

12.1.5.3 Limitations, Restrictions, or Other Exceptions

All moving and hauling service requests are referred by the Transportation ***TMR**.

12.1.6 **Packing and Shipping Service**

These Contract requirements identify the duties and responsibilities for providing a complete Packing and Shipping Service.

NOTE: Actual shipping cost is not at the Contractor's expense. The Government is responsible for selecting the mode of shipment, selecting the carrier, and preparing the appropriate bill of lading. Close coordination shall be maintained between the Government and the Contractor to ensure the most economical mode of transportation can be utilized and still meet the "Date Required Destination" on the shipping document.

For this annex only, a "Shipping Document" is defined as ****JSC Form 290, Shipping Document, ****JSC Form 195, Request For Shipment Of Printed Matter,**** or an appropriate shipping document recognized by the Government. Additionally, "Ship" is defined as scheduling the pickup with the carrier identified and loading the transport vehicle. ***** A 6-month historical listing of shipments** is available for review in the TRL.

12.1.6.1 Hours of Operations

a.) In addition to the stated (CLIN 12.1.4) packing and shipping hours of operation, skeleton service will be provided until 5:00 p.m. to service late shipments and carriers.

NOTE: Skeleton service means, one Contractor individual in the Packing and Shipping Department shall work Monday through Friday 8:30 a.m. to 5:00 p.m.

b.) On occasion, the Contractor will be required to provide overtime packing and shipping support.

NOTE: The average monthly overtime requirement is 18 hours.

12.1.6.2 Location of Services

The Contractor is responsible for packing, preparing and shipping all Government equipment, materials, items, and other forms of Government property from the ***JSC** and other specified locations within a 50-mile radius. The Contractor shall make shipments to domestic and international destinations as required by the Government.

12.1.7 **Rigging and Heavy Hauling Service**

These Contract requirements identify the responsibilities for rigging and heavy hauling services.

Constant radio communication amongst the Contractor staff must be maintained during rigging and heavy hauling jobs.

For each shuttle mission, a Mission Fact Sheet will be provided to the Contractor that lists the critical buildings and areas as well as other information. The time frame for submission of request to enter listed buildings is from launch, minus 7 days to landing plus 4 hours.

Definitions associated only with this annex are:

Work Order: Any and all work requested by the customer that is required to complete a task at the designated location(s).

Priority 1 Work Order: Rigging support required to prevent bodily harm to an individual or to prevent further damage to NASA/JSC or Contractor equipment, test facility or building with the response time to be 15 minutes or less.

Priority 2 Work Order: Rigging support to be performed that is requested by the customer for a task that must be accomplished in less than 2 ***workdays**.

General Work Order: Rigging support to be performed when no specific time is requested by the customer where the contractor has up to 2 full ***workdays** from notification.

The Contractor's responsibilities will range from routine to highly critical in nature. See ****3 Year Historical Listing of Rigging and Heavy Hauling Work Performed** for JSC.

12.1.7.1 Hours of Operation

Personnel and equipment for rigging and heavy hauling jobs outside hours of operation, weekend, and holiday operations may be required to meet NASA's mission objectives.

12.1.8 **Driver Services and Vehicle Operations**

These Contractors requirements identify the responsibilities for driver services and vehicle operations. Upon Government request that additional driver services shall be provided to support shuttle launches and landings, astronaut candidates, official visitors, and other passenger transportation requirements.

12.1.8.1 Hours of Operation

Hours of operation for driver services and vehicle operations are from 7:30 a.m. to 4:00 p.m. Monday through Friday.

There will be times when the Contractor shall provide driver services outside hours of operation as requested by the Government.

12.1.9 **Receive/Deliver Inbound Freight**

These Contractors requirements identify the functions necessary to receive, inspect, and deliver inbound freight. Contractor personnel knowledgeable in the receipt, inspection, and delivery of Government freight shall be provided for this function. See Chart 12.6-1, Receive/Deliver Inbound Freight Process.

The bondroom, the receiving area, and the supply and critical spare warehouse are currently located in building 421. There are other bondrooms located at JSC.

12.1.9.1 Hours of Operation

There will be times when inbound freight service is requested for outside hours of operation.

12.1.9.2 Definitions:

Priority - For the purpose of this annex, "priority" is defined as inbound shipments for which premium transportation was requested and provided, such as exclusive use, priority, overnight, or next day. United Parcel Service (UPS) Red service is included in this category, plus any shipment determined by the Transportation ***TMR** as being priority. Shipments clearly marked as bids, payroll, Experiment Ground Support Equipment (EGSE), or travel must also be delivered as priority (unless work stoppage is requested).

Priority Items - For the purpose of this annex, "priority items" are defined as inbound shipments for which premium transportation was requested and provided. They are to be entered into the inbound freight database with a "P" code, and delivered in accordance with performance requirements indicated in 12.6.1.c.

Shipment - For the purpose of this annex, "shipment," is defined as any item delivered or consigned to NASA Johnson Space Center by any mode of transportation. This includes, but is not limited to freight carriers, contractors, and vendors. A shipment may consist of one package, multiple packages, or multiple loose pieces.

See ****Quarterly Shipment History**.

Work Stoppage - For the purpose of this annex, "work stoppage" is defined as an inbound shipment for which the customer has indicated either verbally or in writing that it is critical that the shipment must be received and delivered to the customer within a shorter timeframe than normally required (see 12.6.1c Delivery of Inbound Freight).

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.2	**MOVING AND HAULING SERVICES**			
12.2.1	General Transportation Services Provide for the transportation of items.	Provide all personnel and equipment for the transportation of items on date(s) requested. If no date requested, complete within 5 days with minimal impact to personnel. Examples of items to be moved include, but are not limited to: furniture, boxes, equipment, machinery, metal, lumber, packages, parking stands, etc. Move any items necessary to complete work. Ensure items being moved and surrounding areas are protected against damage.	4,000 work requests.	Requests completed accurately, on time with no damage or customer complaints.
12.2.2	Personnel Moves Provide for the movement of personnel.	Receive ****JSC Form 174, Request for Move,** from Transportation TMR and complete on date(s) scheduled with minimal impact to personnel. Move all items as listed on the ****JSC Form 174, Request for Move** including, but not limited to, furniture, boxes, equipment, etc. Ensure items being moved and surrounding areas are protected from damage. Provide a customer-signed and dated copy of move paperwork to Transportation ***TMR** within 5 days of completion of move.		Personnel moves completed accurately, on time with no damage or customer complaints.
		a. During hours of operation moves	1,300 people	
		b. Outside hours of operation moves	100 people	
12.2.3	Quick Dispatch Provide rapid transportation of items.	Provide a radio-equipped on-call quick dispatch service for rapid pick up and delivery of non-bulk items including, but not limited to: boxes, documentation, envelopes, equipment, etc. Pick up items from customer location and deliver to identified destination within 2 hours of receipt of request.	3,000 requests.	Quick dispatch requests completed accurately and on time.
12.2.4	Nitrogen Delivery Provide delivery of nitrogen.	Deliver liquefied nitrogen and recharge tube trailers within 4 hours of request and gaseous nitrogen within 8 hours of request. Coordinate deliveries with appropriate Facility Managers. Keep a log of location and quantity of deliveries, delivery of nitrogen to tanks/dewars, and re-charging gaseous Nitrogen Tube Trailers. NOTE: The average delivery is approximately 1,500 gallons. Tanks range from approximately 600 to 1600 gallons in size.	283,000 gallons.	Nitrogen is delivered accurately and on time.
12.2.5	Personnel Requirements Provide licensed nitrogen delivery personnel.	Nitrogen delivery personnel must have a Commercial Driver's License and be Cryovac Mechanic certified prior to delivery.		All personnel have certification or current commercial drivers license.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.3	**PACKING AND SHIPPING SERVICE**			
12.3.1	Packing and Shipping Service Provide Packing and Shipping services	Receive all equipment and materials for shipment from the customer. Inspect all equipment, materials, and items and ensure that all NASA Control Numbers, part numbers, serial numbers, and other identification numbers correspond with the shipping document. Provide all packaging materials and pack, mark, label, and crate in accordance with applicable Military/Federal standards and specifications, local and state regulations and NASA Directives including, but not limited to: ****NPG 6000.1, Requirements For Packaging, Handling, and Transportation For Aeronautical and Space Systems, Equipment, and Associated Components**, ****NPG 6200.1 NASA Transportation and General Traffic Management** and commercial standards. Label packages as appropriate (NASA Critical Space Item, Fragile, Magnetic Tape, Handle With Care, etc.). Prepare a ****JSC Form 105, Packing List** as appropriate. The packing list shall contain, but not be limited to: voucher number or equivalent, package number, type of package, packing code, invoice or serial number, item number, quantity, description, package dimensions, package cube (feet), and package weight (pounds). Load, secure and obtain proper receipt of all shipments tendered to carriers shipped from ***JSC**. The Contractor will conduct scheduled runs between the Packing and Shipping Department and the Transportation ***TMR** to drop off/pickup-shipping documents. NOTE: There are approximately 7 runs per day, but they may increase/decrease based on workload. Maintain a daily Outbound Shipment and Detention Log and provide the log to the Transportation ***TMR** for review upon request. This log shall include, but not be limited to: date issued, date shipping document received, required due date if stated, date processed, date shipped, carrier and mode, carrier arrival date and time, loading time started, load completion time, freight bill number, voucher number, Government Bill of Lading (GBL) if provided, number of pieces and weight of the shipment, shipment destination, detention, and reason for detention.	See below	See below Accurate and current within one day.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.3.2	Prepare Shipments Package, prepare, and ship routine, priority and hazardous shipments	Routine Shipments: Pickup shipments from customer's locations if requested and properly package and prepare all routine shipments within 4 ***workdays** of receipt. Routine shipments are those shipments that do not have a "Date Required Destination" stated on the shipping document. Ensure appropriate protection of the shipment during handling and transport.	4,500 shipments	Safely, no damage, accurately and on time.
		Priority Shipments: Pickup shipments from customer's locations if requested and properly package and prepare priority shipments to meet the "Date Required Destination" stated on the shipping document. Ensure appropriate protection of the shipment during handling and transport.	6,500 shipments	Safely, no damage, accurately and on time.
		Hazardous Shipments: Pickup shipments from customer's locations if requested and properly package and prepare hazardous materials for shipment. Ensure that all shipments are packed, marked, labeled, and documented in accordance with the applicable domestic or international hazardous materials regulations. Prepare a ****Hazardous Materials Packaging Checklist, JSC Form 582** (for air transportation) or ****JSC Form 582A** (for surface transportation), for each hazard being shipped. Ensure appropriate protection of the shipment during handling and transport.	200 shipments	Safely, no damage, accurately and on time.
12.3.3	Vehicle Load Plans Prepare vehicle load plans	Prepare load plans for all full vehicle loads and over-dimensional loads. The load plan shall include, but not be limited to: a diagram that shows the planned location of the freight, dimensions, weight, tarps if required, and type of support needed to accomplish the load (rigging, forklift). Load plans shall accurately describe the location of the freight on the transport vehicle and any special information that the Transportation ***TMR** may need to route the freight and select a carrier (handling, equipment, etc.).	25 loads	Load plans prepared accurately and on time.
12.3.4	Delivery To/From Offsite Locations Deliver outbound and inbound shipments	Provide transportation and delivery service for outbound and inbound shipments to/from offsite locations within a 50 mile radius of ****JSC**. Obtain the consignee's signature and current date on the associated delivery document. Schedule and transport without incident of damage in accordance with the date required at the destination on the request. Ensure appropriate protection of the shipment during handling and transportation. Requests for delivery may include but are not limited to the ****JSC Form 290, Shipping Document, ** JSC Form 195, Request for Shipment Of Printed Matter** DD 1149, Requisition and Invoice/Shipping Document** or e-mail delivery requests from the Government. NOTE: The size of these shipments is generally small enough for 1 or 2 people to handle.	300 shipments	Safely, no damage, accurately and on time.
12.3.5	Personnel Requirements	Provide personnel who meet the following education or experience criteria.	See below	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.3.5.1	Packaging Personnel Provide qualified packing and shipping personnel	General Packaging Personnel: Provide personnel who have a minimum of 2 years experience in commercial freight packaging for all modes of transport. Provide documented evidence of personnel experience.	Contractor determined	Personnel training and compliance records accurate and up to date.
		Hazardous Material Personnel: Ensure that only personnel trained in accordance with Subpart H of Part 172 in Title 49, Code of Federal Regulations (CFR) prepare shipments containing hazardous materials. Only these personnel shall be authorized to sign the Shippers Certification or Shippers Declaration. Submit copies of hazardous material training certificates to the Transportation ***TMR** as they are updated.	Contractor determined	Personnel training and compliance records accurate and up to date.
12.3.6	Records, Reports, and Submittals	See CLIN 1.1.4	See below	See below
12.3.6.1	Monthly Production Report Prepare a monthly production report	Prepare a Monthly Production Report that reflects the number of routine, priority and hazardous material shipments. It must also include, but not be limited to: the number of vehicle load plans, the number of pickups and the number of deliveries to/from offsite locations. Provide the report to the Transportation ***TMR** by the end of core duty hours on the 2nd ***workday** of each month.	12 reports	Report submitted accurately and on time.
12.4	**RIGGING AND HEAVY HAULING SERVICE**			
12.4.1	Rigging Support Provide rigging and heavy hauling services to safely move all articles	a) Provide support for Priority 1 Work Order	5 priority 1	Accurate, on time, and safely.
		b) Provide support for Priority 2 Work Order	300 priority 2	Accurate, on time, and safely.
		c) Provide support for General Work Order	400 general	Accurate, on time, and safely.
		Before each work order is accomplished the Contractor must accurately verify the following requirements necessary to accomplish the work: 1) description of the task 2) location where the task is to be performed 3) whether lift is critical or non-critical 4) characteristics of the items to be moved or lifted (such as weight or dimensions) 5) any facility restrictions that may be in effect 6) points of contact of organization requesting work		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		7) time frame to complete task Provide lift plans in accordance with ****JPG 1700.1H, JSC Safety & Health Handbook, **NSS/GO 1740.9, NASA Safety Standard for Lifting Devices and Equipment,** and ****JSC 28070, JSC Certification Guide.** NOTE: Critical lifts are defined in ****NSS/GO 1740.9**. Coordinate civilian police escorts when required by City, County, State, or NASA organizations. Coordinate JSC Security when hauling oversize loads to and from ***JSC**. Secure all permits necessary for oversize loads when required by City, County, and State in sufficient time to preclude delays. Survey route before hauling oversize or overweight loads to ensure overhead clearance from traffic and electrical lines. If clearance is not sufficient, coordinate to have support required to accomplish this task. Provide this information to the Transportation ***TMR** 5 days prior to the scheduled move date, unless a fewer number of calendar days is agreed on by both the Contractor and the Transportation ***TMR**. Provide assistance in the assembly and disassembly, installation and dismantling, placement, and removal of equipment to include the installing and removal of fasteners (bolts, screws, etc.) when requested by customer.		
12.4.2	Load Tests Provide proof load tests, rated load tests, and operational tests.	Comply with the ****NSS/GO 1740.9, NASA Safety Standard for Lifting Devices and Equipment, **JSC 28070, JSC Certification Guide,** and ****JPG 1700.1H, JSC Safety & Health Handbook.**		
		a) Complete load tests at customer's request for Priority 2 support.	200 tests	On time and safely.
		b) Schedule and complete load tests for general support.	400 tests	On time and safely.
12.4.3	Lifting Equipment Listing Maintain spreadsheet of lifting equipment.	Maintain a spreadsheet of all Government-owned material lifting and handling equipment and lifting components certified for material lifting and handling.	1 spreadsheet	Maintain accurately and up to date.
12.4.4	Personnel Requirements Provide personnel that meet the requirements set forth.	Provide operating engineers (crane operators) with 5 years of recent continuing experience and a record of safety in the operations of mobile and fixed cranes. Provide truck drivers with 5 years recent continuing experience driving tractor-trailer rigs and other smaller trucks and a driving record free of major offenses for the past 3 years. Provide riggers (oiler, flagman, etc.) with 5 years recent experience in performing rigging duties. (See CLIN 1.13.4)		
12.5	**DRIVER SERVICES AND VEHICLE OPERATIONS**			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.5.1	Driver Services Provide driver services	Provide driver services to support JSC in the movement of personnel.	See below.	Safe, on time, and courteous service.
12.5.2	Vehicle Drivers Provide drivers to operate Government vehicles	a. Provide drivers on an as-needed basis to drive buses, sedans, station wagons, vans, pickup trucks, and other such vehicles provided by the Government when required to support special request requirements of JSC. Times and dates of pick up, number of passengers, identified route(s), and point-of-contact will be provided to the Contractor. Be at the identified location 10 minutes prior to the time requested by the customer. Assure that the vehicle to be used is cleaned, inside and out, and the gasoline, oil, fluid levels, and tires are serviced prior to use.	500 requests	Safe, on time, and courteous service
		b. Provide the total number of passengers transported and the total number of requests for the previous month to the Transportation ***TMR** by the third ***workday** of each month.	12 reports	On time and accurate.
12.5.3	Vehicle Administrative Operations Provide vehicle administrative support	Support operations in the Vehicle Office. Support provided shall include, but not be limited to: maintaining the JSC Vehicle Fleet Database; maintaining and updating electronic and hard copy files; generating various reports as required; and issuing vehicles as needed. NOTE: Interface with the General Services Administration (GSA)/Fleet Management Center (FMC), Houston, personnel to resolve vehicle issues that shall include, but not be limited to: vehicle mileage, replacement vehicles, overdue preventive maintenance, and GSA policies and procedures.	See below.	Professional, courteous, accurate, and on time.
12.5.3.1	Vehicle Keys Maintain extra set of keys for all Government vehicles	Maintain extra sets of ignition and entry keys for all Government vehicles. Mark keys individually for each vehicle and file by the license plate numbers. Maintain an additional set of keys for those vehicles designated for Hurricane Emergency Preparedness, and file separately. Provide keys to the Transportation ***TMR** for Hurricane Response. Ensure that keys for vehicles turned in or replaced are turned in to GSA/FMC, Houston, as required. NOTE: These spare keys are for the Government vehicles in the vicinity of ***JSC**.	150 keys	Readily accessible and accurate.
12.5.3.2	Vehicle Credit Cards Maintain JSC vehicle fleet credit cards	Notify GSA/FMC, Houston, when JSC vehicle fleet credit card needs replacing. Contact and give to vehicle user when replacement credit card is received from GSA/FMC. Send card that was replaced to GSA/FMC.	107 cards	On time and accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.5.3.3	Report of Accidents Ensure accidents are reported	Notify the Transportation ***TMR** and instruct user to contact the GSA Accident Control Center (ACC), Kansas City, Missouri, their supervisor, and official law enforcement authorities immediately. Obtain a copy of the ****SF91, Vehicle Accident Report, ****SF94, Statement of Witness, police report, and vehicle repair estimate.**	10 reports	On time and accurate.
12.5.3.4	Vehicle Safety Recalls Notify user of vehicle safety recalls	Ensure that the vehicle user receives a copy of the Vehicle Safety Recall notification issued by the vehicle manufacturer within 5 days of receipt. Obtain and file a copy of the corrective repair from vehicle user.	4 notices	On time and accurate.
12.5.3.5	Daily Vehicle Dispatch Sheets Receive and file Daily Vehicle Dispatch sheets	Receive and file the monthly ****JSC Form 515, Daily Vehicle Dispatch** sheets submitted from all vehicle user organizations by the 15th of the month. In the event an organization has not provided their monthly dispatch sheets by the 15th, contact the respective organization and request the delinquent dispatch sheets be provided within 5 ***workdays**. NOTE: Dispatch sheets are received from organizational usage of approximately 275 vehicles per month, which are under ***JSC** management, however, some vehicles are located in other states.	12 months	On time and accurate.
12.5.3.6	Vehicle Support Issue Government pool vehicles	a. Process requests received from JSC civil service and Contractor personnel (other than COSS Contractor) either verbally or by electronic means, for the use of Government vehicles to support in-house requirements. Information required from the requestor will include, but not be limited to: requesting organization code, requestor, requestor's phone number, purpose for vehicle requirement, type (passenger or cargo) of vehicle required, timeframe that the vehicle will be required, and date and time the vehicle needs to be made available for pick up. Evaluate the justification for the request and respond accordingly to the request (provide confirmation of approval/disapproval to the requestor). Receive requests and schedule requirements within 30 minutes of notification.	550 requests	On time and accurate.
		b. Maintain and update reservations calendar, reflecting requests. Calendar will include, but not be limited to: requestor's name, organization code, phone number, purpose for vehicle requirement, and type of vehicle to be issued.	1 calendar	On time and accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.5.3.7	Full-Time Vehicles Process requests for full-time vehicle assignments	a. Receive ****JSC Form 971, Justification/Rejustification Full Time Vehicle Assignment**, for Government vehicle and initiate cover letter to Transportation ***TMR** for approval/disapproval. Review letter and ****JSC Form 971, Justification/Rejustification Full Time Vehicle Assignment,** by the Transportation ***TMR** for signature. Upon approval/disapproval, notify the requestor that the request has been disapproved or, initiate letter to GSA/FMC, Houston, requesting the assignment of an additional vehicle for the Transportation ***TMR's** signature. Receive and process ****JSC Form 971, Justification/Rejustification Full Time Vehicle Assignment**, within 1 ***workday**.	10 Justification requests	On time and accurate.
		b. Process ****JSC Form 971's, Justification/Rejustification Full Time Vehicle Assignment,** received for rejustification on all Government vehicles from user organizations. Compile a summary of the vehicles for approval/disapproval for the Transportation ***TMR**. Upon approval/disapproval prepare a letter to the vehicle user organization stating that rejustification has been approved/disapproved and forward to the Transportation ***TMR** within 1 ***workday**. Maintain a permanent file of all completed Justification/Rejustification Full Time Vehicle Assignment requests. NOTE: Rejustifications are done triennially. The first is performed in 2003 and the second in 2006.	275 requests triennially	On time and accurate.
12.5.3.8	JSC Vehicle Fleet Database Maintain and update JSC Vehicle Fleet Database	Maintain and update the JSC Vehicle Fleet Database as changes in the vehicle fleet occur. Entries to the JSC Vehicle Fleet Database will include, but not be limited to: mileage, vehicle additions, replacements, and deletions, vehicle cost data, vehicle descriptions, users, and repair and maintenance information	Daily	On time and accurate.
12.5.3.9	Vehicle Preventive Maintenance Ensure vehicle preventive maintenance (PM) is accomplished	Notify vehicle users of the PM due on vehicles assigned to them within 2 ***workdays** of receiving ****GSA Form 3478, Motor Vehicle Service Authorization** from GSA. Forward notification cards to the respective vehicle user. Provide the vehicle user with a listing of current service or repair facilities where the PM is to be performed. Upon receipt of ****GSA Form 3478, Motor Vehicle Service Authorization,** from the user after the PM is completed, forward to the GSA/FMC, Houston.	300 notifications	On time and accurate.
12.5.3.10	Pool Vehicles, Preventive Maintenance, Servicing, and Replacement Ensure pool vehicles maintenance, servicing, and replacement	Transport pool vehicles to local facilities for preventive maintenance, repairs, and/or vehicle replacement within 2 ***workdays**.	120 vehicles	Safe and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.5.3.11	Vehicle Emissions Inspections Ensure vehicle emissions inspections are performed	Generate and distribute notifications to all civil service and Contractor vehicle users to have vehicle emissions inspections performed on all Government vehicles which are 2 years and older. Direct vehicle users to designated commercial facilities to have the inspections performed. Collect printout results of the emissions inspection from the user and forward the printouts to GSA/FMC, Houston. Maintain a copy of the test results in file for 2 years NOTE: This is accomplished in November and December.	100 notices	On time and accurate.
12.5.4	Special Event Transportation Arrange ground transportation to support special events	Arrange all ground transportation with commercial transportation companies, which will include, but not be limited to 55-passenger coach buses, 21-passenger mini buses, rental cars, and golf carts to support special events at ***JSC** and other locations. NOTE: The Government will lease the necessary transportation vehicles via government credit card.	8 requests	On time and accurate.
12.5.5	Records, Reports, and Submittals Prepare reports for submission to the Transportation ***TMR**	Prepare and submit reports as listed below. Reports include, but are not limited to:	See below	On time and accurate.
12.5.5.1	JSC Vehicle Mileage Report	Receive and enter vehicle mileage submitted from vehicle user organizations into the JSC Vehicle Fleet Database. In the event mileage for vehicle usage is not received by the 15th of the month, contact the respective organizations and obtain the associated mileage. Upon finalizing the monthly update, generate the ****JSC Vehicle Mileage Report** and furnish one copy to the Transportation ***TMR** by the 20th of each month. Furnish an additional copy of the report to the Emergency Operation Center during Hurricane Season (June-November). NOTE: Vehicle mileages are received from organizational usage of approximately 275 vehicles per month. These 275 vehicles are under ***JSC** management but some are located in other states.	12 reports	See above.
12.5.5.2	Federal Automotive Statistical Tool (FAST) Report	Prepare the ****Federal Automotive Statistical Tool (FAST) Report** and submit to the Transportation ***TMR** by November 1st.	1 report.	See above.
12.5.5.3	Alternative Transportation Fuel and Alternative Vehicles Survey, Energy Information Agency Survey Report	Prepare the ****Alternative Transportation Fuel and Alternative Vehicles Survey, Energy Information Agency Survey Report** and submit to the Transportation ***TMR** by March 20th.	1 report.	See above.
12.5.5.4	Alternative Fuel Vehicle Acquisition Report	Prepare the ****Alternative Fuel Vehicle Acquisition Report** and submit to the Transportation ***TMR** by July 30th.	1 report.	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.5.5.5	Agency Reporting of Motor Vehicle Data for Budget Submission Report, Office of Management and Budget (OMB) Report	Prepare the ****Agency Reporting of Motor Vehicle Data for Budget Submission Report, Office of Management and Budget (OMB) Report** and submit to the Transportation ***TMR** by July 30th.	1 report.	See above.
12.5.5.6	General Purpose Vehicle Accident Report	Prepare the ****General Purpose Vehicle Accident Report** and submit to the Transportation ***TMR** by September 30th and March 30th.	2 reports	See above.
12.5.5.7	OIG Audit Response (General Purpose) Vehicle Cost Savings Summary Report	Prepare the ****OIG Audit Response-(General Purpose) Vehicle Cost Savings Summary Report** and submit to the Transportation ***TMR** by September 15th and March 15th.	2 reports	See above.
12.5.5.8	Vehicle Cost Per Mile Metrics Report	Prepare the ****Vehicle Cost Per Mile Metrics Report** and submit to the Transportation ***TMR** by January 30th, April 30th, July 30th, and October 30th.	4 reports	See above.
12.5.5.9	Vehicle Fleet Mileage Express Report	Prepare the ****Vehicle Fleet Mileage Express Report** and submit to the Transportation ***TMR** by the 15th of each month.	12 reports	See above.
12.5.5.10	OPAC Report	Prepare the ****OPAC Report** and submit to the Transportation ***TMR** by the last day of each month.	12 reports	See above.
12.5.5.11	Vehicle Statistical Report	Prepare the ****Vehicle Statistical Report** and submit to the Transportation ***TMR** by the 5th of each month. NOTE: See TRL for copies of the above reports.	12 reports	See above.
12.5.5.12	One-Time/New Reports	One-Time/New Reports Generate one-time reports, new reports as required on short notice by the Transportation ***TMR**, JSC, NASA, GSA/FMC, Energy Information Agency, Office of the Inspector General, or the Department of Transportation.	5 reports	On time and accurate.
12.5.6	Personnel Requirements Provide vehicle-licensed personnel	Ensure Contractor personnel have the proper valid Texas State commercial driver's licenses, with all proper endorsements, including passenger endorsement (P-Passenger), to operate and/or drive the required vehicles to perform the duties.	Contractor determined	Accurate and current.
12.6	**RECEIVE/DELIVER INBOUND FREIGHT**			

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
12.6.1	Receive/Deliver Inbound Freight Maintain inbound freight database, perform receipt, incheckers inspection, content inspection, and delivery of inbound freight	Provide for the complete process of receiving, processing, and delivering any type of freight shipments. The entire process will be costed once per shipment. Receive all inbound freight shipments consigned to NASA JSC. Perform initial receipt, in-checking inspection, content inspection, and process all transportation documentation. Ensure that all items received are delivered directly to the customer at the appropriate building and room number. Personnel locator is provided on JSC Home Page. Comply with all special handling instructions. Examples of items requiring special handling include, but are not limited to: explosives, hazardous material, refrigerated items, radioactive items, medical items or drugs. Receiving and delivery service may be required during times other than the previously designated hours of operation. An example would be Shuttle mission film deliveries to and from area airports. Average monthly overtime requirement is 8 hours. Provide local airport pickup and delivery of freight consigned to NASA JSC, when notified by the Transportation ***TMR.** Pay terminal handling fee to airline when required. NOTE: In the past, this terminal handling fee has been $15. Approximately 10 shipments of the previously identified 27,000 have been airport pickups.	27,000 shipments	On time, accurate, with no damage or mishandling.
		a. Maintain inbound freight database. Maintain and operate a computerized database of all inbound freight. The database shall be updated within 1 work hour of any package movement. Fields required for this database shall contain, but not be limited to: sequential control number, date and time of receipt, shipper name, city, state, country, carrier name, priority, count of pieces received, weight of shipment, commercial bill number, Government Bill of Lading (GBL) number, type receipt, disposition, disposition date, general commodity, mark for name, including building and room, in-checker name, claim information, current location of freight, inspector's initials, date and time staged, date and time restaged, date and time put on truck, driver's initials, date and time delivered or closed, document numbers associated with receipt, and remarks.	See above	Accurate, time with continuous tracking and cross-reference data between control number and freight.
		The database shall have barcode, sort, and report capability, assign sequential control numbers to each shipment, and provide continuous tracking during entire receipt and delivery process. For purposes of this CLIN, a single data entry transaction shall include the initial data entry of a shipment received, plus all future updates to that data entry.	See above	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		For purposes of this CLIN, receipt type shall indicate the following types of receipts: GBL, vendor deliveries, Government air, handcarries, mail, prepaid, collect, downtown pickups, voids, misdirected shipments.		
		The database shall be capable of creating the following reports: ****Daily Log Report** and various monthly statistical reports required by the Transportation ***TMR**. Fiscal year calendar will be used for this database and all reports. Weekly reports shall be Monday through Friday. Provide Monthly Statistical report by 3rd working day of each month for the previous month's activity.		
		Print ****JSC Form 769, Delivery Receipt**, and attach to material sent directly to customer; print Hold Notice for frustrated freight; and print Call Notice for items requiring inspection.	See above	Accurate and on time.
		Respond to calls requesting status of inbound freight within 30 minutes.	See above	Accurate and on time
		b. Perform receipt, in-checkers inspection, and content inspection of inbound freight.	See above	Accurate, on time, safely, with no damage or mishandling.
		Unload, perform the receipt and in-checking inspection for large, unique, hazardous, or delicate shipments at the ultimate point of usage or storage within 2 hours of initial receipt. Provide transportation and/or rigging support as required.		
		Inspect the contents of all inbound freight shipments except when the shipment is documents or other printed matter, when the shipment paperwork indicates otherwise, when requested by the customer, or when the shipment is sealed flight hardware.		
		Process freight claims in accordance with Code of Federal Regulations, Title 41, Chapter. 101-40.7, Reporting and Adjusting Discrepancies in Government Shipments. Record and resolve discrepancies in quantity or condition of freight. Assign claim number and prepare two claim folders, containing ****JSC Form 2121, In-Checker's Discrepancy Statement** (or something similar), inspector's description of concealed damages, photos showing damage, and ****SF361, Transportation Discrepancy Report.**	See above	Accurate, on time, and current.
		Contractor will maintain one claim folder, and the second claim folder will be delivered to the Transportation ***TMR**. Each Monday the Contractor will provide the following information to the Transportation ***TMR**:		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All claim folders initiated the previous week; the updated status of all claims which have not been closed; and justification for all claim folders closed the previous week. This information should include, but is not limited to, claim number, purchase request (PR) number, GBL number, commercial freight bill number, date received, date discrepancy discovered, carrier, value of damage or shortage, Free on Board (FOB) point as stated on PR, nature of discrepancy, and remarks, to include latest actions, or date the claim was closed and resolution.		
		X-Ray and screen packages for destructive devices and contraband material. Notify JSC Security immediately of detection of any anomalies.	See above	Accurate, on time, with no damage or mishandling.
		Weigh bulk gases on calibrated scale upon arrival and again after delivery to location. Obtain weight ticket generated by the scale, recording the beginning and ending weight and attach both weight tickets to front of the receiving document.	See above	Accurate, on time, with no damage or mishandling.
		Immediately upon receipt, isolate all Communication Security (COMSEC) equipment and notify the COMSEC account manager. NOTE: COMSEC account manager will provide Contractor an advance notification of incoming COMSEC equipment, whenever possible.	See above	Accurate and on time.
		Upon arrival, escort Class A and B explosive shipments to consignee area to process and offload within 30 minutes of arrival. Class C explosives will be offloaded and processed at the main receiving facility and delivered within 4 work hours. Store Class C explosives in an explosive container until delivered to the consignee. NOTE: About 60 shipments of the identified 27,000 shipment total of explosives per year, but 90 percent of those are Class C.	See above	Accurate, on time, with no damage, mishandling, or improper storage.
		Receive lithium batteries in accordance with ****JSC Document 18661, Safety Requirements and Procedures for Handling and Disposal of Lithium Cells/Batteries.** Maintain a copy of this document in the receiving area. Receipt, processing, storage, and delivery of lithium batteries to occur within 4 work hours.	See above	Accurate, on time, with no damage, mishandling, or improper storage.
		Precious metals shall be placed in a Government designated location from time of receipt until delivery. Immediately after inspection, notify Security for escort of the delivery. Complete process within 4 work hours of receipt.	See above	Accurate, on time, with no damage, or lack of constant surveillance.
		Notify the recipient for pick up of personal items obtained with personal funds. Attach a memo provided by the Supply and Equipment Management Officer (SEMO) regarding deliveries of personal property. Notify recipient of personal items within 3 ***workdays** of receipt.	See above	Accurate, on time, with no damage or mishandling.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Notify JSC Drug Control Officer within 4 hours of receipt for the pickup of medical items or drugs. Store material in a secure location until it is picked up by the JSC Drug Control Officer.	See above	Accurate, on time, with no damage or unsecured storage.
		Notify JSC Radiation Safety Officer within 1 hour of any radioactive receipts. Store material in government provided refrigerator designated for radioactive material, where it shall remain until pick up by the JSC Radiation Safety Officer.	See above	Accurate, on time, with no damage or improperly stored material.
		Maintain original freight bills and other receiving documentation (with attachments). Return all original GBL's to the carrier; do not write on originals. A separate folder is required for each day's receipts, and a ****Daily Log Report** shall be included in each folder.	See above	Maintain file accurately.
		For supply items (stores stock, critical spares, flight hardware), enter all receipts in NASA Supply Management System (NSMS) on the same day as identified as a supply item, suspending all discrepancies including, but not limited to: damages, overages, shortages, etc., upon discovery, and adequately explain cause of discrepancy. When discrepancy is corrected, process receipt in NSMS. Resolve suspended receipts within 2 days. Warehouse supply items safety and securely ensuring easy identification and accessibility.	See above	Accurate, on time, with no damage, mishandling, or improper storage.
		NOTE: The Contractor can expect approximately 1,400 supply items (of the identified 27,000 total shipments).		
		Gas cylinders are delivered direct to gas cylinder storage area. Inspection of gas cylinders includes, but is not limited to, accurate color-coding, industry standard label listing the contents, cylinder cap is in place and secure, and there are no leaks. Enter serial number and other data in bar code scanner and print bar code label and affix on cylinders prior to storage or delivery.	See above	Nothing additional.
		NOTE: Contractor can expect approximately 850 gas cylinder receipts (of the identified 27,000 total shipments).		
		Gas cylinders not requiring lab analysis shall be delivered directly to stock or customer's location on same day of receipt. Segregate gas cylinders and coordinate with the Environmental Health Laboratory (EHL) for scheduling and transportation of cylinders containing breathing air, Aviation Breathing Oxygen (ABO), Nitrogen and any others specified on ****JSC Form 1313, Attachment No. 1, Quality Purchase Order Addendum for Fluids Procurement**, to the EHL for testing and acceptance on same day received. If cylinder is not accepted, contact the vendor for exchange or return and transport to the cylinder storage area on same day.	See above	Nothing additional.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Process receipts in NSMS under specific ownership code for electronically segregating cylinders. These codes include, but are not limited to, JB for gases that are delivered to stock or direct delivery to customer, GL for gases that are at the lab for testing, GP for gases pending going to the lab for testing, and GR for gases that failed testing (rejects). Warehouse supply items safely and securely ensuring easy identification and accessibility.	See above	Nothing additional.
		For processing equipment items, assign Debit voucher (D-voucher) number to source document and determine tagging criteria per ****NPG 4200.1, NASA Equipment Management Manual**. NOTE: Source document may contain multiple equipment items for processing. Source documents include, but are not limited to: ****DD Form 1149, Requisition and Invoice/Shipping Document, **JSC Form 290, Shipping Document,** and ****DD Form 250, Material Inspection and Receiving Report**.	See above	Accurate and on time.
		If equipment meets Equipment Control Number (ECN) tagging criteria per ****NPG 4200.1, NASA Equipment Management Manual:** 1) Assign ECN and place tag on equipment. 2) Complete ****JSC Form 122, NEMS Control Transmittal**. 3) Input into NEMS database by the close of business the next ***workday**. If equipment does not meet ECN tagging criteria: 1) Stamp source document with "Does Not Meet Criteria" (DNMC) stamp. 2) Place a ****NASA Form 1517, Property US Government Decal** on the equipment. 3) Annotate "DECAL" on source document. If equipment is delivered directly to customer's location, stamp original source document indicating reason and forward to Equipment ***TMR**. Every source document must be stamped in red with "Original Voucher Copy." Track all ECN's using data indicated in ****D-Voucher Log Report**, along with a copy of the source documents and forward previous month's log and the copy of the source document to the Equipment ***TMR** by the 10th of each month. Handcarry original source document and ****JSC Form 122, NEMS Control Transmittal** to Equipment ***TMR** daily.	See above	Accurate and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide calibration and state certifications of truck scale (provided by Government) as required. The Contractor is required to provide annual certification of the truck scale.	Annually	Accurate and on time.
		c. Delivery of inbound freight.	See above	Accurate, on time, with no damage or mishandling.
		1. Priority items received by 11:00 a.m., which do not require inspection, shall be delivered to the customer on same day as received; items arriving after 11:00 a.m. shall be delivered no later than noon of the next ***workday**.		
		NOTE: Contractor can expect approximately 7,600 shipments.		
		2. Priority items requiring inspection shall be delivered to the customer within 1 ***workday** of initial receipt.		
		NOTE: Contractor can expect approximately 500 shipments.		
		3. Non-priority items, not requiring inspection, shall be delivered by close of business next ***workday**.		
		NOTE: Contractor can expect approximately 10,300 shipments.		
		4. All other inbound freight/packages requiring inspection shall be delivered within 2 ***workdays** of initial receipt. (Personal items must be picked up, not delivered.)		
		NOTE: Contractor can expect approximately 6,200 shipments.		
		5. Flight hardware shall be delivered to the appropriate bonded storage room within 4 hours of initial receipt.		
		NOTE: Contractor can expect approximately 1,000 shipments.		
		6. Work stoppage items will be processed upon customer request. Deliver within 2 hours of request or receipt of item. When inspection is required, deliver within 4 hours of request or receipt of item.		
		NOTE: Contractor can expect approximately 1,400 shipments.		
12.6.2	Personnel Requirements	Receiving Personnel: Provide personnel who have a minimum of 2 years experience in receiving commercial freight from all modes of transport. Provide documented evidence of personnel experience to the Transportation ***TMR**.	Contractor determined	Personnel training records accurate and current.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		At start of contract, and annually thereafter, submit a request for SEMO authorization of personnel certified by the Contractor to act as receiving agents for the Government. This request shall include a statement certifying that they have been trained, tested, and found proficient in inchecking, inspecting, and the initiation and completion of proper documentation necessary in the receipt of JSC freight shipments. Include signatures of those personnel on the list, and provide updates to reflect newly authorized receiving agents, prior to allowing them to sign for freight.		Accurate and on time initial list and updates.
		Personnel who will operate the x-ray-screening machine must be trained before using. Contractor must provide refresher training semi-annually. Minimum scores must be achieved on computer-based training for x-ray screening equipment. Provide Transportation ***TMR** documented evidence of test scores achieved by Contractor personnel.		Training provided semi-annually. Minimum scores must be achieved.

Receive/Deliver Inbound Freight Process

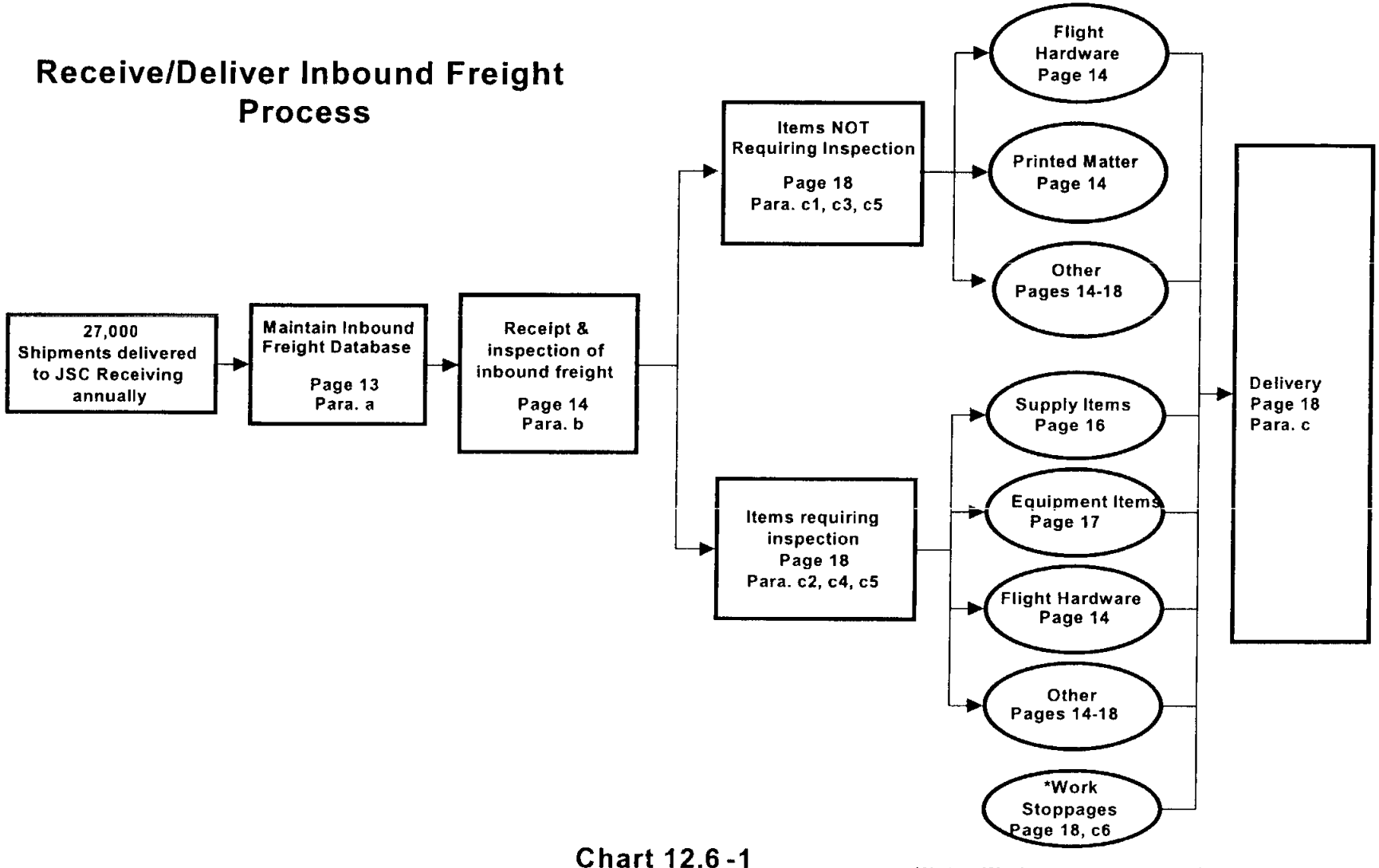

Chart 12.6 -1

*Note: Work stoppages can include any of the items shown above.

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13.1 COST REIMBURSABLE INDEFINITE QUANTITY

13.1.1 General Information

This Annex describes the process by which the Government can order ID/IQ services under this contract on a cost reimbursable basis.

13.1.2 Services Acquired Under this Annex

Under this Annex the Government may acquire a broad range of services within the general scope of Center Operations Support Services (COSS) contract. Services of a type similar to those described in Annexes 1-5, 8-12 of this contract, subject to the ID/IQ order limitations specified in Section B, shall be construed as being within the general scope of this contract.

13.1.3 Task Ordering Procedure

The process by which the Contracting Officer may issue task orders for cost-reimbursable ID/IQ work is described in the Task Ordering Procedure clause in Section H. The Contracting Officer's request for a task plan in accordance with paragraph (b) of the Task Ordering Procedure does not create an obligation by the Government to issue a task order.

13.1.4 Cost Estimates

In developing the cost proposals required for each task plan, the contractor shall use the loaded labor rates and Material and Subcontractor coefficients in Section B. Each task plan shall identify the estimated quantity, rate(s) and proposed cost of each labor classification the contractor believes will be required to complete the task order. Each task plan shall also identify the estimated types, quantities, and cost of all material and other direct costs. For all proposed direct costs, the contractor shall provide the basis of its estimate. For each task order, the Government reserves the right to conduct fact finding and discussions as required to reach agreement on a reasonable estimate cost (direct or indirect) and fee.

13.1.5 Inspection and Acceptance of TO's

Unless otherwise specified, the Government may accept, as promptly as practicable after completion and inspection, all work required by a TO or that portion of the work the CO determines can be accepted separately.

13.1.5.1 Daily Inspections

a. Notify the IDIQ ***TMR** at least 2 business days prior to any test or concrete placement. Inspection will be made after notification that all items have been installed for the test or concrete placement. Should the inspection reveal that corrective measures are required or that the work is not complete, an additional 1 day will be allowed for the Government to complete its inspection after all work has been corrected.

b. Notify the IDIQ ***TMR** at least 1 business day in advance of backfilling or encasing so that final location and elevations can be recorded by Government survey. Failure to provide such notification may require reopening of a trench to obtain survey data and further backfilling.

13.1.5.2 Inspection Notification

Notify the CO in writing upon completion of each individual TO. Provide 1 day advance notice of the date the work will be fully completed and ready for final inspection. If the Government requires a means of access to perform a complete inspection before work is covered up, the Contractor shall provide such access. (e.g. Scaffold, manlift, ladder, etc.). The Government has the responsibility to respond within a reasonable time to inspect and accept the work.

13.1.5.3 Acceptance

The IDIQ ***TMR** will perform acceptance. The CO may designate a different Government Agent as the authorized representative. The Contractor will be notified by a written notice or by a copy of the delegation of authority if a different representative is designated. The acceptance of IDIQ work will be based on whether the completed work satisfies the requirements identified in the TO.

13.2 COST REIMBURSABLE MAINTENANCE AND REPAIR (M&R)

13.2.1 General Information

Under this annex the Government may acquire services to maintain and repair user equipment (UE), mobile support equipment (MSE), and non-specified equipment (NSE).

13.2.1.1 Preventative Maintenance and Repair of User Equipment

The Government contemplates issuance of annual task orders (TOs) to acquire the services needed to perform preventative maintenance and repair on equipment belonging to one or more of the various organizations located at JSC. The anticipated performance period of a TO for M&R of user equipment (UE) is one year; however, the actual period of performance shall be established by TO.

The estimated cost and fee value for each TO will be established after submission of a task plan and may be subject to negotiation.

On approximately an annual basis, the Government anticipates reviewing its requirements relative to UE and making any necessary or appropriate changes, additions or deletions. The newly updated list of equipment requiring services under this annex will be provided to the contractor with a request for a task plan. Preparation of a task plan under this annex shall include the following:

a. Development of a proposed ****UE Maintenance Schedule/Plan** per the UE list provided with the request for a task plan. The maintenance tasks within the Schedule/Plan shall be based upon the following hierarchy:

   (1) Use of task instructions already in existence under this contract that appropriately provide the maintenance required.

   (2) If no task instruction exists for a particular maintenance requirement, the contractor shall propose one or more new task instructions that provide the appropriate maintenance required. Create the new task instruction using:

      (a) First, existing maintenance data within the Computerized Maintenance Management System (CMMS) or hardcopy data;

      (b) Second, manufacturer's recommended maintenance data;

      (c) Third, Government provided maintenance data.

b. Provide a cost estimate for the PM task within each task order plan request. This estimate shall be detailed enough to identify the estimated costs for each piece of equipment for which maintenance or repair is being requested. Further, each cost estimate shall include:

   (1) Creating any new PM task instructions,

   (2) Within 14 days of TO issuance, providing the final ****UE Maintenance Schedule/Plan** denoting each PM task for each piece of equipment, a copy of each PM task instruction, and the start date the scheduled work might be performed.

   (3) Within 14 days of TO issuance, accurately updating the ****SM Database** and the CMMS to reflect the new requirement(s).

Work ordered under this annex shall begin upon issuance of a properly executed TO unless otherwise stated in the order. Minor changes in requirements for user equipment maintenance (i.e. within +/- 15% of number of task instructions) shall not constitute grounds for an equitable adjustment in fee.

13.2.1.2 Definitions

Maintenance - See CLIN 2.1.3

Repair - See CLIN 2.1.3

Mobile Support Equipment (MSE) - See CLIN 2.1.3

User Equipment – See CLIN 2.1.3

Non Specified Equipment (NSE) - See CLIN 2.1.3

13.3 MISCELLANEOUS SERVICES

13.3.1 General Information

This Annex identifies the performance requirements for miscellaneous services such as environmental and engineering services. The Contractor shall furnish the required miscellaneous services upon issuance of a properly executed TO.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
13.3.2	Engineering Studies Perform engineering studies and evaluation.	Perform studies such as feasibility studies, special engineering investigations and analysis, environmental studies, existing condition studies, analysis of future requirements, conceptual project design studies, energy conservation studies, field investigation, engineering analysis, research of master facility drawings, and all engineering necessary to produce reports, studies and planning documents. Reports shall be clear, concise, complete, and describe all supporting data used for the final conclusion. Provide correct analysis of problem or issue, and sound engineering recommendations. Prepare under the supervision of a registered professional engineer; the report shall bear the seal and signature of the responsible registered engineer. Provide requested projects per TO schedule.	Per TO.	Per TO. Final analysis shall be complete, accurate, and properly signed and sealed. Per TO. Analysis completed on schedule.
13.3.3	Indefinite Quantity Design Perform Design for >$200K Construction Projects.	Provide ** **Engineering Design Package** in accordance with CLIN 5.3 for COSS Contractor construction or open competitive bid by the Government. The Government will provide the scope of work for the design. Provide a construction cost estimate based upon the final design. The format for this estimate shall be in accordance CLIN 6.1. Deliver the final design package per the TO.	Per TO	See CLIN 5.3 or per TO.
13.3.4	Indefinite Quantity Master Facility Drawing Updates Perform drawing updates for >$200K Construction Projects.	Provide master facility drawing updates in accordance with CLIN 5.5. The Government shall provide the scope of work for the drawing updates. Deliver the completed updates in accordance the TO.	Per TO	See CLIN 5.5 or per TO.
13.3.5	Construction Specification Production Create Specifications for >$500K projects	For outside-bid construction projects greater than $500,000, create and edit new project specifications in accordance with CLIN 5.12.4. The specification edits shall occur at 60%, 90%, and 100% design. The schedule shall be per the TO.	Per TO	Per TO See CLIN 5.12.4
13.3.6	Hazardous Materials Management Services Provide Hazardous Materials Tracking and Management Services	Provide services inclusive of all activities from development through implementation of an electronic identification and inventory of hazardous materials ("Pharmacy" or "Hazmart" type program). May include developing and providing training for ***JSC** personnel to use electronic tracking systems, conducting hazmat compliance and quality control/assurance audits, and include reviews of spills/emissions for reducing or eliminating recurrences.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
13.3.7	Wastewater Services Provide Wastewater Services	Perform wastewater services which include preparing studies, plans, proposals, cost estimates, NPDES and other permits and modifications, discharge applications, and identifying, evaluating, and making recommendations for corrective actions and process improvements of the surface and subsurface systems.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.8	Technical Support Services Provide Technical and Regulatory Assistance	Provide technical and regulatory environmental assistance to ***JSC** civil servant and Contractor personnel and organizations on waste, water and air program matters, including the identification of appropriate and "state of the art" technologies and equipment for process improvement and waste/emissions reductions and reducing or eliminating regulatory liabilities.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.9	National Environmental Policy Act (NEPA) Services Provide NEPA Report Services	Provide all technical and report preparation support including but not limited to producing completed and signed NEPA documents In accordance with the Council for Environmental Quality (CEQ), NEPA, and NASA specific NEPA regulations and guidance.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.10	Permitting Application Services Provide permit services	Provide permit application packages including Resource Conservation and Recovery Act (RCRA) subtitle C, Air program permits - air emissions & standard exemption notification applications, NPDES wastewater discharge permits, storm water permits, Texas Natural Resources Conservation Commission (TNRCC) wastewater discharge permits, and any other environmental program permits required by regulatory agencies.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.11	Drill Borings Provide drilling services	Provide drilling services that includes obtaining soil, earth core and/or groundwater samples for analysis, installing monitor well(s) for periodic sampling of groundwater, and plugging & abandoning or removing monitor wells.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.12	Pressure Washing Provide pressure washing services	Clean hard-surfaced areas contaminated with chemicals and petroleum products, collect rinseate for disposal.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
13.3.13	Sampling & Analysis Provide sampling and analytical services	Perform or provide all equipment, supplies, trained sampling and laboratory personnel, to obtain, process and test environmental samples.	Per TO	Per TO All activities in compliance with applicable Federal, State, and local laws.
13.3.14	Scanning Support	Provide scanning capability for:	Per TO	Per TO
		a. Standard and legal size paper at a speed of 50-pages per minute (minimum).	Page	Electronic files of scanned items are clearly legible and are readable by the appropriate CAD software. Ability maintained to scan required size pages and drawings.
		b. "C" size drawings	Drawing	
		c. "F" size drawings (can be on-site or off-site).	Drawing	
		NOTE: The vast majority of scanning work can be accomplished on-site or off-site at the Contractor's discretion. However, there are some drawings of a secure nature that must be scanned on-site.		
		Intergraph and AutoCAD software shall be able to read the electronic files of the "F" size drawings.		
13.3.15	Asbestos Services Provide Asbestos Services	Perform asbestos services that include conducting surveys to identify and evaluate presence of asbestos containing materials (ACM) in facilities and equipment for its abatement by removal, encapsulation, or enclosure, in support of new projects, modifications, and renovations/demolitions.	Per TO	Per TO. All activities in compliance with applicable Federal, State, and local laws.
13.3.16	Asbestos Removal Services Abate/Remove ACM from JSC Facilities	Reserved	Reserved	Reserved

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CUSTODIAL
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14.0 CUSTODIAL

14.1 General Information

14.1.1 Annex Description

This Annex identifies custodial support services at ***JSC.** This Annex is divided into two service categories, basic and periodic.

14.1.2 Hours of Operation

The Contractor shall schedule and arrange work to cause the least interference with the normal occurrence of Government business. In those cases where some interference is unavoidable, the Contractor shall make every effort to minimize the impact of the interference, inconvenience, customer discomfort, etc.

Hours of operation for performance of basic services are 5:30 a.m. to 5:30 p.m., Monday through Friday. The Contractor is permitted to perform contract line items (CLINs) 14.2.1, 14.2.2 and 14.2.4 (when not performed in conjunction with 14.2.9), 14.2.5, 14.2.7, 14.2.8, 14.2.10, 14.2.11, 14.2.12, 14.2.14, 14.3.2, and 14.3.4 between the hours of 5:30 a.m. and 5:30 p.m. The Contractor is required to perform CLINs 14.2.2 and 14.2.4 (when performed in conjunction with 14.2.9), 14.2.6, and 14.2.9, between the hours of 5:30 a.m. and 7:30 a.m. The Contractor is required to perform CLINs 14.3.1 14.3.3, 14.3.5, and 14.3.6 between 5:30 p.m. and 5:30 a.m. The Contractor is required to perform CLIN 14.3.8 between 5:30 p.m. and 5:30 a.m., or preferably on weekends. If the Contractor desires to perform work outside the hours of operation listed, or on Saturdays, Sundays, or holidays, prior approval shall be obtained from the Custodial Technical Management Representative (***TMR**).

Access to certain offices and buildings may be restricted. The Contractor shall notify the Government Facility Manager and Security personnel in advance for access.

14.1.3 Specific Task

Area types as they relate to this contract and the ****Custodial Database Master Report** are noted in Paragraph 14.1.6. (See Section J, Attachment P, Exhibits P-1 through P-5, for miscellaneous requirements and tasks that apply to this annex.).

14.1.4 Frequencies of Service and Codes

When a service is required less than three times per week and the time for that service falls on a holiday, the service shall be accomplished on the workday preceding or following the holiday.

Monthly (M): Services performed 12 times during each 12-month period of the contract at intervals of 28 to 31 days.

Semimonthly (2M): Services performed 24 times during each 12-month period of the contract at intervals of 14 to 16 days.

Weekly (W): Services performed 52 times during each 12-month period of the contract at intervals of 6 to 7 days.

Two times weekly (2W): Services performed two times a week, on Tuesday and Thursday.

Three times weekly (3W): Services performed three times a week, on Monday, Wednesday, and Friday.

Daily (5W): Services performed once each calendar day, Monday through Friday, excluding holidays unless otherwise noted.

Six times weekly (6W): Services performed six times a week, once each calendar day, Monday through Saturday.

Seven times weekly (7W): Services performed seven times per week, once each calendar day, including holidays.

Eight times weekly (8W): Services performed eight times per week, once each calendar day, including holidays, with two occurrences on Saturday at intervals of not less than 4 hours apart.

Eleven times weekly (11W): Services performed eleven times a week, twice each calendar day Monday through Friday at intervals of not less than 4 hours apart, and once on Saturday.

14.1.5 Work Scheduling and Accomplishment

The Contractor shall provide an initial work schedule for basic services to the Custodial ***TMR** no later than 7 days after contract start. Once approved, all work shall be performed in strict compliance with the schedule. Changes to the work schedule shall be submitted for the Custodial ***TMR**'s approval as stated in Section J, DRD AN-14.1.

During execution of the work, the Contractor shall take special care to protect all Government property including furniture, walls, baseboards, and other surfaces from materials used in a way not intended or used improperly. Accidental splashes shall be removed immediately. The Contractor shall return areas damaged as a result of work under this contract to their original condition, to include painting, refinishing, or replacement. In accomplishing floor work, the Contractor shall move or tilt chairs, trash receptacles, and other easily moved item(s) to clean (sweep, mop, vacuum, etc.) underneath. All items shall be returned to their original locations after cleaning. All solutions used for stripping, waxing, and mopping shall be removed from baseboards, furniture, trash receptacles, etc.

The Contract shall display "Wet Floor" caution signs, one sign to be placed every 30-35 feet, when cleaning floors in an area where people (other than Contractor personnel) are or shall be present before floors are dry. The signs shall be removed and stored by Contract personnel when floors are dry.

The Contractor shall maintain for review for the ***TMR** a facility log book for recording customer complaints, unscheduled cleaning, lighting maintenance, interior extermination, and other tasks requested by users. This shall be accomplished as required in Section J, DRD AN-14-3.

14.1.6 Definitions

Area Type: Portions of facilities separately identified based on floor surfacing or utilization of the space identified as a particular area type and as shown on the ****Custodial Database Master Report**. A brief identification of each area type is provided below:

Area 1 - Tile

Area 2 - Carpet

Area 3 - Restrooms

Area 4 - Tiled Hallways/Common Areas

Area 5 - Carpeted Hallways/Common Areas

Area 6 - Concrete Utility Rooms

Area 7 - Stairs, Stairwells, Ramps

Area 8 - Concrete Areas (Other)

Area 9 - Tiled Pedestal Floors

Area 10 - Carpeted/Tiled Medical Offices

Basic Services: Task(s) to be done in a work area on a recurring basis, with frequencies called out in the contract line item.

Building: A named or numbered facility at ***JSC** including the inside area, and the outside area adjacent to the facility. The term building includes any outside waste receptacles. Outside waste receptacles will be associated with the facility nearest to the receptacles.

Clean: Free of dirt, dust, odors, marks, spots, streaks, stains, smudges, litter, trash, debris, graffiti and other residue.

Damp Mopping: Removal of light soil, dirt, liquid, or other foreign material using a cotton or similar yarn-type mop, which has been mechanically wrung/squeezed to remove excess solution. This method is often employed when the area that requires cleaning is not soiled sufficiently to require wet mopping; includes rinsing if recommended by the detergent manufacturer.

Days: For the purpose of this Annex, days represent calendar days.

Disinfecting: Removal or neutralization of material containing or supporting the growth of bacterial/viral organisms capable of causing infection in humans if untreated.

Dispenser Service: Checking and refilling with approved products all towel, toilet tissue, soap, feminine hygiene, or any other dispensers to ensure that each contains an adequate supply of the product being dispensed.

Dusting/Cleaning: Removal of bugs, cobwebs, dirt, liquid, refuse, scale, soil, stains, trash, and any other foreign material from an item, fixture, horizontal or vertical surface, or area, and may (upon Custodial ***TMR** direction) include the process of disinfecting.

Hand Scrubbing: Removal of built-up dirt, soil, or other foreign material from a hard floor surface using a bristle-type brush and an approved neutral detergent and water solution; includes rinsing if recommended by the detergent manufacturer.

High Efficiency Particle Arrest (HEPA) Vacuum: A vacuum designed to greatly reduce or eliminate particles through filtration or containment.

Inside Entrance Area: Area inside the exterior doors to a building, including the lobby area, but not including hallways.

Machine Mopping: Use of a mechanized scrubbing/vacuuming machine to accomplish the same result as wet mopping for large areas, which would otherwise require extensive labor to complete in a reasonable amount of time; includes rinsing if recommended by the detergent manufacturer.

Mirror/Glass/Window Cleaning: Removal of dirt, soil, smudges, smears, or any other substance, which will interfere with the passage or reflectance of light.

OMOH: Occupational Medicine – Occupational Health, Life Sciences Directorate.

Outside Entrance Area: Area outside the exterior doors to a building, including the area in front of windows adjacent to the doors, the landing and/or porch area and steps leading to the building and breezeways.

Periodic Services: Task(s) to be done in a work area on an infrequent basis. Custodial ***TMR** directs task frequencies and locations.

Response Time: Response time is defined as the time allowed the Contractor after initial notification of a work requirement to be physically on the premises at the work site, with appropriate tools, equipment, and materials, ready to perform the work required.

Sealing: Application of an approved floor sealer prior to application of the final floor finish in accordance with industry standards and manufacturer recommendations.

Shampooing: Application of a cleaning agent to a carpeted floor, cloth material, or covering to remove embedded soil, dirt, stains, or other foreign materials.

Spot Cleaning: Removal of dirt, soil, debris, liquids, stains, or other foreign materials where adequate cleanliness can be accomplished by cleaning only affected areas and where the cleaning of the entire area would not be necessary.

Spray Buffing: Application of a wax and water solution to a floor and buffing with a high speed-buffing machine to refurbish the floor finish after wet or damp mopping.

Stripping: Complete (95 percent or more) removal of the wax/finish applied to non-carpeted flooring.

Sweepers: Non-electrical sweeping devices intended for use on low pile carpet.

Sweeping: Removal of loose dirt, dust, debris, and other foreign material through either manual or mechanized methods not requiring a wet mop.

Vacuuming: Mechanical removal of loose dust, dirt, soil, debris, and other foreign material involving movement of air. Machines used for vacuuming floors shall combine rotating brushes with air movement to effectively remove loose material. HEPA vacuums shall be used in all areas where vacuuming is called for. See High Efficiency Particle Vacuuming.

Venetian Blind Cleaning: Removal of dirt, soil, lint, smudges, smears, or other foreign material from window blinds.

Waste Container: Trash receptacles, wastebaskets, trashcans, wastepaper baskets, paper towel receptacles, ashtrays, or any container holding trash, paper, or refuse of any type.

Waxing/Finishing: Application of three coats of a non-slip gloss finish to hard surfaced floors such as vinyl, rubber, cork, linoleum, terrazzo, wood, or tile. Includes buffing if manufacturer recommended.

Wet Mopping: Removal of built up dirt, soil, liquids or other foreign materials from a floor using cotton, or similar yarn-type mop with either sufficient neutral detergent and water solution, or neutral disinfecting detergent and water solution; includes rinsing if recommended by the detergent manufacturer.

14.1.7 Recycle Program

The Contractor is responsible for the recycle program for paper and cardboard, and assists in the recycling of aluminum beverage cans. Recycling programs other than noted in this Annex that the Contractor may wish to implement shall first be approved, in writing, by the CO. The Contractor may retain revenues generated by the sale of recycled materials, except aluminum cans and scrap metals. All installation and operational costs incurred by recycle programs other than noted in this Annex shall be the sole responsibility of the Contractor, unless directed and/or approved by the CO.

***JSC** owns 180 recycle bins with a 250-pound capacity each, into which employees deposit white paper for recycling. The repair and or replacement of damaged bins are the responsibility of the Contractor.

The Contractor shall submit a Custodial Recyclable Material Report as required in Section J, DRD AN-14-2

14.1.8 Contractor-Furnished Items and Services

The Contractor shall ensure that all services protect the integrity of the government's property, equipment, and supplies. Contractor employee's private vehicles shall not be used to transport Government property and supplies. The Contractor shall furnish all supplies, equipment, personnel, tools, materials, supervision, and all other items and services necessary to perform all custodial services. The Contractor shall also provide any auxiliary equipment required to store and/or dispense such materials.

The Contractor shall submit a listing of all products each month as required in Section J, DRD AN-14.4.

The Custodial ***TMR** shall approve paper towel, soap, and toilet paper dispensers, or any other dispensing equipment prior to its installation. The dispensers currently in use at ***JSC** are provided by Pollock, a distributor for Georgia Pacific, with the understanding that products for those dispensers will be purchased from that company. Pollock will repair or replace any dispenser not in good working order and the Contractor shall coordinate that repair or replacement when deemed necessary by the Custodial ***TMR**. If the Contractor decides to purchase products from a different company, the Contractor shall be required to provide replacement dispensers at no additional charge to the Government and maintain those dispensers in good working order, including repair or replacement with equivalent equipment when deemed necessary by the Government, and at no additional expense to the Government.

No material shall be used which will scratch or etch floors, floor covering, toilet fixtures, woodwork, painted surfaces, furniture, or which will create health or safety hazards. Where the Government specifies a product, there shall be no deviation or substitution without Custodial ***TMR** approval. The Government reserves the right to approve or disapprove any product. All products with a Material Safety Data Sheet (MSDS) requirement must have a copy of the MSDS on file with the OMOH contractor, who will assign a JSC MSDS number.

Vacuum cleaners for carpeted floors shall be of industrial quality with a motor driven brush and beater-bar.

HEPA vacuum cleaners that are consistent with JSC and Occupational Safety Health Administration (OSHA) regulations shall be used in all areas where vacuuming is called for. The Contractor shall service the HEPA vacuum cleaners in strict compliance with manufacturer specifications, OSHA/JSC environmental guidelines and regulations at no cost to the Government. Service shall include,

but not be limited to, filter element replacement, checking all parts and ensuring the vacuum operates properly. Maintain/repair as necessary.

The Contractor shall furnish supplies, materials, etc., based on a site population of approximately 13,000 to 14,000. Samples of supplies, materials, etc., shall be submitted to the Custodial ***TMR** for approval prior to contract start and whenever a change occurs. Supplies, materials, etc., shall meet or exceed the quality of the items used immediately before contract start.

All electrical equipment used by the Contractor shall meet all applicable safety requirements. This shall include either the use of Ground Fault Circuit Interrupters (GFCI) and/or a wiring inspection program to ensure the integrity of ground pins, grounding continuity, strain relief, and the insulation integrity of plugs and cords. This equipment must operate at full rate performance levels using existing building circuits. GFCI power block cords shall be used each time a piece of electrical equipment is used.

The Contractor shall furnish plastic waste container liners of adequate quality (strength) and size to protect each waste container. Liners shall ensure no spillage or leakage occurs between the time trash is initially deposited until it is properly removed from any ***JSC** building and is properly disposed of as solid waste.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.2	Basic Services	Perform basic services at the frequencies indicated on each line item. Move all chairs, waste containers, or easily moved items while performing basic services and return them to their original position.	See below	See below
14.2.1	Drinking Fountains and Wash Stations Drinking fountains and washbasins are clean.	Clean, disinfect, and polish all drinking fountains and wash stations free of material containing living bacteria, viruses, or other contaminates capable of causing infections. Perform 5W on 460 drinking fountains and wash stations. NOTE: Each of the 460 drinking fountains will require 251. (251 is based on 365 days minus 104 weekend days minus the 10 Government holidays. This applies to all annex 14 work with a 5W frequency.)	251 cleanings	Drinking fountains and wash stations are cleaned properly and on time.
14.2.2	Mirror & Glass Cleaning Mirrors and glass surfaces are clean.	Clean interior and exterior door glass and associated frames in carpeted or hard floor entrance areas, common areas, and hallways. Remove all excess spray/solution from any surrounding trim or surfaces. Examples of areas to be cleaned are building entry doors, glass panels next to the entry doors, glass covered bulletin boards, etc. Perform 2W on 30,000 sq. ft.	104 cleanings	Mirror/glass is cleaned properly and on time.
14.2.3	Elevator Cleaning Elevators are clean	Clean elevator cab walls, doors, and threshold plates. Sweep and damp mop elevator hard floors or vacuum elevator carpeted floors. Vacuum elevator door tracks. There are 62 elevators. Perform 3W on 62 elevators.	156 cleanings	Elevators are cleaned properly and on time.
14.2.4	Dusting/Cleaning Entrances, Hallways, and Carpeted Areas Entrances, hallways and carpeted areas are dusted/cleaned	Dust/clean carpeted rooms, tiled and carpeted hallways and inside entrance areas. Do not use devices that merely displace or redistribute the matter, such as feather dusters, unless treated to attract and hold the matter. Clean furniture, fixtures and walls with a cleaner, wood cleaner, and/or polish as appropriate for surface. Clean/polish metal surfaces and fixtures with a nonabrasive cleaner/polish. Dusting/cleaning includes, but is not limited to; cleaning and disinfecting HVAC louvers, baseboards, corners, areas behind doors, air vents, venetian blinds and ledges/windowsills. Perform monthly on 1,025,000 sq. ft	12 cleanings	Dust/clean carpeted rooms, tiled and carpeted hallways, and entrance areas properly and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.2.5	Clean and Service Restrooms, Medical Office, and Laboratories Restrooms, medical, offices, and laboratories are clean and serviced	Clean inside and outside of fixtures with a disinfectant solution. Fixtures include, but are not limited to, toilets, urinals, lavatories, and sinks. Do not clean lavatories and sinks with any items used to clean any other rest room items including, but not limited to: toilets, urinals, walls, floors, and partitions. Disinfect partitions, stalls, stall doors, and wall areas adjacent to wall-mounted lavatories, urinals, and toilets. If present, shower, locker, and dressing rooms shall be considered part of the restrooms and cleaned under the same guidelines. Clean all mirrors/mirror trim, and hardware. Clean or polish any furniture as appropriate.	See below.	Restrooms, medical offices, and laboratories are cleaned properly and on time.
		Service dispensers, stocking with sufficient supplies to last to next scheduled service. Replenish dispensers if emptied prior to next servicing. Coordinate for the repair or replacement of any dispensers. Empty and disinfect waste containers and replace plastic liners.		
		Sweep and wet mop hard floors with a disinfectant. Clean floor drains and flush with a disinfectant. Vacuum carpeted floors. Clean any wainscoting, partitions, walls, and doors.		
		Display a "Closed for Cleaning" bar-type sign, placing it between the doorjambs of the restroom, locker room, or vestibule entrance during the entire cleaning process. Upon completion of the cleaning, remove the signs and display "Wet floor" caution signs, one sign to be placed every 30-35 feet, when cleaning floors in an area where people (other than Contract personnel) are or shall be present before floors are dry. Remove and store the signs when floors are dry.		
		Police area and spot clean to remove any spills or standing water.	251 cleanings	
		a. Perform 5W on 95,600 sq. ft of restrooms and 10,250 sq. ft of medical offices/patient rooms/labs.		
		b. Perform 7W on 1,055 sq. ft. for the following: Bldg 30S/Rooms 23RME, 23RWE, 23VME, 23VWE, 43RME, 43RWE, 43VWE, and 43VME.	365 cleanings	
		c. Perform 8W on 506 sq. ft. for the following: Bldg 90D.	416 cleanings	
		d. Perform 11W on 2,350 sq. ft. for the following: Bldg 207/Rooms 120 and 135.	572 cleanings	
14.2.6	Inside Stairs, Stairwells, Ramps, and Landings Inside stairs, railings, ledges, stairwells, and ramps, and landing surfaces are clean.	Clean stairs, railing, ledges, inside stairwells and landing surfaces. Do not use devices that merely displace or redistribute the matter, such as feather dusters, unless they are treated to attract and hold the matter. Damp mop stair surfaces and landings. Walls, furniture, and fixtures shall be free of splash marks, spots or cleaning residue.	See below.	Stairs, railings, ledges, inside stairwells and ramps, and landing surfaces are cleaned properly and on time.
		a. Perform weekly on 58,450 sq. ft.	52 cleanings	See Above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Perform 2W on 2,760 sq. ft. in Bldg 30S/All, Bldg 9N/Rms 12SNE, and 12SNW.	104 cleanings	See Above.
14.2.7	Light/Lamp Replacement Incandescent and fluorescent lights and lamps are replaced when burned out or flickering.	Provide and replace burned out or flickering light bulbs/lamps with same type, wattage/voltage. Clean fixtures, globes, reflectors, covers, diffusers, and plastic side panels when lamps are replaced and clean any adjacent areas that become contaminated with foreign material, including dust, dirt, or cleaning product residue. Complete bulb/lamp replacement for those 10 foot and below within 4 hours. Place burned out bulbs and lamps into box when box is full of burned out bulbs, date and label "Universal Waste." Lamps shall be collected and recycled by COSS contractor in accordance with Annex 9 requirements. NOTE: Majority of light fixtures at ***JSC** are located in ceilings 10 feet and under; however, approximately 20 percent are located in ceilings over 10 feet high. Approximately 75,000 are single fluorescent bulb, 1,000 are four bulb fluorescent, 1,000 are halogen, quartz, or other, and 3,000 are incandescent. (Workload data reflects 80% below 10 feet.)	80,000 fixtures at ***JSC.**	Lighting is replaced properly and on time.
14.2.8	Inside/Outside Entrance Area Floors Inside and outside entrance areas appear clean.	a. Sweep and damp mop inside entrance area floors to remove all dirt, dust, spills, stains, and standing water. Police the entrance areas during foul weather to ensure that all standing water is removed. Display "Wet floor" caution signs, one sign to be placed every 30-35 feet, when cleaning floors in an area where people are or shall be present before floors are dry. Remove and store the signs when floors are dry. Ensure the umbrella bag dispensers located in most building inside entrance areas are sufficiently stocked with Custodial ***TMR** provided bags.	See below	Inside entrance area floors and outside entrance areas are cleaned properly and on time.
		Perform daily 5W on 60,000 sq. ft.	251 cleanings	See above.
		b. Clean entrance mats, remove dirt, dust, soil, and moisture from underneath mats, clean the floor under the mats so it matches the rest of the floor, and return the mats to their original location. Clean walk-off mats located outside of building entrances, outside entrance areas, and steps leading to the building.		
		Perform 3W on 60,000 sq. ft	156 cleanings	See above.
		Upon request from Custodial ***TMR**, replace damaged or worn mats with Custodial ***TMR** provided mat within 2 days.	24 mats.	Mats are replaced properly and on time.
14.2.9	Hard Floor Cleaning Floors are clean.	a. Dust-mop or sweep hard floors to remove airborne dirt, soil, lint, or other foreign material using a clean anti-static dust-mop.	See below.	Floors are cleaned properly and on time.
		1. Perform 2W on 1,754,800 sq. ft.	104 cleanings.	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		2. Perform 5W on 6,000 sq. ft. in Bldg. 1/Ninth floor; Bldg. 3/Rms 103AC, 103AN, 103AS, 103W; Bldg. 11/Rm 101 (Serving Area); Bldg. 110/Room 120.	251 cleanings	See above.
		b. Wet or damp mop, or machine scrub floors to clean free of all dirt, lint, debris, liquids, streaks, smudges, heel marks, or other foreign material which can be reasonably removed. Sweep floors prior to mopping or machine scrubbing. Allow no build-up in corners, crevices, under or around furniture parts. Machine scrub floors using low speed (revolutions per minute) (rpm) to reduce splashing. Clean walls and furniture free of splash marks/spots caused by cleaning solutions	See below	See above.
		1. Perform weekly on 1,658,800 sq. ft.	52 cleanings.	See above.
		2. Perform 2W on 87,000 sq. ft. in Bldg 1/Floors 1-9, Bldg 110/Rm 120	104 cleanings.	See above.
		3. Perform daily 5W on 14,300 sq. ft. in Bldg 3/Rms 103AC, 103AN, 103AS, 103W; Bldg 8/Rms 134, 134A, 136A, 138, 139, 142, 143, 145-156, 161, 161B-D, 162-164, 1104, 1106, 208, 223, 223A, 277, 277A, 277B, 277E, 278; Bldg 11/Rm 101 (Serving Area).	251 cleanings	See above.
		NOTE: When cleaning Building 10, Rooms 217, 217A, and 218 (approximately 2,000 sq. ft.), a cleaner/neutralizer manufactured by Techspray, Zero Charge Cleaner/Neutralizer #1722, shall be used. MSDS information is shown in Section J, Attachment P, Exhibit P-5.		
		NOTE: Take special care on tiled pedestal floors to ensure liquid is kept to a minimum to protect the tile and prevent seepage.		
		NOTE: Floors with vinyl floor tile shall be scrubbed or stripped in strict compliance with OSHA Floor Care Operations, 29 Code of Federal Regulations (CFR) 1910.		
14.2.10	Vacuum Carpets and Rugs Carpets and rugs are clean.	HEPA vacuum carpet and rugs free of all loose soil, dirt, debris, or any other loose foreign matter. Daily, inspect carpet and rugs, and spot vacuum between designated frequencies.	See below.	Carpet is vacuumed properly and on time.
		a. Perform 2W on 724,750 sq. ft..	104 cleanings	See above.
		b. Perform 5W on 17,450 sq. ft in Bldg 3/Rms 100, 100A, 1AN, 1AS, 1AWN, 1AWS. Bldg 8/Rms 140, 141, 165, 1100, 1102, 220, 223B. Bldg. 11/Rms 100, 1AE1, 1AE2, 1AW, 1ASE, 1ASW.	251 cleanings	See above.
		NOTE: Bldg 30S, Flight Control Rooms 2306 and 2326 shall be cleaned with non-electrical sweepers.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.2.11	Machine Scrub Restroom Floors Restroom floors are clean.	Remove built-up dirt, soil, liquids, or other foreign materials from hard floors using a scrubbing machine equipped with nylon grit block or approved equivalent in conjunction with a cleaner/disinfectant. Ensure floors have no build-up in corners, crevices, or under or around furniture parts. Machine scrub floors using low speed (revolutions per minute) (rpm) to reduce splashing. Ensure walls and furniture are free of splash marks/spots caused by cleaning solutions.	See below.	Floors are machine scrubbed properly and on time.
		Perform monthly on 96,000 sq. ft.	12 cleanings	See above.
14.2.12	Spray Buffing in Hallways Hard floors in hallways are spray buffed and have a pleasant appearance.	Remove soil, liquids, streaking, or scuffmarks from hard floors in hallways using a scrubbing machine equipped with buffing pad. Damp mop floors, and then refurbish the floor finish using a wax and water solution, allowing no build-up in corners, crevices, or under or around furniture parts. Spray buff floors using low speed (rpm) to reduce splashing. Ensure walls and furniture are free of splash marks/spots caused by cleaning or finishing process.	See below.	Floors are spray buffed properly and on time.
		Perform monthly on 283,000 sq. ft.	12 cleanings	See above.
		NOTE: Floors with vinyl floor tile shall be spray buffed in strict compliance with OSHA Floor Care Operations, 29 Code of Federal Regulations (CFR) 1910.		
14.2.13	Recycling Program Recycled material are removed and processed, areas are litter free	a. Remove recyclable white paper from dedicated recycle bins. Repair or replace damaged recycle bins at no additional cost to the Government. Each bin has a 250-pound capacity. Clean bins if soiled. Provide replacement if bin is to be removed for longer than 4 hours between 7:30 a.m. and 4:30 p.m. Empty bins when 2/3 full, or more frequently, to prevent overfilling. Collect and dispose of the paper residual from the Classified Waste Disintegrator Facility located at Building 324 in the same manner as other recyclable paper. Provide a closed compactor container for the paper residual generated at the Classified Waste Disintegrator Facility located at Building 324. Keep the area free of litter. Transport all recyclable white paper to a central location for off site recycling. Make arrangements for recycling of materials.	1,200,000 pounds of white paper recycled	Recycled material is removed properly and on time.
		b. Remove any cardboard upon discovery in the process of custodial duties. Examples of places where cardboard might be found are in the hallways, near the copy machine, near the entrances, etc. Transport the collected cardboard to a designated location for collection and of-site recycling. Make arrangements for recycling of materials.	120,000 pounds of cardboard recycled.	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Remove contents from designated aluminum beverage container receptacles and transport to approximately ten designated locations. Remove and dispose of any items other than aluminum beverage containers prior to placement in permanent recycle container. Clean any beverage spills that occur during collection.	3,000 pounds of aluminum recycled.	See above.
		d. Conduct a comprehensive study and survey of solid waste generation and accumulation activities at ***JSC.** The survey shall include, but is not limited to: 1. Location, volumes, weights, and types of wastes currently generated. 2. Locations, volumes, weights, and % of materials currently being recycled. 3. Locations, types, and amounts of potential recyclables remaining in disposed of solid waste (at a minimum potential recyclables must include wood, concrete, metals, cardboard, paper, plastic, grass or other compostable material). 4. Identification of potential reusable materials (by type, volume, weights, and location) found in the solid waste. 5. Identification of areas where additional recycling or reuse of materials would be practical. 6. Evaluation of costs to implement and potential costs savings and cost avoidance of additional recycling or reuse. 7. Evaluation of required equipment, training, procedures or other requirements to implement each potential recycling or reuse program. 8. Identification of potential vendors/recyclers. 9. Any other information needed to evaluate selection of additional recycling programs. The study shall be separated into 3 sections, one each for JSC, EF, and SCTF. Make recommendations facility specific. The study shall be completed by Oct. 1st of the first contract year. NOTE: Recycling of wood pallets used in Annexes 10 and 11 are addressed in those annexes.	1 study (Year One)	Study is complete, accurate and contains all required elements. Study is complete on time. All required elements are included in the study.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		e. Fully implement mixed paper recycling at JSC at the start of Year 2 of the contract, in place of white paper recycling. Implementation includes all requirements for the recycling program, Including but not limited to: extra containers, making arrangements for recycling of materials, awareness literature and training for employees and facility managers, manpower, transportation, and collection devices and any other activities or materials, as needed. NOTE: It is anticipated that the same desk collection boxes and larger collection bins can be used to collect the mixed paper as the white paper. The rate of paper collection should increase requiring more frequent emptying removal. Specific information of the amounts and locations of additional paper to be included in this recycling program should be identified in the study in CLIN 14.2.13.d.	2,000,000 pounds of paper, year 2, 3, 4, and 5	Mixed paper recycling program is started on time. All required elements of the program are provided and in place at the start up and throughout the implementation. Awareness and/or training for employees and facility managers provided prior to initiating the program.
		f. Return all revenues collected from metals recycling to the Government within 10 days of receipt by COSS contractor.	12 transactions	All revenues from recycling are returned to the government. Revenues are returned on time.
		g. Track information on a monthly basis on the waste generation, costs of disposal and recycling, and amount of wastes recycled. Track information electronically (Excel or other similar format) and place information in location, such as shared server folder, that is accessible to the Environmental ***TMR**. Update the information by the 15th day of each month for previous month's activities. Information tracked includes, but is not limited to: cubic feet and tons of solid waste collected; total cost of disposal of waste via landfill and cost by cubic feet or tons; cubic feet and tons of recycled solid waste; revenue received form recycling for each recycled item; value per cubic foot or ton received for each recycled item; a list of all transportation fees associated with recycling; total % of waste diverted from landfilling; restraints or impediments to recycling.	12 months	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.2.14	Solid Waste Removal Solid waste is removed and areas are free of litter.	Empty all waste containers within buildings when 2/3 full or 3W, whichever occurs first. Clean container with a disinfectant if soiled, wipe dry, and replace plastic liner if soiled or leaking. Replace liners on all containers used for disposal of liquids, and clean and disinfect the container if the liner leaked. Empty waste containers in food consumption areas, including, but not limited to: cafeterias, vending areas, concession areas, break rooms, etc., and in Building 211, B30S/Rooms 2326, 4301, and 4328 daily, and replace plastic liners. Pick up and dispose of any waste that falls on the floor and outside grounds during the solid waste removal process. Place collected waste in outside waste containers.	38,000,000 pounds.	Solid waste is removed accurately and on time.
		Provide/remove wheeled trash bins with extra liners within 3 hours of request.	See above.	See above.
		Establish and maintain a solid waste removal service. At the time of service, ensure dumpsters, roll-offs, and compactors are free of all waste. Provide service to the solid waste containers when 2/3 full, or more frequently if required, to prevent overfilling or non-availability. Do not let collected trash accumulate outside of any ***JSC** facility unless it is contained in approved Contractor supplied "dumpster" type container. Ensure areas around the containers are free of debris. Ensure outside of dumpsters, roll-offs, and compactors are free of graffiti. Ensure dumpsters are closed at all times except when adding waste to them. Keep interior of dumpsters free of residue build-up or offensive odors. Do not stage or dispose of trash or waste, in any form, on Government property. Dispose of waste in an approved landfill or equally acceptable means, approved in writing, by the Custodial ***TMR**. Move any or all roll-offs to other locations when requested by the Custodial ***TMR**.	See above.	See above.
		Provide and place dumpsters outside of designated buildings, as approved by the Custodial ***TMR**. Maintain dumpsters in operational condition, and repair if damaged.	See above.	Dumpsters are placed and serviced accurately and on time.
		Provide and service when 2/3 full, or more frequently, to prevent overfilling: a. Two 40 cubic yard roll-off containers in the pit area south of Bldg. 333. b. One 30 cubic yard roll-off at Bldg. 10. c. Two 30 cubic yard roll-offs at Bldg. S920. d. One 20 cubic yard roll-off at Bldg. E270. e. One 6 cubic yard dumpster at Bldg. 9S. f. One 4 cubic yard dumpster at Bldg 95B.	See above.	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide and service daily: a. One 8 cubic yard dumpster at Bldg. 3. b. One 8 cubic yard dumpster at Bldg. 11. c. One 8 cubic yard dumpster at Bldg. 207. d. One 4 cubic yard dumpster at Bldg. 211.	See above.	See above.
		Provide and service 3W, or more frequently, to prevent overfilling: a. One 8 yard dumpster at Bldg. 8.	See above.	See above.
		Provide and schedule service consistent with the solid waste disposal for the other stationery dumpsters on site: a. One cubic yard rolling dumpster at Bldg 32. b. One cubic yard rolling dumpster at Bldg 220. c. One cubic yard rolling dumpster at Bldg 222 NOTE: Users are responsible for transporting the dumpsters onto the loading dock or other areas as designated by the Custodial ***TMR** for waste removal. When emptied, users are responsible for transporting the dumpsters back inside the buildings for which they are assigned. NOTE: ***JSC** is working toward an Agency goal to reduce solid waste by 35% within 8 years.	See above.	See above.
		a. Remove tobacco residue from approximately 165 ash receptacles located exterior to buildings twice a day, once in the morning and once in the afternoon. Replenish sand to appropriate level. Keep the area around ash receptacles free of litter and debris. Empty receptacle and replace the plastic liners 5W in approximately 200 trash containers located outside of buildings, at the Gilruth grounds, the Longhorn Pavilion, and in parking areas.	See above.	Tobacco residue is removed accurately and on time.
		b. Maintain free of litter and debris ***JSC** property, including, but not limited to: the grounds, building perimeters, the Longhorn Pavilion, the entire Gilruth complex (except the ball fields), stair wells, stairs, and ramps, identified as serviceable under the terms of this contract, site fence line, to include any litter or debris trapped in the fence structure. NOTE: This service shall specifically exclude those areas of Ellington Field considered to be off-limits to pedestrian traffic, including runways, taxiways, aprons, and facilities maintained and policed by others as lump sum activities.	See above.	Areas are maintained free of litter and debris accurately and on time. See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Sweep and damp mop or hose off picnic/pavilion areas on the Gilruth grounds and the Longhorn Pavilion (Bldg 95) and clean picnic tables weekly to remove all residue. Empty and clean all barbecue grills and remove cobwebs and visible dirt from pavilion structures semimonthly.	See above.	See above.
14.3	**Periodic Services** Perform Periodic Services	Performed periodic services when and where requested by the Custodial ***TMR**. Note: For items below assume average monthly values to be one-twelfth of workload data. There will be instances (special events, etc.) that will cause fluctuations in the workload.	See below.	See below.
14.3.1	Dusting/Cleaning Requested areas are dusted & cleaned.	Dust/clean as requested. Do not use devices that merely displace or redistribute the matter, such as feather dusters, unless treated to attract and hold the matter. Clean furniture, fixtures and walls with a cleaner, wood cleaner, and/or polish as appropriate for surface. Clean/polish metal surfaces and fixtures with a nonabrasive cleaner/polish. Dusting/cleaning includes, but is not limited to: cleaning and disinfecting Heating Ventilation and Air Conditioning (HVAC) louvers, baseboards, corners, areas behind doors, air vents, venetian blinds and ledges/windowsills.	2,000,000 sq. ft.	Dust/clean requested area accurately and on time.
14.3.2	Unscheduled Cleaning Clean ups are performed and area appears as it did before the incident.	a. Provide services for cleaning tasks beyond the scope of basic services. Complete within 1 hour of request between 5:30 a.m. and 5:30 p.m. and within 2 hours of request between 5:30 p.m. and 5:30 a.m. Examples of unscheduled cleaning include, but are not limited to: clean up of overflowed restroom toilets and sinks, spills, broken glass, etc.	250 requests.	Cleaning services are performed accurately and on time.
		b. Clean up of blood/infectious material within 30 minutes of request in accordance with the OSHA Blood borne Pathogen Program, 29 Code of Federal Regulations (CFR) 1910. Deliver the material to the JSC Clinic. Provide clean up (support) under conditions specified in Section J, Exhibit P-4.	20 requests.	Blood/infectious material cleanup is completed accurately and on time.
		Develop a Blood borne Pathogen Program for approval by the Government 2 weeks prior to the contract start date. Submit the final Blood borne Pathogen Program to the Custodial ***TMR** for approval on the contract start date. NOTE: Historically for blood/infectious material, only one or two requests per year are considered major in nature. NOTE: The majority of unscheduled clean ups occur between 5:30 a.m. and 5:30 p.m.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.3.3	Interior Windows/Window Area/Venetian Blinds Interior glass surfaces, frames, sills, trim, and venetian blinds are clean.	Clean interior window glass surfaces, frames, sills, trim, venetian blinds, or similar window covering ensuring a clean, uniform appearance. Remove all excess spray/solution from surrounding trim or surface. Do not use devices that merely displace or redistribute the matter, such as feather dusters, unless they are treated to attract and hold the matter.	130,000 sq. ft.	Interior glass surfaces, frames, sills, trim, venetian blinds or similar window coverings are cleaned accurately and on time.
14.3.4	Exterior Glass Surfaces/Window Frames Exterior glass surfaces/window frames are clean.	Clean all exterior glass surfaces including windows and window frames to ensure a clean, uniform appearance. NOTE: Contractor will only be tasked to clean first floor exterior windows on multi-floor buildings.	100,000 sq. ft.	Glass surfaces/window frames are cleaned accurately and on time.
14.3.5	Strip, Seal, and Wax/Finish Hard Floors Floors are stripped, sealed and waxed or finished and look clean.	Sweep/dust-mop floors prior to striping. Strip to remove all cleaning solution, deposits, dirt, marks, stains, water, and wax prior to application of sealer and wax. Strip floors using low speed (rpm) to prevent splashing. Apply sealer, and then wax/finish so floors have a uniform, glossy appearance with no evidence of splashing on furniture, walls, or fixtures, and no evidence of build-up or discoloring. Buff surface if recommended by the manufacturer. Buff floors using low speed (rpm) to reduce splashing. NOTE: In Building 10, Rooms 217, 217A, and 218 (approximately 2,000 square feet), two products manufactured by "Techspray", #1721 Zero Charge Floor Stripper and #1720 Zero Charge Static Dissipative Floor Coating, shall be used for this task. MSDS information is shown in Section J, Attachment P, Exhibit P-5. NOTE: Floors with vinyl floor tile shall be stripped in strict compliance with OSHA Floor Care Operations, 29 CFR 1910.	1,800,000 sq. ft.	Floors are stripped, waxed and finished accurately and on time.
14.3.6	Shampoo Carpet/Rugs Carpet/rugs are clean.	Vacuum carpet/rugs free of all loose soil and debris prior to shampooing. Shampoo, using a Custodial ***TMR** approved method, free of any foreign material such as dirt, soil, and stains. Carpet shall have a uniform appearance. Clean carpet, baseboards, walls, and furniture/fixtures free of cleaning agent residue. Use minimum amount of liquid on pedestal tile floors to prevent contamination of carpet underside. NOTE: Several buildings have carpeted areas and/or rooms that require cleaning with HEPA vacuum cleaners. See Table 14.1.	1,000,000 sq. ft.	Carpets are shampooed accurately and on time.
14.3.7	Emergencies/Special Events/Visitor Custodial Services Custodial support services are provided for major emergencies, special events, Very Important Persons (VIP) visits, etc.	Provide custodial support services for contingencies including, but not limited to: major emergency situations, special events, VIP/dignitary visits, shuttle missions, and other similar occurrences. Provide support within 15 minutes for major emergency situations and within 24 hours for non-emergency situations. The timeframe covered by this CLIN will be 24 hours per day, 7 days per week (including holidays). See ****Emergency/Special Events/Visitor Custodial Services.**	11,000 man-hours.	Custodial support is provided accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.3.8	Interior Extermination Buildings are reasonably free of insects and rodents without producing objectionable or offensive odors or residue.	Perform extermination treatment in designated area using Custodial ***TMR** approved method, adhering to manufacturers recommendations, and in accordance with OSHA and Texas Structural Pest Control Board guidelines and requirements. Use methods that do not produce offensive or objectionable odors or residue. Perform chemical spraying after 5:30 p.m., or preferably, on weekends. Advise the Custodial ***TMR** of need for termite treatment. Fax a copy of the consumer information notice to the Custodial ***TMR** within 1 hour of preparation, but no later than two workdays before extermination is performed. Keep a file copy. NOTE: The contractor can expect the requests identified in the workload data to cover approximately 225,000 square feet per year.	900 requests.	Extermination and documentation are done accurately and on time. No instances of regulatory violations.
14.3.9	Short-term Supplemental Waste Removal Short-term supplemental solid waste removal service is provided.	a. Provide two, four, six, or eight cubic yard supplemental dumpsters or 20, 30, or 40 cubic yard roll-off solid waste containers to support short-term special requirements within 3 days of request. Occasionally, emergency requests will require provision on next day. Provide service to the dumpsters or roll-off containers when they are 2/3 full, ensuring they are not overfilled or unavailable. At the time of servicing, ensure dumpsters and roll-offs are free of all wastes. Ensure areas around the bins are free of debris. Ensure dumpsters and roll-offs are free of graffiti, residue and odor. Provide daily service to Buildings 3, 8, 11, and 211.	500 cubic yards in combined sizes.	Dumpsters are provided and serviced accurately and on time.
		b. Deliver, locate, and make ready for use solid waste, standard size portable restrooms within 3 workdays of the request (within 24 hours for emergency requirements). Remove and service by the business day following the end of the event.	20 portable restrooms.	Portable restrooms are provided, serviced and removed accurately and on time.
14.3.10	Personnel Requirements Personnel requirements are met for all employees.	Supervisors shall be able to speak and read English, and shall be on site at all times while work is being done.	Contractor determined.	See below.
		The Contractor shall provide a point of contact (POC) and an alternate who speaks and reads English, who shall be responsible for the performance of the custodial work. The POC or alternate shall have full authority to act for the Contractor on all contract matters relating to daily operation of this contract. The POC or alternate shall maintain communications via a Contractor-supplied voice pager or cellular telephone system with the Custodial ***TMR** during all hours of operation. The Contractor is responsible for all expenses incurred for the operation of the pager or cellular telephone.		Point of Contact and alternate speak and read English, are responsible for custodial work performance and maintain communications accurately and on time.
		Maintain current State of Texas License and/or Certification for work called for in this annex, including termite inspection.	See above.	Licenses and certifications are maintained accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All custodial personnel shall be properly uniformed, neat, clean in appearance, and easily recognized. All employee uniforms shall be the same design and color. The uniforms worn by any field supervisors shall be of the same basic design, but may be of a different color for distinction from the general custodial staff. No shorts or cut-off slacks/trousers and no open toed shoes or sandals may be worn. Personnel shall be free of body odor and clothing shall be free of dirt and odor at the beginning of each workday.	See above.	Personnel are properly uniformed and meet odor/cleanliness requirements accurately and on time.
14.3.11	Training Training requirements are met for all employees.	Provide and document adequate training for each employee to competently, safely, and efficiently perform work identified in the contract. Training shall include, but not be limited to: orientation, introduction to assignments, chemical usage, tools and equipment, general procedures, restroom cleaning, common mistakes, spray buffing, safety, recycling, relamping, personal protective equipment, OSHA Class IV (4) Asbestos Training, and Blood Born Pathogen Training. JSC specific training relating to Safety and Health shall also be required for all employees, along with periodic refresher courses, as required by JSC and/or OSHA. When non-English speaking and reading personnel are to be trained, the Contractor shall provide the training and ensure the training is the same program used for English-speaking and reading personnel. Ensure that all training is received prior to performing work. Provide all necessary equipment and supplies to conduct the non-JSC/OSHA specific training courses outlined in Annex 14, including, but not limited to: audio-visual equipment, as well as any equipment, supplies, or chemicals used for demonstration purposes. JSC will provide training for any JSC-specific safety-related courses required. Train and maintain a clean-up response crew to provide for clean up of blood/infectious material during work hours.	Nothing additional.	Training and documentation are completed accurately and on time.
14.4	**Records, Reports, and Submittals**			
14.4.1	Custodial Cleaning Schedules Develop/maintain/submit the submittal specified	Develop, submit and update the Custodial Cleaning Schedules per DRD AN-14-1.	1 Report	Work schedule submitted accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
14.4.2	Comprehensive Recycling Study Report Provide Comprehensive Recycling Study Report	Submit an organized narrative report detailing the recommendations and findings of the comprehensive solid waste generation and recycling study required in CLIN 14.2.13.d. Include all elements required in the study. All assumptions, data collection and study methodology and justification, findings, background documentation, and numerical data collected during the studies, shall be included as appendices to the report. The report shall be separated into 3 sections, one each for JSC, EF, and SCTF. Make recommendations facility specific. Submit the report by the 30th day of the seventh month after contract start date.	1 report, year 1 only	Report is accurate, complete, and provided on time.

SECTION D

PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE – N/A

D.2 PACKAGING, HANDLING, AND TRANSPORTATION (NASA 1852.211-70) (JUNE 2000)

(a) The Contractor shall comply with NPG 6000.1E, "Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components", dated April 26, 1999, as may be supplemented by the statement of work or specifications of this contract, for all items designated as Class I, II, or III.

(b) The Contractor's packaging, handling, and transportation procedures may be used, in whole or part, subject to the written approval of the Contracting Officer, provided (1) the Contractor's procedures are not in conflict with an requirements of this contract, and (2) the requirements of this contract shall take precedence in event of any conflict with the Contractor's procedures.

(c) The Contractor must place the requirements of this clause in all subcontracts for items that will become components of deliverable Class I, II, or III items.

(End of clause)

[End of Section]

SECTION E

INSPECTION AND ACCEPTANCE

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-4	AUG 1996	INSPECTION OF SERVICES--FIXED-PRICE
52.246-5	APR 1984	INSPECTION OF SERVICES—COST-REIMBURSEMENT
52.246-16	APR 1984	RESPONSIBILITY FOR SUPPLIES

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.246-72	JUN 1995	MATERIAL INSPECTION AND RECEIVING REPORT

E.2 INSPECTION AND ACCEPTANCE (JSC 52.246-90)(JUN 1991)

Final inspection and acceptance shall be accomplished by the Contracting Officer or his/her duly authorized representative at NASA Lyndon B. Johnson Space Center.

(End of Clause)

E.3 QUALITY ASSURANCE SURVEILLANCE PLAN (JSC 52.246-93)(JULY 1996)

A Quality Assurance Surveillance Plan will be developed and implemented by the Contracting Officer's Technical Representative as a part of the contract administration and monitoring activities conducted to assure that the Government receives products and services that conform to contract requirements. The nature and extent of quality assurance surveillance contemplated in this plan will be based, in part, on the specific content of the contractor's Quality Control Plan (included in Section J).

(End of Clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY

E.4 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-12	AUG 1996	INSPECTION OF CONSTRUCTION
52.246-13	AUG 1996	DISMANTLING, DEMOLITION, OR REMOVAL OF IMPROVEMENTS

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in Section E.4.

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY

E.5 LISTING OF CLAUSES INCORPORATED BY REFERENCE – N/A

[END OF SECTION]

SECTION F

DELIVERIES OR PERFORMANCE

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
The following 2 clauses (52.242-15 & 52.242-17) apply to SOW Annexes 6, 7 & 14 only:		
52.242-15	AUG 1989	STOP-WORK ORDER
52.242-17	APR 1984	GOVERNMENT DELAY OF WORK
The following clause (52.242-15 Alternate I) applies to SOW Annexes 1-5 & 8-13 only:		
52.242-15	AUG 1989	STOP-WORK ORDER (ALTERNATE I) (APR 1984)
52.247-34	NOV 1991	F.O.B. DESTINATION

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in Section F.1.

III. FULL TEXT CLAUSES

F.2 COMPLETION OF WORK (JSC 52.212-95) (Sept 1988)

All work required under this contract, including submission of all reports, shall be completed on or before March 31, 2004.

(End of clause)

F.3 PHASE-IN AND PHASE-OUT

(a) Contractor Phase-In. The services provided by this contract are vital to the Government's overall effort, and continuity must be maintained at a consistently high level without interruption. The Contractor is expected to meet full performance requirements from the start date of the base contract period. The phase-in period shall be approximately 60 calendar days prior to the start date of the base contract period. Office space will not be provided by the Government during the phase-in period. The Contractor shall support a weekly meeting with the preceding Contractor(s) to discuss/identify problems or areas requiring attention during this phase-in period. The Contractor shall accomplish phase-in in accordance with Section J, Attachment A, Part 4.

(b) Contractor Phase-Out. Phase-out activities shall be accomplished in accordance with FAR 52.237-3, Continuity of Services.

(End of clause)

The following clauses (JSC 52.216-95) applies only to SOW Annex 6:

F.4 METHOD OF PLACING DELIVERY ORDERS (JSC 52.216-95)(SEPT 1998)

Delivery Orders may be placed only by the Contracting Officer. Delivery Orders will be in writing on JSC Form 1429 or orally, followed by written confirmation. Delivery Orders will be Number "1" and second will be Number "2", and each succeeding Delivery Order will be numbered consecutively.

Each Delivery Order placed against this contract shall outline the following minimum information:

(A) Delivery Order Number and Contract Number; (B) Place of delivery or performance (including consignee); (C) Item/items ordered, including quantity, unit price, and amount of each: (D) Date of order, and required delivery date; (E) Name of person placing order (F) Funding and appropriation data; (G) Procurement placement code; (H) Total amount; (I) Signature of the Contracting Officer.

Amendments to orders may be issued in the same manner as original orders. Each order or amended order shall contain a citation of funds from which payment for the supplies or services ordered shall be made.

(End of clause)

F.5 OPTION TO EXTEND COMPLETION DATE (JSC 52.217-90) (OCT 1996)

The Government may require the contractor to continue to perform services under this contract. The contracting officer may exercise this option by issuance of a unilateral contract modification 30 days or more before the completion date set forth in Section F. Should the option be exercised, the resultant contract will include all terms and conditions of the basic contract as it exists immediately prior to the exercise of the option, except for the following changes:

Option 1 (Third Contract Year)

1. B.4, entitled "Firm Fixed Price" shall be modified to increase the contract value by $***TBD*** *to* ***TBD***.

2. B.5, entitled "Estimated Cost and Award Fee" shall be modified to increase the estimated cost by ***$[to be input by offeror}*** *to* ***$[to be input by offeror]*** and to increase the maximum available award fee by ***$[to be input by offeror] to $[to be input by offeror].***

3. B.7, the price schedule for Contract Year 3 shall become effective April 1, 2004.

4. B.8, the pre-established Annex 6 ID/IQ prices for Contract Year 3 shall become effective for all delivery orders on or after April 1, 2004

5. B.9, the pre-established Annex 13 cost values for Contract Year 3 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2004.

6. B.10, the pre-established Annex 6 fixed labor rates for Contract Year 3 shall be used in developing estimates for all delivery order (DO) proposals requested on or after April 1, 2004 to the extent DO proposals are to be estimated using fixed labor rates.

7. B.11, the pre-established Annex 13 loaded labor rates for Contract Year 3 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2004.

8. F.2, entitled "Completion Date" shall be modified to extend the Completion Date to March 31, 2005.

9. I.3, the last sentence of the clause entitled "Indefinite Quantity" shall be modified to read "The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after March 31, 2005."

Option 2 (Fourth Contract Year)

1. B.4, entitled "Firm Fixed Price" shall be modified to increase the contract value by by ***$[to be input by offeror]*** to by ***$[to be input by offeror]***.

2. B.5, entitled "Estimated Cost and Award Fee" shall be modified to increase the estimated cost by ***$[to be input by offeror]*** to ***$[to be input by offeror]*** and to increase the maximum available award fee by ***$[to be input by offeror]*** to ***$[to be input by offeror]***.

3. B.7, the price schedule for Contract Year 4 shall become effective April 1, 2005.

4. B.8, the pre-established Annex 6 ID/IQ prices for Contract Year 4 shall become effective for all delivery orders on or after April 1, 2005.

5. B.9, the pre-established Annex 13 cost values for Contract Year 4 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2005.

6. B.10, the pre-established Annex 6 fixed labor rates for Contract Year 4 shall be used in developing estimates for all delivery order (DO) proposals requested on or after April 1, 2005 to the extent DO proposals are to be estimated using fixed labor rates.

7. B11, the pre-established Annex 13 loaded labor rates for Contract Year 4 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2005.

8. F.2, entitled "Completion Date" shall be modified to extend the Completion Date to March 31, 2006.

9. I.3, the last sentence of the clause entitled "Indefinite Quantity" shall be modified to read "The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after March 31, 2006."

Option 3 (Fifth Contract Year)

1. B.4, entitled "Firm Fixed Price" shall be modified to increase the contract value by by ***$[to be input by offeror]*** to by ***$[to be input by offeror]***.

2. B.5, entitled "Estimated Cost and Award Fee" shall be modified to increase the estimated cost by ***$[to be input by offeror]*** to ***$[to be input by offeror]*** and to increase the maximum available award fee by ${to be input by offeror] to $[to be input by offeror].

3. B.7, the price schedule for Contract Year 5 shall become effective April 1, 2006.

4. B.8, the pre-established Annex 6 ID/IQ prices for Contract Year 5 shall become effective for all delivery orders on or after April 1, 2006

5. B.9, the pre-established Annex 13 cost values for Contract Year 5 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2006.

6. B.10, the pre-established Annex 6 fixed labor rates for Contract Year 5 shall be used in developing estimates for all delivery order (DO) proposals requested on or after April 1, 2006 to the extent DO proposals are to be estimated using fixed labor rates.

7. B.11, the pre-established Annex 13 loaded labor rates for Contract Year 5 shall be used as a basis for developing estimates to the extent possible for all task plans are requested on or after April 1, 2006.

8. F.2, entitled "Completion Date" shall be modified to extend the Completion Date to March 31, 2007.

9. I.3, the last sentence of the clause entitled "Indefinite Quantity" shall be modified to read "The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after March 31, 2007."

(End of Clause)

F.6 SHIPPING INSTRUCTIONS (JSC 52.247-94) (APR 1997)

All documentation shall be shipped to the addresses cited in the Annexes or appropriate DRD's in Section J. Shipment of all other items shall be as follows:

Parcel Post Shipments and Freight Shipments

Ship to:	Transportation Officer, Building 421 NASA Johnson Space Center 2101 NASA Road 1 Houston, TX 77058-3696
Mark for:	Accountable Property Officer
Mark with:	Purchase Request No. _____ Contract Number: NAS 9-_____

For reissue to: _____
(Name) (Mail Code) (Bldg) (Rm)

(End of Clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY

F.7 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.211-10	APR 1984	COMMENCEMENT PROSECUTION AND COMPLETION OF WORK
52.242-14	APR 1984	SUSPENSION OF WORK

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in F.7.

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY

F.8 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.242-14	APR 1984	SUSPENSION OF WORK

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in F.8.

[END OF SECTION]

SECTION G

CONTRACT ADMINISTRATION DATA

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE

No FAR By-reference clauses in Section G.1.

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.227-70	JUL 1995	NEW TECHNOLOGY
1852.227-86	DEC 1987	COMMERCIAL COMPUTER SOFTWARE-LICENSING
1852.242-73	JUL 2000	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING
1852.245-70	JUL 1997	CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT

The following clause (1852.245-72) applies to SOW Annexes 6, 7 & 14 only:

1852.245-72	MAR 1989	LIABILITY FOR GOVERNMENT PROPERTY FURNISHED FOR REPAIR OR OTHER SERVICES – Equipment identified in **SM Database
1852.245-73	SEP 2000	FINANCIAL REPORTING OF NASA PROPERTY IN CUSTODY OF CONTRACTORS (In paragraph (b), the NASA office for receipt of NF1018 is: GOVERNMENT PROPERTY ADMINISTRATOR PROPERTY AND EQUIPMENT BRANCH/JB3)

G.2 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISITORS AND EMPLOYEES OF FOREIGN CONTRACTORS. (JSC 52.204-91) (AUG 1999)

(a) An employee of a domestic Johnson Space Center (JSC) contractor or its subcontractor who is not a U.S. citizen and does not have lawful permanent resident status (no resident alien "green" card) may not be admitted to the JSC site for purposes of performing work without special arrangements. In addition, all employees of a foreign JSC contractor or its subcontractors may not be admitted to the JSC site without special arrangements. For employees as described above, advance notice must be given to the JSC Security Office at least 3 weeks prior to the scheduled need for access to the JSC site so that instructions on obtaining access may be provided.

(b) The contractor's signature on all JSC badge request forms (i.e., JSC Forms 473A and 473B, as applicable), is certification that steps are being taken to ensure that its contractor or subcontractor employees will not be given access to export-controlled or classified information for which they are not authorized. The contractor must designate at least one individual and one alternate who have received training in applicable security and export control matters. These individuals shall serve as the contractor's representative(s) in certifying all JSC badge request forms during normal duty hours in accordance with JSC security and export control procedures. The names, telephone numbers, e-mail addresses, and office addresses of these individuals shall be provided to the contracting officer. Any changes in this information shall be promptly forwarded to the contracting officer.

(c) The contractor agrees that it will not employ for the performance of work onsite at the JSC any individuals who are not legally authorized to work in the United States. If JSC Industrial Security Specialist or the contracting officer has reason to believe that any employee of the contractor may not be legally authorized to work in the United States, the contractor may be required to furnish copies of Form I-9 (Employment Eligibility Verification), U.S. Department of Labor Application for Alien Employment Certification, and any other type of employment authorization document.

(d) The contractor agrees to provide the information requested by the JSC Security Office in order to comply with NASA policy directives and guidelines related to foreign visits to NASA facilities so that (1) the employee may be allowed access to JSC or other NASA Centers for performance of this contract, (2) required investigations can be conducted, and (3) for annual or revalidation reports required by NASA Headquarters. All requested information must be submitted in a timely manner in accordance with instructions provided by JSC or any other Center to be visited.

(End of clause)

G.3 JSC HAZARDOUS MATERIALS USE (JSC 52.223-92) (DEC 1999)

(a) This clause is JSC-unique, and the requirements are in addition to any U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, or other state or Federal regulation or statute. Therefore, the following requirements do NOT supercede any statutory or regulatory requirements for any entity subject to this clause.

(b) "Hazardous materials," for the purposes of this clause, consist of the following:

(1) Those materials defined as "highly hazardous chemicals" in Occupational Safety and Health Administration Process Safety Management Regulation, 29 Code of Federal Regulation 1010.119, without regard for quantity.

(2) Those "extremely hazardous substances" subject to the emergency planning requirements in the Environmental Protection Agency Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 355, Part 355, without regard for quantity.

(3) Those "hazardous substances" subject to the release notification requirements under Environmental Protection Agency's Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 302.4, without regard for quantity.

(4) Any radioisotope material or device that produces ionizing radiation.

Any Class II, III, or IV laser as defined by the American National Standards Institute No. Z136.1 (1986)

(6) Any explosive or any pyrotechnics.

(7) Any pesticide.

(c) The contractor shall develop and maintain an inventory listing the identity and quantity of hazardous materials stored or used onsite at JSC for the performance of the contract.

(d) The contractor shall ensure that the proper training of its employees in the use and inherent hazards of these materials is accomplished prior to use.

(e) The contractor shall notify the JSC Occupational Health and Test Support Office (SD13) prior to any initial use or different application of these materials.

(f) The contractor shall use all hazardous materials properly and take all necessary precautions to ensure no harm is done to humans or the environment.

(g) The contractor shall insert the substance of this clause, including this Paragraph F with appropriate changes of designations of the parties, in subcontracts under which hazardous materials will be utilized, or may reasonably be expected to be utilized, onsite at JSC.

(h) In the event the contractor fails or refuses to comply with any aspect of this clause, such failure or refusal may be considered a material breach of this contract.

(End of clause)

G.4 SUBMISSION OF INVOICES FOR FIXED-PRICE SERVICES

1. Invoices for services provided in accordance with SOW Annexes 6, 7 and 14 of this contract shall be submitted to:

NASA Lyndon B. Johnson Space Center

Attn: Mail Code BJ32, Contracting Officer
2101 NASA Road 1
Houston, TX 77058-3696

2. Invoices for payment for services provided under SOW Annex 7 and 14:
The contractor shall submit an invoice (original and 2 duplicate originals) no more frequently than once per month to receive payment for properly authorized services performed in accordance with SOW Annex 7 and 14 of this contract. The contractor shall not submit a request for payment prior to actual completion of the unit(s) of work for which payment is to be requested. A properly submitted invoice for shall at a minimum provide the following information for each contract line item number (CLIN) identified in Annexes 7 and 14 of the SOW:

- The total number of units delivered to date for the contract year
- The total number of units for which payment has already been requested or made
- The number of units of work performed during the period covered by the invoice
- A statement of reconciliation if the number of units performed during the period covered by the invoice is different than the number of units for which payment is being requested
- The unit price(s) used to calculate the total payment due for each CLIN
- The total payment amount requested for each CLIN
- A statement signed by an authorized representative of the contractor states that the invoice was reviewed and that to the best of that person's knowledge and belief it appropriately and accurately requests payment for work successfully completed and for which the contractor has not previously requested or received payment

In addition to the requirements above, a properly submitted invoice shall provide a subtotal payment request amount by annex and a grand total payment request amount for all services for which payment is being requested.

3. Invoices for payment for ID/IQ services provided under SOW Annex 6: Not more frequently than twice per month, the contractor shall submit an invoice (original an 2 duplicate originals) for all delivery order work completed and accepted by the Government and for which payment has not already been requested or made. For each delivery order, upon demonstrating to the Government that work has been performed and receipt by the Government of required submittals, the contractor shall obtain written acceptance from the Government prior to requesting payment. The contractor shall not invoice for any delivery order prior to acceptance of the work by the Government. If, in the case of construction, the Government at its sole discretion agrees to make progress payments, they will be made in accordance with the clause at NFS 1852.232-82. All requests for progress payments shall include written evidence of Government acceptance of all work for which the contractor is requesting payment. If multiple service orders are authorized using a single delivery order to be scheduled later by the COTR, the contractor may request payment as frequently as permitted by this clause for service orders completed and accepted by the Government since the last invoice.

A properly submitted invoice for ID/IQ requirements shall at a minimum provide the following:

- A copy of the Government acceptance documentation for each delivery order.
- A columnar summary of all delivery orders for which payment is being requested. For each delivery order, this summary should include the delivery order number, a brief title or description, and the amount for which payment is requested.
- A grand total of all the delivery orders for which payment is being sought.

(End of Clause)

G.5 IDENTIFICATION OF EMPLOYEES (JSC 52.242-92) (SEPT 2000)

At all times while on Government property, the contractor, subcontractors, their employees and agents shall wear badges which will be issued by the NASA Visit Control Office, located in Building 110. Badges will be issued only between the hours of 7:30 a.m. and 4:30 p.m., Monday through Thursday and 7:30 a.m. to 12:00 p.m. on Friday. Each individual who wears a badge will be required to sign personally for the badge. The contractor will be held accountable for these. Failure to turn in badges upon completion of the work may result in final payment being delayed.

(End of clause)

G.6 REPAIR OF GOVERNMENT PROPERTY (JSC 52.245-91)(JUN 1986)

When removal of Government-owned property from its place of use for repair is necessary, the Contractor must prepare a JSC Form 1318 prior to removing the equipment. The form and instructions regarding its use are available from the Equipment Management Section, Building 419. The repaired Government property is to be returned to the location from which it was removed unless otherwise directed by the Government.

(End of Clause)

G.7 AWARD FEE FOR SERVICE CONTRACTS (NASA 1852.216-76) (JUN 2000)

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement clause 1852.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning 6 months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with *Section J, Attachment B*. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The JSC Financial Management Division will make payment based on issuance of unilateral modification by the contracting officer.

(d) After 85 percent of the potential award fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount

that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.

(e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth in Section J, Attachment B. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(f) (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 70 percent or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will not be made prior to the first award fee determination by the Government.

(g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.8 SUBMISSION OF VOUCHERS FOR PAYMENT

(a) All requests for reimbursement of allowable, allocable and reasonable costs incurred in accordance with the terms of this contract to perform services required by SOW Annexes 1 through 5 and 8 through 13 as well as all requests for payment of fee shall adhere to the following:

(b) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.

(c) (1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

Defense Contract Audit Agency
Central Region
Houston Branch
8876 Gulf Freeway, Suite 500
Houston, TX 77017-6544

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the Contracting Officer.

(d) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the contractor shall prepare and submit vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:

Defense Contract Audit Agency
Central Region
Houston Branch
8876 Gulf Freeway, Suite 500
Houston, TX 77017-6544

(2) Five copies of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

(i) Copy 1 NASA Contracting Officer
(ii) Copy 2 Auditor
(iii) Copy 3 Contractor
(iv) Copy 4 Contract administration office; and
(v) Copy 5 Project management office.

(3) The Contracting Officer may designate other recipients as required.

(d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b)or (c) of this clause, whichever is applicable, and be forwarded to:

NASA/Johnson Space Center
ATTN: LF231/FUNDING AND COMMERCIAL ACCOUNTING SECTION
HOUSTON, TX 77058

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of clause)

G.9 TECHNICAL DIRECTION (NASA 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that --

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the contract; or (5) Interferes with the contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is--

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the contractor and contracting officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

G. 10 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NASA 1852.245-71) (JUNE 1998) (ALTERNATE I) (MAR 1989)

(a) The Government property described in the clause at G.12 (1852.245-77 List of Installation-Accountable Property and Services) shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

The responsibilities of the Contractor as contemplated by this clause are defined in the following property management directives and installation supplements to these directives.

a. NPG 4200.1, NASA Equipment Management Manual
b. NPG 4200.2, NASA Equipment Management Procedures and Guidelines for Property Custodians
c. NPG 4300.1, NASA Personal Property Disposal Procedures and Guidelines
d. NPG 4100.1, NASA Materials Inventory Management Manual. JSC will

provide the Contractor with all applicable regulations, handbooks, and other materials that may be required.

e. JPG 5151.2, Johnson Space Center Support Contractor Procedures and Guidelines

The contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(b)(1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

(ii) The contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area;

(iii) The contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the contractor. The contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the contracting officer and notification of the SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(2) After transfer of accountability to the Government, the contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer.

(3) The contractor shall not utilize the installation's central receiving facility for receipt of Contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a quarterly basis, to the Contracting Officer and Supply and Equipment Management Officer.

(End of Clause)

G.11 LIST OF GOVERNMENT FURNISHED PROPERTY (NASA 1852.245-76) (OCT 1988)

For performance of work under this contract, the Government will make available Government property identified below or in Section J, Attachment I, List 1, List 2 and List 3 on a no charge

for use basis. The Contractor shall use this property in the performance of this contract at JSC and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245 Government property clauses of this contract, the Contractor is accountable for the identified property.

(End of Clause)

G.12 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NASA 1852.245-77) (JULY 1997)

In accordance with the clause 1852.245-71, Installation - Accountable Government Property the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only; pay telephones are available for contractor employees for unofficial calls.

(b) General - including office furniture as exists at contract start.

(1) Equipment to be made available is listed in Attachment I, List 4 GFP (critical) of Section J. The Government retains accountability for this property under the clause at G.10, 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) If the contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at G.10, 1852.245-71, Installation-Accountable Government Property.

(c) Publications and blank forms stocked by the installation.

(d) Safety and fire protection for Contractor personnel and facilities.

(e) Installation service facilities:

1. Audiovisual: Presentation services, sound services, Release Print Film Library, Film Repository, and loan of audiovisual equipment.

2. Automatic Data Processing (ADP) Services (onsite only): Generally, this includes access to large general-purpose computer systems, 225 workstations, and the accessing media; i.e., terminals, printers, data communications, and consultation and training in the use of said systems. Unless otherwise specified in the contract, this does not include providing computer systems or ADP services for the Contractor business management, accounting, and administrative functions as well as scanners for use with NASA-wide applications.

3. Disposal Services: Disposal services for excess onsite and offsite Contractor-held/Government-owned property.

4. Fabrication Services: Fabrication services such as machining, sheet metal and welding, electronics, metal finishing, model and plastics, and precision cleaning.

5. Photography, Processing, and Closed-Circuit Television: For technical and scientific photography, photographic processing, photographic sciences, and closed-circuit television.

6. Pickup and Delivery of Official Mail: Within the Center and to and from the Albert Thomas Post Office, provided the mail is properly sealed and stamped. Such mail will be picked up or dropped from only one point as designated by JSC or, if preferred, JSC will provide a box in the central mailroom for the Contractor to pick up and deposit its mail.

(f) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(g) Cafeteria privileges for Contractor employees during normal operating hours.

(h) Building maintenance for facilities occupied by Contractor personnel.

(i) Moving and hauling for office moves if directed by the Government, movement of large equipment. Moving services shall be provided on-site, as approved by the Contracting Officer.

(j) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property.

7. Calibration Laboratory.

(End of Clause)

G.13 SUBCONTRACTING GOALS

For purposes of this clause, the terms, "HUBZone Small Business Concern," Small Disadvantaged Business Concern," "Veteran-Owned Small Business Concern," and Women-Owned Small Business Concern" are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total subcontracting goal expressed, as a percent of total contract value, is 36 percent, including options and includes the following goals:

Small Disadvantaged Business Concerns	17 percent
Woman-owned Business Concerns	6 percent
HUBZone Small Business Concerns	2 percent
Veteran-Owned Business Concerns	.25 percent

(End of Clause)

G.14 SECURITY REQUIRMENTS FOR JSC SPECIAL ACCESS PROGRAMS

The contractor shall ensure that all employees, subcontractors, and agents assigned to the Information Technology (I/T) Program, and personnel requiring security clearances or access to security areas (limited, restricted, closed), meet established screening requirements in accordance with NPG 1620.1, JMI 1620.1D and Security Management Directive No.500-9.

(End of Clause)

G.15 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NASA 1852.227-72)(JULY 1997)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights--Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

Title	Office Code	Address (including zip code)
New Technology Representative	HA/Technology Transfer & Commercialization Office	NASA Johnson Space Center, Houston, TX 77058
Patent Representative	HA/Technology Transfer & Commercialization Office	NASA Johnson Space Center, Houston, TX 77058

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY

CLAUSE NUMBER	DATE	TITLE
1852.232-82	MAR 1989	SUBMISSION OF REQUESTS FOR PROGRESS PAYMENTS

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY – N/A

[END OF SECTION]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.236-9	APR 1984	PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS
52.236-12	APR 1984	CLEANING UP
52.236-13	NOV 1991	ACCIDENT PREVENTION (ALTERNATE I) (NOV 1991)

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
18-52.208-81	AUG 1993	RESTRICTIONS ON PRINTING AND DUPLICATING
18-52.223-70	MAY 2001	SAFETY AND HEALTH
18-52.223-75	MAY 2001	MAJOR BREACH OF SAFETY OR SECURITY
18-52.225.70	FEB 2000	EXPORT LICENSES (fill-in JSC)
18-52.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS

The following clause (NASA 1852.216-80) only applies to SOW Annex 13:

H.2 TASK ORDERING PROCEDURE (NASA 1852.216-80) (OCT 1996)

(a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.

(c) Within **7** calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

(d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(4) Performance standards, and where appropriate, quality assurance standards.

(5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

(6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(7) Delivery/performance schedule including start and end dates.

(8) If contract funding is by individual task order, accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within **2** calendar days after receipt of the task order.

(f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

The following clause (NASA 1852.232.77) entitled "Limitation of Funds (Fixed-Price Contract)" only identifies the funding available for payment of services provided under Annex 7 and Annex 14 of the SOW. The clause (NASA 1852.232-81) entitled "Contract Funding" in Section B of this contract identifies the funding available for payment of services provided under Annexes 1-5 and 8-12 of the SOW. The funds available for payment fixed-price, ID/IQ services will be identified on each delivery order issued under Annex 6 of the SOW.

H.3 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (NASA 18-52.232-77) (MARCH 1989)

(a) Of the total price of Annex 7 and 14, the sum of ***$[to be input by the Government]*** presently available for payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to this contract in accordance with the following schedule until the total price of said items is allotted:

SCHEDULE FOR ALLOTMENT OF FUNDS

Date	Amounts
11/01/01	***TBD***

(b) The Contractor agrees to perform or have performed work on the items specified in paragraph (a) above up to the point at which, if this contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor, approximate the total amount at the time allotted to the contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the contract, anything to the contrary in the Termination for Convenience of the Government clause notwithstanding.

(c) (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until TBD.

(2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until the above date, or an agreed date in substitution for it, the Contractor shall notify the Contracting Officer in writing when within the next 60 days the work will reach a point at which, if the contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the contract.

(3)(i) The notice shall state the state the estimated date when the point referred to in subparagraph (2) above will be reached and the estimated amount of additional funds required to continue performance to the date specified in subparagraph (1) above, or an agreed date substituted for it. (ii) The Contractor shall, 60 days in advance of the date specified in subparagraph (1) above, or an agreed date substituted for it, advise the Contracting Officer in writing as to the estimated amount of additional funds required for the timely performance of the contract for a further period as may be specified in the contract or otherwise agreed to by the parties.

(4) If, after the notification referred to in subdivision (3)(ii) above, additional funds are not allotted by the date specified in subparagraph (1) above, or an agreed date substituted for it, the Contracting Officer shall, upon the Contractor's written request, terminate this contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.

(d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance, which shall be covered by such funds. The provisions of paragraphs (b) and (c) above shall apply to such additional allotted funds and substituted date pertaining thereto, and the contract shall be amended accordingly.

(e) If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this contract, the Contractor incurs additional costs or is delayed in the performance of the work under this contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.

(f) The Government may at any time prior to termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this contract.

(g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) above. This clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.

(h) Nothing in this clause shall affect the right of the Government to terminate this contract pursuant to the Termination for Convenience of the Government clause of this contract.

(End of clause)

H.4 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS (JSC 52.209-90) (SEP 1988)

This contract incorporates Section K, Representations, Certifications, and Other Statements of Offerors, as set forth in the Contractor's proposal _____ dated _____, by reference, with the same force and effect as if it were given in full text.

(End of Clause)

H.5 PROVIDING FACILITY ITEMS

The purpose of this clause is to set forth the parties' intent regarding their respective responsibilities for providing facility items under this contract. The parties accordingly agree as follows:

(a) "Provide" as used in this clause has the same meaning as set forth in NASA FAR Supplement 1845.301. "Facilities" as used in this clause has the same meaning as set forth in FAR 45.301.

(b) The Contractor shall replace any of the existing facilities identified in the clause at G.11 entitled "List of Government Furnished Property (NASA 1852.245-76)" that reach the end of their useful life during the contract period or which are beyond economical maintenance or repair, if the facilities are still needed for contract performance. Such replacements shall be made with contractor-owned facilities and shall not be a direct charge to the contract.

(c) The contractor shall not acquire facility items for the Government, unless specifically authorized by the contract or consent has been obtained in writing from the Contracting Officer

pursuant to FAR 45.302-1(a). The Contractor agrees to provide all facilities necessary for performance of this contract except as provided in paragraph (b) above.

(d) It is agreed by both parties that the following Government-provided equipment will not be replaced by the contractor, but will be replaced by the Government: The list of critical items located at Section J, Attachment I, List 4 GFP (critical).

(e) The contractor may unilaterally act to replace equipment items valued at less than $25,000; however, for equipment items valued at more than $24,999, the replacement, although with contractor-owned facilities, must be approved in writing by the Contracting Officer.

(End of Clause)

The following clause entitled "CAPITAL EQUIPMENT" applies to the extent the contractor acquires capital equipment for use in the performance of Annexes 1-5 and 8-13 of the SOW. The parties agree that depreciation of any capital equipment acquired by the contractor to use in performance of services under Annexes 6, 7 and 14 shall not be an allowable cost under the contract.

H.6 CAPITAL EQUIPMENT

1. Introduction: The parties recognize the contractor may, from time to time during the basic period of performance of this contract, purchase equipment for the purpose of performing work described in the SOW. Any such capital equipment will be capitalized and depreciated in accordance with the contractor's established cost accounting practices and procedures, which must be in conformance to any applicable requirements and standards of this contract.

2. Contractor Records: The contractor agrees to maintain complete records of capital equipment that is subject to this clause. Such records shall include date of purchase, purchase price, depreciation schedule, and amount of depreciation recorded from time to time. The contractor further agrees to make these records available to the Contracting Officer promptly upon the latter's request, along with the contractor's best estimate of the undepreciated balance of each equipment item.

3. Right to Purchase: The parties agree that if the Government does not exercise its option to extend the contract or does not thereafter contract with the contractor for the performance of the same, or substantially the same services contemplated by this contract, the contractor will, upon request by the Contracting Officer, transfer title to any equipment identified by the Contracting Officer from the records reference above, to either (a) the Government, or (b) a successor contractor.

4. If a request for transfer of title to the Government, the Government agrees to recognize as allowable costs under the contract, for identified capital equipment, so much of the cost of the equipment that has not been depreciated as of the end of the contract period of performance. Payment of such undepreciated balances will be no later than 30 days after transfer of title.

(END OF CLAUSE)

H.7 PARTNERING

The Government defines partnering as it relates to this contract as: a facilitated process that involves both Government and Contractor personnel meeting together for the purpose of identifying, considering alternatives, resolving and implementing improvements, for various identified Government and Contractor concerns, problems, performances, and opportunities.

Facilitated partnering meetings are to be scheduled as needed but not less than monthly. The Contractor shall provide the facilitator. During the first 30 days after contract start, the first partnering meeting shall be scheduled by the Contractor. During this initial meeting norms shall be established for subsequent partnering meetings.

(End of Clause)

The following clause entitled "Contractor Liability" applies relative to performance of requirements identified in SOW Annexes 6, 7 and 14:

H.8 CONTRACTOR LIABILITY

1. The Contractor's liability for loss, damage or destruction of Government property furnished under the "Installation-Provided Government Property" is as set forth in "Government Property (Fixed-Price Contracts) (Alternate I) (APR 1984)" clause hereof (FAR 52.245-2) .

2. The contractor's liability for the loss, damage or destruction of Government property furnished for repair or other services is as set forth in the "Liability for Government Property Furnished for Repair or Other Services" clause hereof (NFS 18-52.245-72). Government property furnished for repair or other services includes, by way of example but not limitation, all property for which contractor has custody or control of or maintenance and operations responsibility for, under this contract.

3. The contractor's liability for the loss, damage, or destruction of any other Government property shall be the same as that of any other party under the law of the State of Texas.

4. The contractor's limit of liability for loss, damage, or destruction of Government property is $10 million for each contract year.

5. The contractor agrees to indemnify and hold the Government and its contractors and subcontractors harmless for any claim, judgment, or cost arising from the injury to or death of any person, or for damage to or loss of any property, attributable to the contractor through acts or omissions of its employees, agents or subcontractors arising out of the performance of this contract, whether such injury, death, damage, or loss is caused by negligence or otherwise.

6. The kinds and amounts of insurance the contractor agrees to provide and maintain in accordance with FAR clause 52.228-5, Insurance--Work on a Government Installation are set forth in NFS clause 18-52.228-75.

(End of Clause)

H.9 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided, that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

[List here the personnel and/or facilities considered essential.]

(End of clause)

H.10 CONTRACT ADJUSTMENT FOR COMPLETION FORM

(a) The provisions and references of this clause apply only to Annexes one (1) through five (5) and Annexes eight (8) through twelve (12) of the Statement of Work (SOW). The purpose of this clause is to set forth the terms and conditions governing adjustments to the estimated cost and fee, if any, to account for growth or shrinkage in the completion form work to be performed.

(b) The Government's objective is to have the SOW performed in the most efficient manner possible, consistent with the furnishing of high quality services. One means of achieving this objective is to minimize changes, and thus reduce or eliminate the administrative cost to both parties that are caused by issuing, pricing, and negotiation changes. The contract adjustment provisions set forth herein are intended to achieve that objective, while at the same time compensating the contractor fairly for the furnishing of services that are within a reasonable range of the baseline work (including workload data) projected to be performed under the contract.

(c) All work within Annexes one (1) through five (5) and Annexes eight (8) through twelve (12) shall be considered to fall within the baseline requirements of the contract. Except as provided in this clause, no amount of work above or below the workload data shall give rise to an equitable adjustment in the estimated cost or fee, delivery schedule, or any other contract provision.

(d) Adjustment Provisions

1. The elements of the completion form work described in Annexes one (1) through five (5) and Annexes eight (8) through twelve (12) of the SOW are often accompanied by "workload data." These data represent the Government's estimates of the level of services required, and are only intended to reflect the amount of activity anticipated for those elements of work. Workload data do not constitute a limitation on the contractor's obligation to perform work in the areas to which they relate.

2. Workload data define the thresholds that must be met before the performance of work, which exceeds or is less than the threshold, may become the basis for a contract adjustment. Subject to the Limitation of Funds Clause, the fact that the contractor has performed work that is above the workload data shall not relieve the contractor of its obligation to continue to perform such work to the extent it is required by the Government.

3. An equitable adjustment (either upwards or downwards) will be made in the cost and fee provided for in this contract if both of the following conditions are met at the end of each performance period of the contract:

(A) the workload for one or more SOW Annexes has either exceeded or has not been met by 20 percent; and,
the net total cost increase or decrease of all workload data combined is greater than $2,000,000. The appropriate unit value(s) contained in Section J, Attachment G shall be used in conjunction with the appropriate quantity variance data to calculate the net total cost increase or decrease. The unit values contained in Section J, Attachment G shall be used for the purpose of determining if either party is entitled to seek an equitable adjustment under this clause and the amount of such equitable adjustment.

The adjustment provisions of this clause shall not be construed as a limitation of the Government's rights under the Termination clause of this contract.

(e) The contractor is responsible for: tracking the performance of work in each area which is subject to workload data; keeping current, complete, and accurate records regarding the quantum of work performed in relation to the applicable workload data; making such records available to the Contracting Officer as may be requested from time to time; and submitting an adjustment proposal if the contractor believes the conditions of the paragraph (d) above are met, or if requested by the Contracting Officer. If initiated by the contractor, the contractor's proposal shall be submitted within 90 days of the last day of the contract performance period. If requested by the Contracting Officer, the proposal shall be submitted within 90 days of the request.

(End of Clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY

H.11 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.236-2	APR 1984	DIFFERING SITE CONDITIONS
52.236-3	APR 1984	SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK
52.236-5	APR 1984	MATERIAL AND WORKMANSHIP
52.236-6	APR 1984	SUPERINTENDENCE BY THE CONTRACTOR
52.236-7	NOV 1991	PERMITS AND RESPONSIBILITIES
52.236-8	APR 1984	OTHER CONTRACTS
52.236-10	APR 1984	OPERATIONS AND STORAGE AREAS
52.236-11	APR 1984	USE AND POSSESSION PRIOR TO COMPLETION
52.236-12	APR 1984	CLEANING UP
52.236-13	NOV 1991	ACCIDENT PREVENTION (ALTERNATE I)
52.236-14	APR 1984	AVAILABILITY AND USE OF UTILITY SERVICES
52.236-15	APR 1984	SCHEDULES FOR CONSTRUCTION CONTRACTS
52.236-21	FEB 1997	SPECIFICATIONS AND DRAWINGS

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in H.11.

H.12 EXTENDED WARRANTIES-CONSTRUCTION (JSC 52.246-94) (OCT 1999)

Any extended warranty or guarantee required by the specifications shall be constructed as being in addition to the 1-year warranty required by clause 52.246.21, Warranty of Construction.

(End of Clause)

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY

H.13 LISTING OF CLAUSES INCORPORATED BY REFERENCE – N/A

H.14 GOVERNMENT RIGHTS (UNLIMITED) (JSC 52.227-90) (FEB 1994)

The Government shall have the unlimited rights for the benefit of the Government in all drawings, designs, specifications, notes, and other work developed in the performance of this contract, including the right to use same on any other Government work without additional cost to the Government, and with respect thereto, the Architect-Engineer agrees to and does hereby grant to the Government a royalty-free license to all such data which may be covered by copyright and to all designs as to which any rights may be asserted or any claims established under the design patent or copyright laws. The Architect-Engineer for a period of 3 years after completion of the project agrees to furnish and to provide access to the originals or copies of all such materials on the request of the contracting officer.

(End of Clause)

[END OF SECTION]

PART II CONTRACT CLAUSES
SECTION I

CONTRACT CLAUSES

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	OCT 1995	DEFINITIONS (Other than Construction)
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RECISION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	JUN 1997	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER
52.208-8	JUN 1997	HELIUM REQUIREMENT FORECASTS AND REQUIRED SOURCES FOR HELIUM
52.208-9	MAR 1996	CONTRACTOR USE OF MANDATORY SOURCES OF SUPPLY
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	SEP 1990	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	JUN 1999	AUDIT AND RECORDS—NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE—UNIFORM CONTRACT FORMAT
52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS

52.215-13	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 1997	INTEGRITY OF UNIT PRICES
52.215-21	OCT 1997	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS
52.216-7	MAR 2000	ALLOWABLE COST AND PAYMENT
52.216-18	OCT 1995	ORDERING (fill in para (a) February 1, 2002 and March 31, 2004 respectively or as modified by exercising of option(s) at F.6.)
52.219-8	OCT 2000	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-9	OCT 2000	SMALL BUSINESS SUBCONTRACTING PLAN (ALTERNATE II)(JAN 99)
52.219-16	JAN 1999	LIQUIDATED DAMAGES-SUBCONTRACTING PLAN
52.219-25	OCT 1999	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52.219-26	OCT 2000	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – INCENTIVE SUBCONTRACTING
52-222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-3	AUG 1996	CONVICT LABOR
52.222-4	SEP 2000	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT OVERTIME COMPENSATION
52.222-19	FEB 2001	CHILD LABOR—COOPERATION WITH AUTHORITIES AND REMEDIES
52.222-20	DEC 1996	WALSH-HEALEY PUBLIC CONTRACTS ACT
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	FEB 1999	EQUAL OPPORTUNITY
52.222-35	APR 1998	AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS
52.222-36	JUN 1998	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	JAN 1999	EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA
52.222-41	MAY 1989	SERVICE CONTRACT ACT OF 1965, AS AMENDED

The following clause (52.222-43) entitled "Fair Labor Standards Act and Service Contract Act—Price Adjustment (Multiple Year and Option Contracts) applies only to Annexes 6, 7, 13, and 14. The parties agree that this clause cannot reasonably be interpreted as a basis to negotiate any adjustment(s) to any ID/IQ pricing coefficients or the R. S. Means industry price data:

52.222-43	MAY 1989	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT--PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)
52.223-5	APR 1998	POLLUTION PREVENTION AND RIGHT TO

		KNOW INFORMATION
52.223-9	AUG 2000	CERTIFICATION AND ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA—DESIGNATED PRODUCTS
52.223-10	AUG 2000	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-14	OCT 2000	TOXIC CHEMICAL RELEASE REPORTING
52.225-13	JUL 2000	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	JUL 1995	AUTHORIZATION AND CONSENT
52.227-2	AUG 1996	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS

The following 3 clauses (52.228-5, 52.229-3, and 52.229-5) entitled "Insurance – Work on a Government Installation," "Federal, State, and Local Taxes," and "Taxes—Contracts Performed in U.S. Possessions or Puerto Rico" only apply to fixed-price services under SOW Annexes 6, 7, and 14:

52.228-5	JAN 1997	INSURANCE - WORK ON A GOVERNMENT INSTALLATION
52.229-3	JAN 1991	FEDERAL, STATE, AND LOCAL TAXES
52.229-5	APR 1984	TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO

The following 2 clauses (52.230-2 and 52.230-6) entitled "Cost Accounting Standards," and "Administration of Cost Accounting Standards" respectively only apply to cost-reimbursable services under SOW Annexes 1-5 and 8-13:

52.230-2	APR 1998	COST ACCOUNTING STANDARDS
52.230-6	NOV 1999	ADMINISTRATION OF COST ACCOUNTING STANDARDS

The following 3 clauses (52.232-1, 52.232-8, and 52.232-11) entitled "Payments," "Discounts for Prompt Payment," and "Extras" respectively only apply to fixed-price services under SOW Annexes 6, 7, and 14:

52.232-1	APR 1984	PAYMENTS
52.232-8	MAY 1997	DISCOUNTS FOR PROMPT PAYMENT
52.232-11	APR 1984	EXTRAS
52.232-17	JUN 1996	INTEREST
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	JUN 1997	PROMPT PAYMENT
52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER—OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	DEC 1998	DISPUTES (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)

52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY SAFEGUARDS
52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	OCT 1995	PENALTIES FOR UNALLOWABLE COSTS
52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
52.242-13	JUL 1995	BANKRUPTCY

The following clause (52.243-1) entitled "Changes—Fixed Price (Alternate II)" only applies to fixed price services under SOW Annexes 6, 7, and 14:

52.243-1	AUG 1987	CHANGES--FIXED PRICE (ALTERNATE II) (APR 1984)

The following clause (52.243-2) entitled "Changes—Cost-Reimbursement (Alternate II)" only applies to cost reimbursable services under SOW Annexes 1-5, and 8-13:

52.243-2	AUG 1987	CHANGES—COST-REIMBURSEMENT (ALTERNATE II)(APR 1984)
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-6	OCT 1998	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS

The following clause (52.245-2) entitled "Government Property (Fixed-Price Contracts)" only applies to fixed price services under SOW Annexes 6, 7, and 14:

52.245-2	DEC 1989	GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)(ALTERATE I)(APR 1984)

The following clause (52.245-5) entitled "Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts)(Deviation)(As Modified by NASA PIC 98-13)" only applies to Annexes 1 through 5 and 8 through 13.

52.245-5	JAN 1986	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS)(DEVIATION)(AS MODIFIED BY NASA PIC 98-13)
52.246-25	FEB 1997	LIMITATION OF LIABILITY--SERVICES
52.248-1	FEB 2000	VALUE ENGINEERING

The following 2 clauses (52.249-2 and 52.249-8) entitled "Termination for Convenience of the Government (Fixed Price)," and "Default (Fixed-Price Supply and Service)" respectively only apply to services provided under SOW Annexes 6, 7, and 14:

52.249-2	SEP 1996	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)

The following clause (52.249-6) entitled "Termination (Cost-Reimbursement)" applies to services provided under SOW Annexes 1 through 5 and 8 through 13.

52.249-6	SEP 1996	TERMINATION (COST-REIMBURSEMENT)

52.251-1	APR 1984	GOVERNMENT SUPPLY SOURCES
52.252-2	FEB 1988	CLAUSES INCORPORATED BY REFERENCE
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.204-74	AUG 2000	CENTRAL CONTRACTOR REGISTRATION
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.219-77	MAY 1999	NASA MENTOR-PROTÉGÉ PROGRAM
1852.219-79	MAR 1999	MENTOR REQUIREMENTS AND EVALUATION
1852.223-74	MAR 1996	DRUG-AND ALCOHOL-FREE WORKFORCE
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.236-73	DEC 1988	HURRICANE PLAN
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.243-71	MAR 1997	SHARED SAVINGS
1852.245-73	SEP 2000	FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS
1852.245-75	MAR 1989	TITLE TO EQUIPMENT

I.2 APPROVAL OF CONTRACT (FAR 52.204-1)(DEC 1989)

This contract is subject to the written approval of the Procurement Officer and shall not be binding until so approved.

(End of Clause)

I.3 INDEFINITE QUANTITY (FAR 52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after March 31, 2004.

(End of clause)

I.4 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (52.222-42) (May 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:
It is not a Wage Determination

Employee Class Monetary Wage--Fringe Benefits

_____ _____

_____ _____

_____ _____

_____ _____

(End of clause)

I.5 SCA MINIMUM WAGES AND FRINGE BENEFITS (FAR 52.222-47) (MAY 1989)

An SCA wage determination applicable to this work has been requested from the U.S. Department of Labor. If an SCA wage determination is not incorporated herein, the bidders/offerors shall consider the economic terms of the collective bargaining agreement (CBA) between the incumbent Contractor, BRSP, and the "International Association of Machinists, Construction Building Trades, International Union of Operating Engineers, Teamsters" (unions). If the economic terms of the collective bargaining agreement or the collective bargaining agreement itself is not attached to the solicitation, copies can be obtained from the Contracting Officer. Pursuant to Department of Labor Regulation, 29 CFR 4.1b and paragraph (g) of the clause at 52.222-41, Service Contract Act of 1965, as amended, the economic terms of that agreement will apply to the contract resulting from this solicitation, notwithstanding the absence of a wage determination reflecting such terms, unless it is determined that the agreement was not the result of arm's length negotiations or that after a

hearing pursuant to section 4(c) of the Act, the economic terms of the agreement are substantially at variance with the wages prevailing in the area.

(End of clause)

I.6 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (FAR 52.223-3) (JAN 1997) ALTERNATE I (JULY 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material

(If none, insert "None") Identification No.

_____ _____
_____ _____
_____ _____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document, which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(End of Clause)

I.7 OZONE-DEPLETING SUBSTANCES (FAR 52.223-11)(JUN 1996)

(a) Definition. "Ozone-depleting substance", as used in this clause, means any substance designated as Class I by the Environmental Protection Agency (EPA) (40 CFR Part 82), including but not limited to chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or any substance designated as Class II by EPA (40 CFR Part 82), including but not limited to hydro chlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

Warning

Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

* The Contractor shall insert the name of the substance(s).

(End of clause)

I.8 SECURITY REQUIREMENTS FOR UNCLASSIFIED TECHNOLOGY INFORMATION RESOURCES (NASA 1852.204-76)(JULY 2000)

(a) The Contractor shall comply with the security requirements outlined in NASA Policy Directive (NPD)2810.1, Security of Information Technology, and NASA Procedures and Guidelines (NPG) 2810.1, Security of Information Technology. These policies apply to all IT systems and networks under NASA's purview operated by or on behalf of the Federal Government, regardless of location.

(b) (1) The Contractor shall ensure compliance by its employees with Federal directives and guidelines that deal with IT Security including, but not limited to, OMB Circular A-130, Management of Federal Information Resources, OMB Circular A-130 Appendix III, Security of Federal Automated Information Resources, the Computer Security Act of 1987 (40 U.S.C. 1441 et seq.), and all applicable Federal Information Processing
Standards (FIPS).

(2) All Federally owned information is considered sensitive to some degree and must be appropriately protected by the Contractor as specified in applicable IT Security Plans. Types of sensitive information that may be found on NASA systems that the Contractor may have access to include but are not limited to --

(i) Privacy Act information (5 U.S.C. 552a et seq.);

(ii) Export Controlled Data, (e.g. Resources protected by the International Traffic in Arms Regulations (22 CFR Parts 120-130)).

(3) The Contractor shall ensure that all systems connected to a NASA network or operated by the Contractor for NASA conform to NASA and Center security policies and procedures.

(c) (1) The Contractor's screening of Contractor personnel will be conducted in accordance with NPG 2810.1, Section 4.5 for personnel requiring unescorted or unsupervised physical or electronic access to NASA systems, programs, and data.

(2) The Contractor shall ensure that all such employees have at least a National Agency Check investigation. The Contractor shall submit a personnel security questionnaire (NASA Form 531), Name Check Request for National Agency Check (NAC) investigation, and Standard Form 85P, Questionnaire for Public Trust Positions (for specified sensitive positions), and a Fingerprint Card (FD-258 with NASA overprint in Origin Block) to the Center Chief of Security for each Contractor employee requiring screening. The required forms may be obtained from the Center Chief of Security. In the event that the NAC is not satisfactory, access shall not be granted. At the option of the Government, background screenings may not be required for employees with recent
or current Federal Government investigative clearances.

(3) The Contractor shall have an employee checkout process that ensures --

(i) Return of badges, keys, electronic access devices and NASA equipment;

(ii) Notification to NASA of planned employee terminations at least three days in advance of the employee's departure. In the case of termination for cause, NASA shall be notified immediately. All NASA accounts and/or network access granted terminated employees shall be disabled immediately upon the employee's separation from the Contractor; and

(iii) That the terminated employee has no continuing access to systems under the operation of the Contractor for NASA. Any access must be disabled the day the employee separates from the Contractor.

(4) Granting a non-permanent resident alien (foreign national) access to NASA IT resources requires special authorization. The Contractor shall obtain authorization from the Center Chief of Security prior to granting a non-permanent resident alien access to NASA IT systems and networks.

(d) (1) The Contractor shall ensure that its employees with access to NASA information resources receive annual IT security awareness and training in NASA IT Security policies, procedures, computer ethics, and best practices.

(2) The Contractor shall employ an effective method for communicating to all its employees and assessing that they understand any Information Technology Security policies and guidance provided by the Center Information Technology Security Manager (CITSM) and/or Center CIO Representative as part of the new employee briefing process. The Contractor shall ensure that all employees represent that they have read and understand any new Information Technology Security policy and guidance provided by the CITSM and Center CIO Representative over the duration of the contract.

(3) The Contractor shall ensure that its employees performing duties as system and network administrators in addition to performing routine maintenance possess specific IT security skills. These skills include the following:

(i) Utilizing software security tools.

(ii) Analyzing logging and audit data.

(iii) Responding and reporting to computer or network incidents as per NPG 2810.1.

(iv) Preserving electronic evidence as per NPG 2810.1.

(v) Recovering to a safe state of operation.

(4) The Contractor shall provide training to employees to whom they plan to assign system administrator roles. That training shall provide the employees with a full level of proficiency to meet all NASA system administrators' functional requirements. The Contractor shall have methods or processes to document that employees have mastered the training material, or have the required knowledge and skills. This applies to all system administrator requirements.

(e) The Contractor shall promptly report to the Center IT Security Manager any suspected computer or network security incidents occurring on any system operated by the Contractor for NASA or connected to a NASA network. If it is validated that there is an incident, the Contractor shall provide access to the affected system(s) and system records to NASA and any NASA designated third party so that a detailed investigation can be conducted.

(f) The Contractor shall develop procedures and implementation plans that ensure that IT resources leaving the control of an assigned user (such as being reassigned, repaired, replaced, or excessed) have all NASA data and sensitive application software permanently removed by a NASA- approved technique. NASA-owned applications acquired via a "site license" or "server license" shall be removed prior to the resources leaving NASA's use. Damaged IT storage media for which data recovery is not possible shall be degaussed or destroyed. If the assigned task is to be assumed by another duly authorized person, at the

Government's option, the IT resources may remain intact for assignment and use of the new user.

(g) The Contractor shall afford NASA, including the Office of Inspector General, access to the Contractor's and subcontractor's facilities, installations, operations, documentation, databases and personnel. Access shall be provided to the extent required to carry out a program of IT inspection, investigation and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of NASA data, and to preserve evidence of computer crime.

(h) (1) The Contractor shall document all vulnerability testing and risk assessments conducted in accordance with NPG 2810.1 and any other IT security requirements specified in the contract or as directed by the Contracting Officer.

(2) The results of these tests shall be provided to the Center IT Security Manager. Any Contractor system(s) connected to a NASA network or operated by the Contractor for NASA may be subject to vulnerability assessment or penetration testing as part of the Center's IT security compliance assessment and the Contractor shall be required to assist in the completion of these activities.

(3) A decision to accept any residual risk shall be the responsibility of NASA. The Contractor shall notify the NASA system owner and the NASA data owner within 5 working days if new or unanticipated threats or hazards are discovered by the Contractor, made known to the Contractor, or if existing safeguards fail to function effectively. The Contractor shall make appropriate risk reduction recommendations to the NASA system owner and/or the NASA data owner and document the risk or modifications in the IT Security Plan.

(i) The Contractor shall develop a procedure to accomplish the recording and tracking of IT System Security Plans, including updates, and IT system penetration and vulnerability tests for all NASA systems under its control or for systems outsourced to them to be managed on behalf of NASA. The Contractor must report the results of these actions directly to the Center IT Security Manager.

(j) When directed by the Contracting Officer, the Contractor shall submit for NASA approval a post-award security implementation plan outlining how the Contractor intends to meet the requirements of NPG 2810.1. The plan shall subsequently be incorporated into the contract as a compliance document after receiving Government approval. The plan shall demonstrate thorough understanding of NPG 2810.1 and shall include as a minimum, the security measures and program safeguards to ensure that IT resources acquired and used by Contractor and subcontractor personnel --

(1) Are protected from unauthorized access, alteration, disclosure, or misuse of information processed, stored, or transmitted;

(2) Can maintain the continuity of automated information support for NASA missions, programs, and functions;

(3) Incorporate management, general, and application controls sufficient to provide cost-effective assurance of the systems' integrity and accuracy;

(4) Have appropriate technical, personnel, administrative, environmental, and access safeguards;

(5) Document and follow a virus protection program for all IT resources under its control; and

(6) Document and follow a network intrusion prevention program for all IT resources under its control.

(k) Prior to selecting any IT security solution, the Contractor shall consult with their Center IT Security Manager to ensure interoperability and compatibility with other systems with which there is a data or system interface requirement.

(l) The Contractor shall comply with all Federal and NASA encryption requirements for NASA flight programs (e.g., secure flight termination systems, encryption for satellite uplinks, encryption for flight and satellite command and control for both up and down link) and involve the Center Communications Security (COMSEC) Manager when selecting encryption solutions.

(m) The Contractor shall incorporate this clause in all subcontracts where the requirements identified in this clause are applicable to the performance of the subcontract.

(End of clause)

I.9 DRUG-FREE WORKPLACE (FAR 52.223-6)(JAN 1997)

(a) Definitions. As used in this clause--

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) though (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.

(End of clause)

I.10 RIGHTS IN DATA--GENERAL (52.227-14) (JUN 1987) (AS MODIFIED BY NFS 1852-227-14)

(a) Definitions. "Computer software," as used in this clause, means computer programs, computer databases, and documentation thereof. "Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

"Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

"Limited rights," as used in this clause, means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

"Limited rights data," as used in this clause, means data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.

"Restricted computer software," as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of such computer software.

"Restricted rights," as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of subparagraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

"Technical data," as used in this clause, means data (other than computer software), which are of a scientific or technical nature.

"Unlimited rights," as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights. (1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in--

(i) Data first produced in the performance of this contract;

(ii) Form, fit, and function data delivered under this contract;

(iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract;and

(iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to--

(i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;

(ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;

(iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this contract to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright--(1) Data first produced in the performance of this contract. Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to establish claim to copyright subsisting in all other data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.

(2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this

clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.

(3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) Release, publication and use of data. (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract, which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(3) (i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this contract without the Contracting Officer's prior written permission.

(ii) If the Government desires to obtain copyright in computer software first produced in the performance of this contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the Contracting Officer may direct the contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.

(iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".

(e) Unauthorized marking of data. (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.

(4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) Omitted or incorrect markings. (1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor--

(i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

(iii) Establishes that the use of the proposed notice is authorized; and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.

(g) Protection of limited rights data and restricted computer software. (1) When data other than that listed in subdivisions (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer database for delivery to the Government are to be treated as limited rights data and not restricted computer software.

(2)--(3) [Reserved]

(h) Subcontracting. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.

(i) Relationship to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of clause)

I.11 SUBCONTRACTS (52.244-2) (AUG 1998)

(a) Definitions. As used in this clause--

"Approved purchasing system" means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation.

"Consent to subcontract" means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

"Subcontract" means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d) or (e) of this clause.

(d) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds--

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

All contracts for transportation, storage, treatment, disposal, or recycling of solid waste.

(f)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting--

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination--

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

_____

_____

_____

(End of clause)

I.12 LIMITATION OF LIABILITY--HIGH-VALUE ITEMS (52.246-24) (FEB 1997)

(a) Except as provided in paragraphs (b) through (e) below, and notwithstanding any other provision of this contract, the Contractor shall not be liable for loss of or damage to property of the Government (including the supplies delivered under this contract) that--

(1) Occurs after Government acceptance of the supplies delivered under this contract; and

(2) Results from any defects or deficiencies in the supplies.

(b) The limitation of liability under paragraph (a) above shall not apply when a defect or deficiency in, or the Government's acceptance of, the supplies results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of--

(1) All or substantially all of the Contractor's business;

(2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the contract is being performed; or

(3) A separate and complete major industrial operation connected with the performance of this contract.

(c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through purchase or use of the supplies required to be delivered under this contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects or deficiencies in, the supplies delivered under this contract.

(d)(1) This clause does not diminish the Contractor's obligations, to the extent that they arise otherwise under this contract, relating to correction, repair, replacement, or other relief for any defect or deficiency in supplies delivered under this contract.

(2) Unless this is a cost-reimbursement contract, if loss or damage occurs and correction, repair, or replacement is not feasible or desired by the Government, the Contractor shall, as determined by the Contracting Officer--

(i) Pay the Government the amount it would have cost the Contractor to make correction, repair, or replacement before the loss or damage occurred;

(ii) Provide other equitable relief.

(e) This clause shall not limit or otherwise affect the Government's rights under clauses, if included in this contract, that cover--

(1) Warranty of technical data;

(2) Ground and flight risks or aircraft flight risks; or

(3) Government property.

(End of clause)

I.13 OMBUDSMAN (1852.215-84) (JUNE 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman:

Debra L. Johnson, Deputy Director
Office of Procurement
Lyndon B. Johnson Space Center
Mail Code: BA
2101 NASA Road 1
Houston, TX 77058
Phone: 281-483-4157, Fax: 281-483-5100
Email: debra.l.johnson1@jsc.nasa.gov

Concerns, issues, disagreements, and recommendations, which cannot be resolved at the installation, may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0422, facsimile 202-358-3083, e-mail sthomps1@hq.nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer or as specified elsewhere in this document.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY

I.14 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	APR 1984	DEFINITIONS (ALTERNATE I) (Construction)
52.222-6	FEB 1995	DAVIS-BACON ACT
52.222-7	FEB 1988	WITHHOLDING OF FUNDS
52.222-8	FEB 1988	PAYROLLS AND BASIC RECORDS
52.222-9	FEB 1988	APPRENTICES AND TRAINEES
52.222-10	FEB 1988	COMPLIANCE WITH COPELAND ACT REQUIREMENTS
52.222-11	FEB 1988	SUBCONTRACTS (LABOR STANDARDS)
52.222-12	FEB 1988	CONTRACT TERMINATION-DEBARMENT
52.222-13	FEB 1988	COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS
52.222-14	FEB 1988	DISPUTES CONCERNING LABOR STANDARDS
52.222-15	FEB 1988	CERTIFICATION OF ELIGIBILITY
52.222-27	FEB 1999	AFFIRMATIVE ACTION COMPLIANCE REQUIRED FOR CONSTRUCTION
52.228-2	OCT 1997	ADDITIONAL BOND SECURITY
52.228-11	FEB 1992	PLEDGES OF ASSETS
52.228-15	JUL 2000	PERFORMANCE AND PAYMENT BONDS – CONSTRUCTION
52.243-4	AUG 1987	CHANGES
52.246-21	MAR 1994	WARRANTY OF CONSTRUCTION
52.248-3	FEB 2000	VALUE ENGINEERING CONSTRUCTION
52.249-2	SEP 1996	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE)(ALTERNATE I) (CONSTRUCTION)(SEP 1996)

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.209-72	DEC 1988	COMPOSITION OF THE CONTRACTOR

I.15 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM--CONSTRUCTION MATERIALS (52.225-9) (FEB 2000)

(a) Definitions. As used in this clause--

"Component" means any article, material, or supply incorporated directly into construction materials. "Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic construction material" means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) and the Balance of Payments Program by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

None

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act or Balance of Payments Program applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable
price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act or Balance of Payments Program applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

I.16 PATENT INDEMNITY--Construction Contracts (FAR 52.227-4) (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY

I.17 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.243-1	AUG 1987	CHANGES--FIXED PRICE (ALT III) (APR 1984)

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in I.17.

[END OF SECTION]

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

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PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

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ATTACHMENT A - CONTRACTOR PLANS

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PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

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SECTION J, ATTACHMENT B
EXHIBIT B-1, AWARD FEE PLAN

SECTION I. INTRODUCTION

In accordance with the provisions of the Federal Acquisition Regulation, NASA FAR Supplement and the NASA Award Fee Handbook, and JSC Implementation, an award fee evaluation procedure is hereby established for determination of award fees payable under this contract. The fee arrangement outlined in this plan has been established to motivate the contractor to strive for excellence in the quality and timeliness of performance, subcontracting goals, safety, and cost. The payment of any award fee is contingent upon compliance with contractual requirements and performance to the degree specified in Appendix 1.

The Contractor's performance will be evaluated by the Government in accordance with the procedures set forth below, at the expiration of each period specified in Appendix 3. The evaluation to be performed by the Government will be based on the Government's assessment of the Contractor's accomplishment of the various areas of work covered by the SOW, in accordance with the criteria, weightings, procedures, and other provisions set forth below.

Performance determinations will be made at the end of each 6-month evaluation period as shown in Appendix 3. The performance determination for the 1st 6-month evaluation period shall include the 60-day phase-in period.

SECTION II. ORGANIZATION STRUCTURE

A. Monthly Performance Reviews

The Contractor shall be apprised orally and in writing at monthly meetings with the Contracting Officer's Technical Representative (COTR) and the Contracting Officer (CO), or their representatives, of the evaluation of the Contractor's performance during the preceding month. It shall be the purpose of these meetings and letters to discuss specific areas, if any, where the Contractor has excelled and where future Contractor emphasis is necessary.

B. PEB

A PEB, comprised of selected technical and administrative personnel of NASA, will evaluate the Contractor's performance after each evaluation period to determine whether and to what extent the Contractor's performance during the evaluation period is deserving of the payment of award fee. The PEB will review any information available to the Board and will submit its evaluation and performance recommendation, including adjective rating and numerical score, to the Fee Determination Official (FDO).

C. FDO

The FDO, a senior NASA official, will determine the Contractor's performance score in accordance with the procedures set forth below. After considering available and pertinent information and recommendations, the FDO will make a performance determination for each period in accordance this Attachment B and B.5 entitled "Estimated Cost and Award Fee." The FDO is also responsible for appointing the PEB Chairperson and members.

SECTION III. PROCEDURES

No later than 45 calendar days prior to the start of each evaluation period (for the first evaluation period, this shall be construed as 45 days prior to the end of the phase-in period), the Contractor may submit to the CO recommended areas of emphasis and weightings for the ensuing evaluation period that are within the general factors listed in Section III of this plan. Consideration will be given to the Contractor's recommendations; however it is the Government's responsibility to establish the specific areas of emphasis for each evaluation period.

No later than 30 days prior to the start of each new six-month evaluation period (for the first evaluation period, this shall be construed as 30 days prior to the end of the phase-in period), the Contractor will be notified by the CO of the selected areas of emphasis and weightings for that period. Emphasis will be directed at particular areas under the contract which appear to the Government to be deserving of special attention and will be used in judging the Contractor's performance. These areas of emphasis will not necessarily cover the entire spectrum of performance that will be evaluated in determining award fee dollars earned. Other pertinent factors included under the contract and general factors bearing upon overall performance will be considered as the facts and circumstances of each period may require.

The Contractor shall be apprised of a general assessment of performance at the mid-point of the period, and at such other times as may be deemed appropriate. The purpose of these meetings shall be to discuss any specific areas where the Contractor has excelled, and where future Contractor emphasis may be necessary.

Promptly after the end of each six-month evaluation period, the Performance Evaluation Board (PEB) shall meet to consider all of the performance information it has obtained. At the meeting, the PEB will summarize its preliminary findings and recommendations in the Performance Evaluation Board Report (PEBR).

The Contractor may furnish a separate self-evaluation report on or before the fifth calendar day following the expiration of each evaluation period. These self-evaluation reports shall not exceed 20 pages in length per each evaluation period. The PEB will not submit its recommendation to the Fee Determination Official (FDO) until (1) the Contractor's self-evaluation report has been received and considered, or (2) the Contractor has provided written notification that a self-evaluation report will not be submitted, or (3) the deadline for its submission has expired.

The PEB Chair will prepare the PEBR for the period and present the findings and recommendations to the FDO. The reports will include an adjective rating and a recommended performance score with supporting documentation.

The Contractor will be notified of the PEB evaluation and recommended ratings and scores and will be provided copies of the PEBR. The Contractor may provide additional information for consideration by the FDO by notifying the PEB Chair of its desire to do so. This is an opportunity for the Contractor to provide any information which the Contractor believes is relevant to its performance and which may affect the FDO's determination. Any additional information should be provided to the PEB Chair within five (5) calendar days of Contractor notification of the PEB recommended rating and score. This additional Contractor information will be provided to the FDO by the PEB Chair.

The FDO will consider the recommendations of the PEB, the PEBR, information provided by the Contractor, if any, and any other pertinent information in determining performance scores. The FDO's determination of the scores will be stated in a written Award Fee Determination.

The FDO will not make a performance determination prior to the expiration of the 5-working-day period prescribed above for Contractor submissions unless the Contractor has affirmatively indicated, in writing, that no further Contractor submission will be made.

The Award Fee Determination will be provided to the Contractor by the Contracting Officer.

SECTION IV. AWARD FEE EVALUATION CRITERIA AND WEIGHTING

A. In evaluating the performance of the Contractor, the Government will evaluate major elements of Contractor performance including performance and cost.

B. The criteria for evaluation of Contractor performance for determination of award fee is defined below. The performance and cost evaluation criteria will be considered independently to determine the degree of success the Contractor has demonstrated in arriving at a well-balanced contract performance. The Government may unilaterally modify the award fee performance evaluation factors and performance evaluation areas applicable to the evaluation period. The CO shall notify the Contractor in writing of any such changes prior to the start of the relevant evaluation period.

Evaluation Criteria	Weight
1. Performance *	50 Percent
2. Compliance with Safety and Health Requirements **	10 Percent
3. Cost ***	25 Percent
4. Subcontracting Goals****	15 Percent

* Performance criterion includes all aspects of quality, schedule and management performance.

** Compliance with Safety and Health Requirements criterion includes all aspects of safety and health and environmental compliance issues.

*** Cost criterion includes evaluation of actual cost performance relative to negotiated contract values, including detailed variance analyses when appropriate.

**** The Subcontracting Goals criterion includes evaluation of the Contractor's success in achieving or surpassing the subcontracting goals specified in the contract.

C. Notwithstanding any of the above, a major breach of safety or security, as defined by clause 1852.223-75 of this contract, may result in an award fee score of zero for the affected evaluation period.

D. In order to earn any award fee, the Contractor must receive a numerical score of 61 or greater. Appendix 1 provides the performance level definition adjective ratings and corresponding numerical scores that will be used in evaluating performance. The numerical grade ranges corresponding to these adjective ratings and their conversion to total award fee earned are set forth in Appendix 2. Appendix 3 provides the distribution of the available maximum award fee for each evaluation period.

APPENDIX I – EVALUATION DEFINITIONS

ADJECTIVE	DEFINITION	GRADE RANGE
Excellent	Of exceptional merit exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.	91-100
Very Good	Very effective performance, fully responsive to contract requirements; reportable deficiencies but with little identifiable effect on overall performance.	81-90
Good	Effective performance, fully responsive to contract requirements, reportable deficiencies, but with little identifiable effect on overall performance.	71-80
Satisfactory	Meets or slightly exceeds minimum acceptable standards; adequate results. Reportable deficiencies with identifiable but not substantial effects on overall performance.	61-70
Poor/ Unsatisfactory	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas, which adversely effect overall performance.	60 and below

APPENDIX 2 – PERFORMANCE SCORE CONVERSATION CHART

Score		Fee Percentage
100		100
99		99
98		98
97		97
96		96
95	**Excellent**	95
94		94
93		93
92		92
91		91
90		90
89		89
88		88
87		87
86		86
85	**Very Good**	85
84		84
83		83
82		82
81		81
80		80
79		79
78		78
77		77
76		76
75	**Good**	75
74		74
73		73
72		72
71		71
70		70
69		69
68		68
67		67
66		65
65	**Satisfactory**	65
64		64
63		63
62		62
61		61
60 and below	**Poor/Unsatisfactory**	0

SECTION J, ATTACHMENT B
EXHIBIT B-1, AWARD FEE PLAN

APPENDIX 3 – AWARD FEE DISTRIBUTION

EVALUATION PERIOD	AWARD FEE AVAILABLE*
BASIC PERIOD:	
1. April 1, 2002, to September 30, 2002	$ [to be proposed by offeror]
2. October 1, 2002, to March 31, 2003	$ [to be proposed by offeror]
3. April 1, 2003, to September 30, 2003	$ [to be proposed by offeror]
4. October 1, 2003, to March 31, 2004	$ [to be proposed by offeror]
OPTION 1:	
5. April 1, 2004, to September 30, 2004	$ [to be proposed by offeror]
6. October 1, 2004, to March 31, 2005	$ [to be proposed by offeror]
OPTION 2:	
7. April 1, 2005, to September 30, 2005	$ [to be proposed by offeror]
8. October 1, 2005, to March 31, 2006	$ [to be proposed by offeror]
OPTION 3:	
9. April 1, 2006, to September 30, 2006	$ [to be proposed by offeror]
10. October 1, 2006 to March 31, 2007	$ [to be proposed by offeror]

*In addition to this amount, the actual award fee available for a particular period will include the award fee allocated to that period associated with task orders issued under Annex 13.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT C – DATA REQUIREMENTS LISTINGS AND SUBMITTALS

TABLE OF CONTENTS

DOCUMENT	DESCRIPTION	FREQUENCY	PAGE
DRL	DATA REQUIREMENTS LISTING		
	DRL Identification		J-C, DRL, 1
SA-1-1	Safety and Health Plan (S&HP)	Once w/Updates	J-C, DRL, 2
SA-1-2	Roster of Terminated Employees	Annually	J-C, DRL, 2
SA-1-3	Safety and Health Program Self Evaluation	Annually	J-C, DRL, 2
SA-1-4	Monthly Statistical Information	Monthly	J-C, DRL, 3
SA-1-5	Hazardous Materials Inventory	Annually	J-C, DRL, 3
SA-1-6	Log of Occupational Injuries and Illnesses	Annually	J-C, DRL, 3
SA-1-14	Monthly Safety and Health Metrics	Monthly	J-C, DRL, 4
SA-1-15	Safety and Health Lessons Learned	As Required	J-C, DRL, 4
AN-1-1	Y2K-HVAC and Lighting Baseline Status Report	Monthly	J-C, DRL, 5
AN-1-2	Quality Control Plan	Once w/Updates	J-C, DRL, 5
AN-1-3	JSC's Energy and Water Conservation and Management Plan	Once w/Annual Updates	J-C, DRL, 5
AN-1-4	Monthly Utility Report (MUR)	Monthly	J-C, DRL, 5
AN-1-5	NASA Quarterly Energy Consumption and Cost Report	Quarterly	J-C, DRL, 6
AN-1-6	Cold Weather Protection Plan	Annually	J-C, DRL, 6
AN-1-7	Supporting SOP's of *JSC Emergency Preparedness Plan JSC-05900	Once w Annual Updates	J-C, DRL, 6
AN-1-9	Wage/Salary and Fringe Benefit Data	Annually	J-C, DRL, 6
AN-1-10	Functional Metrics	Monthly	J-C, DRL, 7
AN-1-11	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required	J-C, DRL, 7
AN-1-13	Subcontracting Reports	Annually	J-C, DRL, 7
AN-1-14	Security Reporting Requirements	Annually	J-C, DRL, 7
AN-1-15	IT Security Plan	Once w/Updates	J-C, DRL, 8
AN-1-17	Workload Data Collection Report	Reserved	J-C, DRL, 8
AN-1-18	Fixed Price Award Proposal	Once	J-C, DRL, 8
AN-1-19	NF533 Cost and Data Reporting	Reserved	J-C, DRL, 9
AN-3-1	Annual Facility Condition Assessment Report	Annually	J-C, DRL, 9
AN-4-1	Water Utility Report	Monthly	J-C, DRL, 9
AN-4-2	Mission Readiness Plan	Annually w/Updates	J-C, DRL, 10
AN-4-3	JSC, Ellington Field, and Sonny Carter Training Facility Fire Hydrant and Flushing Plan	Once w/Updates	J-C, DRL, 10
AN-4-4	O&M Manuals for Water Supply Systems at JSC and Ellington Field	Once w/Updates	J-C, DRL, 10
AN-4-5	EMCS Alarm Management Plan	Once	J-C, DRL, 11
AN-9-1	Environmental Compliance Plan	Annually w/Updates	J-C, DRL, 11
AN-14-1	Custodial Cleaning Schedules	Annually	J-C, DRL, 11

DOCUMENT	DESCRIPTION	FREQUENCY	PAGE
DRD	**DATA REQUIREMENTS DOCUMENT**		
SA-1-1	Safety and Health Plan (S&HP)	Once w/Updates	J-C, DRD, 1
SA-1-2	Roster of Terminated Employees	Annually	J-C, DRD, 9
SA-1-3	Safety and Health Program Self Evaluation	Annually	J-C, DRD, 10
SA-1-4	Monthly Statistical Information	Monthly	J-C, DRD, 11
SA-1-5	Hazardous Materials Inventory	Annually	J-C, DRD, 12
SA-1-6	Log of Occupational Injuries and Illnesses	Annually	J-C, DRD, 13
SA-1-14	Monthly Safety and Health Metrics	Monthly	J-C, DRD, 15
SA-1-15	Safety and Health Lessons Learned	As Required	J-C, DRD, 17
AN-1-1	Y2K-HVAC and Lighting Baseline Status Report	Monthly	J-C, DRD, 18
AN-1-2	Quality Control Plan	Once w/Updates	J-C, DRD, 20
AN-1-3	JSC's Energy and Water Conservation and Management Plan	Once w/Annual Updates	J-C, DRD, 22
AN-1-4	Monthly Utility Report (MUR)	Monthly	J-C, DRD, 31
AN-1-5	NASA Quarterly Energy Consumption and Cost Report	Quarterly	J-C, DRD, 36
AN-1-6	Cold Weather Protection Plan	Annually	J-C, DRD, 38
AN-1-7	Supporting SOP's of ***JSC** Emergency Preparedness Plan JSC-05900	Once w/Annual Updates	J-C, DRD, 39
AN-1-9	Wage/Salary and Fringe Benefit Data	Annually	J-C, DRD, 40
AN-1-10	Functional Metrics	Monthly	J-C, DRD, 45
AN-1-11	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required	J-C, DRD, 56
AN-1-13	Subcontracting Reports	Annually	J-C, DRD, 57
AN-1-14	Security Reporting Requirements	Annually	J-C, DRD, 58
AN-1-15	IT Security Plan	Once w/Updates	J-C, DRD, 60
AN-1-17	Work load Data Collection Report	Reserved	J-C, DRD, 63
AN-1-18	Fixed Price Award Proposal	Once	J-C, DRD, 64
AN-1-19	NF533 Cost and Data Reporting	Reserved	J-C, DRD, 65
AN-3-1	Annual Facility Condition Assessment Report	Annually	J-C, DRD, 66
AN-4-1	Water Utility Report	Monthly	J-C, DRD, 68
AN-4-2	Mission Readiness Plan	Annually w/Updates	J-C, DRD, 69
AN-4-3	JSC, Ellington Field, and Sonny Carter Training Facility Fire Hydrant and Flushing Plan	Once w/Updates	J-C, DRD, 71
AN-4-4	O&M Manuals for Water Supply Systems at JSC and Ellington Field	Once w/Updates	J-C, DRD, 72
AN-4-5	EMCS Alarm Management Plan	Once	J-C, DRD, 73
AN-9-1	Environmental Compliance Plan	Annually w/Updates	J-C, DRD, 76
AN-14-1	Custodial Cleaning Schedules	Annually	J-C, DRD, 79

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

DRL IDENTIFICATION

a. **Title** - Enter nomenclature descriptive of activity to which the DRL pertains, such as project, contract, statement of work, or request for proposal.
b. **Contract/RFP Number** - Enter contract number or RFP number, if applicable.
c. **Date** - Enter DRL preparation date as follows: Month-Day-Year. Subsequent modification dates may also be entered in this block.

LINE ITEM IDENTIFICATION

1. **Line Item No.** - Number line items sequentially, 1 through 999.

2. **DRD Title** - Enter DRD title from block 1 of JSC Form 2341.

3. **Frequency** - Enter frequency of submittal code as follows:

Code	Description	Code	Description	Code	Description
AD	As Directed	DD	Deferred Delivery	RD	As Released
AN	Annually	EOGFY	End of Government Fiscal Year	RT	One Time and Revisions
AR	As Required	MO	Monthly	SA	SemiAnnually
BE	Biennually (Every other yr.)	OT	One Time	TY	Three Per Year
BM	Bimonthly (Every other mo.)	PV	Per Vehicle	UR	Upon Request
BW	Biweekly (Every other week)	QU	Quarterly	WK	Weekly
DA	Daily				

4. **As-Of Date** - If reports are of a recurring nature, give as-of date (cutoff date and due date: e.g., 15/1 indicated input cutoff date of 15th and due date of 1st). Amplify in Remarks, Item 9, if necessary.

5. **First Submittal** - Enter Month/Day/Year of initial submittal. If calendar date is not scheduled, enter number of days preceding or following event to which data requirement is related (e.g., 90 days prior to launch). Amplify in Remarks, Item 9, if necessary.

6. **Copies** - Complete 6a and 6b as specified below.
   a. **Type** - Enter code as follows:

Code	Definition	Code	Definition
PRINT	Printed Copies	ELECT	Electronic copy through Email
REPRO	Reproducible Copy	OTHER	Explain Remarks, Item 9
MIXED	Combination of Other Codes		

   b. **Number** - Enter number of copies required opposite each type of copy furnished.

7. **Data Type** - Check the appropriate data type. Additional detail needed to clarify types or define subtypes may be added in block 9, REMARKS.

   (1) Written Approval - Data requiring written approval by the NASA OPR before implementation into procurement or development program.
   (2) Mandatory Submittal - Data submitted to NASA for coordination, information, review, and/or management control.
   (3) Submittal upon Request - Data prepared and retained by respondent to be made available to requiring organization upon request.

8. **DISTRIBUTION** - List current codes or addresses and names of organizations which are to receive copies of documents generated under the DRD. If more than one copy is required, so indicate in parenthesis by recipient's name. Continue on a blank sheet if necessary.

9. **REMARKS** - Enter in this space.
   a. Reference to specific work statement paragraph as applicable to explain relationship of data to task.
   b. Additional submittal information, if necessary.
   c. Comments which explain an entry made in any block of the DRL.
   d. OPR for a specific DRD, if different from contract COTR.

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

a. Title of Contract, Project, SOW, etc.				b. Contract/RFP No.		c. DRL Date/Mod Date	
Center Operations Support Services (COSS) Contract				RFP9-BJ32-T63-0-24P		01-31-01	
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
SA-1-1	Safety and Health Plan, DRD-SA-1-1	Once w/Updates				Mixed	4 + 1
7. Data type:	☒ (1) Written approval	☐ (2) Mandatory Submittal	☐ (3) Submitted upon request				
	8. Distribution *(Continue on a blank sheet if needed)* JSC Occupational Safety Branch (1 hard copy, 1 electronic copy) JSC Occupational Health Officer (1 hard copy) JSC Emergency Preparedness Office (1 hard copy) JSC Environmental Services Office (1 hard copy) JA Safety Manager (1 hard copy, 1 electronic copy)		9. Remarks Copies with proposal as provided in RFP instructions; distribute to those in block 8 after Government approval. Amend to contract by contract mod.				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-2	Roster of Terminated Employees, DRD-SA-1-2	Annual				Mixed	2
7. Data type:	☐ (1) Written approval	☒ (2) Mandatory Submittal	☐ (3) Submitted upon request				
	8. Distribution *(Continue on a blank sheet if needed)* JSC Occupational Health Officer (1 hard copy, 1 electronic copy)		9. Remarks 30 days after the end of each contract year				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-3	Safety and Health Program Self Evaluation, DRD-SA-1-3	Annual				Mixed	2 + 2
7. Data type:	☐ (1) Written approval	☒ (2) Mandatory Submittal	☐ (3) Submitted upon request				
	8. Distribution *(Continue on a blank sheet if needed)* JSC Occupational Safety Branch (1 hard copy, 1 electronic copy) JSC Occupational Health Officer (1 hard copy, 1 electronic copy)		9. Remarks				

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-4	Monthly Statistical Information, DRD SA-1-4	Monthly				Mixed	1 + 1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Safety Branch (1 hard copy, 1 electronic copy)

9. Remarks
.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
SA-1-5	Hazardous Materials Inventory, DRD SA-1-5	Annual				Mixed	1 + 1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Health Officer (1 hard copy, 1 electronic copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
SA-1-6	Log of Occupational Injuries and Illnesses, DRD SA-1-6	Annual				Print	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Safety Branch (2 hard copies)

9. Remarks

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
SA-1-14	Monthly Safety and Health Metrics	Monthly				Mixed	3 + 1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	JSC Occupational Safety Branch (2 electronic copies) JSC Occupational Health Officer (1 electronic copy) JSC COSS COTR (1 electronic copy) JA Safety Manager (1 electronic copy)	Due by 10th of month following month reported

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-15	Safety and Health Lessons Learned	See Block 9				Mixed	1 + 1

7. Data type: ☐ (1) Written approval ☐ (2) Mandatory Submittal ☒ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	JSC Occupational Safety Branch (1 electronic copy) JSC COSS COTR (1 electronic copy) JA Safety Manager (1 electronic copy)	Contractor determined or as requested by COTR

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-1	Y2K-HVAC and Lighting Baseline Status Report	Monthly		see block 9		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	Electronic distribution. One hard copy and one electronic copy to JSC Energy Conservation Manager.	Due by 10th of the following month.

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-2	Quality Control Plan	As Required		see block 9		Mixed	See Block 9

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	Hard copies to CO Electronic copy to CO	20 hard copies due with proposal submission 20 hard copies & 1 electronic copy due 15 days before contract start 5 hard copies & 1 electronic copy 15 days after approved change

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-3	JSC's Energy and Water Conservation and Management Plan	Annually		See Block 9		Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to CO. One hard copy and one electronic copy to JSC Energy Conservation Manager.	Electronic copy must be in a Microsoft Windows Product. Due 60 days after contract start with annual updates.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-4	Monthly Utility Report (MUR)	Monthly				Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One hard copy to COTR. One electronic copy to JSC Energy Conservation Manager.	Electronic copies must be in Microsoft Excel.

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-5	NASA Quarterly Energy Consumption and Cost Report	Quarterly				Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One hard copy to CO. One hard copy and one electronic copy to JSC Energy Conservation Manager.	Electronic copy must be in a Microsoft Windows Product.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-6	Cold Weather Protection Plan	Annually				Mixed	3

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to CO. Two hard copies to COTR.	Electronic copy must be in a Microsoft Windows Product.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-7	Supporting SOP's of ***JSC** Emergency Preparedness Plan JSC-05900	Annually		See Block 9		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to CO One hard copy to CO	Electronic copy must be in a Microsoft Windows Product. Due 30 days after start of contract with annual updates.

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-9	Wage/Salary and Fringe Benefits Data	Annually		Start of contract		Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	CO (1electronic copy and 1 hard copy) JSC Labor Relations Officer (1 electronic and 1 hard copy)	Must be provided in format identified in Wages Form 2 and Benefits Form 3

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-10	Functional Metrics	Varies, see DRD		1st mo. after contract start		Mixed	See DRD

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	COTR – Electronic and hardcopy CO - Electronic and hardcopy As Detailed in DRD for Specific Metrics	Copies, frequency, and distribution per DRD.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-11	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required				Print	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	CO (1 hard copy) JSC Labor Relations Officer (1 hard copy)	

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-13	Subcontracting Reports	As Required per DRD				Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	CO (1 electronic copy and 1 hard copy)	See DRD references for details

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-14	Security Reporting Requirements	As Required per DRD				Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	COTR (1 electronic copy and 1 hard copy) JSC Security Office (1 electronic copy and 1 hard copy)	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-15	Information Technology Security Plan	As Required Per DRD		Within 90 days of contract start		Elect	1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	COTR (1 electronic copy)	

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-17	Workload Data Collection Report	Monthly		May 10, 2002		Mixed	4

7. Data type: ☐ (1) Written approval ☐ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	CO – electronic and hardcopy Maintenance & Repair TMR – electronic and hardcopy	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-18	Fixed Price Award Proposal	OT		April 30, 2004		Mixed	8

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	COTR – electronic and hardcopy CO - electronic and hardcopy Remaining 4 hardcopies - CO determined	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-1-19	NF533 Cost and Data Reporting	Monthly		May 10, 2002	8	Mixed	8

7. Data type: ☐ (1) Written approval ☐ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
[redacted]	LF6 Cost Accounting – 1 electronic & 1 hard copy BJ Contracting Officer – 1 electronic & 1 hard copy L13 Budget/Program Analyst – 1 electronic & 1 hard copy JA Technical – 1 electronic & 1 hard copy	

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-3-1	Annual Facility Condition Assessment Report	Annually	2000	Sept. 2002		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to JSC Planning Integration Office One hard copy to JSC Planning Integration Office	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-4-1	Water Utility Report	Monthly		10th of mo. follow		Elect	1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to the CO.	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-4-2	Mission Readiness Plan	Annually As Required	1/15/01	Per DRD		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One hard copy and one electronic copy to the CO.	

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-4-3	JSC, Ellington Field, and Sonny Carter Training Facility Fire Hydrant and Flushing Plan	As Required Per DRD		30 days after contract award		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
One hard copy and one electronic copy to the CO.

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-4-4	O&M Manuals for Water Supply Systems at JSC and Ellington Field	As Required		90 days after award		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
One hard copy and one electronic copy to the CO upon update.

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-4-5	EMCS Alarm Management Plan	As Required	1/15/01	60 days after award		Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
One hard copy and one electronic copy to the CO.

9. Remarks

JSC DATA REQUIREMENTS LIST (DRL)

(Based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-9-1	Environmental Compliance Plan	Annually	2000	Contract Start		Mixed	5 + 1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	JSC Occupational Safety and Quality Assurance Branch (1 hard copy) JSC Occupational Health Officer (1 hard copy) JSC Environmental Office (2 hard copies, 1 electronic copy) COTR (1 hard copy)	

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. date	6. Copies	a. type	b. number
AN-14-1	Custodial Cleaning Schedule	Annually		2 weeks prior to contract start date		Elect	1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

	8. Distribution *(Continue on a blank sheet if needed)*	9. Remarks
	One electronic copy to the Custodial TMR.	

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Safety and Health Plan	1/01 (replaces 5/00 version)	SA-1-1	RFP9-J32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Establishes Safety, Health, and Environmental Compliance Plan for contractors providing support to JSC organizations

***The Office of Primary Responsibility for this DRD is the JSC Safety, Reliability, and Quality Assurance Office

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
NPG 8715.3 (as revised); JPG 1700.1 (65 as revised)	See block 8. below

8. Preparation Information (Include complete instructions for document preparation)

Frequency of submission. Initial submission with the proposal.

Distribution. After the plan is approved by NASA, the Contracting Officer will retain the plan in the contract file. The Contractor will send additional copies to each of the following:
JSC Occupational Safety Branch (1 hard copy, 1 electronic copy)
JSC Occupational Health Officer (1 hard copy)
JSC Environmental Services Office (1 hard copy)
JSC Emergency Preparedness Office (1 hard copy)
JA Safety Manager (1 hard copy, 1 electronic copy)

Subsequent revisions to the plan. Review the plan annually or as directed by the CO. The plan shall be updated to meet the latest OSHA, JSC, and VPP requirements. Provide a copy of the updated plan with the changes highlighted to the distribution list above by April 1st of each contract year. If no changes are required after the annual review, notify the individuals in the distribution list in writing to that affect.

Other deliverables. The requirements for this plan as detailed in the instructions on plan content below include instructions for specific reports and data to be submitted to the Government. These instructions are to be included in the plan and represent contractual commitments by the Contractor to provide this information.

Format:

1. Cover page - to include as a minimum the signatures of Contractor's project manager and designated safety official; NASA COTR; JSC Occupational Safety Branch; JA Safety Manager; and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government.

2. Table of Contents. See content below.

3. Body of plan - as required. Contractor's format is acceptable but should be aligned with the elements of the content below.

4. When preparing its plan, the Offeror/Contractor is expected to review all the items below and tailor its plan accordingly. The plan will clearly identify those resources to be provided by the Contractor and proposed resources to be provided by the Government. This review and supporting rationale is to be made available to the Government as part of this plan. It can be documented as a checklist or outline, inserted directly in the body of the plan, or in any format developed by the Contractor that clearly conveys the results of this review including the basis for any underlying assumptions.

5. Authority: FAR 52.223-1 through -5, -10; NFS 18-23.70, 18-52.223-70, 18-52.223-73.

Content:

1. **MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION**

1.1. Policy: Provide the Contractor's safety, health, and environmental compliance policy statement with the plan. Compare the Contractor's policy statement with those of NASA and OSHA and discuss any differences.

1.2. Goals and Objectives.

1.2.1. Describe specific annual safety and health goals and objectives to be met. Discuss status of safety program using the "Performance Evaluation Profile" as safety performance criteria. Describe the Contractor's approach (including milestone schedule) to achieve and maintain level five of the Performance Evaluation Profile in all areas.

1.2.2. Describe methods to be used, if any, to improve on the Lost Work Day Case (LWDC) frequency rate, the OSHA Recordable Case (ORC) frequency rate, and LWDC severity rate requirements in CLIN 1.8.1.

1.3. Management Leadership. Describe management's procedures for implementing its sustaining commitment to safety, health, and environmental compliance through visible management activities and initiatives including a commitment to exercise management prerogatives to ensure workplace safety and health. Describe processes and procedures to making this visible in all contract and subcontract activities and products. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

1.3.1. Employee Involvement. Describe procedures to promote, implement, and sustain employee (e.g., non-supervisory) involvement in safety, health, and environmental compliance program development, implementation and decision-making. Describe the scope and breadth of employee participation to be achieved so that approximate safety and health risk areas of the contract are equitably represented. Describe methods to be used to obtain employee buy in and address the behavioral aspects of safety.

1.4. Assignment of Responsibility. Describe line and staff responsibilities for safety and health program implementation. Identify any other personnel or organization that provides safety services or exercises any form of control or assurance in these areas. State the means of communication and interface concerning related issues used by line, staff, and others (such as documentation, concurrence requirements, committee structure, sharing of the work site with NASA and other contractors, or other special responsibilities and support). As a minimum, the Contractor will identify the following:

1.4.1. Safety Representative - identify by title the individual who will be trained and certified in accordance with JPG 1700.1 to be responsive to Center-wide safety, health, environmental, and fire protection concerns and goals, and who will participate in meetings and other activities related to the JSC Safety and Health program.

1.4.2. Company Physician/Occupational Injury/illness case manager - identify a point of contact who is responsible for the transfer or receipt of company medical data and who will be the primary contact for the company in the event any employee suffers a work related injury or illness (such as the company physician) by name, address, and telephone number to the JSC Clinic, mail code SD22. This will facilitate communication of medical data to Contractor management. Prompt

notification to the JSC Occupational Health/ Clinic shall be given of any changes that occur in the identity of the point of contact.

1.4.3. Building Fire Wardens - provide a roster of fire wardens by April 1st of each contract year (their names, telephone numbers and pagers, and mail codes). Contractor fire wardens are needed to facilitate the JSC fire safety program, including coordination of related issues with NASA facility managers and emergency planning and response officials and their representatives. Fire wardens will be trained in accordance with JPG 1700.1.

1.4.4. Designated Safety Official - identify by title the official(s) responsible for implementation of this plan and all formal contacts with regulatory agencies and with NASA.

1.5. Provision of Authority. Describe consistency of the plan for compliance with applicable NASA and JSC requirements and contractual direction as well as applicable Federal, state, and local regulations and how compliance will be maintained throughout the life of the contract.

1.6. Accountability. Describe procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe, healthful, and environmentally compliant manner. The use of traditional and/or innovative personnel management methods (including discipline, motivational techniques, or any other technique that ensures accountability) will be referenced as a minimum and described as appropriate.

1.7. Program Evaluation. The program evaluation consists of:

1.7.1. Participation in a Performance Evaluation Profile (PEP) survey at the request of the Government. The PEP survey will be scheduled and administered at the discretion of the Government.

1.7.2. A written self-evaluation report to be delivered by Sept 30 of each year. The self-evaluation shall follow the VPP program evaluation report format found in OSHA TED 8.1, Revised Voluntary Protection Programs (VPP) Policies and Procedures Manual, Appendix H, "Format for Program Evaluation Report".

1.7.3. Miscellaneous Reports. The Contractor will acknowledge the following as standing requests of the Government and to be handled as described below.

a. Material Safety Data. The Contractor shall prepare and/or deliver Material Safety Data for hazardous materials brought onto Government property or included in products delivered to the Government. This data is required by the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR 1910.1200, "Hazard Communication", EPA "Emergency Planning and Community Right-to-Know (EPCRA, ref. 40 CFR 302, 311, 312); and the Texas Department of Health (TDH, ref. Chapters 505-507 of the Health and Safety Code), and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. One copy of each MSDS will be sent upon receipt of the material for use on NASA property to the JSC Central Repository, Occupational Health and Test Support, Mail Code SD13, along with information on new or changed locations and/or quantities normally stored or used. If the MSDS arrives with the material and is needed for immediate use, the MSDS shall be delivered to the Central Repository by close of business of the next working day after it enters the site.

1.8. Government Access to Safety and Health Program Documentation. The Contractor shall recognize in its plan that it will be expected to make all safety, health, and environmental documentation (including relevant personnel records) available for inspection or audit at the Government's request. Electronic access by the Government to this data is preferred as long as Privacy Act requirements are met and Government safety and health professionals and their representatives have full and unimpeded access for review and audit purposes. For Contractor activities conducted on NASA property, the Contractor will identify what records it will make

available to the Government in accordance with the Voluntary Protection Program criteria of OSHA as implemented in JPG 1700.1, "JSC Safety and Health Handbook", as revised. For the purpose of this plan, safety, health, and environmental compliance documentation includes but is not limited to logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which contains in whole or in part any subject matter pertinent to safety, health, environmental protection, or emergency preparedness.

1.9. Review and Modification of Safety Requirements. The Contractor may be requested to participate in the review and modification of safety requirements that are to be implemented by the Government including any referenced documents therein. This review activity will be implemented at the direction of the NASA Contracting Officer's Technical Representative in accordance with established NASA directives and procedures.

1.10. Procurement. Identify procedures used to assure that procurements are reviewed for safety, health and environmental compliance considerations and that specifications contain appropriate safety criteria and instructions. Set forth authority and responsibility to assure that safety tasks are clearly stated in subcontracts.

1.11. Certified Professional Resources. Discuss your access to certified professional resources for safety, health, and environmental protection. Discuss their roles in motivation/awareness, worksite analysis, hazard prevention and control, and training.

2. **Worksite Analysis:** Contractor worksite hazards shall be systematically identified through a combination of surveys, analyses, and inspections of the workplace, investigations of mishaps and close calls, and the collection and trend analysis of safety and health data such as: records of occupational injuries and illnesses; findings and observations from preventive maintenance activities; reports on hazardous substance spills and inadvertent releases to the environment; facilities related incidents related to partial or full loss of systems functions; etc. Describe how hazards identified by any of the techniques identified below shall be ranked, processed, and mitigated in accordance with JPG 1700.1. All hazards on NASA property, which are immediately dangerous to life or health, shall be reported immediately to the Occupational Safety Office. All safety engineering products that address operations, equipment, etc., on NASA property will be subject to JSC SR&QA review and concurrence unless otherwise waived by the JSC Occupational Safety Office.

2.1. Industrial Hygiene. Describe your industrial hygiene program and how it will be coordinated with the JSC Government provided resources for industrial hygiene. In the event corporate resources are used to determine workplace exposures, copies of all monitoring data shall be provided to JSC Occupational Health within 15 days of receipt of results.

2.2. Hazard Identification. Describe the procedures and techniques to be utilized to compile an inventory of hazards associated with the work to be performed on this contract. This inventory of hazards shall address the work specified in this contract as well as operations and work environments in the vicinity or in close proximity to contract operations. The results will be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Specific techniques to be considered include:

2.2.1. Comprehensive Survey – A "wall to wall" engineering assessment of the contractor's worksite, which includes the Government furnished facilities and the immediate vicinity in which a work task will be performed. This assessment encompasses facilities, equipment, processes, and materials (including wastes – TNRCC/EPA solid and hazardous, radioactive, explosives, medical-infectious-biological).

2.2.2. Change (Pre-use) Analysis – Typically addresses modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and

maintenance. Change analyses periodically will be driven by new or modified regulatory and NASA requirements.

2.2.3. Hazard Analysis – may address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. Analyses and report formats will be in accordance with JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations."

2.3. Inspections.

2.3.1. Routine Inspections. Includes assignments, procedures, and frequency for regular inspection and evaluation of work areas for hazards and accountability for implementation of corrective measures. The Contractor will describe administrative requirements and procedures for control of and regularly scheduled inspections for fire and explosion hazards. The Contractor has the option, in lieu of this detail, to identify policies and procedures with the stipulation that the results (including findings) of inspections conducted on NASA property or involving Government furnished property will be documented in safety program evaluations or the monthly Accident/Incident Summary reports. Inspections will identify:
a. Discrepancies between observed conditions and current requirements, and
b. New (not previously identified) or modified hazards.

2.3.2. Protective Equipment. Set forth procedures for obtaining, inspecting, and maintaining all appropriate protective equipment, as required, or reference written procedure pertaining to this subject. Set forth methods for keeping records of such inspections and maintenance programs.

2.4. Employee Reports of Hazards – identification of methods to encourage employee reports of hazardous conditions (e.g., close calls) and analyze/abate hazards. The Contractor will describe steps it will take to create reprisal-free employee reporting with emphasis on management support for employees and describe methods to be used to incorporate employee insights into hazard abatement and motivation/awareness activities.

2.5. Accident and Record Analysis.

2.5.1. Mishap Investigation – identification of methods to assure the reporting and investigation of mishaps including corrective actions implemented to prevent recurrence. The Contractor will describe the methods to be used to report and investigate mishaps on NASA property and on Contractor or third party property. The Contractor will describe its procedures for implementing use of NASA forms as specified in JPG 1700.1 and alternate forms used by the Contractor with emphasis on timely notification of NASA; investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other Contractor personnel; follow up of corrective actions; communication of lessons learned to NASA; and solutions to minimize duplications in reporting and documentation including use of alternate forms, etc. The Contractor will discuss its procedures for immediate notification requirements for fires, hazardous materials releases, and other emergencies. The Contractor will include appropriate details to address the use of NASA Form 1627, "Mishap Report" (or equivalent), including 24-hour and ten-day mishap reports to the JSC Occupational Safety Branch, mail code NT2. Note: the NASA Form 1627 is not attached since it is a three part carbonless form not conducive to reproduction. This form can be obtained from JSC's Printing Services.

2.5.2. Trend Analysis – describe approach to performing trend analysis of data (occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc.). Discuss methods to identify and abate common causes indicated by trend analysis. In support of site-wide trend analysis to be performed by the Government, the Contractor will discuss method of providing data as follows:

3. **Hazard Prevention and Control:** Identified hazards must be eliminated or controlled. In the multiple employer environment of the center, it is required that hazards including discrepancies

and corrective actions be collected in a Center wide information system (Hazard Abatement Tracking System (HATS) for risk management purposes. Describe your approach to implementing this requirement.

3.1. Appropriate Controls. Discuss approach to consideration and selection of controls. Discuss use of hazard reduction precedence sequence (see JPG 1700.1). Discuss approach to identifying and accepting any residual risk. Discuss implementation of controls including verifying effectiveness. Discuss scope of coverage (hazardous chemicals, equipment, discharges, waste, energies, etc.). Discuss need for coordination with safety, health, environmental services, and emergency authorities at NASA.

3.2. Hazardous Operations and Processes. Establish methods for notification of personnel when hazardous operations and processes are to be performed in their facilities or when hazardous conditions are found to exist during the course of this contract. JPG 1700.1 will serve as a guide for defining, classifying, and prioritizing hazardous operations; 29 CFR 1910.119 will be the guide for hazardous processes. Develop and maintain a list of hazardous operations and processes to be performed during the life of this contract. The list of hazardous operations and processes will be provided to JSC as part of the plan for review and approval. JSC and the Contractor will decide jointly which operations and processes are to be considered hazardous, with JSC as the final authority. Before hazardous operations or processes commence, the Contractor will develop a schedule to develop written procedures with particular emphasis on identifying the job safety steps required. NASA will have access on request to any Contractor data necessary to verify implementation. For all identified operations or processes that may have safety or health implications outside contract operations, the Contractor shall identify such circumstances to the JSC Occupational Safety Branch and Occupational Health and Test Support Office who will provide additional instructions for further NASA management review and approval.

3.3. Written Procedures. Identification of methods to assure that the relevant hazardous situations and proper controls are identified in documentation such as inspection procedures, test procedures, etc., and other related information. Describe methods to assure that written procedures are developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures will be developed in a format suitable for use as safety documentation (such as a safety manual) and be readily available to personnel as required to correctly perform their duties.

3.4. Hazardous Operations Permits. Identify facilities, operations and/or tasks where hazardous operations permits will be required as specified in JPG 1700.1 such as confined space entry, hot work, etc. Set forth guidance to adhere to established NASA JSC procedures. Clearly, state the role of the safety group or function to control such permits.

3.5. Operations Involving Potential Asbestos Exposures. Set forth method by which compliance is assured with JSC Asbestos Control Program as established in JPG 1700.1, as revised, and JPG 8800.1, "Asbestos Control Manual," as revised.

3.6. Operations Involving Exposures to Toxic or Unhealthful Materials. Such operations must be evaluated by the JSC Occupational Health Office and must be properly controlled as advised by same. JSC Occupational Health Office must be notified prior to initiation of any new or modified operation potentially hazardous to health.

3.7. Environmental Operations & Activities – See Annex 9 and DRD AN-9-1

3.8. Baseline Documentation. Discuss the Contractor's responsibilities for maintaining facilities baseline documentation in accordance with JSC requirements. The Contractor will implement any facilities baseline documentation tasks (including safety engineering) as provided in the Contractor's plan approved by NASA or as required by Government direction.

3.9. Preventive Maintenance. Discuss approach to preventive maintenance. Describe scope, frequency, and supporting rationale for your preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized. Discuss methods to promote awareness in the NASA community (such as alerts, safety flashes, etc.) when preventive maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable).

3.10. Medical (Occupational Healthcare) Program. Discuss the Contractor's medical surveillance program and injury /illness case management to evaluate personnel and workplace conditions to identify specific health issues and prevent degradation of personnel health as a result of occupational exposures. Discuss approach to Cardiopulmonary Resuscitation (CPR), first aid, and, return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries/illnesses.

3.11. Hazard Correction and Tracking. Discuss your system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement Process (found online at http://wwwsrga.jsc.nasa.gov/hats/). This includes the following:

3.11.1. Personnel Awareness of Hazards. Discuss your approach to communicate unsafe conditions and approved countermeasures to your employees. Discuss your approach to communicating such conditions to the Government and other contractors whose personnel may be exposed to such unsafe conditions. Discuss communications with facility managers. Discuss use of the NASA Lessons Learned Information System for both obtaining lessons from other sources and as a repository for lessons learned during performance of the contract.

3.11.2. Interim and Final Abatement Plans. Describe how you will approach interim and final abatement of hazards. Describe the role of your facility managers in abatement planning, implementation, and verification. Describe how you will provide data to the JSC Hazard Abatement Tracking System for all hazards within Contractor-occupied facilities that are not finally abated (all interim and final abatement actions completed) within 30 days of discovery. Discuss your approach to posting such plans using JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent. Discuss compatibility of your system with JSC's.

3.12. Disciplinary System. Describe your system for ensuring safety and health discipline in your personnel (including subcontractors). Describe your approach to modifying personnel behaviors when personnel are exhibiting discrepant safety and health performance.

3.13. Emergency Preparedness. Discuss approach to emergency preparedness and contingency planning which addresses fire, explosion, inclement weather, environmental spill /releases, etc. Discuss compliance with 29 CFR 1910.120 (HAZWOPER) and role in JSC Incident Command System (see JPG 1700.1 for details). Discuss methods to be used for notification of JSC emergency forces including emergency dispatcher, safety hotline, director's safety hotline, etc. Discuss establishment of pre-planning strategies through procedures, training, drills, etc. Discuss methods to verify emergency readiness.

4. **Safety and Health Training:** Describe the Contractor's training program including identification of responsibility for training employees to assure understanding of safe work practices, hazard recognition, and appropriate responses for protective and/or emergency countermeasures, including training to meet Federal, state, and local regulatory requirements. In doing so, the Contractor will factor parallel requirements found in other mandates such as environmental protection [example: 29 CFR 1910.38 for emergency action plans and fire prevention plans versus EPA Resource Conservation & Recovery Act (RCRA) and Emergency Planning and Community Right-to-Know (EPCRA).] Describe approach to identifying training needs including traceability to exercises such as job safety analyses, performance evaluation profiles, hazard analyses, mishap investigations, trend analyses, etc. Describe approach to training personnel in the proper use and

care of protective equipment (PPE). Discuss tailoring of training towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations). Discuss approach to ensure that training is retained and practiced. Discuss personnel certification programs. Certifications should include documentation that training requirements and physical conditions have been satisfied (examples include physical examination, testing, and on-the-job performance). Address utilization of JSC safety and health training resources (such as asbestos worker training/certification, hazard communication, confined space entry, lockout/tagout, etc.) as appropriate with particular emphasis on programs designed for the multiple employer work environment on NASA property. All training materials and training records will be provided to NASA, and other Federal, state, and local agencies for their review upon request. If the Contractor wishes to train their personnel in any regulatory mandated training, an agreement will be secured with JSC Occupational Safety Branch and Occupational Health and Test Support office prior to beginning training. The agreement will ensure that safety and health training resources available from NASA are utilized where appropriate and to ensure that Contractor-supplied training is in agreement with JSC safety and health processes.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Roster of Terminated Employees	1/01 (replaces 5/00 version)	SA-1-2	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Identify personnel terminated by Contractor.

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: Send to the JSC Occupational Health Officer, no later than 30 days after the end of each contract year or at the end of the contract, whichever is applicable. At the Contractor's discretion, the report may be submitted for personnel changes during the previous year or cumulated for all years. Information required:

(1) Date of report, Contractor identity and contract number.
(2) For each person listed, provide name, social security number, and date of termination.
(3) Name, address, and telephone number of Contractor representative to be contacted for questions or other information.

Frequency: Plan is due annually after start of contract for review and approval.

Distribution: One hard copy and one electronic copy to the JSC Occupational Health Officer.

Format: Contractor Determined.

Details: None

References: None

Maintenance: Annually updated.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Safety and Health Program Self Evaluation	01/01 (replaces 02/06/95 version)	SA-1-3	RFP9-BJ32-T63-0-24P

4. USE (Define need for, intended use of, and/or anticipated results of data)
Self evaluation of Contractor's safety and health program performance.

5. DRD Category: *(check one)* [ ] Technical [ ] Administrative [X] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
JPG 1700.1 (as revised)	.

8. Preparation Information (Include complete instructions for document preparation)

1. The Contractor shall conduct an annual self-evaluation of its safety and health program as required by its safety and health plan.

2. Information required:

a. The internal assessment of safety and health program effectiveness during the report period (i.e., the previous year) indicating the status of goals or objectives previously established and areas of strength and weakness in Contractor safety program performance.

b. Safety and health concerns and resolutions relating to JSC operations which may have been identified during the report period.

c. Unresolved safety and health concerns relating to JSC operations which the Contractor feels merit attention of JSC safety and health management.

d. The goals and objectives of the Contractor safety and health program for the next report period.

e. An analysis of the Contractor's performance in each of the 32 Voluntary Protection Program sub-elements as found in the Federal Register of July 24, 2000 (available at the following link):

http://www.osha-slc.gov/FedReg_osha_data/FED20000724A.html

3. Action plans shall be attached for identified problem areas. Action plans shall include schedule for periodic progress reports to the Government. Frequency of status reports shall be agreed to by the Government and the Contractor for each problem area.

4. Format to be as specified in OSHA TED 8.1, "Revised Voluntary Protection Programs (VPP) Policies and Procedures Manual", Appendix H (Program Evaluation Report), Attachment 2 (VPP Onsite Evaluation Format for Safety and Health Programs) for a STAR work site which is found at the following link:

http://www.osha-slc.gov/OshDoc/Directive_data/TED_8_1A.html

5. Report due September 30th of each year. One hard copy and one electronic copy to the JSC Occupational Safety Branch and one hard copy to the JSC Occupational Health Officer.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Monthly Statistical Information	1/01 (replaces 5/00 version)	SA-1-4	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Report Monthly Loss Metrics

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

The Contractor shall prepare and deliver monthly statistical information as specified on JSC Form 288, "Statistical Information Contractor Safety and Health Program", as revised. Negative reports are also required monthly. Report due date is the 10th day of the month following each month reported. Report to be delivered to the JSC Safety, Reliability, and Quality Assurance Office through the Occupational Safety Branch by fax to 281-483-3801 or electronically as instructed by representatives of the Occupational Safety Branch.

Frequency: Monthly.

Distribution: One hard copy and one electronic disk to the JSC Occupational Safety Branch.

Format: Per the referenced form.

Details: None.

References: None

Maintenance: Monthly – due 10th of each month.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Hazardous Materials Inventory	1/01 (replaces 5/00 version)	SA-1-5	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
The Contractor shall compile an inventory report of all hazardous materials it has located on Government property.

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

The Contractor shall compile an inventory report of all hazardous materials it has located on Government property not less than annually, and which is within the scope of 29 CFR 1910.1200, "Hazard Communication"; and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. The call for this annual inventory and instructions for delivery will be issued by the JSC Occupational Health and Test Support Office, mail code SD13. This information shall use the format used by JSC for chemical inventory compilation to provide the following:

a. The identity of the material (product no., chemical, manufacturer, and NSN as available);
b. The location of the material by building, room and area/cabinet no.;
c. The quantity of each material normally kept at each location (number of containers, container size, type container, unit of measure, conversion factor, storage temp & pressure, physical state/form, specific gravity, total pounds);
d. Peak quantity stored
e. Actual or estimated rate of annual usage of each chemical
f. JSC MSDS number

Frequency: Plan is due annually, when requested by the JSC Occupational Health Officer, for review and approval.

Distribution: One hard copy and one electronic copy to the JSC Occupational Health Officer.

Format: Per the delivery instructions issued by the JSC Occupational Health and Test Support Office, mail code SD13.

Details: None.

References: None

Maintenance: Annually updated.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Log of Occupational Injuries and Illnesses	1/01 (replaces 5/00 version)	SA-1-6	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Annual summary of occupational injuries and illnesses.

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

For each establishment on and off NASA property that performs work on this Contract, the Contractor shall deliver to the Government a copy of its annual summary of occupational injuries and illnesses (or equivalent) as described in Title 29, Code of Federal Regulations, Subpart 1904.5. Copy of all summaries as required above under Contractor's cover letter. If Contractor is exempt by regulation from maintaining and publishing such logs, equivalent data in Contractor's format is acceptable (such as loss runs from insurance carrier) which contains the data required by JSC Form 288. Data shall be compiled and reported by calendar year and provided to the Government within 45 days after the end of the year to be reported (e.g. not later than February 15 of the year following.)

Frequency: Plan is due annually before February 15 of each calendar year for review and approval.

Distribution: Two hard copies to the JSC Occupational Safety Branch

Format: Per Title 29, Code of Federal Regulations, Subpart 1904.5

Details: None

References: None

Maintenance: Annually updated.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Monthly Safety and Health Metrics	01/2001	SA-1-14	RFP9-J32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Establishes selected Safety and Health Program metrics
***The Office of Primary Responsibility for this DRD is the JSC Safety, Reliability, and Quality Assurance Office

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
	DRD SA-1-1

8. Preparation Information (Include complete instructions for document preparation)

Frequency of submission. Monthly by 10th of month following month being reported.

Distribution.
JSC Occupational Safety Branch (2 electronic copies)
JSC Occupational Health Officer (1 electronic copy)
Contracting Officer's Technical Representative (COTR) (1 electronic copy)
JA Safety Manager (1 electronic copy)

Format: Excel spreadsheet or in tables compatible with MS Word.

Definitions. Refer to JPG 1700.1 and OSHA requirements for definitions of terms below.

Content.

I. Management Commitment and Employee Involvement.

Date of Management Safety Committee Meeting		Type/Title of Meeting	No. of Managers attending		No. of Supervisors attending		No. of Non-Supervisory personnel attending	
This month	Year to date		This month	Year to date	This month	Year to date	This month	Year to date

Include copies of minutes

No. of Employee Safety Meeting		Type/Title of Meeting	No. of Employees attending		No. of Managers/Supervisors attending	
This month	Year to date		This month	Year to date	This month	Year to date

Include copies of minutes

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

II. Worksite Analysis. Refer to JPG 1700.1 for definitions of terms.

Division	No. of Hazard Analyses				No. of Job Safety Analyses				No. of Routine Inspections			
	Required		Performed		Required		Performed		Required		Performed	
	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date
Total												

III. Hazard Prevention and Control - hazards below were found during routine and special inspections, close calls, mishap investigations, etc., and require correction.

No. of Hazards found			No. of Hazards closed <30 days			No. of Hazards open <30 days	No. of Hazards open >30 days			No. of Hazards closed >30 days			No. of JF1240s in place
Prior to month	This month	Year to date	Prior to month	This month	Year to date		Prior to month	This month	Year to date	Prior to month	This month	Year to date	

Attach copies (electronic acceptable if sent by e-mail) of JF 1240's including monthly updates. Mark JF 1240's where abatement has been completed as closed.

IV. Safety and Health Training - List courses specific to safety and health (such as Hazard Communication, Confined Space entry, HAZWOPER, system safety, job safety analysis, etc.) Do not include job proficiency course work where safety is an issue (such as radiography, welding, painting, etc.)

Course Title	No. to be Trained	No. Trained	On Schedule

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Safety and Health Lessons Learned	01/2001	SA-1-15	RFP9-J32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Obtains Lessons Learned from Contractor for possible publication in NASA Lessons Learned Information System (LLIS)
***The Office of Primary Responsibility for this DRD is the JSC Safety, Reliability, and Quality Assurance Office

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
	DRD SA-1-1, paragraphs 2.5.1 and 3.11.2

8. Preparation Information (Include complete instructions for document preparation)

Criteria for Selecting Lessons Learned. Uncommon insight arising from any event or observation that will benefit from sharing with a larger community of interested parties. Lessons learned are intended to prevent recurrence of undesirable events and to allow NASA and its team members to capitalize to the greatest extent practical on unique successes.

Frequency of submission. 30 days after triggering event or 30 days after mishap investigation or hazard analysis/evaluation is completed.

Distribution.
JSC Occupational Safety Branch (1 electronic copy including photographs, drawings, etc., in web-ready format such as HTML or JPG)
Contracting Officer's Technical Representative (COTR) (1 electronic copy)
JA Safety Manager (1 electronic copy)

Content:

Subject - one line subject of the lesson.

Lesson Learned - usually one sentence that describes insight gained.

Description of Event - narrative of what happened.

Recommendations - may be an action plan, suggestion, etc., that was adopted at event source.

Supporting documentation - as needed to give clear picture of lesson (photographs, illustrations, drawings, etc.).

Contact name and e-mail address (for follow up by Government prior to publication of lesson).

Definitions. Refer to NASA LLIS at http://llis.gsfc.nasa.gov/ for definitions of terms used.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Y2K-HVAC and Lighting Baseline Status Report	5-31-01	AN-1-1	RFP9-BJ32-T63-0-24P

4. Use (Define need for intended use of, and/or anticipated results of data)
The use of this report will be to provide a HVAC listing of equipment that provides approved run times which are used to develop Night Load Reduction for ***JSC**. Its secondary use will be to provide energy usage data on approved changes to baseline operations.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
** **HVAC Equipment Operational Status Report**	DRD AN-1-3

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to provide equipment listings on all HVAC and lighting systems and their approved run times. The listing will be used to develop Night Load Reduction for the ***JSC** for after-hours and weekends. It also will be used to determine the amount of energy and cost associated with operational and/or limit changes to the established baseline.

Frequency: Plan is submitted on a monthly basis. It shall be made electronically available by placement on the LAN.

Distribution: Electronically. One hard copy to the JSC Energy Conservation Manager.

Format: See example in the TRL, ****Y2K-HVAC Equipment and Lighting Baseline Status Report**

Details: There are two formats in the TRL. The old one is labeled ** **HVAC Equipment Operational Status Report.** The new report must be in written in the format as exemplified in the ** **Y2K-HVAC and Lighting Baseline Status Report** and must be inclusive of all HVAC equipment in buildings listed in the old format including EF and SCTF. The report shall contain the following information:

Section I: HVAC System Facility Equipment

A listing of all HVAC equipment housed in each facility at ***JSC** and their respective operational ratings will be required in the initial submission of the report.

Section II: Equipment Operational Status

A listing of all HVAC equipment and their respective operational hours, seasonal temperature settings and seasonal operational status will be required in the initial submission of the report.

Section III: Lighting Panels

A listing of all EMCS controlled Lighting Panels and their respective operational hours, panels KW, and breakers KW will be required in the initial submission of the report.

Section IV: Energy Impact Status

It will be the Contractor's responsibility to develop formulation that automatically calculates energy usage due to changes in operational status of the HVAC equipment or lighting systems. Those changes will be documented by Operational Change Orders (OCO), and Limit Change Orders (LCO) and through the Energy Exceptions Log (EEL). The energy can be a negative or a positive value and shall be reported as follows:

1. Energy +/- due to OCOs on HVAC equipment.
2. Energy +/- due to OCOs on Lighting Panels.
3. Energy +/- due to LCOs on HVAC equipment.
4. Energy +/- due to extended HVAC operations. (EEL)
5. Energy +/- due to extended Lighting operations. (EEL)

The individual amounts will be totaled to reflect monthly net usage over baseline operations.

References: AN-1-3

Maintenance: Report is to be updated as required per Section 3.6 of DRD- AN-1-3.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title Quality Control Plan	2. Current Version Date Per RFP	3. DRL Line AN-1-2	RFP/Contract No. (Procurement completes) RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Establishes management techniques and documentation that assures full compliance with contract requirements.

5. DRD Category: *(check one)* ☐ Technical ☒ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships - All performance requirements,
Sec. J, Attachment F; FAR 52.246-4	checks, tasks, system verification, and management

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Quality Control Plan shall be in accordance with FAR 52.246-4, and CLIN 1.6.2. The Quality Control Plan is to be submitted with the Contractor's proposal. The plan will be approved by the CO concurrent with Contract award.

Format: The quality control plan format shall match the elements of the ANSI/ISO/ASQC Q9001 – 2000 standard.

Contents: The quality control plan shall address each element of the ANSI/ISO/ASQC Q9001 – 2000 standard and the additional requirements identified below.

Maintenance: All changes and updates to plan shall be submitted in accordance with CLIN 1.6.2.

Distribution: Provide 20 copies of Quality Control Plan with submission of proposal, 20 updated copies to CO 15 days prior to contract start, and 5 final copies within 15 days of any approved change or plan updates.

Additional Requirements

Identify the methods, procedures, and controls you will use to ensure the quality, quantity, and timeliness of the required contract requirements. Explain how you will monitor, measure, and analyze each. Provide evidence that you have the resources necessary to support the operation and monitoring of these methods, procedures, and controls.

Describe how you will provide continual electronic access to all QC process documentation, such as, but not limited to, work methods, standard operating procedures, quality manual, and corrective action tracking system.

Explain how you will monitor, measure, and control the quality of products produced by the Contractor and Subcontractor. Explain how you will ensure that products, which do not conform to product requirements, are identified and controlled to prevent their unintended use or delivery.

Explain how you will monitor and measure any cross-utilization of personnel to assure that contract products and services will not be negatively affected. Describe your techniques, procedures, and mechanisms to ensure quality output despite schedule and/or priority pressures. Describe mechanisms for the identification of substandard output due to schedule and/or priority pressures.

Describe in detail how you will identify, correct, and prevent quality control problems with contract deliverables, without government notification or intervention.

Describe in detail the responsibilities of individual employees, supervisors, and management for ensuring quality output. Identify your Quality Control Manager, designated alternate, their responsibilities, and their authority for the overall management of the program.

Provide documented information of how personnel performing work affecting product quality are competent as a result of appropriate education, training, skills, and experience. In addition, explain the QC system you will use to monitor and maintain this level of personnel competency required during the duration of the contract.

Describe the tool, or tools, you will use to effectively measure customer satisfaction for all areas of the contract requirements. In addition, explain how your tool(s) will capture customer satisfaction metrics across all annexes given the unique contract requirements across each.

Explain how your organization will manage the interfaces between different groups involved in design and development to ensure effective communication and clear assignment of responsibility.

Explain how you will establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements and how these activities will enable you to segregate cost reimbursable supplies and services. Further explain how cost will be segregated and accounted for relative to reimbursable supplies and services.

Describe your responsibilities and requirements for planning and conducting audits (internal and external), and for reporting results and maintaining records. Provide a schedule, including subjects, of your internal audits for year 1 of the contract. Audits shall specifically address the "High Visibility" areas identified in the QC Program requirements.

Show how nonconformities and any subsequent actions taken, including concessions obtained, shall be identified, recorded, maintained, and subsequent action will be taken to minimize.

Provide and explain your schedule, including milestones, outlining your plan on accomplishing ANSI/ISO 9001 – 2001 certification within one year of the contract award date.

Describe how your QC Plan will effectively support and address all the elements of ANSI/ISO/ASQ Q9001 – 2000.

Explain how you will continually improve the effectiveness of the quality control program through the use of your quality system, quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

Explain how you will incorporate corrective actions identified by the Government into your corrective action system.

Describe in detail your company's bonus or incentive program, if used, and discuss methods for implementing if on this contract.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
JSC's Energy and Water Conservation and Management Plan	12-19-00	AN-1-3	

4. Use (Define need for, intended use of, and/or anticipated results of data)
The Contractor shall develop and implement a 5-year Energy Efficiency and Water Conservation Management Plan that applies to ***JSC** for the purpose of providing awareness, energy efficiency and water conservation, and operational and management controls on energy consuming systems.

5. DRD Category: *(check one)* [x] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
See below.	

8. Preparation Information (Include complete instructions for document preparation)

Scope: This plan is to provide the Contractor's methods, processes and management responsibilities for developing energy and water conservation procedures and operational and management measures at ***JSC**. The plan will provide the means the Contractor will employ to control, manage, accomplish and update those procedures and measures.

Frequency: Plan is due 60 days after contract start for review and approval by the CO. Yearly updates are required thereafter prior to the anniversary date of the contract.

References:

a. **National Energy Conservation Policy Act (PL 95-619, 92 Stat. 3206, USC 8252 et seq.)**
b. **Energy Policy Act of 1992 (EPACT) (Public Law 102-486, 106 Stat, 2776)**
c. **10 CFR 435 and 436, Chapter 11 of Title 10, Code of Federal Regulations**
d. **EO 13123, Greening the Government Through Efficient Energy Management**
e. **NPD 8820.1, Design and Construction of Facilities**
f. **NPD 8831.1B, Management of Facilities Maintenance**
g. **NPG 8570.X, Energy Efficiency and Water Conservation Technologies and Practices**
h. **NPG 8831.2C, NASA Facilities Maintenance Management**
i. **J69W-03, Energy Conservation**
j. **www.eren.doe.gov/femp/procurement**

Distribution: One electronic disk to the CO; one hard copy and one electronic copy to the JSC Energy Conservation Manager.

Format: Microsoft Window product, i.e. Excel, Word, or MS Project.

Details: The following represents the plan's general requirements and acceptable format.

JSC's Energy Efficiency and Water Conservation Management Plan

1.0 Introduction: In support and promotion of NASA's Strategic Plan, it is the responsibility of JSC to improve its energy efficiency and water conservation practices without impacting safety or mission support. Federal legislation has established Federal Energy Resource Management goals at ***JSC**. These goals are presented in EO 13123 and include an overall 35 percent reduction in energy consumption by FY2010 as measured from the base year of FY1985 for Non-Mission Variable and Mission Variable Buildings, and an overall 25 percent reduction for Energy Intensive Facilities by FY2010 as measured from the base year of FY1990.

2.0 Objective: In order to comply with Federal legislation, JSC must establish a 5-year Energy Efficiency and Water Conservation Management Plan. To support this requirement, the COSS Contractor shall develop a plan that applies to the Contractor's organization and incorporates

***JSC** Civil Servant and Contractor Organizations. The primary objectives of this plan shall be to minimize energy and water consumption without impacting safety or Mission operations while making Center personnel aware of the importance of limiting energy and water use to the minimum requirements.

3.0 Scope of Work: The Plan shall be in accordance with listed referenced Federal legislation and NASA/JSC directives. The plan shall incorporate all required elements of the referenced material and integrate those elements into COSS contract functions such as engineering, transportation, supplies, procurement, and operations and maintenance. The plan shall include a detailed 5-year implementation schedule that corresponds with the frequency requested. The plan shall include but is not limited to the following elements:

3.1 Contractor Energy Manager: The Contractor shall appoint a key individual to serve as a focal point for all energy matters and to manage and monitor energy and water consumption and conservation. In his plan the Contractor shall provide a narrative on the function and responsibilities of the Energy Manager. The narrative shall outline his constituent and technical responsibilities and provide details on the methodology that will be used to carry them out.

3.2 Program Management: The Contractor shall describe in detail the method used to provide the oversight in the development and implementation of a 5-year energy efficiency and water conservation management plan. The plan shall address the items listed in ****NPG 8570.X** Chapter 3, Section 3.1 and discuss the methodology that will be used to promote and manage these functions. The Contractor shall further include management controls on the elements of design compliance, Green Star Procurement, energy and water conservation awareness, metering, HVAC and Lighting operations, utility system operations, HVAC seasonal adjustments, hot/cold call procedures, KVA demand, and water conservation. The plan must also address contract quality control measures that will be incorporated to ensure program management is proactive, responsive and objectives are obtained and the methodology used to develop metrics to ensure elements of the plan are met.

3.3 Center Wide Employee Awareness: The Contractor shall establish and promote an energy and water awareness program among Federal and Contractor personnel. The program shall describe in detail the methodology to increase Center awareness of Energy and Water Conservation. Awareness shall be a primary factor and shall be designed to create a general cognizance of the daily conservation measures that Federal and Contractor employees must take in order to meet mandated goals.

3.4 Utility Metering Program: The Contractor shall describe in detail how the existing metering at ***JSC** will be used to control and evaluate through metrics the Energy and Water Conservation Program. Additional details shall be provided that describe additional metering that is necessary to facilitate total accountability of utility usage along with recommended cost of implementation and proposed maintenance requirements. (See Section 3.7 of this DRD for Metrics)

3.5. Existing Metering at JSC, Ellington Field, and Sonny Carter Training Facility: Existing metering shall be used by the Contractor to acquire data on utilities supplied or consumed by major utility systems and buildings at JSC, EF and SCTF. The data collected is used to complete the Monthly Utility Report (MUR) and the Quarterly Energy Report (QER). Following is a list of required data that is, or shall be remotely sensed and recorded by the EMCS for incorporation into the Utility Metering Program. If remote sensing by the EMCS does not exist, the meters are to be read locally to obtain daily and monthly totals for MUR reporting purposes until EMCS installation.

3.5.1.1 B#221, The 138 KV Electrical Substation for JSC: Data is to be remotely recorded by the EMCS at intervals of every 5 minutes and averaged for hourly use. Daily and monthly totals will be required for the MUR. The PHD of the EMCS shall historize the 5-minute acquisitions and hourly totals for trending purposes

a. kWh on feeder JSC-1-615.
b. KVA on feeder JSC -1-615.
c. kWh on feeders 1-2, 2-2, 3-00, 4-2 and 5-2.
d. kWh on feeders 1-5, 1-6, 1-7, 1-8, 1-10 and 1-12.
e. kWh on feeders 2-2, 2-6, 2-7, 2-8, 2-11 and 2-12.
f. kWh on feeders 3-1, 3-2, 3-3 and 3-1.
g. kWh on feeders 4-4, 4-5, 4-12 and 4-13.
h. kWh on feeders 5-4, 5-5, 5-6, 5-9, 5-20 and 5-12.

3.5.1.2 B#340, The Gas Metering Station for JSC: Data is to be remotely recorded by the EMCS at intervals of every 10 minutes and totalized for hourly, daily and monthly use. Daily and monthly totals will be required for the MUR. The PHD of the EMCS shall historize the 10-minute acquisitions and hourly totals for trending purposes

a. SCF of natural gas

3.5.1.3 B#24-the CHCP, B#47, B#222, B#227, B#260, B#350, B#416 and B#420: Data is to be remotely recorded by the EMCS only for usage at B#24 at intervals of every 10 minutes and totalized for hourly and monthly usage. Daily and monthly totals for all buildings will be required for the MUR. The PHD of the EMCS shall historize the 10-minute acquisitions and hourly totals for trending purposes

a. SCF of natural gas

* B#24 has two gas meters outside and inside the plant.

3.5.1.4 Potable and Waste Water System: Data is to be manually recorded to reflect daily and monthly totals.

a. Gals of water on R'well, CL-322 (mech and electronic totalizers).
b. Gals of water on E. header to JSC (mech. and electronic totalizers).
c. Gals of chilled water make-up B#24.
d. Gals of cooling tower make-up B#24.
e. Gals of cooling tower make-up B#28.
f. Gals of potable water B#8N.
g. Gals of portable water B#8S.
h. Gals of water discharge, B#358
i. Gals of sewage to CLWA.

3.5.1.5 Weather Station B#24: Db, Wb and Solar Index shall be remotely recorded at 10 minute intervals and averaged for hourly values. Daily averages are to be used for the MUR with notations of high and lows for the day. The PHD of the EMCS shall historize acquisitions and hourly totals for trending purposes

a. Dry bulb temperature.
b. Wet bulb temperature.
c. Solar index.

3.5.1.6 Steam Boilers B#24: Data is to be remotely recorded by the EMCS at intervals of every 15 minutes and totalized for hourly, daily and monthly use. Daily and monthly totals will be required

for the MUR. The PHD of the EMCS shall historize acquisitions and hourly totals for trending purposes.

a. Run time on natural gas for each boiler, hours per day.
b. Run time on fuel oil, hours per day.
c. SCF of natural gas used per boiler. *
d. Gallons of fuel oil used per boiler.
e. Stack temperature per boiler. *
f. Lbs. of steam produced per boiler for natural gas. *
g. Lbs. of steam produced per boiler for fuel oil.
h. Steam pressure and temperature per boiler. *
i. O2 readings per boiler.
j. Gallons of condensate return used.
k. Gallons of make-up feed-water used.
l. Water quality readings.

* These are the only points required for the remote readings at 15-minute intervals. The balance of points shall be manually recorded for total daily and monthly usage.

3.5.1.7 Electric drive chillers, B# 24, B# 28, B# 48: Data is to be remotely recorded by the EMCS at intervals of every 10 minutes and totalized for hourly, daily and monthly use. Daily and monthly totals will be required for the MUR. Acquisitions and hourly totals shall be historized by the PHD of the EMCS for trending purposes. Data on temperatures and pressures shall be averaged to obtain the hourly value. There will be no monthly total for temperature and pressure points.

a. Run time for each chiller, hours per day.
b. KWH used per chiller.
c. Chilled water temperature leaving.
d. Chilled water temperature entering.
e. Chilled water pressure leaving.
f. Chilled water pressure entering.
g. Condenser water temperature and pressure leaving.
h. Condenser water temperature and pressure entering.
i. Chilled water flow in gpm per chiller.
j. Condenser water flow in gpm per chiller.
k. KWH per chilled water pump.
l. KWH per condenser water pump.
m. KWH per cooling tower fan.

3.5.1.8 Steam drive chillers, B# 24: Since the steam drive chillers are only run 1 hour per week, only daily and monthly totals are required.

a. Run time for each chiller, hours per day.
b. # of steam per chiller.
c. Chilled water temperature, leaving.
d. Chilled water temperature, entering.
e. Chilled water pressure, leaving.
f. Chilled water pressure, entering.
g. Condenser water temperature and pressure leaving.
h. Condenser water temperature and pressure entering.
i. Chilled water flow in gpm per chiller.
j. Condenser water flow in gpm per chiller.
k. KWH per chilled water pump.
l. KWH per condenser water pump.
m. KWH per cooling tower fan.

3.5.1.9 Diesel Generators B# 48: Data for KWH production is to be remotely recorded by the EMCS at intervals of every 10 minutes and totalized for hourly, daily and monthly use. The balance of points shall be manually recorded for total daily and monthly usage.

a. Run time for each generator, hours per day.
b. Gals of fuel oil used by each generator.
c. KWH produced by each generator.

3.5.1.10 Center Facilities: Data is to be remotely recorded by the EMCS at intervals of every 5 minutes and averaged for hourly use. Daily and monthly totals will be required for the MUR. The PHD of the EMCS shall historize the 5-minute acquisitions and hourly totals for trending purposes

A. Mission Variable Facilities: B#s 5, 5S, 30A, 30M, 30S, and 35 and 48.

B. Non-Mission Variable Buildings. B#s 1, 2, 3, 4N, 4S, 9, 9A, 9B, 9C, 10, 11,12, 13, 14, 15, 17, 24, 28, 29, 33, 36, 44, 45, 110, 207, 225, 226, 227, 229, 241, 322, 325, 327, 329, 330, 342. 343, 383, 420, 421, 422 and 423

C. Energy Intensive Facilities: B#s 7, 7A, 8, 16, 16a, 31, 32, 32A, 37, 46, 49, SCTF, 222, 260, and 350 area (TTA).

a. KWH on total building usage
b. GPM of chilled water usage blended system.
c. Delta T on chilled water usage blended system.
d. GPM of chilled water usage un-blended system.
e. Delta T on chilled water usage un-blended system.
f. Lbs. of steam usage.
g. SCF of natural gas usage on B#s 222, 225, 226, 227, 229, 260, 322, 325, 329, 350, 420, 421, 422 and 423, daily cumulative.

* Note that the KWh and chilled water usage totals for B#s 30M and 30S are those quantities delivered from B#221 and B#24/#28 respectively. Metering is required so data can be recorded when B#48 is servicing the MCC. The plan shall indicate how data will be obtained to satisfy this requirement during B#48 operations.

** B#s 222, 260 and 350 area have no chilled water or steam usage delivered from B#24/#28. The KWh readings on these buildings may be taken on a daily cumulative basis.

*** Note that B#s 110, 207, 225, 226, 227, 229, 241, 322, 327, 330, 342, 343, 383, 420, 421 and 422 have no chilled water or steam usage from B#24/#28. The KWh readings on these buildings may be taken on a daily cumulative basis.

**** Note that the KWh readings on B# 24 and B# 28 should not include the electric chiller readings.

3.5.1.11 Ellington Field Electrical, Natural Gas, Potable Water and Fire Water: Daily and monthly totals will be required until a local EMCS system is installed.

a. KWH on E135-205, E140-465, E245-123, E380-545 and E 990-642.
b. SCF on E135-490, E266-377, E276-197, E380-221 and E990-984.
c. Gals. of potable water on E135-346, E276-201, E380-520 and E990-796.
d. Gals. of firewater on E247-090 and E 248-092.

3.5.1.12 Sonny Carter Training Facility, Electrical, Natural Gas and Potable Water: Daily and monthly totals will be required until a local EMCS system is installed.

a. KWH for the facility.
b. SCF of natural gas for the facility.
c. Gallons of potable water for the facility.

3.5.2 Acquisition Reliability: The Contractor shall describe the method employed to insure reliability of the data recorded.

3.5.3 Training: The Contractor shall include in the plan a program that provides training of personnel who will be responsible for data acquisition either manually or remotely, certification of the meters and performance of appropriate PMs as part of its quality assurance program,

3.6 Facility HVAC Operational and Lighting Controls: HVAC and Lighting baselines have been established for all Mall buildings served by the Utility Tunnel System. These are labeled as ****Y2K-HVAC Equipment and Lighting Baseline Status Reports.** It is the intent of the Federal Government to replace the current ****HVAC Operations Status Report** with these documents. The documents contain a listing of all HVAC equipment in buildings, their respective operational capacities and the corresponding hours of operation. Temperature settings for seasonal operations are noted, as is the On/Off status. Lighting panels are also identified with corresponding operational hours and KW ratings. The Contractor shall perform the following:

- Update the existing Y2K-HVAC Baseline Status Reports (BSR) for all Mall buildings. This will include equipment capacities, locations, set points, interlocks, and etc. that are not entered into the current database.
- Update equipment listings and capacities on the Y2K HVAC BSR due to equipment replacements or deletions on existing facilities.
- Re-format the existing HVAC Status Report for buildings that have not been included in the initial Y2K Baselines.

In order to maintain the Y2K HVAC BSR, the Contractor shall develop controls that provide an orderly management of operational hours or operational limits changes on HVAC equipment and lighting at ***JSC**. The controls shall include a formal procedure that approves requested operational requirements of new or deactivated HVAC or lighting systems, provides justification for those requested requirements on an annual basis, and updates the Y2K HVAC BSR on a monthly basis. The control shall be established through the issuance of Operational Change Orders (OCO) that will be used to update the Y2K HVAC BSR. Currently a Change Request Notification (CRN) process is loosely defined at ***JSC** and a formalized program is necessary to establish accurate and timely operational requirements that frequently change due to the Center's dynamics. As a minimum and using the document in the TRL labeled **** Facility HVAC and Lighting Operational Baseline Development and Change Notification Process**, the controls shall establish a work instruction that at a minimum accomplishes the following:

a. Establishes a centralized operations base that serves as a focal point to receive submissions of OCOs/LCOs.
b. Establishes OCO forms to modify existing operational parameters and account for energy usage changes on HVAC equipment and lighting systems.
c. Establishes a system for submission and approval of the OCO/LCO forms.
d. Establishes a method of justification for OCOs/LCOs that deviate from established JSC Work Instruction for energy conservation guidelines.
e. Establishes a method to activate new or deactivate old HVAC equipment. OCOs must be submitted for activating new HVAC equipment and deactivated equipment.
f. Establishes a method to maintain and update HVAC Equipment and Lighting Baseline Status Report.

g. Establishes a method of providing temporary HVAC service for operational changes that are required for less than 72 hours.
h. Establishes a method that provides the amount of energy saved or used by HVAC or lighting operational changes.

3.7 Utility Operations Management Controls: Utility Management controls shall be an integral part of operating primary energy consuming systems at the Center. Utility service shall be provided without waste to support the mission and test objectives of the Center while operating efficiently and economically.

3.7.1 Using the guidelines presented in ****NPG 8831.2C** Chapter 8, "Utilities Management", the Contractor shall provide in detail Utility Operational Management Control Plans for the following utility systems:

a. Utility Operation Management Plan for the Central Plant Steam Boilers and Distribution System:

- #s steam/scf of natural gas
- B#24 steam produced = # steam used by mall buildings
- B#350 #s of steam/scf of natural gas
- B#222 #s of steam/scf of natural gas
- B#260 #s of steam/scf of natural gas

b. Utility Operations Management Plan for the Central Plants B#24/B#28 Chillers and Chilled Water Distribution System:

- Chiller KWH/tn of refrigerant
- Condenser water pump KWH/gpm
- Chiller distribution pumps KWH/gpm
- Cooling tower fan KWh/BTU
- Chiller delta T

c. Utility Operations Management Plan for the Electrical Substation and Distribution System:

- Demand Factor - 0.7 to 0.8 for each transformer.
- Load Factor - 0.65 to 0.75 for each transformer.
- Transformer Loss - 2 to 2.5 times the peak demand for each transformer.
- Voltage Regulation - plus or minus 5 percent for each transformer.
- Power Factor - plus 0.95 to minus 0.85 for each transformer.

d. Utilities Management Plan for the B#48 Chillers and Chilled Water Distribution System:

- Chiller KWH/tn of refrigerant
- Condenser KWH/gpm
- Chiller distribution pumps KWH/gpm
- Cooling tower fan KWh/BTU
- Chiller delta T
- Generator KWH/gal of fuel oil.
- Gal of fuel oil/tn of refrigerant.

e. Utilities Operation Management Plan for Central Plants B#24/B#28 Air Compressors and Distribution System:

- KWh/scf

f. Utility Operations Management Plan for the Center's Potable Water System:

- Pump KWh/gpm of delivered water

g. Utility Operations Management Plan for the Center Sanitary Sewage System:

- Pump KWh/gmp of SS

h. Utility Operations Management Plan for the Natural Gas Distribution System:

- Total amount of natural gas delivered to site = natural gas used on site.

i. Facility Operation Management Plan: The primary objective will be to improve the efficiency of facility HVAC equipment and to reduce overall facility utility consumption.

- Delta T of the building
- BTU/GSF of the building.

j. Utility Operations Management Plans for EF and SCTF:

- Use metrics stated above for chillers, cooling towers, boilers and facilities.

3.7.2 Minimum Contents for each system and components of a system: For examples refer to the TRL for the documents labeled ** **NASA Goddard Space Flight Center, Building 24 Chiller Plant, Volume 2.**

3.7.2.1 Maintenance Guide: The guide is to provide O&M personnel with a summary for RCM, PM, PT&I and Running Maintenance for a utility system and its components. It does not duplicate the PM information in Annex 4.0

3.7.2.2 Operating Procedure: The purpose is to provide operations personnel with a standard operating procedure for each system.

3.7.2.3 System Description: The purpose is to provide operations personnel with a system overview and to describe the functions of the systems major components and subsystems.

3.7.3 Metrics: The Contractor shall use the defined efficiency goals or standards for each listed utility system. Metrics shall be used to track energy or water use against productive output, facility utilization, or physical characteristics to measure progress toward the defined goals. Metrics will be formally reported on a monthly basis via the MUR.

3.7.4 Energy Audit Checklists: Using Appendix C in **NPG 8570.X**, the Contractor shall develop an energy audit checklist that will be used by the energy manager to inspect and identify the energy efficiency, safety and environmental soundness of the Center's utility systems. For each item on the list, the Contractor shall specify the method used for implementation, an implementation schedule and the frequency the item requires audit. Monthly reports to the JSC Energy Manager will be required that provide a summary of monthly activities and their respective results. The Contractor shall supplement the checklist and reports by the use of Appendix D of **NPG 8570.X**.

3.7.5 Operations and Maintenance Checklists: Using Appendix F in **NPG 8570.X,** the Contractor shall develop a list of no and low cost energy savings opportunities (ESO). The list shall identify

the ESO, the amount of requested funding, if any, and an implementation schedule for the ESOs identified.

3.8 HVAC System Seasonal Adjustment Controls: HVAC System Adjustment Controls are intended to reduce energy consumption in accordance with mandated energy and water conservation legislation while continuing to provide adequate environmental conditions in laboratory, computer and office areas. Currently, JSC has one formal seasonal adjustment plan. It is entitled the ****HVAC Seasonal System Adjustment Program.** The Contractor shall describe its plans for maintaining, updating and implementing the plan while incorporating energy and water conservation operational constraints into the plans.

3.9 Hot/Cold Call Program: ***JSC** has a draft DMI that outlines the Contractor's responsibilities in response and resolution of discomfort calls received from facility users

3.10 KVA Demand Controls: The Contractor shall provide a detailed account of its plans to maintain, update and implement the **** Annual Plan for Management of JSC's kVA Demand.**

3.11 Procurement Controls: The Contractor shall describe in detail the method that will be incorporated to insure the procurement of Energy Star and other Energy Efficiency Products in response to EO 13123, Section 403.(b).

3.12 Water Conservation: In this plan, the Contractor must list supply and demand management measures that will be earmarked for implementation. Costs, metrics and scheduling must be incorporated into the plan.

References: DRD AN-1-4.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Monthly Utility Report (MUR)	5-29-01	AN-1-4	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Report is to be used for accounting of energy use, evaluation of the energy program and for the development of the Quarter Energy Consumption and Cost Report for ***JSC**

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
None	DRD AN-1-5

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to account for the energy delivered to ***JSC**, develop metrics for NASA HQ evaluation of the program and identify the energy usage of facilities and systems. Data from this report is also used to develop the required Quarterly Energy Consumption and Cost Report to NASA HQ.

Frequency: Monthly. Report is due by the 15th of the month.

Distribution: One hard copy to the COTR and one electronic copy to the JSC Energy Conservation Manager.

Format: Use the current ****Monthly Utility Report** as a guideline and follow the outline presented in the details below. All electronic data to be in Microsoft Excel.

Details: The following represents the plans general requirements and acceptable format.

(a) Letter of transmittal.

(b) Section I - Electrical Supply, Generation and Usage Report

1. Daily and monthly totals of kWH supplied to JSC. Feeder JSC-615 and monthly total of kWH billed by the Retail Energy Provider (REP).
2. Daily and monthly totals of kVA supplied to JSC and monthly total of kVA supplied by the REP.
3. Daily and monthly totals of KWh used by Feeders 1-2, 2-3, 3-00, 4-2 and 5-2.
4. Daily and monthly summation of KWh used by Feeders 1-2, 2-2, 3-00, 4-2 and 5-2.
5. Daily and monthly ratio comparison of Feeder usage vs. KWh supplied to JSC. (percentage +/- tolerance)
6. Daily and monthly totals of KWh produced by each generator in B# 48. (Gens 01, 02, 03, 07 and 09)
7. Daily and monthly run times for each generator in B# 48.
8. Daily and monthly gals of fuel oil used by each generator in B#48
9. Daily and monthly avg KWh/gal of fuel oil for each generator in B#48.
10. Daily and monthly percent usage for each generator in B# 48.
11. Daily and monthly totals of KWh produced by each standby emergency generators. The generators are at the following locations: B# 17-Gen 01, B# 32-Gen 02, B#37-Gen-01 and B# 39A-Gen 01.
12. Daily and monthly percent of usage of each standby emergency power generator.

Section II - Natural Gas and Usage Report

1. Daily and monthly totals of natural gas supplied to JSC.
2. Daily and monthly totals of natural gas used by B#s 24. 47, 222, 227, 260, 350, 416 and 420.

3. Daily and monthly summation of natural gas used by B#s 24. 47, 222, 227, 260, 350, 416 and 420.
4. Daily and monthly ratio comparison of building natural gas usage vs. natural gas supplied to JSC. (Percentage +/- tolerance).

Section III - B#24 Natural Gas/Fuel Oil Usage and Steam Production

1. Daily and monthly natural gas usage, fuel oil usage and operational hours for each boiler in B# 24.
2. Daily and monthly summation of natural gas usage, fuel oil usage and operational hours for the boilers in B# 24
3. Daily and monthly steam production for each boiler when fired by natural gas.
4. Daily and monthly steam production for each boiler when fired by fuel oil.
5. Daily and monthly summation of steam production by all boilers.
6. Daily and monthly ratios for steam produced/natural gas usage and steam produced/fuel oil usage.
7. Monthly total of natural gas used by all boilers.
8. Monthly total of fuel oil used by all boilers.
9. Total average ratio of # of steam/scf of natural gas.
10. Total average ratio of # of steam/gal. of fuel oil.
11. Daily and monthly tota of steam usage by the mall buildings.
12. Daily and monthly ratio of steam produced vs. steam used by the mall buildings. (Percentage +/- tolerance).

Section IV - B#24 Refrigeration Production and Energy Usage Report

1. Daily and monthly totals of refrigeration produced and operational hours for each of B#24, Chillers #1 thru #7. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month.
2. Daily and monthly summation of total refrigeration produced by B#24 Chillers along with a monthly db/wb average.
3. Daily and monthly totals of energy used for each chiller. Chillers #1 thru #3 will reflect steam usage while Chillers # 4 thru #7 will reflect KWh usage.
4. Daily and monthly summation of total steam and KWh used by the chillers.
5. Daily and monthly lbs/tn for each steam chiller.
6. Daily and monthly KWh/tn for each electric chiller.
7. Monthly overall average lbs/tn for all the steam chillers.
8. Monthly overall average KWh/tn for all the electric chillers.
9. Monthly total of refrigeration produced by steam and the corresponding percentage of total production.
10. Monthly total of refrigeration produced by electricity and the corresponding percentage of total production.
11. Monthly total of all refrigeration produced.

Section V - B#28 Refrigeration Production and Energy Usage Report.

1. Daily and monthly totals of refrigeration produced and operational hours for each of B#28, Chillers #1 and 2. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month.
2. Daily and monthly summation of total refrigeration produced by B#28 Chillers along with a monthly db/wb average.
3. Daily and monthly totals of KWh used for each chiller.
4. Daily and monthly summation of total KWh used by the chillers.
5. Daily and monthly KWh/tn for each electric chiller.
6. Monthly overall average KWh/tn for the electric chillers.
7. Monthly total of refrigeration produced.

Section VI - B#48 Refrigeration Production and Energy Usage Report

1. Daily and monthly totals of refrigeration produced and operational hours for each of B#48, Chillers #1 #2 and #3. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month.
2. Daily and monthly summation of total refrigeration produced by B#48 Chillers along with a monthly db/wb average.
3. Daily and monthly totals of refrigeration provided by B#24/#28 to B#48. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month.
4. Daily and monthly summation of total refrigeration provided by B#24/#28. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month
5. Daily and monthly totals of KWh used for each chiller and provided by B#48 diesel generators.
6. Daily and monthly totals of KWh used for each chiller and provided by the B#221 electric substation.
7. Daily and monthly summation of total KWh used by the chillers provided by B#48 diesel generators.
8. Daily and monthly summation of total KWh used by the chiller provided by B#221.
9. Daily and monthly KWh/tn for each electric chiller.
10. Monthly overall average KWh/tn for the electric chillers.
11. Monthly total of refrigeration produced by B#48 chillers.
12. Monthly total of refrigeration provided by B#24/#28.
13. Monthly total of KWh provided by B#48.
14. Monthly total of KWh provided by B#221.

Section VII - Electrical Feeder Power Distribution Report

1. Daily and monthly KWh of Feeder 1-2 and sub-feeders 1-5, 1-6, 1-7, 1-8, 1-10, 1-11 and 1-12.
2. Daily and monthly KWh of feeder 2-2 and sub-feeders 2-2, 2-6, 2-7, 2-8, 2-11 and 2-12.
3. Daily and monthly KWh of feeder 3-00 and sub-feeders 3-1, 3-2, 3-3 and 3-4.
4. Daily and monthly KWh of feeder 4-2 and sub-feeders 4-4, 4-5, 4-12 and 4-13.
5. Daily and monthly KWh of feeder 5-2 and sub-feeders 5-4, 5-5, 5-6, 5-9, 5-10 and 5-12.
6. Monthly summations of KWh on Feeder 1-2 and sub-feeders 1-5, 1-6, 1-7, 1-8, 1-10, 1-11 and 1-12.
7. Monthly summations of KWh on feeder 2-2 and sub-feeders 2-2, 2-6, 2-7, 2-8, 2-11 and 2-12.
8. Monthly summations of KWh on feeder 3-00 and sub-feeders 3-1, 3-2, 3-3 and 3-4.
9. Monthly summation of KWh on feeder 4-2 and sub-feeders 4-4, 4-5, 4-12 and 4-13.
10. Monthly summation KWh on feeder 5-2 and sub-feeders 5-4, 5-5, 5-6, 5-9, 5-10 and 5-12.
11. Monthly ratio comparisons of feeder KWh usage and sub-feeder usage (percentage plus or minus tolerance).

Section VIII - Building Electrical Power Usage Report

A. Mission Variable Buildings

1. Daily and monthly summation of KWh usage for B# 5, 5S,30A, 30M, 30S, 35 and 48. (Building 48 should have two columns. One KWh produced by generators and the other, supplied from B#221.)

   * For B# 30M use only KWh supplied from B# 221.

B. Non-Mission Variable Buildings

1. Daily and monthly summation of KWh usage for B# 1, 2, 3, 4N, 4S, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 29, 33, 36, 44 and 45.

2. Monthly summation of KWh usage for B# 110, 207, 210, 225, 226, 227, 229, 241, 322, 327, 330, 342, 343, 383, 420, 421 and 422.

C. Energy Intensive Buildings

1. Daily and monthly summation of KWh usage for B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, and 49.
2. Monthly summation of KWh usage for B# 222 and 260.

* Amounts for B# 24 and 28 shall be total consumption for the building including chiller consumption.

Section IX - Mall Building Chilled Water Usage Report

A. Mission Variable Buildings

1. Daily and monthly summation of chilled water usage for B#s 5, 5S, 30A, 30M, 30S and 35. (express in tons)

* There should be two columns for B# 30M and 30S. One column should have tons of chilled water from B#24/28 and the other should have tons from B#48.

B. Non-Mission Variable Buildings

2. Daily and monthly summation of chilled water usage for B# 1, 2, 3, 4N, 4S, 7, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 29, 33, 36, 44 and 45. (express in tons)

C. Energy Intensive Buildings

1. Daily and monthly summation of chilled water usage for B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, and 49. (express in tons)

Section X - Mall Building Steam Usage Report

A. Mission Variable Buildings

1. Daily and monthly summation of steam usage for B#, 5, 5S, 30A, 30M, 35, 37, 46 and 49. (express in lbs. of steam)

* For B# 30M use steam supplied from B#24.

B. Non-Mission Variable Buildings

1. Daily and monthly summation of steam usage for B# 1, 2, 3, 4N, 4S, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 29, 33, 36, 44 and 45. (express in lbs. of steam)

C. Energy Intensive Buildings

1. Daily and monthly summation of steam usage for B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, and 49. (express in lbs. of steam)

Section XI - Potable Water System Report

No change in format is required.

Section XII - Waste Water System and Monthly Rainfall Report

No change in format is required.

Section XIII - Ellington Field Utility Usage Report

No change in format is required.

Section XIV - Refrigerant Supply and Usage report

No change in format is required.

Section XV - SCTF Usage Report

1. Daily and monthly total of KWh Usage.
2. Daily and monthly total of SCF of natural gas usage.
3. Monthly total of potable water usage.
4. Monthly total of gals of sanitary sewage.

Section XVI - Metrics

1. Metrics to be reported by Contractor.
2. Metrics are listed in DRD-AN-1-3.
3. Metrics will be used to chart progress of Contractor maintaining energy efficient systems.

References: DRD AN-1-3, AN-1-5.

Maintenance of Report: Monthly report and data used to generate the report is required to be archived.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
****NASA Quarterly Energy Consumption and Cost Report**	5-29-01	AN-1-5	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Data is mandated by EO13123 and submitted to NASA HQ via NETS for inclusion into the Energy Resource Management Program.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Contractor must provide energy consumption data on various facilities and systems at the Center to support NET energy consumption and costs for the ERMP.

Frequency: Report is due quarterly of the Fiscal Year. Due date is 15 days following the end of the previous quarter.

Distribution: One hard copy to the CO and one hard copy and one electronic copy to the JSC Energy Manager. Electronic copy must be in Microsoft Windows Product, i.e. Excel, Word or MS Project.

Format:. Format must follow the outline presented in the details below.

Details: The following represents the plans general requirements and acceptable format.

Page 1: Cover letter of transmittal, see **** NASA Quarterly Energy Consumption Report.**

Page 2: Same as current report. See **** NASA Quarterly Energy Consumption Report.** If multiple meters exist for an area, i.e. Ellington Field, subtotals must be provided.

The preceding pages must contain the following information in a format specified by the Contractor

(a) Total KWh usage for each Mission Variable Building (MVB), for each month and for the reporting quarter. The buildings are as follows: B# 5, 5S, 30A, 30M, 30S, 35 and 48.

- For buildings 30M and 30S, report only KWh supplied from B#221.
- For B#48 report KWh produced by the diesel generators.
- Currently all data is electronically compiled on a continuous basis by the EMCS/eBI in B#24 with the exception of B# 222 and 260.

(b) Total refrigeration consumption, in tons, for each of the following MVBs: B# 5, 5S, 30A, 30M, 30S, 35 and 48.

- For B# 30M and 30S report only the tonnage supplied to these buildings by B#24 and 28.
- For B#48 report tonnage supplied to B# 30M and 30S while chillers are on diesel power.

(c) Total steam consumption, in lbs., for each of the following MVB for the reporting quarter: B# 5, 5S, 30A, 30M, 30S and 35.

(d) Total KWh usage for each Non-Mission Variable Building (NMVB), for each month and for the reporting quarter. The buildings are as follows: B# 1, 2, 3, 4N, 4S, 9&9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 25, 29, 33, 36, 44 and 45.

(e) Total refrigeration consumption for each NMVB, for each month and for the reporting quarter. The buildings are as follows: B# 1, 2, 3, 4N, 4S, 9&9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 25, 29, 33, 36, 44 and 45.

(f) Total steam consumption for each NMVB, for each month and for the reporting quarter. The buildings are as follows: B# 1, 2, 3, 4N, 4S, 9&9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 17, 25, 29, 33, 36, 44 and 45.

(g) Total KWh usage for each Energy Intensive Facility (EIF), for each month and for the reporting quarter. The buildings are as follows: B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, 49, 222 and 260.

(h) Total refrigeration consumption for each EIF, for each month and for the reporting quarter. The buildings are as follows: B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, and 49.

(i) Total steam consumption for each EIF, for each month and for the reporting quarter. The buildings are as follows: B# 7, 7A, 8, 16, 16A, 31, 32, 32A, 37, 46, and 49.

(j) Total natural gas consumption for each EFI, for each month and for the reporting quarter. The buildings are as follows: B# 222, 260, 350, and SCTF.

(k) Total KWh consumption for B# 24 for each month and for the reporting period

(l) Total KWh consumption for B#28 for each month and for the reporting period.

(m) Total KWh produced by B# 48 for each month and for the reporting period.

(n) Total steam production in lbs for B#24 for each month and for the reporting period

(o) Total individual natural gas consumption in scf for B# 24, for each month and for the reporting period

(p) Total chilled water production in tons for B# 24 for each month and for the reporting period.

(q) Total chilled water production in tons for B# 28 for each month and for the reporting period.

(r) Total chilled water production in tons for B# 48 each month and for for the reporting period.

(s) Total KWh usage for Ellington Field for each month and for the reporting period.

(t) Total natural gas consumption in SCF for Ellington field for each month and for the reporting period.

References: None

Maintenance: Reports to be archived by the Contractor.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
****JSC Cold Weather Protection Plan**	3-29-01	AN-1-6	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
The Contractor will use this Plan to prevent damage to the facilities and equipment at JSC, EF and SCTF from the effects of freezing weather.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
None.	

8. Preparation Information (Include complete instructions for document preparation)

Scope: Plan is to be put into effect by the Contractor on confirmed forecast of below 32 degrees F for more than 4 hours.

Frequency: Due to the COTR October 1 of each year for review and approval.

Distribution: One electronic copy and two hard copies to the COTR. Electronic disk copies must be a Microsoft Windows Product, i.e. Excel, Word or MS Project.

Format: Per the details below.

Details: See **** JSC Cold Weather Protection Plan.** Current plan is to be updated by the Contractor prior to the plans due date for inclusion of SCTF.

References: None

Maintenance: Update plan on a yearly basis for inclusion of equipment/system changes or additions as well as modified or newly constructed facilities.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Supporting SOPs of ***JSC** Emergency Preparedness Plan JSC-05900	2000	AN-1-7	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Develop plan for providing support for ***JSC** ****Emergency Preparedness Plan JSC-05900** and SOPs as required. This is an OSHA requirement and the Contractor shall have a plan in place that outlines their responsibilities in the event of an emergency.

5. DRD Category: *(check one)* ☐ Technical ☐ Administrative ☒ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: Develop a plan to support activities on SOPs identified in the Emergency Preparedness Plan and participate in annual reviews of the plan to identify and document improvements and required changes. The plan is to parallel the Center's plan and the Contractor must maintain, update, and implement the plan in response to emergencies on site.

Frequency: Plan is due to CO 30 days after start of contract for review and approval and yearly in March thereafter.

Distribution: One hard copy and one electronic disk to the CO.

Format: Per the following outline presented in the Center's ****Emergency Preparedness Plan JSC-05900.**

Details: See ****Emergency Preparedness Plan JSC-05900.**

References: None

Maintenance: Annually updated.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Wage/Salary and Fringe Benefit Data		AN-1-9	RFP 9-BJ32-T63-0-24P

4. USE (Define need for, intended use of, and/or anticipated results of data)

The Wage/Salary and Fringe Benefit Data will be used by the NASA Contracting Officer and the Industrial Labor Relations Office to provide the necessary data for submittal of Standard Form (SF) 98, Notice of Intention to Make a Service Contract and Response to Notice, to the Department of Labor, and to assist in the monitoring of Service Contract Act compliance.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
	FAR 52.222-41

8. Preparation Information (Include complete instructions for document preparation)

DISTRIBUTION: Per Contracting Officer's letter.

INITIAL SUBMISSION: Start date of contract, at end of phase-in.

SUBMISSION FREQUENCY: Annually based on the start date of contract.

DATA PREPARATION INFORMATION:

SCOPE: The Wage/Salary and Fringe Benefit Data must be submitted by the Contractor, and any subcontractors which are subject to the provisions of the Service Contract Act, to the Contracting Federal Agency. In accordance with FAR regulations 22.1007 and 22.1008, the Contracting Officer is required to submit a SF 98 to the Department of Labor, Wage and Hour Division.

APPLICABLE DOCUMENTS: None

CONTENTS: The Wage/Salary and Fringe Benefit Data should contain the data included in the enclosed DRD forms, titled "Wage/Salary Rate Information", "Fringe Benefit for Service Employees", and "Fringe Benefits per Collective Bargaining Agreement". The Wage/Salary Rate Information shall contain a listing of all exempt and nonexempt labor classifications working on the contract. Separate forms should be utilized for classifications working in different geographic areas and for each subcontractor. Wage determination numbers, appropriation labor organization names, and subcontractor names, must be reflected. All nonexempt labor classifications must be matched to wage determination classes or to CBA classifications for represented classes. Annotate exempt or nonexempt and union or nonunion. The current hourly rates should reflect the actual lowest and highest paid employees, along with a computed average rate. State the number of employees working in each category. Separate Fringe Benefit forms should be completed for nonrepresented classifications and for each separate CBA. A separate form must be completed for the prime and each subcontractor. Three copies of each Collective Bargaining Agreement are required.

FORMAT: The Wage/Salary and Fringe Benefit Data should be in a format substantially the same as enclosed with this DRD. (Forms 2, 3, and 3A)

MAINTENANCE: Changes shall be incorporated as required by change page or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

FORM 2

WORK SHEET FOR SF-98 DATA
WAGE RATE INFORMATION

Illustration of required data

WAGE CONTRACTORS LABOR CLASSIFICATION	DETERMINATION CLASSIFICATION	EXEMPT OR NON EXEMPT	UNION OR NON UNION	CURRENT HOURLY RATE	MYE NO. OF EMPL.
Project Manager	Not Required	E	N	$25.00	1
Supervisor	Not Required	E	N	$20.00	1
Electrical Engineer	Not Required	E	N	$16.5 0- $20.00	3
Technician, Jr	Elect Tech Main 1	N	U	$12.78 - $15.50	12
Technician, Sr.	Elect Tech Main II	N	U	$18.20 - $20.00	4
Secretary	Secretary I	N	N	$11.11 - $12.50	2
File Clerk	General Clerk I	N	N	$8.29	1
Clerical Data Entry	Word Processor I	N	N	$9.25 – $10.90	1

Submit data in the above illustrated format for all labor classifications used, or planned to be used, on this contract. All contract labor classifications must be matched to wage determination classes listed in CBA's represented classes or classes shown in WD 94-2516 for nonrepresented classes.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

FORM 3

FRINGE BENEFITS PER COLLECTIVE BARGAINING AGREEMENT

For period from _____ to _____

Contractor:

Contract Number:

Number of employees in bargaining unit _____

Total number of employees on contract _____

1. Shift Differential: (Describe any pay over and above base rates for 2nd, 3rd, weekend, or other shifts.)

2. Health and Welfare Items and Other Fringe Items: (Indicate whether or not coverage is provided to employees and state current average hourly cost per employee covered by a Collective Bargaining Agreement.)

Item	Coverage Provided (Yes or No)	Average Hourly Cost
a. Life Insurance		
b. Accidental Death		
c. Disability		
d. Medical and Hospital		
e. Dental		
f. Retirement Plan		
g. Savings/Thrift Plan		
h. Sick Leave		
i. Tuition		
j. Other (Describe)		
TOTAL		

1. Paid Absences:

	Service Requirement	Days per Year
a. Vacation		
b. Holiday		
c. Sick Leave		
d. Jury Leave		
e. Funeral Leave		
f. Military Leave		
g. Other (Describe)		

1. Severance Pay: (Briefly describe terms and amounts.)

2. Other Fringe Benefits: (Describe any other fringe benefits not included above, and show average hourly cost.)

3. Premium Pay: (Discuss all premium pay provisions not previously shown on this form.)

Signature of Company Representative Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

FORM 3A

FRINGE BENEFITS FOR SERVICE EMPLOYEES

For period from _____ to _____

Contractor:

Number of nonexempt employees on contract: _____

Total number of employees on contract: _____

1. Health and Welfare Items and Other Fringe Items:
(Indicate whether or not coverage is provided to employees and state current average hourly cost per service employee.)

Item	Coverage Provided	Average Hourly Cost
a. Life Insurance		
b. Accidental Death		
c. Disability		
d. Medical and Hospital		
e. Dental		
f. Retirement Plan		
g. Savings/Thrift Plan		
h. Sick Leave		
i. Tuition Reimbursement		
j. Other (Describe)		

1. Paid Absences

	Service Requirement	Days per Year
a. Vacation		
b. Holidays		
c. Sick Leave		
d. Jury Leave		
e. Funeral Leave		
f. Military Leave		
g. Other (Describe)		

_____ _____

Signature of Company Representative Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title Functional Metrics	2. Current Version Date Per RFP	3. DRL Line AN-1-10	RFP/Contract No. (Procurement completes) RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Established SOW functional performance metrics and documents trends. Assures compliance with contract requirements.

5. DRD Category: *(check one)* ☐ Technical ☒ Administrative ☐ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope:

The Contractor shall plan, implement, accomplish, and submit all metric requirements in this DRD for designated functional requirements. Functional requirements include all work requirements specified in Section C of the contract. These metric and reporting requirements are in addition to other metrics, on-line electronic data, reports, and submittals that are required in the various technical annexes of Section C. The Contractor shall evaluate these metric data and take all steps necessary for the improvement of any required performance, quality, and/or efficiency that the Contractor fails to meet. This evaluation and its effectiveness shall assure the COTR full and total compliance with the contract requirements. The Contractor may propose metrics he deems would be meaningful to include in this DRD.

Frequency of Data Reporting:

The Contractor shall continuously maintain electronic on-line access to the most recent data required in this DRD. The access shall be formally reported by the 10th of each month.

The Contractor shall submit data, records, and reports required by this DRD via hard copies once per month, or as otherwise may be noted, during entire contract period. This hardcopy and electronic copy shall be due to Government on the 10th of each month, or as otherwise noted.

Distribution:

Submit 1 hard copy and 1 electronic copy of all data requirements to the CO, COTR, and JSC Occupational Safety Branch as detailed in the DRD for specific metrics. The metrics shall also be linked to the COD web homepage.

Format:

The Contractor and the COTR shall jointly agree on the format of data and reporting. See the end of this DRD for the Metric Standard for JSC Report format and example metric. The Government will determine the "Stoplight Goals" within 90 days of contract start for each required metric. Minor changes in format and content shall be expected from time to time to improve use, application and meaningfulness of metrics. Electronic format to be on Microsoft Windows based software. Data elements are to be reported and maintained in Microsoft Excel. The data shall be put on the Contractor's homepage in a manner such that all metrics can be easily accessed in a single location and they shall be linked to the COD homepage.

Supporting Data and Metrics:

The Contractor shall maintain and provide Government electronic on-line access to the back-up detail data that supports all DRD requirements. For example the data will have: work elements data, equipment ID, criticality class code, building number, customer, annex, functional area etc.; and is expected to be available, such that analysis and trending to various focused levels and detail may be achieved. The

intent is that other on-line data be accessible that readily supports all data submitted with this DRD and that the Government shall have full and unlimited access to that data.

Metric Reports and Submittals:

The Contractor shall prepare, submit, and maintain the following metrics. Note: All fields of data are to be provided:

Table of Contents

I. Administrative
   A. Safety
II. Facility Engineering
   A. Maintenance
   B. Directed Services
   C. Engineering Support
   D. Environmental
III. Logistics Division Metrics
   A. Monthly Metrics
IV. Metric Format Requirement

I. Administrative

A. Safety

a. OSHA recordable frequency rate on a monthly basis for the contract year with projections to the end of the year. Metrics shall be for Lost Work Day Cases frequency rate, OSHA Reportable Case frequency rate, and OSHA Lost Work Day Case severity rate. The definitions for the metrics required are found in Annex 1 CLIN 1.8.1.

b.

		This Month	Contract Year- to-Date	Contract Period- to-Date
1	Number of ***JSC** safety work orders added			
2	Number of ***JSC** safety work orders completed			
3	Number of ***JSC** safety work orders open over 30 days			
4	Number of ***JSC** safety work orders open over 60 days			
5	Number of ***JSC** safety work orders open over 90 days			
6	Number of regulatory violations (any regulatory agency)			
7	Number of hours worked by SIC Code by function/activity			
8	Number of regulatory citations (any regulator agency)			

II. Facility Engineering:

Monthly Metrics

In addition to the metrics specifically identified below, submit 10 monthly metrics for CLINs within Annexes 1, 2, 3, 4, 5, 6, 7 and 8. These ten metrics will be developed in coordination with the Government. These metrics will be indicative of performance schedule (timeliness), and quality of required services for the Facility Engineering Division. These metrics will become a basis for trending areas needing improvement, as well as reflective of the overall performance of the Contractor in the facility engineering functions. Some metrics may be added or changed as contract focus is changed before each new performance evaluation period; however, no more than 10 of these additional metrics will be required to be submitted on a monthly basis at any one time. All metrics will be based on data available in existing databases or

already required to be collected elsewhere in the contract.

A. Maintenance

1. The Contractor shall implement maintenance metrics using definitions as defined in NHB 8831.2A and as may be further defined in the Public Works Annexes and this DRD. The Contractor CMMS shall incorporate tracking, status, history costing, and other requests in SOW for all work elements by equipment ID, system, unit, facility, facility class code, and other requirements in SOW.

a. Maintenance Work Elements

PM -	Preventive Maintenance Task
PT&I -	Predictive Testing & Inspection Task
TC -	Trouble Calls (ETC + RTC + UTC) Task
ETC -	Emergency Trouble Calls
RTC -	Routine Trouble Calls
UTC	Urgent Trouble Calls
R -	Repairs (RPM + RPT + RU) Task
RPM -	Repairs as Results of PM Task
RPT -	Repairs as Results of PT&I Task
RU -	Other Repairs Task

2. Scheduled Maintenance Cost vs. Repair Cost

a. SFUSS – PM&PTI Cost, PM Cost, PTI Cost, Repair Cost, (Y Axis) by Month (X Axis) compiled for most recent 12 months.

b. SFUSS – Cumulative PM&PTI Cost, Cumulative PM Cost, Cumulative PTI Cost, Cumulative Repair (Y Axis) for Contract Year to Date and Last 12 Months (X Axis).

c. User Equipment - PM&PTI Cost, PM Cost, PTI Cost, Repair Cost, (Y Axis) by Month (X Axis) compiled for most recent 12 months.

d. User Equipment - Cumulative PM&PTI Cost, Cumulative PM Cost, Cumulative PTI Cost, Cumulative Repair (Y Axis) for Contract Year to Date and Last 12 Months (X Axis).

Goal: Increase in PM&PTI Cost and Decrease in Repair Costs. Overall goal is 80% PM&PTI and 20% Repair.

3. Scheduled Maintenance Tasks vs. Repair Tasks

a. SFUSS - PM&PTI Task Percentage, Repair Task Percentage, (Y Axis) by Month (X Axis) compiled for most recent 12 months.

Goal: Increase in PM&PTI Task Percentage and Decrease in Repair Task Percentage. Overall goal is 80% PM&PTI and 20% Repair.

4. BMAR as % of CRV (HQ Metric # 11)

a. SFUSS – BMAR Cost as calculated monthly from Facility Condition Assessment as a Percentage of CRV COST (Current Replacement Value) compiled for the most recent 12 months.

5. Ratio of Maintenance Cost Compared to Total O&M Cost (HQ Metric # 9)

a. SFUSS – Monthly Maintenance (PM&PTI) Cost as a ratio of the total Operations and Maintenance (Annex 2 and 4) Cost compiled for the most recent 12 months.

6. SFUSS Maintenance Performance

a.

SFUSS Maintenance	Current Month	Contract Year-To-Date
	No.	No.
SFUSS Maintenance Task (PM & PT&I) Scheduled		
SFUSS Maintenance Task (PM & PT&I) Completed on Schedule		
SFUSS Maintenance Task (PM & PT&I) Not Performed		
Number of SFUSS Unplanned Down Time Occurrences		
SFUSS Unplanned Down Time (Hours)		
% SFUSS Available		

7. Repair Performance

a.

Repair	Beginning Balance No.	No. Added This Month	No. Removed This Month	Ending Balance
1. SRT Tags				
2. SRT Tags in place over 30 days				
3. SRT Tags in place over 60 days				
4. SRT Tags in place over 90 days				
5. Hot/Cold calls received				

SRT - SERVICE Request Tag

a. SFUSS – Emergency Repair (ETC) Tasks completed on time as a Percentage of total ETC per month for the most recent 12 months. Hot and Cold Calls are NOT Included. Due on the 5th of each month.

Goal: 98% of ETC completed on time.

a. SFUSS – Urgent Repair (UTC) Tasks completed on time as a Percentage of total UTC per month for the most recent 12 months. Due on the 15th of each month.

Goal: 98% of UTC completed on time.

a. SFUSS – Routine Repair (RTC) Tasks completed on time as a Percentage of total RTC per month for the most recent 12 months. Due on the 5th of each month.

Goal: 95% of RTC completed on time.

8. Availability/Reliability Performance

TBD

B. Directed Services

1 BMAR (Cost for this data to be reported as ***Total Cost**.)

a.

BMAR Site	Beginning Total Dollars	Monthly Dollars Added	Monthly Dollars Credited	Ending Balance Dollars	% Change From Last Fiscal Year
JSC					
EF					
SCTF					
Total					

2. Service Orders

a.

Service Orders			Monthly Activity					Contract Year to Date	
LVL	Begin Balance	Ending Balance	Number Ordered	Number Completed	Number Behind Schedule	Number Cancelled	Number Rollover	Number Completed	Number Rollover
1									
2									
3									
4									
5									
6									

b.

Service Order Classification	No. Scheduled for Completion	No. Completed on Schedule
Emergency		
Urgent		
Routine		
Government Specified		

C. Engineering Support Services

C.1 Design - submit every month.

a. Actual number of designs by construction cost ranges.

b. Design package delivery by construction cost ranges.
   1. "Stoplight Goal" green for projects delivered above 95% on time.
   2. "Stoplight Goal" yellow for projects delivered between 90% and 95% on time.
   3. "Stoplight Goal" red for projects delivered below 90% on time.

c. Quality of design -projects with rework (drawing revision) caused by design error/omission.
   1. "Stoplight Goal" green for projects with quality above 95%.
   2. "Stoplight Goal" yellow for projects with quality between 90% and 95%.
   3. "Stoplight Goal" red for projects with quality below 90%.

d. Statement of Work (SOW) revisions (provide in a 2x3 table)
   1. Number of SOW's revisions caused by:

a. Schedule change
b. Construction cost change

2. Reason for the SOW revision
   a. Customer scope or schedule change
   b. Government scope or schedule change
   c. COSS scope or schedule change

e. Construction problems (non-design related)
   1. Number of construction problems addressed and solved
   2. Average construction cost change amount
   3. Average construction schedule change amount
   4. Percentage of design effort spent solving construction problems

f. Canceled designs
   1. Number of designs canceled
   2. Percentage of canceled design cost to completed design cost

C.2 As-Building - submit quarterly.
   a. Number of master facility drawings in CAD Vector format, CAD Raster format, and in hardcopy

D. Environmental

Monthly Metrics

In addition to the metrics specifically identified below, submit 10 monthly metrics for CLINs within Annexes 1 and 9. These ten metrics will be developed in coordination with the Government. These metrics will be indicative of performance schedule (timeliness), and quality of required services for the Environmental Office. These metrics will become a basis for trending areas needing improvement, as well as reflective of the overall performance of the Contractor in the environmental service functions. Some metrics may be added or changed as contract focus is changed before each new performance evaluation period; however, no more than 10 of these additional metrics will be required to be submitted on a monthly basis at any one time. All metrics will be based on data available in existing databases or already required to be collected elsewhere in the contract.

D.1 Pollution Prevention Program

D.1.1 Wastes and Emissions (ISW, Wastewater and Air Emissions) Reduced or Avoided by COSS Contractor. Submit Quarterly by Location (JSC, EF, SCTF).
   a. Specific waste or emission.
   b. Amount in pounds and % (weight) reduced or avoided during the previous quarter, per specific waste or emission and total.
   c. Cost, in $, avoided or saved by reduction or emission during quarter and projected for 3 years.
   d. Cumulative amount in pounds, %, and cost reduced or avoided in calendar year-to-date. Chart to indicate trending for past 12 month period.
   e. Compare to baseline quantity (previous year). Chart to indicate trending for past 12 month period.

D.1.2 Wastes and Emissions (ISW, Wastewater and Air Emissions) Reduced or Avoided Site-wide.
   a. Specific waste or emission.
   b. Amount in pounds and % (weight) reduced or avoided during the previous quarter, per specific waste or emission and total.
   c. Cost, in $, avoided or saved by reduction or emission during quarter and projected for 3 years.
   d. Cumulative amount in pounds, %, and cost reduced or avoided in calendar year-to-date. Chart to indicate trending for past 12 month period.
   e. Compare to baseline quantity (previous year). Chart to indicate trending for past 12 month period.

D.1.3 Percentage of Total ISW generated that was recycled, reused, reclaimed or substituted for new materials or feedstock. Submit Quarterly, except d which is annual.
- a. % by weight, summed by waste class (Hazardous, Class 1 nonhazardous, Class 2)
- b. List ISW separately that increase or decrease by 5%.
- c. Cost savings or avoidance, in $, during quarter and annually for last quarter of the year report. Chart to indicate trending for past 12 month period.
- d. Compare to baseline years (calendar year 2000, or year set by JSC Environmental TMR, and the previous year). Chart to indicate trending for past 12 month period.

D.1.4 Trash Diverted from Landfill. Submit Monthly except e, which is annually.
- a. % total trash diverted from landfill (by recycling or other means), for month and fiscal year-to-date.
- b. Amount in pounds of each recycled item by weight and cost savings and cost avoidance. Chart to indicate trending for past 12 month period.
- c. Total amount in pounds sent to landfill for month and fiscal year-to-date.
- d. Cost of landfilling identified in c for month and fiscal year-to-date.
- e. Compare a, b, c. and d to baseline year (fiscal year 2001 or year set by JSC Environmental TMR). Chart to indicate trending for past 12 month period.

D.1.5 Pollution Prevention Opportunity Assessments. Submit quarterly.
- a. Number of PPOAs conducted in quarter and calendar year-to-date.
- b. Number of PPOs implemented in quarter and calendar year-to-date.
- c. Projected source reduction or minimization, in pounds by media (i.e., air, ISW, wastewater, water conservation) actual, if available or projected for next 3 years for each. Chart to indicate trending for past 12 month period.
- d. Projected cost savings and cost avoidance, in $, projected annually for 3 years, for each PPO implemented. Chart to indicate trending for past 12 month period.
- e. Total of source reduction or minimization, in pounds, and cost savings summed for all PPOs implemented for quarter and calendar year-to-date. Chart to indicate trending for past 12 month period.

D.2 Affirmative Procurement.

D.2.1 Affirmative Procurement for COSS Purchases. Submit quarterly for a and b, annually for c.
- a. % of each EPA designated item purchased with recycled content for quarter and fiscal year-to-date.
- b. Number of waivers requested and number granted for quarter and fiscal year-to-date.
- c. Compare percentages for each EPA designated item to previous year and baseline year (fiscal year 02 or year set by JSC Environmental TMR. Chart to indicate indicate trending for past 12 month period.

D.3 Spills and Releases

D.3.1 COSS Spills and Releases. Submit monthly.
- a. Number of spills or releases and quantity in pounds due to COSS activities, for month and calendar year-to-date. Chart to indicate trending for past 12 month period.
- b. Number of spills or releases due to COSS activities required to be reported to regulatory agencies, for month and calendar year-to-date. Chart to indicate trending for past 12 month period.
- c. Compare number and quantity of spills and releases to previous calendar year. Chart to indicate annual trending.

D.3.2 Site-wide Spills and Releases. Submit monthly.
- a. Number and quantity in pounds of all spills and releases, for month and calendar year-to-date. Chart to indicate trending for past 12 month period.
- b. Number of spills and releases requiring notification to regulatory agency, for month and calendar year-to-date.
- c. Compare number and quantity of spills and releases to previous calendar year. Chart to indicate trending for each COSS contract year.

D.4 Life Cycle Costing. Report monthly.
- a. Total number of COSS designs completed.
- b. Total number of above COSS designs incorporating life cycle costing evaluation (must include resource conservation and environmental costs to be counted as including life cycle costing),

per month and calendar year-to-date. Chart to indicate trending for past 12 month period.

D.5 Environmental Training. Submit monthly.
- a. Number of individuals receiving environmental training (site-wide) by class name (e.g., environmental awareness, storm water pollution prevention, EMS auditor training) and by number of civil servants and number of contractors per class, per month and calendar year-to-date.
- b. Percentage of persons trained compared to targeted required training spelled out in environmental training plan, by type of training. Chart to indicate trending over all COSS contract years.

D.6 Accuracy of Environmental Reports. Submit monthly.
- a. Number of environmental reports and submittals, monthly and calendar year-to-date.
- b. Number of environmental reports and submittals returned to COSS Contractor by JSC Environmental TMR for corrections. Chart a and b to indicate trending for past 12 month period.

D.7 Groundwater Treatment Metrics. Develop and submit monthly metrics in database with charts that summarize the operations of the Groundwater Treatment System and includes the following:
- a. Volume of groundwater removed per well by month and year-to-date.
- b. Volume of groundwater treated in the air stripping systems by month and year-to-date.
- c. Quantity of waste generated, disposed of or reclaimed by type per month and year-to-date, for example carbon filter waste, waste from cleaning the system.
- d. Number of days and the dates the system was non-operational including reason codes for down time.
- e. Date the system was put back in service. Include a description of each maintenance activity performed and a list of all materials used and equipment installed and/or repaired.

D.8 Waste Treatment System Metrics. Develop and submit monthly metrics in database with charts that summarize the operations of the Waste Treatment systems and includes the following by treatment system:
- a. Total number of gallons transferred to the Memtek System.
- b. Total number of gallons actually treated in the Memtek System.
- c. Total number of gallons transferred to another waste tank by tank name and unit number.
- d. The number of gallons remaining in rinse tank after each batch.
- e. The flow rates through each tank.
- f. The number of gallons discharged to the sanitary sewer.
- g. The date and the quantity of waste generated in the filter press.
- h. The date and the quantity of waste removed from the filter press.

D.9 Tank Cleaning Metrics. Develop and submit metrics in a database with charts that summarize the ISW tank cleaning operations:
- a. The volume of water generated, by tank and waste code, during each tank cleaning event.
- b. The total volume of waste for each tank cleaning event totaled by building.

III Logistics Division Metrics

A. Monthly Metrics

Submit monthly metrics for CLINs in Annexes 10 through 14 (Supply, Property Accountability, Transportation and Custodial). Ten metrics similar to the following examples will be developed in coordination with the Government. These metrics will be indicative of performance schedule (timeliness), and quality of required services for the Logistics Division. These metrics will become a basis for trending areas needing improvement, as well as reflective of the overall performance of the Contractor in the logistics functions. Some metrics may be added or changed as contract focus is changed before each new performance evaluation period; however, no more than 10 will be required to be submitted on a monthly basis at any one time. All metrics will be based on data available in existing databases or already required to be collected elsewhere in the contract.

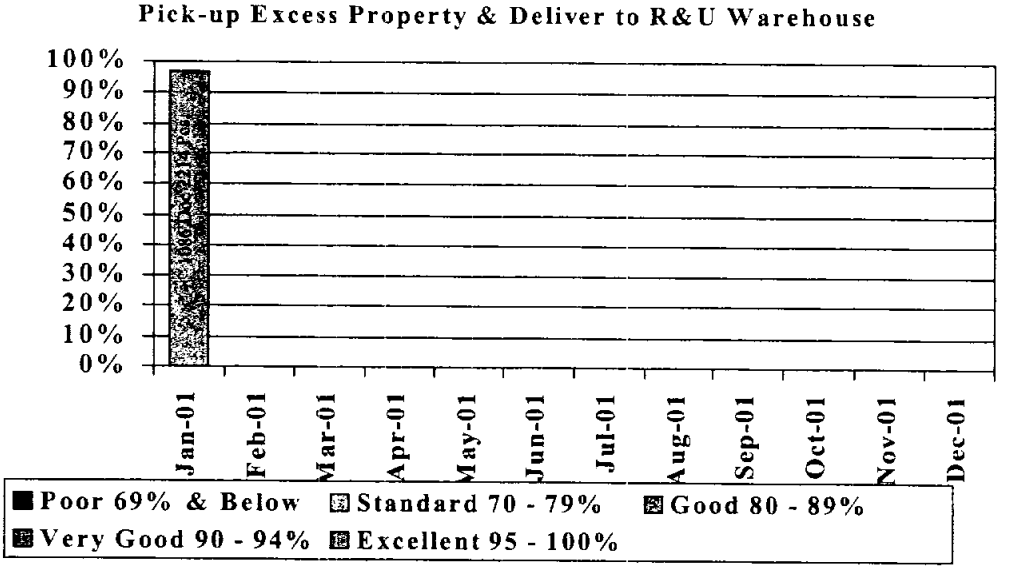
The following two sample metric sheets are indicative of the types of material that will be shown in Logistics required metrics. It does not show the format which is shown in IV B Sample Metric at the end of

this DRD.

- Center Operations Director Metrics (JA)

Chart Owner: **Last Update:**

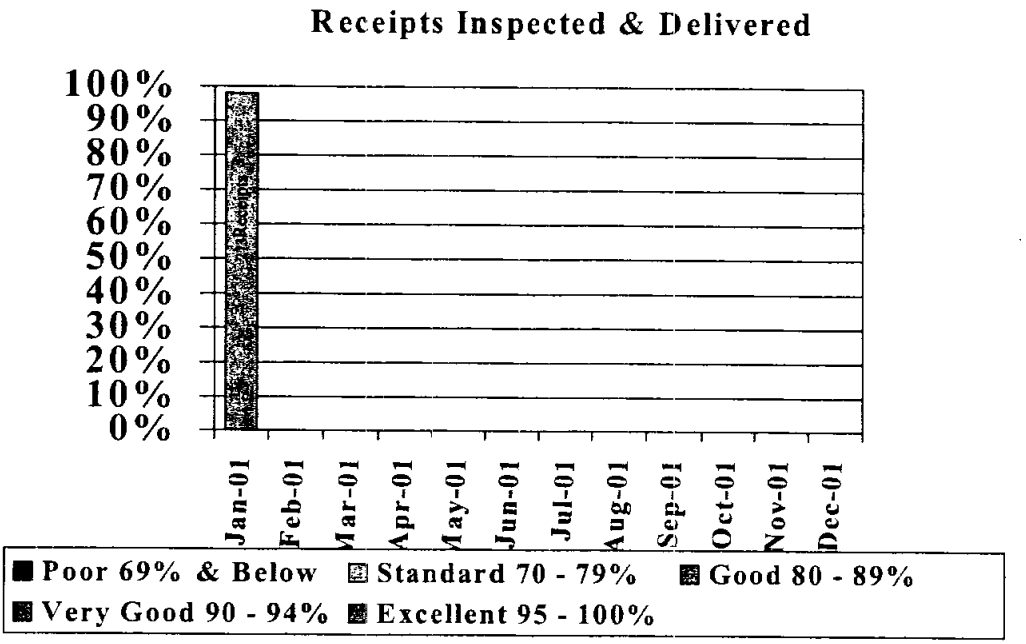
Metrics Summary: Process Excess Property (CLIN_____).
Contract Standard -__ days



- Center Operations Director Metrics (JA)

Chart Owner: **Last Update:**

Metrics Summary: Receive Inbound Freight (CLIN ____). Contract Standard - 1 day



IV Metric Format Requirement

A. Guidelines For COSS METRICS (CM)

Chart Content/Format

Each chart must contain the following contents: (see-attached example 5.3, Engineering Designs)

- ◊ Top, left justified: Chart number and Chart title (Organization Code) CLIN: 5.3 – Engineering Design
- ◊ Top right: "Stoplight goal" e.g. R (red), Y (yellow), G (green) Format: (example) 95% and above is green, 90% - 95% is yellow, and below 90% is red.
- ◊ Below title, upper right corner: "Last Updated:" and date - Format: Last Update: 2/28/01
- ◊ Below title, upper left corner: Name of Chart Owner, Phone Number of Chart Owner Format: Chart Owner: Byron Winters, 33182
- ◊ Separation line below all of the above heading information and above the chart contents
- ◊ Below this separation line, place a short chart summary statement
  Format: Metrics Summary: This metric shows final design packages were consistently delivered on time. Design quality is good. Provide designs in this period accurate and on time.
- ◊ Bottom left: Metric URL
  Format: Website Location:

- ♦ Chart Style
  Each chart must follow the following style:
  - ◊ Font: Times New Roman
  - ◊ Font Size: Must be readable on the website
  - ◊ Background: White

- ♦ Sample Chart

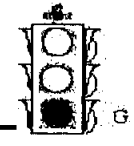
- ♦ File Types & Versions
  Each chart must be of one of the following file types:
  - ◊ Hyper Text Markup Language (.htm, .html)
  - ◊ Word (.doc) – JSC Site Standard i.e.: Word 95
  - ◊ Excel (.xls) – JSC Site Standard, i.e.: Excel 95
  - ◊ Powerpoint (.ppt) – JSC Site Standard, i.e.: Powerpoint 95
  - ◊ Adobe Acrobat Reader (.pdf)
  - ◊ Do Not Use: Project, Cricket – Non-JSC Standard Load Software
- ♦ Graphics
  Each chart should use the following file types:
  - ◊ .gif
  - ◊ .jpg
  - ◊ Avoid using: .tif, .bmp – if large in size

B. Sample Metric

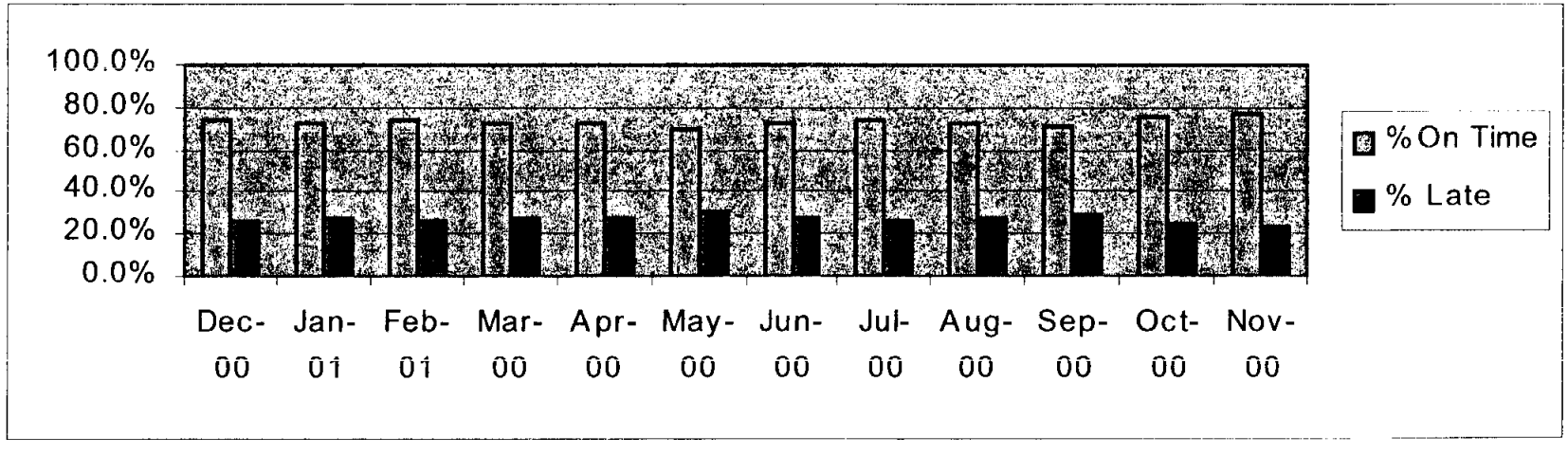
5.3 - Engineering Designs (JA)

Chart Owner: JC/Byron Winters, 33182

Last Update: 2/28/01



Metrics Summary:This metric shows final design packages were consistently delivered on time during this reporting period. The Goal is to maintain late designs under 30%. (This metric example does not constitute any contractual requirements)



	Dec-00	Jan-01	Feb-01	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00	Oct-00	Nov-00
%On Time	74.6%	73.1%	74.5%	73.0%	72.5%	69.8%	72.7%	74.0%	72.1%	71.5%	75.5%	77.0%
% Late	25.4%	26.9%	25.5%	27.0%	27.5%	30.2%	27.3%	26.0%	27.9%	28.5%	24.5%	23.0%

Website Location: http://metrics/organizations/Ja/metrics data/COD_CD_Metrics/5.3 ppt

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Notification of Potential Labor Dispute and Contingency Strike Plan		AN-1-11	RFP 9-BJ32-T63-0-24P

4. USE (Define need for, intended use of, and/or anticipated results of data)

The Notification of Potential Labor Dispute and Contingency Strike Plan will be used by the NASA Contracting Officer and the Industrial Labor Relations Office to facilitate the coordination of activities between the Contractor and the affected NASA operational directorates to ensure that necessary steps are taken to prepare for any potential strike situations and to prevent the disruption of work.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA
6. References *(Optional)*		7. Interrelationships *(e.g., with other DRDs) (Optional)* FAR 52.222.1				

8. Preparation Information (Include complete instructions for document preparation)

DISTRIBUTION: Per Contracting Officer's letter.

INITIAL SUBMISSION: In accordance with 13.1.

SUBMISSION FREQUENCY: As required.

DATA PREPARATION INFORMATION:

SCOPE: A Notification of Potential Labor Dispute must be submitted at the first indication of potential labor unrest which could delay the timely performance of the contract. The Notification shall describe the situation, which has the potential of impacting the contract, and describe the corrective action initiated. A Contingency Strike Plan must be submitted 45 calendar days prior to the expiration of any collective bargaining agreement covering employees working under this contract for the prime and any subcontractors and/or immediately following any indication of potential labor unrest.

APPLICABLE DOCUMENTS: None

CONTENTS: The Notification of Potential Labor Dispute shall describe the situation which has the potential of impacting the timely performance of the contract and describe the corrective action initiated. Notification should be made prior to the expiration of collective bargaining agreements, prior to any significant changes to existing working conditions or pay practices, or any situation that could impact the performance of the contract through labor unrest. The Contingency Strike Plan shall describe the Contractor's plan for assuring the timely performance of the work under this contract during a strike or work stoppage situation. As a minimum, contents should include: information on implementation of the strike plan, a pre-strike checklist for managers and supervisors, a description of how critical work will be performed, phone numbers of key management personnel, and standards of conduct policies during the strike.

FORMAT: Contractor format is acceptable.

MAINTENANCE: Changes shall be incorporated as required by change page or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Subcontracting Reports		AN-1-13	RFP 9-BJ32-T63-0-24P

4. USE (Define need for, intended use of, and/or anticipated results of data)

To collect subcontract data

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

The Contractor shall utilize Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and SF 295, Summary Subcontractor Report, in accordance with FAR clause 52.219-9 and NASA FAR Supplement 18-52.219-73.

Frequency: Annually by April 1.

Distribution: One electronic copy and one hard copy to CO.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Security Reporting Requirements	2/16/01	AN-1-14	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data) Identifies reporting Security which affect the Contractor's facility and/or personnel and also ensures compliance with applicable NASA and DOD security regulations involving industrial, information, personnel and administrative/program security.

5. DRD Category: *(check one)* ☐ Technical ☒ Administrative ☐ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

A. Provide the following information, in writing (reports, letters, notification), in accordance with the security regulations identified as applicable documents in paragraph C. of this DRD:

1. Personnel Security:

1.1 Change in an employee's status who is participating in JSC special access programs such as the Information Technology (IT) Security Program (i.e., name, marital status, citizenship, death, termination of employment, different position or work assignment/ relocation, employee becomes a representative of a foreign interest, etc.).

1.2 Adverse information reports on all non-US employees and employees participating in the IT programs at JSC (i.e., criminal activity, psychological counseling, positive drug testing results, alcohol abuse/ DUI/DWI, etc.).

1.3 Copies of any written reports submitted to the FBI regarding information coming to the Contractor's attention concerning actual, probable, or possible espionage, sabotage, or subversive activities at any of the Contractor's locations.

1.4 Any "ACI" (Administratively Controlled Information) and/or "FOUO" (For Official Use Only) information released outside a Contractor's facility, except to NASA representatives.

1.5 Suspicious contacts -- efforts by any individual to obtain illegal or unauthorized access to export controlled data, and all contacts by employees with JSC special program access with known or suspected intelligence officers from any country, or any contact which suggests that the employees concerned may be the target of an attempted exploitation by the intelligence services of another country.

2. Administrative/Physical Security:

In compliance with established internal procedures, the Contractor FSO or security manager shall submit a "Contractor Termination Letter" to the JSC Security Office for each affected employee which includes the return of the referenced property or certification that the following Government property was returned or destroyed and/or program participation was canceled:

2.1 Badge(s)
2.2 CAA (Controlled Access Area) Card(s)
2.3 Decal(s)
2.4 Key(s)
2.5 Employee's Participation in Reserved Carpool Program (Identify reserved carpool space number) _____

3. Other Reportable Incidents (Information Required):

3.1 Felonies committed by Contractor personnel.

3.2 Espionage or Sabotage.

3.3 Bombing incidents at Contractor facilities, or threats which severely impact contract or Center activities.

3.4 Actual demonstrations/strikes (in or outside JSC gates) or planned demonstrations or strikes where violence involving Contractor personnel is threatened.

3.5 Workplace violence (shootings or other violent acts).

3.6 Any type of incident occurring on NASA/JSC property which results in the death of a person.

3.7 Security-related incidents in which the media has become involved and negative publicity is expected.

3.8 An adverse event in an automated systems environment that would be of concern to NASA management due to potential public interest, embarrassment, interruption to computer/network services or protective controls, damage, disaster, discovery of a new vulnerability, etc.

3.9 Threats against NASA property and personnel.

3.10 Threats that impact NASA missions.

3.11 Any other type of incident that might have security implications.

B. The requested information (reports, letters, notification) identified in A. shall be mailed/delivered to the Chief, JSC Security Office, Mail Code JA14.

C. Applicable Documents

1. NPG 1620.1, NASA Security Procedures and Guidelines
2. JSCM 1600D, JSC Security Manual
3. SMD 500-9, Personnel Security Screening

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Information Technology Security Plan	N/A	AN-1-15	RFP9-BJ32-T63-0-24P

4. Use (Define need for intended use of, and/or anticipated results of data)
These plans are to be used to ensure that the implementation or maintenance of Information Technology systems follows Government policies and reduces the vulnerability of the Government to IT security risks.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to provide an IT Security Plan that indicates how IT security will be managed for the systems the Contractor will use. It includes all the components that make up the Management Information System and will include all new programs, equipment and functions that are added (see Section J, Attachment K, IT Systems).

Frequency: Plan shall be submitted within 90 days of start of the contract for any systems that tie into or interface with any Government systems. Thereafter it shall be submitted whenever changes are proposed in the IT system that interact in any way with Government IT systems.

Distribution: Electronically.

Format: Follow example in JPG 2810.1, JSC Information Technology Security Handbook.

Details: Detail in the plan all information as called for in JSC Procedures and Guidelines (JPG 2810.1), JSC Information Technology Security Handbook. Things that are addressed in the plan include, but are not limited to, a description of the system change, who will make the changes, the schedule for the changes, a risk assessment of data integrity, who will have access to the data, and other data appropriate to the changes. The plan is considered sensitive and must be protected by the Contractor.

References: JPG 2810.1, JSC Information Technology Security Handbook.

Maintenance: Report is to be reviewed per requirements in JPG 2810.1, JSC Information Technology Security Handbook and updated before system configuration changes.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Workload Data Collection Report	Per RFP	AN-1-17	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
To provide workload data collection for all identified work.

5. DRD Category: *(check one)* ☐ Technical ☒ Administrative ☐ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs)*
None	None

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to provide a record of the actual effort expended on the COSS contract. Data for this DRD will be collected at the CLIN level for Maintenance and Repair, Annex 2, as identified in the table below and at the sub annex level for all other Annexes identified in the table. This data will be used to scope the follow-on contract as well as to monitor current contract status.

Frequency: Report shall be submitted by April 20 of each contract year reflecting the data for the previous year.

Distribution: .One electronic and one hardcopy to the CO and the Maintenance & Repair ***TMR**.

Format: The data shall be presented using Microsoft Excel or Access. See the table shown below for format.

Details: Items that are to be included in the report by year are: a) the types of personnel classifications performing the work, b) the number of hours expended by year for each classification, c) the cost of material purchased and subcontract effort to perform the work. The costs shown are to be bare costs only without any markups. Subcontractors/team members that perform continuous annex functions at ***JSC** during the life of this contract shall also provide the same information (a, b, and c above). All other subcontractors with an intermittent presence at ***JSC** shall provide cost data only for the Subcontractor / Vender column. In case of any conflict as to whether a contractor has a continuous presence the Contracting Officer will make a determination.

Maintenance: The report shall be reviewed with the Government yearly to determine scope increases or decreases.

COSS WORKLOAD DATA

Reporting Category	Personnel Classification	Labor Hours	Materials or Supplies	Subcontracts / Vendors
Annex 1 - Admin Support				
1.2 Work Management and Control				
1.5 Installation - Acct Gvmt Property				
1.6 Quality Control				
1.13 Records, Reports, Submittals				
1.X All Other Annex CLINs				
Annex 2 - Maintenance and Repair				
2.2.2 Scheduled Maintenance				
2.2.3 Equipment Inventories				
2.2.4 Equipment Identification				
2.2.5 Pressure Systems Support				
2.2.6 Light/Lamp Replacement				
2.3.1 Repair Equipment				
2.3.2 NSE Emergency Response				
2.3.3 Critical Spares Management				
2.4 Maintenance Activation Program				
2.5 Warranty Program				
2.6 Availability and Reliability				
2.7 Reliability Centered Maint				
2.9 Records, Reports, Submittals				
2.X All Other Annex CLINs				
Annex 3 - Directed Services				
3.2.1 Surface Painting & Signage				
3.2.3 Special Events				
3.3.2 Facility Condition Assess Program				

3.3.3-9 FCA Inspection				
3.5 Records, Reports and Submittals				
3.X All Other Annex CLINs				
Annex 4 - Operations				
4.2.1.1 - 4.2.2.1 - 4.2.3.1 Steam and Condensate Return (include subCLINs)				
4.2.1.2 - 4.2.2.2 - 4.2.3.2 Electrical Systems (include subCLINs)				
4.2.1.3 - 4.2.2.3 - 4.2.3.3 Chilled Water Production & HVAC (include subCLINs)				
4.2.1.4 - 4.2.2.4 - 4.2.3.4 Potable Water (include subCLINs)				
4.2.1.5 - 4.2.2.6 - 4.2.3.5 Compressed Air (include subCLINs)				
4.2.1.6 - 4.2.3.6 OCC and EMCS (include subCLINs)				
4.2.1.7, 4.2.3.8 Fuel System (include subCLINs)				
4.2.2.5 Sanitary Sewer System (include subCLINs)				
4.2.2.7 - 4.2.3.7 Natural Gas (include subCLINs)				
4.2.3.9 Utility Support (include subCLINs)				
4.X All Other Annex CLINs				
Annex 5 - Engineering				
5.2 Scope of Work				
5.3, 5.3.1, 5.4 Eng Des, Fld Des, SSDR				
5.5, 5.6 MFDU / RVR				
5.8 Inspec, Perm, Doc Services				
5.9 Facility Housing Plans				
5.10 Fire Evacuation Plans				
5.11 Real Property Acct				
5.12 SPECINTACT Syst Maint				
5.X All Other Annex CLINs				

Annex 7 - Grounds Maintenance				
Annex 7 Total				
Annex 8 - Information Technology				
8.2 Main Frame Appl Support				
8.3 CMMS				
8.4 Environ Management IT Support				
8.5-7 EMCS, Sys Ops/Maint, OSAAC				
8.8 Facility CAD System / Space Util				
8.9 Other Applications				
8.10 NEMS Scanning System				
8.11 IT Security				
8.12 DOC / IT Help Support				
8.13 Records, Reports, Submittals				
8.X All Other Annex CLINs				
Annex 9 - Environmental Program				
9.3 Indust Solid Wst Manag Prog				
9.4 Air Quality Program				
9.5 Water Poll Cntl and Prev Prog				
9.6/7 Lead & Asbestos Program				
9.8 Petro Storage Tank Prog				
9.9 Groundwater Prot Prog				
9.10 Emer Spill Response				
9.11 Poll Prev and Resource Conserv				
9.12 Comm., Train., and Partic in WG				
9.13 Environ Mgmt System				
9.14 Toxic Substances Cntl Act				
9.16 Records, Reports, Submittals				
9.X All Other Annex CLINs				
Annex 10 - Supply				

10.2 Supply Systems				
10.3 Office Furnishings				
10.4 Radio Comm				
10.X All Other Annex CLINs				
Annex 11 -Property and Equipment				
11.2 NEMS Accountability				
11.3 Customer Service				
11.4 Redist and Util Ops				
11.X All Other Annex CLINs				
Annex 12 -Transportation				
12.2 Moving and Hauling Services				
12.3 Packing and Shipping				
12.4 Rigging and Heavy Hauling Serv				
12.5 Driver Services and Vehicle Ops				
12.6 Receive/Deliver Inbound Freight				
12.X All Other Annex CLINs				
Annex 14 - Custodial				
Annex 14 Total				

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Fixed Price Award Proposal	Per RFP	AN-1-18	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
To provide the Government a proposal to convert all or part of the COSS contract to firm fixed price.

5. DRD Category: (check one) ☐ Technical ☒ Administrative ☐ SR&QA

6. References (Optional)	7. Interrelationships (e.g., with other DRDs)
None	None

8. Preparation Information (Include complete instructions for document preparation)

Scope:

The proposal shall:

a. Identify the portions of the statement of work proposed for conversion to firm fixed price. The proposal shall provide a clear rationale for each portion selected for conversion.
b. Address any possible impacts to technical performance during the conversion and offer solutions to minimize those impacts.
c. Identify and fully explain any terms and conditions of the converted contract.
d. Provide a full, fixed price proposal for the work being converted. The proposal shall also provide all supporting cost data so the government can fully understand the composition of the price proposal.

Frequency:

One proposal shall be provided by the end of the first month in the third contract year.

Distribution / Format:

The proposal distribution (two electronic and six hardcopies) and format shall be per direction by the Contracting Officer.

Details:

The specifics of the proposal contents shall be identified by the CO six months prior to submittal.

References:
N/A

Maintenance:
N/A

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
NF533 Cost and Data Reporting	July 19, 2001	AN-1-19	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
To collect costs and workload data for all contract work.

5. DRD Category: *(check one)* ☐ Tech ☒ Administrative ☐ SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
None	None

8. Preparation Information (Include complete instructions for document preparation)

Scope:

The NASA Form 533 (NF533) reports provide data necessary for the following:

1. Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.

2. Evaluating contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.

3. Planning, monitoring, and controlling project and program resource

4. Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the financial statements.

Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. ****NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPG) 9501.2C**, or its most current revision, identifies the cost reporting requirements for a contract.

The NF533 reports are the official cost documents used at NASA for cost type, price re-determination, and fixed price incentive contracts. The data contained in the reports shall be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF533 shall be reconcilable to the NF533.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item or in the footnotes.

For contracts, which have multiple schedules, a summary NF533 is required to provide a cumulative from inception cost for the contract, regardless of schedule.

Frequency:

The due dates for the NF533M and NF533Q reports are outlined on page 3-2 of the NPG 9501.2C. The following is a summary of the NF533 due date requirements.

NF533M Due not later than 10 working days following the close of the contractor's monthly accounting period.

NF533Q Due not later than the 15th day of the month preceding the quarter being reported.
The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the

NASA accounting system. All data should be provided electronically in Microsoft Excel format. Timeliness shall be determined by the time the electronic submission arrives at the Cost Accounting Office, however, at least one signed hardcopy submission shall still be required.

Distribution:

LF6 Cost Accounting (1 electronic copy and 1 hard copy with signature)
BJ Contracting Officer (1 electronic copy and 1 hard copy)
LI3 Budget/Program Analyst (1 electronic copy and 1 hard copy)
JA Technical (1 electronic copy and 1 hard copy)

Format:

The reporting requirements outlined in this DRD shall include the following deliverables found in Section J, Attachment H:

A) NF533M and Q roll up summary for the entire contract (Exhibit H-1)
B) NF533M and Q subtotal breakout by annex (Exhibit H-2)
C) Supplemental report breakout by identified key contract line items (CLIN) (Exhibit H-3)
D) Supplemental report showing cost by task/delivery order for Annex 6 and Annex 13 (Exhibit H-4)
E) Supplemental report showing workload metrics by CLIN (Exhibit H-5)

The NF533M forms are shown in the above exhibits and the NF533Q forms can be found in ****NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPG) 9501.2C**.

The attached sample formats, Exhibits H-1 to H-5 are examples of the proposed structure and format of the NF533 for this contract and are intended to closely though not exactly represent the final version. See sample NF533 formats for this contract in Section J, Attachment H, including reporting data in both fiscal year and contract year.

Details:

Accrual Methodologies

NASA is required by law to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment. This contract shall reflect different methodologies for reporting costs on the NF533 document. This is due to the distinctly different types of work authorized / contract fee type earned. All costs shall be reported through the NF533, whether fixed price or cost reimbursable in nature.

If required, subcontractor cost should be reported based on the same methodologies as the prime.

A) For Base Contract Statement of Work:

Firm Fixed Price Annexes 7 and 14 (Grounds and Custodial)

The accrual methodology for these annexes shall be set according to the fixed price of the entire annex, divided equally by the months during the period of performance. So, a 2 year fixed priced annex would report cost based on a twenty four -month reporting period, showing equal costs (1/24) in each month reported or estimated.

CPAF Annexes (Annexes 1,2,3,4,5,8,9,10,11,12)

The accrual methodology for these annexes shall be based on the actual costs incurred to date as of the month reported, along with an estimate for the listed future periods. This is more traditional "cost plus"

reporting. The information below, extracted from the NPG 9501.2C, indicates the appropriate accrual methodologies for specific elements of cost.

Cost Element

Labor

Reported to NASA as hours are incurred.

Equipment & Materials

Generally reported to NASA when received and accepted by the (commercial off the shelf) contractor.

Manufactured Equipment

Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA as the equipment is being manufactured. The straight-line method for estimating accrued costs or the use of supplemental information obtained from the vendor are acceptable methods used to calculate the cost accrual amount.

Leases

Reported to NASA using a proration over the life of the lease.

Travel

Reported to NASA as costs are incurred.

Subcontracts

Actual and estimated costs reported by prime contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are material, they should be separately identified on NF533 reports. The prime contractor shall include in the total cost of each subdivision of work the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost to the prime contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs shall be allocated to specific sub-divisions of work. Data submitted by the subcontractor should be structured similar to the prime contractor's NF533 to enable the prime contractor to properly report to NASA. For Firm Fixed Price subcontracts with a contract value greater than $500,000, the prime contractor is required to document the methodology used to generate the sub-contractor costs reported and provide this information to the Contracting Officer and Center Deputy Chief Financial Officer (Finance).

Unfilled Orders

Reported as the difference between the cumulative cost incurred to date and amounts obligated to suppliers and subcontractors.

Fee

Should be accrued as earned using a consistent and auditable method to determine the amount. For example: an acceptable method would be to use historical data to determine the amount to accrue each month. Fee should be reported on the NF533 following the "Total Cost" line. Award fee shall be reported by the following categories: Base Fee, Fee Earned, Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.

Prompt Payment Discounts

Cumulative cost reported to NASA should be the full-incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.

B) For Indefinite Delivery / Indefinite Quantity (IDIQ) work:

Firm fixed Price IDIQ (Annex 6)

The accrual methodology for this annex shall be identified according to the individual delivery order instructions. The cost reported on the NF533 shall be based upon either: 1) cost at completion (therefore, there shall be no cost reported prior to the actual completion and Government acceptance of the job), or 2) as work in process as identified on each delivery order for some types of work, (therefore getting partial credit for percentage complete prior to 100% completion of task).

In addition to the contract and annex level reporting required in Exhibits H-1 to H-3, detailed reporting by delivery order shall be required (Exhibit H-4).

CPAF IDIQ (Annex 13)

The accrual methodology for this annex shall be based on actual cumulative costs incurred to date as of the month reported, along with an estimate for the listed future periods. This is more traditional "cost reimbursable" reporting. Additional direction may be found on the delivery order itself.

In addition to the contract and annex level reporting required in Exhibits H-1 to H-3, detailed reporting by delivery order shall be required (Exhibit H-4).

Workload Reporting

The contractor shall provide a monthly report with workload performance metrics by CLIN. The monthly report shall be due on the same date as the NF533, and shall reflect the same period of performance. Workload metrics shall be provided for each CLIN, and shall be subtotaled at a level that is consistent with the cost reporting at the sub-annex level. A sample format is attached for reference (Exhibit H-5).

Baseline NF533

An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract. The initial (baseline) NF533Q report shall be submitted by the contractor within 30 days after authorization to proceed has been granted. The initial report shall reflect the original contract value detailed by negotiated reporting categories and shall be the original contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting shall begin no later than 30 days after the incurrence of cost.

Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/hours worked) of the NF533M (Exhibits H-1 and H-2) represent the negotiated baseline plan for the contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding contract negotiated baseline plan plus all authorized changes.

Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available. For Exhibit H-3, the annual funding limit (Column 8e) shall reflect the results of the annual budget and content planning process described in annex 1 and any subsequent changes throughout the fiscal year.

Prior period cost adjustments should be reported in column 7a and 7c of NF533M and column 7a of the NF533Q with a footnote discussing the reasons for and amounts of the adjustments

Monthly NF533 reporting is no longer required once the contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The contractor shall continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a contract changes after the submission of the "final" contractor cost report, the contractor shall submit a revised NF533 report in the month the cost change is recognized.

References:

****NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPG) 9501.2C**

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Annual Facility Condition Assessment Report	2000	AN-3-1	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
The Annual Facility Condition Assessment Report provides NASA Headquarters reporting data on the state of repair of the JSC site physical plant.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: Facility Condition Assessment Report.

Frequency: Annually in September of each year.

Distribution: One hard copy and one electronic copy to the JSC Planning Integration Office

Details: Annual Facility Condition Assessment Report.

The Contractor shall provide an Annual Facilities Condition Assessment Report in September of each year.
The report shall contain the type of information exemplified in ****Facility Condition Assessment Report** (copy in the TRL). This information is generally described below. Information in bold is new information needed in addition to what is shown in the TRL.
This includes but is not limited to:

Report Summary
1) Summary cost report by discipline
2) Summary cost report by component

Reports Generated by Building
1) Cost vs. current replacement value by building.
2) Cost report by building and by year inspected. (5 years and total)
3) Cost report by building and by discipline. (summary)
4) Backlog of Maintenance and Repair and other calculations or data required by NPG8831.2C.

Detailed Report
1) Provide for each facility inspection a facility narrative that contains the building description, and outlines Structural, Electrical, Mechanical, and other deficiencies.
2) Provide a photograph of the facility.
3) Provided a facility craft cost summary.
4) Provide a facility system cost summary.
5) Provide a facility deficiency detail list.
6) Provide the equipment operational status.
7) Provide the equipment installation date.
8) Provide information on equipment obsolescence.
9) If the equipment was replaced through a project, provide the project number. Information for items description shall include equipment ID, equipment number, year for scheduled work, inspection year, priority and labor, and material and total cost to perform the work.
10) For equipment that is identified for replacement, the description shall provide information on the reason for the needed replacement. (Ex. Parts no longer available, unit is corroded beyond repair, etc.)

11) Provide photographs of equipment scheduled for replacement when those pictures would help support the replacement description.

The detailed report shall include information from previous years inspections to include a total report for all facilities.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Water Utility Report	1/30/01	AN-4-1	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
This report will provide the Government with the information needed to initiate TNRCC required reports and documentation and to assess the operability of the water utility system.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to document all information associated with the water plant and distribution system.

Frequency: Monthly.

Distribution: One electronic copy to the CO.

Details: Water Utility Report.

This report shall document all the information associated with the water plant and distribution system. The report shall summarize activities from the water operators log. It shall include meter readings, log information, inspection information, chemical treatment records, and sample analysis. It shall include copies of all flushing logs as required by the approved flushing program. Any new water connections/disconnections shall be noted along with all system outages and any significant maintenance activities. The report shall note all inspections and information associated with meeting the requirements of TNRCC Chapter 290 Rules and Regulations for Public Water Systems. Submit one electronic copy of the report to the CO by the 10th of each month for the previous month's activity.

References: None.

Maintenance: Monthly report and data used to generate the report shall be archived by the Contractor.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Mission Readiness Plan	None	AN-4-2	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
This plan defines the work effect allowed and necessary and the controls put in place to assure compliance with NASA requirements.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
See TRL references below	See Annex 4

8. Preparation Information (Include complete instructions for document preparation)

Provide a Contractors Mission Readiness Plan that spells out the functions (pre-mission, during mission, and post mission), buildings, support requirements, personnel, and operational plans that will be used to provide day-to-day and emergency support to the Shuttle flight program. The plan shall be submitted to NASA for approval 60 days from award of contract. The plan shall include operating policies for mission support, listings of facilities requiring special attention, Contractor functional interfaces, mission staffing support, and activity task lists. The plan will define the general operating policies and supporting plans of the COSS, the implementation and management of the general operating procedures and supporting plans and tasks for Mission Readiness. The plan shall address the period from 30 days prior to launch to 1 day after landing (T-30 to L+1). For Shuttle Flights, the critical period requiring Mission Exceptions is defined as T-7 to L+0. The plan shall include all reference documents, quality records, Operations Directives, general operating procedures, and standing operating procedures.

Purpose: The Mission Readiness Plan shall include a general statement as to the purpose of the plan to define support services of the COSS Contractor for Mission Support.

Scope: The Mission Readiness Plan shall address all support services and individual operating policies within the functional responsibility of the COSS including Maintenance, Operation, Construction, Procurement, Logistics, Environmental, and Grounds.

Policy and Plan Content: The Mission Readiness Plan shall also include the General Maintenance and Operations Policy. As a minimum, the Mission Readiness Plan shall detail the following:

1. Prime and backup utilities to include Buildings 24, 28, and 48/30M. For planning purposes the Mission Control Center Complex is defined as the mission operation wings of 30M and 30S.
2. All operating procedures, Mission Readiness Checklists, and Mission Rules.
3. Representatives for all Mission readiness meetings defined in Annex 4.
4. Maintenance of all mission related correspondence and documentation.
5. Staffing, Manning, and Leave coordination during T-30 to L+1. Explain how the Plant Operations Engineers for each shuttle mission are to be scheduled for rotating shift work and tour of duty from T-14 to L+4 (required per the COD Space Shuttle Mission Support Plan).
6. Normal Equipment configuration.
7. Configuration adjustments to accommodate the JSC Hurricane/Severe Weather Plan.
8. Health Stabilization support to be provided in accordance with the JSC Flight Crew Health Stabilization Program (FCHSP) from T-14 through crew departure.
9. Review and maintenance of mission critical spares.
10. Procurement activities to ensure that the mission critical support requirements are met. Explain how your organization will ensure mission critical parts required for preventive maintenance and repairs are met. This explanation shall include expediting actions to ensure timely purchase, delivery, and receipt.
11. A complete listing of Mission Critical/Sensitive Buildings. (See ****STS Fact Sheet** in the TRL).

The General Operating Policy shall include the Management responsibilities specific to Mission Support for the Project Manager, Division Managers, Work Control Supervisors, Craft Superintendents, Plant

Operations Engineers, Operators, and craft personnel. Individual Operating Policies for Maintenance, Operations, and Construction shall be incorporated into the General Operating Philosophy and shall include the following:

1. Maintenance Operating Policy: Identify the review process and supervisory control of maintenance activities for daily maintenance activities scheduled before and during the mission period. Control of maintenance activities shall include a daily review of all tasks performed by the Contractor in mission critical areas or areas which could potentially interrupt utility services to mission critical areas.
2. Operations Policy: Identify training requirements of both Operations Engineers and Operators for the Mission Control Center and Power Plant. Indicate how the COSS will monitor and control the utility systems in Buildings 30M and 30S and coordinate with the Operators. Detail the startups and shutdown restrictions and coordination requirements. Explain how you will monitor and control restricted operations. Restricted operations will include identification of large motor startups and high voltage switching activities at a minimum.
3. Construction Operating Policy: Explain how you will notify, monitor, inspect, and control all construction activities within mission periods. All on-site construction support and sub-contractors must be included in the Operating Policy. Restrictions for construction activity shall be detailed, and include the minimum restrictions in accordance with the ****STS Fact Sheet**. Policy shall address excavation, boring, and lifting activities.

Maintenance: The plan shall be updated at least once per year or more often if flight support requirements change.

See ** **"Center Operations Space Shuttle Mission Support Plan"** dated June, 2000, for items that need to be in the Mission Readiness Plan called for in this DRD. The plan shall include the activities, functions, assignments, and action items listed in the plan as well as any new items based on future facility changes or COSS contract requirements.

See ** **"Memorandum of Understanding and Standard Interface Plan Between Center Operations Directorate and Mission Operations Directorate"** dated March 19, 2001 in the delineation of responsibilities, procedures, and working relationships between COD and MOD relative to the various services provided by COD. See ****Mission Readiness Plan for Space Shuttle** BRSP Work Method, WM-2200-003 dated January 1, 2000.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
JSC, Ellington Field, and Sonny Carter Training Facility Fire Hydrant and Flushing Plan	1/30/01	AN-4-3	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
This plan will be used to document the TNRCC required flushing and sampling program.

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to identify the fire hydrants and buildings which shall be flushed and to establish a schedule and flushing criteria.

Frequency: Initial plan shall be submitted within 30 days of contract start. Subsequent plans shall be submitted within 15 days of a plan update.

Distribution: One hard copy and one electronic copy to the CO.

Details:

This plan shall identify the fire hydrants and buildings which will be flushed to meet TNRCC Chapter 290 Rules and Regulations for Public Water Systems established criteria for flushing of water distribution systems. This includes the flushing of all dead end lines monthly and flushing of the system as needed to keep the required total chlorine residual. The plan for the JSC distribution system shall provide for chlorine levels which exceed TNRCC Regulations. A minimum chlorine residual of 2.0 total chlorine in all points of the distribution system and 1.0 total chlorine in the buildings shall be maintained at JSC. Levels at Ellington Field and Sonny Carter Training Facility shall meet TNRCC standards. It shall also include sampling of chlorine residuals to document required sampling locations for the monthly operational report. Operational prints, master utility plans, the existing flushing program, and PM's are available for reference. The plan shall incorporate American Water Works Association recommendations for implementation and optimization of distribution flushing programs.

The plan shall include the schedule and location to be flushed, and shall encompass daily, weekly, and long term flushing requirements. It shall include the development of log sheets to be used for daily activities which will provide for the chlorine residual analysis to be documented, along with the dates, times, and locations flushed.

References:

Maintenance: Maintain and update plan annually. Initial plan shall be updated within 30 days after system configuration changes with subsequent plans submitted within 15 days of a plan change.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	. Current Version Date	. DRL Line Item No.	RFP/Contract No. (Procurement completes)
O&M Manuals for Water Supply Systems at JSC and Ellington Field	1/30/01	AN-4-4	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipatec results of data)
These manuals serve as operational guidelines, documentation, and instruction for operation of the water distribution system.

5. DRD Category: *(check one)* [x] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to establish the requirement for maintaining up-to-date O&M manuals for the Water Supply Systems at JSC and Ellington Field.

Frequency: Initial manuals to be updated and submitted within 90 days of contract start. Updates to be completed and incorporated within 15 days of field change or system modification. Update all major system changes within 90 days.

Distribution: One hard copy and one electronic copy to the CO upon each update.

Details: There are currently three volumes of ****Operational and Maintenance Manuals for the Water Supply System at JSC and Ellington Field, Part I, Part II, and Part III.** All information in the manuals shall be kept up-to-date to reflect the most current operational conditions, operational procedures, and equipment.

References: None.

Maintenance: O&M manuals to be electronically developed and maintained.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
EMCS Alarm Management Plan	5/23/96	AN-4-5	RFP9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)

5. DRD Category: *(check one)* [X] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

The purpose of this plan will be to define the responsibilities and actions of the Contractor required to identify new actions and to maintain a manageable EMCS alarm activity.

General Information: Maintenance, energy conservation, construction activities, or changing operational modes require modifications in the EMCS point characteristics. The tagout/tagin, sensor inhibit, and limit change functions serve as a mechanism to modify the point characteristics and minimize alarms generated by EMCS computer system. The EMCS system allows for some points to inhibit others from generating alarms. Points are normally inhibited when equipment is shut down. An ancillary function of the inhibit process is to allow points to be tagged out such that they cannot generate any alarms. Tagged out or Inactive points are screened out of alarm reporting process; all other processing for the point proceeds as normal. The limit change function modifies the point at which alarm occurs.

Purpose: The Alarm Management Plan shall detail the primary objectives to minimize alarm activity without impacting safety, equipment damage, operations, and maintenance requirements specified in COSS contract.

Contents: The Contractor shall prepare, submit, implement, accomplish, and maintain an EMCS Alarm Management plan (EAM). The plan shall be submitted to NASA for approval 60 days from award of contract. The plan shall facilitate all data, reports, applications, procedures, and logs being functional 4 months after contract start date. The EAM plan shall detail all plans, procedures, and processes the Contractor shall implement, accomplish, and maintain to provide the intended results of the EAM requirements. The plan shall list implementation schedule including all milestone elements by description and providing start and completion dates for each. The plan shall detail methods, procedures, processes, and controls that will be implemented and further accomplished to meet the intent of SOW in Annex 4.2.1.7.1.b titled Man and Operate the EMCS – Two systems Honeywell EBI and SCTF System 20/20.

The plan will address the following additional requirements, as a minimum:
Identify all methods, procedures, processes, and controls you will use to:

- Ensure a clean and manageable alarm file.
- Manage EMCS alarm activities in accordance with SOW requirements.
- Implement/maintain modifications to EMCS points when field conditions require change.
- Reduce and report to the EMCS Operations Review Board (EORB) repetitive or nuisance alarms.
- Control/limit only authorized personnel to modify point-operating characteristics. Note: All changes to limits and to critical points or systems shall be approved by COTR.
- Maintain and update existing SOP's for Sensor Inhibit, Sensor/Control, Tagout/Tagin, and Limit Changes.
- Identify, control, and track equipment monitored by EMCS when placed out of service due to maintenance, equipment failures of energy management system, operational mode changes, facility activation, and construction activities.
- Operate EMCS to assure operators are in control of equipment.
- Respond to alarms based on type and category, corrective actions; provide notifications, and document/control changes.

- Determine the optimum selection criteria (inhibit, tagout, change limits) to modify the point characteristics based on identified anomalies.
- Maintain a minimal amount of alarms. Provide plan to minimize: (a) alarm acknowledgments per Operator Change Shift, (b) outstanding alarm list, and (c) Alarm Tagout list.
- Acknowledge and respond to alarm conditions (critical, non-critical) within the alarm operational time limit requirements of the SOW.
- Maintain the electronic files for Government access.

The Contractor EAM plan must provide alarm management data, reports, and application processes to support the activities, configuration management, and metrics necessary to comply with requirements stated in this DRD. All data, reports, applications, and programs shall be implemented within 4 months of contract start date.

Maintenance: The Contractor shall continuously maintain electronic on-line access to the data required in this DRD. All data, reports, applications, and logs shall be available for on-line Government access. All data elements, applications, and reports shall be maintained in Microsoft ACCESS data. All data or reports shall be maintained to provide historical data necessary to review an audit trail of all activities, changes, additions, or deletions. Update all data, files, reports, and programs when action requires alarm management configuration changes at time of occurrence.

Report Requirements: All reporting requirements will be submitted to the Government in an electronic format. Report requirements are as follows:

Tagin/Tagout Activity Report shall be required at the first EORB meeting of each month and shall contain the following information:

- Disabled point
- Point description
- Date/time point was disabled
- Identification of operator disabling point
- Reason for point being disabled
- Estimated date point is to be returned to service
- Date of point enabled (tagged in)
- Identification of operator enabling point
- Action taken to restore point to service

Sensor Inhibit Configuration and Report shall provide and maintain sensor inhibited point configurations. This shall be in the format of an application program allowing the query of entire database by selected functions to request sensor inhibition point configuration information. Functions include listing the entire database or a selected function grouped as building, unit, point, tag name, point description, or system. Data should include a PC application that lists the entire database or lists a selected query function grouped as building, unit, point, tagnames, or system. Data should include the points inhibited, date inhibited, the inhibitors, and reason for inhibition. When points are removed from inhibition, store on historical data configuration file, with date/time points were removed from inhibition, and reason point was removed from inhibition. Application shall be made available for Government access. Report configuration changes at the weekly EORB.

Operational Alarm Log (OAL) Report shall provide and maintain an on-line operational alarm log (OAL) that displays to the EMCS Operators or Government users via PC the following:

- Date/time point went into alarm,
- Tagname,
- Point description,
- Current value,
- Limit exceeded (if analog),
- Time alarm was acknowledged,

- Remedial action,
- Corrective action to resolve alarm.

EMCS point alarm activities report shall provide a summation report of all EMCS point alarm activities at the first EORB of each month. Include in summary the following:

- Point tagname,
- Point description,
- Date/time point went into alarm,
- Date/time point was acknowledged,
- Number of times point alarmed/day/week/month,
- Number of hours point stayed in alarm/day/week/month,
- Remedial action taken,
- Corrective action to resolve alarm,
- Average temperature/humidity between hours (6 a.m. to 6 p.m.) and between (6 p.m. to 12 a.m.),
- Non-operation or malfunctioned EMCS devices, points, or systems for each building or field system monitored and controlled on the EBI.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Environmental Compliance Plan	3/01	AN-9-1	9-BJ32-T63-0-24P

4. Use (Define need for, intended use of, and/or anticipated results of data)
Establishes Compliance Plan for Contractors providing environmental support to JSC organizations and performing work impacting the environment.
***The Office of Primary Responsibility for this DRD is the JSC Environmental Office

5. DRD Category: *(check one)* [ ] Technical [X] Administrative [ ] SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
	See block 8. below

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Environmental Compliance Plan shall describe, explain, and document (a) how the COSS Contractor will structure and manage its own in-house activities and personnel to ensure compliance with all environmental requirements per Annex 1- Administrative Support, and (b) how the COSS Contractor will meet the requirements called for by the Government to support site-wide environmental activities per Annex 9- Environmental Programs. The Environmental Compliance Plan shall be submitted with the Contractor's proposal. The CO will approve the plan concurrent with Contract.

Maintenance: Update and maintain the Environmental Compliance Plan to ensure it remains compliant with applicable environmental requirements. The Contractor may revise the plan at any time or at the direction of the Government, however, the plan must be reviewed and revised at least once per contract year to include new regulations/ policies and process improvements. Revisions are subject to Government review and approval. Distributions of approved revisions will be as described below. Provide plan updates within 15 days after receipt of applicable contract modifications or whenever a change to the plan is proposed.

Distribution. Provide 5 copies of the Environmental Compliance Plan with submission of the proposal, 5 updated copies to CO 15 days prior to contract start, and 5 final copies within 15 days of any approved plan updates or changes. In all cases, provide one electronic copy along with the hardcopies. The Contractor will distribute copies to the following:
JSC Occupational Safety and Quality Assurance Branch (1 copy)
JSC Occupational Health Officer (1 copy)
JSC Environmental Office (2 copies and 1 electronic copy)
Contracting Officer's Technical Representative (1 copy)

Format:

1. Cover page - to include as a minimum the signatures of Contractor's project manager and designated environmental official (if different); NASA COTR; JSC Environmental Office representative, and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government.

2. Table of Contents. See content below.

3. Body of plan - as required. Contractor's format is acceptable but should be traceable to the elements of the content below.

4. The plan will clearly identify those resources to be provided by the Contractor and provided by the Government. The supporting rationale shall be explained in the plan.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Content:

1. **MANAGEMENT AND ORGANIZATION.**

1.1. Organization. Describe the management structure and organization, including lines of authority and identification of matrix responsibilities, which you will use to meet all environmental requirements of the contract. This includes functional responsibilities of management, environmental staff and line personnel for environmental compliance. Describe how the organization proposed will achieve the following: (a.) requirements for site-wide environmental programs in Annex 9; and (b.) requirements to ensure the COSS Contractor internally meets all environmental rules and regulations, and environmental program objectives. Describe the functional relationships between COSS and JSC's Environmental Office and between COSS and other JSC organizations and Contractors. Include a description of any relationships between those organizations. Identify how the management structure will ensure lack of conflict of interest between COSS Contract management goals, objectives, and other Annex requirements and JSC environmental requirements.

1.2. Staffing: Describe how you will provide an adequate number of qualified personnel to fulfill the requirements of the site-wide environmental program and ensure that all COSS activities, facilities and equipment are compliant with all applicable environmental requirements (Annex 1.11). State the number of staff required, their minimum qualifications, how professional qualifications and credentials of personnel will be maintained, and ensuring that staffing levels and quality is maintained.

1.3. Training. State how environmental staff will be trained to be in compliance with and to stay proficient in all new and existing rules and regulations. In addition, describe how COSS non-environmental employees will be trained to ensure compliance with new and existing rules and requirements as they apply to individual job functions (e.g., procurement officials trained on affirmative procurement requirements or operators, laborers or maintenance workers who operate or repair equipment that could have an environmental impact trained on RCRA or SPCC requirements).

1.4. Professional Resources. Discuss your access to environmental professional resources. Discuss their roles and qualifications and training. Describe how support will be provided to JSC for environmental areas where there is no in-house expertise. This includes but is not limited to; identification of resources available or that will be used, how qualified subcontractors will be selected and their work reviewed, the methods used to ensure subcontractor work is adequate, training of subcontractors in environmental requirements applicable to their activities, collections of required information (e.g., hazardous materials usage information to be included in annual reports, paint usage records, or other environmental records or documents).

1.5. Procedures and Processes. Describe your procedures and processes for reviewing, approving, and documenting environmental compliance by COSS contractor personnel and all COSS subcontractors and for implementing all contract requirements to ensure site-wide compliance. This includes but is not limited to; the use of inspections, reporting, customer assistance, quality assurance and quality control procedures, cease and desist authority, and corrective action. Describe how environmental impacts and regulatory requirements will be identified before they occur and how to ensure controls and mitigations will be developed and employed to ensure compliance and adherence to policy and procedures for any activity undertaken, including: design; specification development and purchasing; projects and programs; construction; operation, maintenance and repair of equipment and facilities; grounds-keeping; custodial services, logistics; and supply. Provide a copy of the Environmental Planning Checklist or other mechanism you plan to use for identification of impacts and identification of environmental requirements. Describe how it will be applied, reviewed, updated and kept on file and what procedures you will use to monitor and ensure effectiveness. Describe and provide documentation, such as an example contract, showing how environmental requirements will be incorporated into all you subcontracts. Describe the performance criteria that will be used to

evaluate your compliance and your subcontractor's overall compliance, with the environmental program, goals, and objectives.

1.6. Interfaces. Describe how you will interface with the JSC Environmental Office and other JSC organizations and Contractors regarding environmental related work (for example, how you will provide technical assistance, environmental awareness information, process improvements, enhanced compliance and participation on JSC and NASA work groups).

2. POLICY, GOALS AND OBJECTIVES.

2.1. Policy. State your environmental policy statement. The policy shall state the company's intentions and principles of commitment to environmental compliance, minimizing and preventing pollution, corrective action and methods of achieving continuous improvement. The policy shall be appropriate to the scale and impacts of the COSS Contractor and subcontractor's operations and activities. The policy shall address all environmental aspects over which the COSS Contractor has or can exercise control or may have influence. Describe how your environmental policy meets the intent, goals and objectives of JSC's Environmental Excellence Policy.

2.2. Goals and Objectives. Identify how you will set and implement environmental goals and objectives for continually reducing and eliminating contaminants, wastes, discharges and emissions in the following elements (such as a written and communicated Pollution Prevention Plan): solid waste, industrial solid wastes, air emissions, wastewater, storm water, resource conservation, sedimentation and erosion control, and spill prevention. Identify methods and philosophies that will be incorporated as priorities, such as source reduction, hazard and toxic material reduction or elimination and recycling. Explain how the effectiveness of these methods and goals will be evaluated, measured, communicated, and updated. Describe how you will enhance and comply with requirements for: beneficial landscaping, composting, affirmative procurement, recycling programs, outreach programs, life-cycle cost analysis that considers environmental costs and requirements, elimination and substitution of hazardous and toxic materials purchased or specified in design specifications and standards for COSS and site-wide activities. These descriptions should include the means and methods you will use to aid JSC in maintaining compliance with rules and regulations and in achieving JSC goals and objectives. Describe how you will provide the government access to your goals, objectives, and their effectiveness and achievements.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title Custodial Cleaning Schedules	2. Current Version Date 1/19/01	3. DRL Line AN-14-1	RFP/Contract No. (Procurement completes) RFP9-BJ32-T63-0-24P
4. Use (Define need for, intended use of, and/or anticipated results of data) This schedule shall be used by the QAE to monitor Contractor's performance.			
5. DRD Category: *(check one)* ☐ Technical ☒ Administrative ☐ SR&QA			
6. References *(Optional)* Section 14.1, Paragraph 14.1.5	7. Interrelationships *(e.g., with other DRDs) (Optional)*		
8. Preparation Information (Include complete instructions for document preparation)			

Scope: Develop and submit a report, covering each year of the contract, containing all information listed below.

Frequency: Maintain electronic log available to the Government at all times.

Distribution: One electronic copy to the Custodial TMR, for Contract Year 1, 2 weeks prior to contract start date; one electronic copy to the Custodial TMR annually thereafter for each successive contract year by March 15th of each year.

Details: As a minimum, provide the following information by building and by month:

(a) Building number
(b) Date revised (as changes occur)
(c) Type of services being provided (CLIN number).
(d) Area receiving services (Area number).
(e) *Frequency of each service
(f) *Number of days per month service will be performed
(g) *Day(s) each service will be performed
(h) *Time frame each service will be performed

*When scheduled services fall on a holiday, alternate dates shall be specified on the schedule by the Contractor.

PART III-LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J-LIST OF ATTACHMENTS

ATTACHMENT D-CONTROLLED ACCESS AREAS (CAA)

EXHIBIT NO.	TITLE	PAGE NO.
D-1	CONTROLLED ACCESS AREAS	J-D, 1

SECTION J, ATTACHMENT D

EXHIBIT D-1, CONTROLLED ACCESS AREAS (CAA'S)

CAA	RESPONSIBLE ORGANIZATION	TITLE
B-30A	DA	Building 30 Administration Wing
B-46	GA	Central Computer Facility
B-46W	GA	Central Computer Facility (Week-end access)
B-48	JA	Emergency Power Building
CDPA	DA	Controlled DATA Processing Area (Building 35, 1st floor, south side)
CEF	JA	COMSEC Equipment Facility (Classified Area) (Building 30 MCC, RM. 118A)
DVIS	DA	Digital Voice Intercom Subsystem (Building 30 MCC, RMS. 127 & 127A)
EOC	JA	Emergency Operation Center (Building 30A, RM. 3100)
FCR2	DA	Flight Control Room (Building 30 MCC, RMS. 230 & 231)
IPS	DA	Integrated Planning System (Building 30S, 5th Floor)
MCC	DA	Mission Control Center (Building 30 MOW & Building 30S)
MDM	DA	Multiplexer/Demultiplexer (Building 30S, RM. 5326)
SCTF	SP	Sonny Carter Training Facility (SCTF)
NBL	SP	SCTF Neutral Buoyancy Lab
LMF	SP	SCTF Light Manufacturing Facility
SDIL	OA	SCTF Software Development & Integration Lab MBF Level III Lab – Mission Bldg Facility SVF Level II Lab - Software Verification Facility PSPF Level II Lab – Prime Software Production Facility
SDPC	DA	Shuttle Data Processing Center (Building 30 MCC, RM. 112)
SMS/GNS/SSTF	DA	Shuttle Mission Simulator (SMS) Building 5N Guidance/Navigation System (GNS) (Building 35, 1st Floor, North) Space Shuttle Training Facility (SSTF) (Building 5S)
SPF	DA	Software Production Facility (Building 30A, RMS. 1077, 2069, & 3069)
SSCF	DA	Space Station Computer Facility (Building 30S, 5th Floor)
WFCR	DA	White Flight Control Room (Building 30S, RM 2306)

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT E – WAGE DETERMINATION SERVICE CONTRACT
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Wage Determination Data for
Nonexempt Employees

The attached Department of Labor wage determination number 1994-2516 (revision 16) is incorporated into this solicitation for employees performing nonunion nonexempt services on this contract.

A large portion of the current workforce is represented by organized labor. In accordance with section 4c of the Service Contract Act, a contractor shall pay any service employee (regardless of whether or not such employee was employed under the predecessor contract) wages and fringe benefits provided for under a collective bargaining agreement (CBA). The Department of Labor has recognized the wages and benefits of the four CBA's between BRSP (incumbent contractor) and organized labor. Those wage determinations are 1991-0124, 1999-0135, 1999-0136, and 1973-0023.

To assist you in the preparation of this proposal, copies of the current CBA's between the incumbent contractor and organized labor was available for review in the JSC Scientific and Technical Resource Library (TRL). Pages pertaining to a sampling of the economic terms of the CBA's are provided, however, it is the contractor's responsibility to review the CBA's in their entirety.

List of Unions
Attachment A
(SF98 A2241772 - 8c)

1. CBA between prime contractor BRSP and the International Association of Machinists and Aerospace Workers, Local 1786, District 37, dated October 1, 1998 through September 30, 2001. (WD 91-0124) *

2. CBA between prime contractor BRSP and the International Union of Operating Engineers, Local 347, dated September 1, 1998 through August 31, 2001. (WD 99-0135) **

3. CBA between prime contractor BRSP and the General Presidents' Project Maintenance Agreement, dated July 31, 1997. (WD 73-0023) ***

4. CBA between prime contractor BRSP and the Teamsters, Local 968 (Logistics), dated December 16, 2000 through December 15, 2003. (WD 99-0136) ****

5. CBA between prime contractor BRSP and the Teamsters, Local 968 (Transportation), dated December 16, 2000 through December 15, 2003. (WD99-0136) *****

(Revised 01/25/01)

STANDARD FORM 98
Rev. Feb. 1973
U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION

NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE

(See Instructions on Reverse)

1. NOTICE NO. A2241772

MAIL TO:

Administrator
Wage and Hour Division
U.S. Department of Labor
Washington, D.C. 20210

THRU: NASA/Goddard Space Flight Center
Code 201/Wage Determination Processing

2. Estimated solicitation date (use numerals) Recompetition

Month	Day	Year
02	15	01

3. Estimated date bids or proposals to be opened or negotiations begun (use numerals)

Month	Day	Year
06	01	01

4. Date contract performance to begin (use numerals)

Month	Day	Year
04	01	02

5. PLACE(S) OF PERFORMANCE
Harris County, Houston, TX

6. SERVICES TO BE PERFORMED (describe)
II - Base Operations Support Services
WD Period: Solic- 02/15/01 thru
Contract: 04/01/02 to 03/31/03

7. INFORMATION ABOUT PERFORMANCE

A. ☐ XX Services now performed by a contractor
B. ☐ Services now performed by Federal employees
C. ☐ Services not presently being performed

8. IF BOX A IN ITEM 7 IS MARKED, COMPLETE ITEM 8 AS APPLICABLE

a. Name and address of incumbent contractor
BRSP
P.O. Box 58565
Houston, TX 77258

b. Number(s) of any wage determination(s) in incumbent's contract
WD 94-2516, WD 72-0229, WD 73-0023
WD 91-0124, WD 99-0135, WD 99-0136

c. Name(s) of union(s) if services are being performed under collective bargaining agreement(s). *Important:* Attach copies of current applicable collective bargaining agreements
List of Unions attached (Attachment A)

9. OFFICIAL SUBMITTING NOTICE

SIGNED: Connie R. Pritchard
DATE: 11/20/00

TYPE OR PRINT NAME
Connie R. Pritchard
Contract Labor Relations Officer

TELEPHONE NO.
281-483-4121

10. TYPE OR PRINT NAME AND TITLE OF PERSON TO WHOM RESPONSE IS TO BE SENT AND NAME AND ADDRESS OF DEPARTMENT OR AGENCY, BUREAU, DIVISION, ETC.

NASA Johnson Space Center
Attn: BA2/Connie R. Pritchard
2101 NASA Rd. One
Houston, TX 77058

RESPONSE TO NOTICE
(by Department of Labor)

A. ☐ The attached wage determination(s) listed below apply to procurement.

B. ☐ As of this date, no wage determination applicable to the specified locality and classes of employees is in effect.

C. ☐ From information supplied, the Service Contract Act does not apply (*see attached explanation*).

D. ☐ Notice returned for additional information (*see attached explanation*).

Signed: _____
(U.S. Department of Labor)

_____
(Date)

98-103

STANDARD FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA A2241772
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Nonunion, WD 94-2516, BRSP, included in the Directory of Occupations	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Production Control Clerk	3	GS-6
Stock Clerk	1	WG-4
Drafter, I	1	GS-3
Drafter, II	0	GS-4
Drafter, III	8	GS-5
Electronic Technician, Maint., III	1	WG-10
Heavy Equipment Operator	2	WG-10
Material Coordinator	2	WG-7
Bus Driver	6	WG-7
Dispatcher, Motor Vehicle	2	GS-5
Secretary, I	1	GS-4
Secretary, II	4	GS-5
Secretary, III	1	GS-6
General Clerk, II	3	GS-2
General Clerk, III	5	GS-3
General Clerk, IV	4	GS-4
Word Processor, III	1	GS-5
Harris County, TX, Nonexempt/Union, CBA between IAM&AW, Local 1786, District 37 & BRSP *		
Electrician *	2	Per CBA
Electrician, Lead *	1	Per CBA
Cryo/Vac Mechanic *	2	Per CBA
Refrigeration Mechanic *	2	Per CBA
Reproduction Equipment Mechanic *	0	Per CBA
Welder/Systems Mechanic *	2	Per CBA
Machine Tool Repairman/Hydraulics *	2	Per CBA
Machine Tool Repairman/Hydraulics, Lead *	1	Per CBA
Electronic Technician *	1	Per CBA
Graphic Equipment Technician *	1	Per CBA

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA A2241772
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA between IAM&AW, Local 1786, District 37 & BRSP *	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
- continued -		
Heavy Equipment Mechanic *	0	Per CBA
Cooling Tower/Systems Mechanic *	1	Per CBA
Crane Maintenance/Systems Mechanic *	2	Per CBA
Engine/Generator Mechanic *	1	Per CBA
Mechanic/Technician *	2	Per CBA
Toolroom Attendant *	1	Per CBA
Harris County, TX, Nonexempt/Union, CBA between IUOE, Local 347 & BRSP **		
Chief Operator, B-24 **	4	Per CBA
Chief Operator, Field **	4	Per CBA
EMCS Operator, B-24 **	4	Per CBA
Environmental Operator **	1	Per CBA
Lab Technician **	1	Per CBA
Operator, B-24 **	4	Per CBA
Relief Operator **	12	Per CBA
Roving Operator **	4	Per CBA
Training Chief Operator **	1	Per CBA
Harris County, TX, Nonexempt/Union, CBA between AFL-CIO General Presidents Agreement – Bldg Trades & BRSP ***		
Iron Worker ***	1	Per CBA
Iron Worker, Foreman ***	1	Per CBA
Carpenter ***	4	Per CBA
Carpenter, Foreman ***	1	Per CBA
Laborer ***	9	Per CBA
Laborer, Foreman ***	1	Per CBA

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA A2241772
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA between AFL-CIO General President's Agreement – Bldg. Trades & BRSP ***	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
- continued -		
Electrical Lineman ***	2	Per CBA
Electrical Lineman, Foreman ***	1	Per CBA
Millwright ***	1	Per CBA
Millwright, Foreman ***	2	Per CBA
Painter ***	4	Per CBA
Pipefitter ***	16	Per CBA
Pipefitter, Foreman ***	4	Per CBA
Pipefitter, General Foreman ***	0	Per CBA
Plumber ***	4	Per CBA
Plumber, Foreman ***	3	Per CBA
Material Checker ***	3	Per CBA
Electrician ***	15	Per CBA
Electrician, Foreman ***	4	Per CBA
Electrician, General Foreman ***	0	Per CBA
Insulator, Asbestos Abatement ***	3	Per CBA
Sheetmetal ***	2	Per CBA
Driver Truck (Heavy), ISW Spill Response ***	2	Per CBA
Heavy Equipment Operator ***	1	Per CBA
Roofer ***	4	Per CBA
Roofer Foreman ***	1	Per CBA
Electrical Lineman ***	2	Per CBA
Electrical Lineman, Foreman ***	1	Per CBA
Harris County, TX Nonexempt/Union, CBA between Teamsters, Local 968 (Logistics) and BRSP ****		
Cataloger ****	2	GS-7
Clerk Typist ****	1	GS-2
Customer Service Clerk ****	3	GS-5

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA A2241772
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA between Teamsters, Local 968 (Logistics) and BRSP ****	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
- continued -		
Inchecker/Warehouse Person ****	1	Per CBA
Inspector ****	1	Per CBA
Senior Inspector ****	1	Per CBA
Furniture Repair/Warehouse Person ****	5	Per CBA
Furniture Repair/Warehouse Person, Lead ****	1	Per CBA
Storekeeper ****	3	Per CBA
Bond Room Storekeeper ****	7	Per CBA
Bond Room Storekeeper, Lead ****	1	Per CBA
Warehouse Person	8	Per CBA
Warehouse Person, Lead (R&U Lead) ****	1	Per CBA
Stock Control Clerk ****	2	Per CBA
Supply Clerk ****	1	Per CBA
Clerk/Dispatcher ****	1	Per CBA
Senior Property Specialist ****	1	Per CBA
Property Technician ****	3	Per CBA
Property Clerk ****	2	Per CBA
Harris County, TX, Nonexempt/Union, CBA between Teamsters, Local 968 (Transportation) and BRSP *****		
Bobtail Driver *****	5	Per CBA
Helper *****	6	Per CBA
Crater & Flight Packer *****	4	Per CBA
Crater & Flight Packer, Lead *****	1	Per CBA
Flight Packing Specialist *****	1	Per CBA
Flight Packing Specialist, Lead *****	1	Per CBA
Tractor Trailer Driver *****	2	Per CBA
Driver, Lead *****	2	Per CBA

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA A2241772
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Harris County, TX, Nonexempt/Nonunion, WD 94-2516, subcontractor Tolman, included in Directory of Occupations		
Groundskeeper	6	WG-4
Grounds Equipment Operator	3	WG-6
Spray Equipment Operator	2	WG-4
Janitor	66	WG-2
Harris County, TX, Nonexempt/Nonunion, WD 94-2516, subcontractor: Rigging & Welding Specialist, included in the Directory of Occupations		
Rigger	6	WG-10
Truckdriver, Tractor-Trailer	1	WG-8

WASHINGTON D.C. 20210

William W.Gross
Director

Division of
Wage Determinations

Wage Determination No.: 1994-2516
Revision No.: 16
Date Of Last Revision: 09/19/2000

State: Texas

Area: Texas Counties of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Grimes, Harris, Houston, Jackson, Lavaca, Liberty, Madison, Matagorda, Montgomery, San Jacinto, Trinity, Walker, Waller, Washington, Wharton

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	9.78
Accounting Clerk II	9.87
Accounting Clerk III	11.72
Accounting Clerk IV	14.35
Court Reporter	12.96
Dispatcher, Motor Vehicle	12.96
Document Preparation Clerk	10.60
Duplicating Machine Operator	10.60
Film/Tape Librarian	11.50
General Clerk I	7.80
General Clerk II	8.58
General Clerk III	11.54
General Clerk IV	12.04
Housing Referral Assistant	13.60
Key Entry Operator I	8.40
Key Entry Operator II	10.74
Messenger (Courier)	7.80
Order Clerk I	10.12
Order Clerk II	10.49
Personnel Assistant (Employment) I	9.83
Personnel Assistant (Employment) II	10.69
Personnel Assistant (Employment) III	13.60
Personnel Assistant (Employment) IV	14.53
Production Control Clerk	14.15
Rental Clerk	11.50
Scheduler, Maintenance	11.50
Secretary I	11.50
Secretary II	12.96
Secretary III	14.15
Secretary IV	17.14
Secretary V	21.17
Service Order Dispatcher	11.50
Stenographer I	10.23
Stenographer II	12.09
Supply Technician	17.14
Survey Worker (Interviewer)	12.96
Switchboard Operator-Receptionist	8.77

Test Examiner	12.96
Test Proctor	12.96
Travel Clerk I	9.71
Travel Clerk II	10.46
Travel Clerk III	11.21
Word Processor I	9.57
Word Processor II	11.76
Word Processor III	15.02
Automatic Data Processing Occupations	
Computer Data Librarian	10.89
Computer Operator I	10.07
Computer Operator II	12.21
Computer Operator III	13.87
Computer Operator IV	18.89
Computer Operator V	19.72
Computer Programmer I (1)	16.22
Computer Programmer II (1)	17.97
Computer Programmer III (1)	21.92
Computer Programmer IV (1)	22.73
Computer Systems Analyst I (1)	21.01
Computer Systems Analyst II (1)	26.01
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	10.89
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	17.43
Automotive Glass Installer	15.92
Automotive Worker	15.92
Electrician, Automotive	16.65
Mobile Equipment Servicer	14.40
Motor Equipment Metal Mechanic	17.43
Motor Equipment Metal Worker	15.92
Motor Vehicle Mechanic	16.99
Motor Vehicle Mechanic Helper	13.58
Motor Vehicle Upholstery Worker	15.11
Motor Vehicle Wrecker	15.92
Painter, Automotive	16.65
Radiator Repair Specialist	17.43
Tire Repairer	14.40
Transmission Repair Specialist	17.43
Food Preparation and Service Occupations	
Baker	8.14
Cook I	7.38
Cook II	8.14
Dishwasher	5.42
Food Service Worker	5.42
Meat Cutter	8.14
Waiter/Waitress	5.91
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	16.65
Furniture Handler	11.60
Furniture Refinisher	11.48
Furniture Refinisher Helper	13.58
Furniture Repairer, Minor	15.11
Upholsterer	16.65
General Services and Support Occupations	
Cleaner, Vehicles	5.42
Elevator Operator	5.42
Gardener	7.38

House Keeping Aid I	5.33
House Keeping Aid II	5.42
Janitor	5.42
Laborer, Grounds Maintenance	5.91
Maid or Houseman	5.33
Pest Controller	7.70
Refuse Collector	5.42
Tractor Operator	6.94
Window Cleaner	5.91
Health Occupations	
Dental Assistant	11.75
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.75
Licensed Practical Nurse I	9.36
Licensed Practical Nurse II	10.51
Licensed Practical Nurse III	11.75
Medical Assistant	10.51
Medical Laboratory Technician	10.51
Medical Record Clerk	10.51
Medical Record Technician	14.56
Nursing Assistant I	6.01
Nursing Assistant II	8.33
Nursing Assistant III	9.00
Nursing Assistant IV	10.51
Pharmacy Technician	13.10
Phlebotomist	10.51
Registered Nurse I	14.56
Registered Nurse II	17.93
Registered Nurse II, Specialist	19.05
Registered Nurse III	22.55
Registered Nurse III, Anesthetist	22.55
Registered Nurse IV	25.83
Information and Arts Occupations	
Audiovisual Librarian	17.14
Exhibits Specialist I	17.60
Exhibits Specialist II	22.56
Exhibits Specialist III	26.40
Illustrator I	17.60
Illustrator II	22.56
Illustrator III	26.40
Librarian	21.17
Library Technician	12.96
Photographer I	13.93
Photographer II	17.60
Photographer III	22.56
Photographer IV	26.40
Photographer V	30.06
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	6.71
Counter Attendant	6.71
Dry Cleaner	8.65
Finisher, Flatwork, Machine	6.71
Presser, Hand	6.71
Presser, Machine, Drycleaning	6.71
Presser, Machine, Shirts	6.71
Presser, Machine, Wearing Apparel, Laundry	6.71
Sewing Machine Operator	9.13
Tailor	9.86
Washer, Machine	7.36

Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	16.65
Tool and Die Maker	19.20
Material Handling and Packing Occupations	
Forklift Operator	12.23
Fuel Distribution System Operator	14.40
Material Coordinator	15.11
Material Expediter	15.11
Material Handling Laborer	10.19
Order Filler	10.40
Production Line Worker (Food Processing)	12.23
Shipping Packer	12.08
Shipping/Receiving Clerk	10.51
Stock Clerk (Shelf Stocker; Store Worker II)	9.82
Store Worker I	9.51
Tools and Parts Attendant	13.58
Warehouse Specialist	10.64
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	17.43
Aircraft Mechanic Helper	13.58
Aircraft Quality Control Inspector	18.20
Aircraft Servicer	15.11
Aircraft Worker	15.92
Appliance Mechanic	16.65
Bicycle Repairer	13.91
Cable Splicer	17.43
Carpenter, Maintenance	16.65
Carpet Layer	15.92
Electrician, Maintenance	18.70
Electronics Technician, Maintenance I	13.23
Electronics Technician, Maintenance II	18.84
Electronics Technician, Maintenance III	22.11
Fabric Worker	15.11
Fire Alarm System Mechanic	17.43
Fire Extinguisher Repairer	14.40
Fuel Distribution System Mechanic	17.43
General Maintenance Worker	15.46
Heating, Refrigeration and Air Conditioning Mechanic	17.43
Heavy Equipment Mechanic	17.43
Heavy Equipment Operator	17.43
Instrument Mechanic	17.43
Laborer	6.34
Locksmith	16.65
Machinery Maintenance Mechanic	18.42
Machinist, Maintenance	20.16
Maintenance Trades Helper	13.58
Millwright	17.43
Office Appliance Repairer	16.65
Painter, Aircraft	16.65
Painter, Maintenance	16.65
Pipefitter, Maintenance	18.64
Plumber, Maintenance	16.65
Pneudraulic Systems Mechanic	17.43
Rigger	17.43
Scale Mechanic	15.92
Sheet-Metal Worker, Maintenance	17.43
Small Engine Mechanic	15.92
Telecommunication Mechanic I	17.43

Telecommunication Mechanic II	18.20
Telephone Lineman	17.43
Welder, Combination, Maintenance	17.43
Well Driller	17.43
Woodcraft Worker	17.43
Woodworker	8.49
Miscellaneous Occupations	
Animal Caretaker	6.40
Carnival Equipment Operator	6.94
Carnival Equipment Repairer	7.38
Carnival Worker	5.42
Cashier	7.89
Desk Clerk	9.68
Embalmer	17.81
Lifeguard	8.62
Mortician	17.81
Park Attendant (Aide)	10.82
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.62
Recreation Specialist	13.40
Recycling Worker	7.99
Sales Clerk	8.62
School Crossing Guard (Crosswalk Attendant)	5.42
Sport Official	8.62
Survey Party Chief (Chief of Party)	16.22
Surveying Aide	9.65
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	12.20
Swimming Pool Operator	9.36
Vending Machine Attendant	7.79
Vending Machine Repairer	9.36
Vending Machine Repairer Helper	7.99
Personal Needs Occupations	
Child Care Attendant	9.68
Child Care Center Clerk	12.06
Chore Aid	5.33
Homemaker	13.40
Plant and System Operation Occupations	
Boiler Tender	17.43
Sewage Plant Operator	16.65
Stationary Engineer	17.43
Ventilation Equipment Tender	13.58
Water Treatment Plant Operator	16.65
Protective Service Occupations	
Alarm Monitor	12.43
Corrections Officer	13.53
Court Security Officer	13.55
Detention Officer	13.53
Firefighter	14.23
Guard I	7.40
Guard II	14.54
Police Officer	15.58
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	12.47
Hatch Tender	12.47
Line Handler	12.47
Stevedore I	11.85
Stevedore II	13.05
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.02

Air Traffic Control Specialist, Station (2)	19.32
Air Traffic Control Specialist, Terminal (2)	21.28
Archeological Technician I	16.29
Archeological Technician II	18.24
Archeological Technician III	22.56
Cartographic Technician	22.56
Civil Engineering Technician	22.56
Computer Based Training (CBT) Specialist/ Instructor	21.01
Drafter I	12.94
Drafter II	13.35
Drafter III	17.60
Drafter IV	22.56
Engineering Technician I	11.70
Engineering Technician II	14.54
Engineering Technician III	16.92
Engineering Technician IV	21.48
Engineering Technician V	28.05
Engineering Technician VI	31.88
Environmental Technician	22.51
Flight Simulator/Instructor (Pilot)	26.01
Graphic Artist	21.01
Instructor	16.39
Laboratory Technician	12.06
Mathematical Technician	22.51
Paralegal/Legal Assistant I	13.60
Paralegal/Legal Assistant II	16.34
Paralegal/Legal Assistant III	20.34
Paralegal/Legal Assistant IV	21.17
Photooptics Technician	22.51
Technical Writer	19.83
Unexploded (UXO) Safety Escort	17.81
Unexploded (UXO) Sweep Personnel	17.81
Unexploded Ordnance (UXO) Technician I	17.81
Unexploded Ordnance (UXO) Technician II	21.55
Unexploded Ordnance (UXO) Technician III	25.83
Weather Observer, Combined Upper Air and Surface Programs (3)	13.77
Weather Observer, Senior (3)	16.70
Weather Observer, Upper Air	13.77
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	12.09
Parking and Lot Attendant	7.36
Shuttle Bus Driver	8.44
Taxi Driver	8.01
Truckdriver, Heavy Truck	12.33
Truckdriver, Light Truck	9.41
Truckdriver, Medium Truck	12.09
Truckdriver, Tractor-Trailer	13.77

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, dministrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An mployee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard including working with or in close proximity to explosives and incendiary materials involved in research, testing, manufacturing, inspection, renovation, maintenance, and disposal. Such as: Screening, blending, dying, mixing, and pressing of sensitive explosives pyrotechnic compositions such as lead azide, black powder and photoflash power. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive explosives and incendiary materials. All operations involving regarding and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard. Including working with or in close proximity to explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation and, possibly adjacent employees, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of explosive and incendiary ordnance material other than small arms ammunition. (Distribution of raw nitroglycerine is covered under high degree hazard.)

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is norequirement that employees be reimbursed for uniform maintenance costs.

** NOTES APPLYING TO THIS WAGE DETERMINATION **

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444
(SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper. When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
IAM&AW, LOCAL 1786, District 37

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Technical Reference Library.

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
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The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Scientific and Technical Information Center.

AGREEMENT

BETWEEN

BRSP, A JOINT VENTURE

AND

INTERNATIONAL ASSOCIATION OF MACHINISTS
AND
AEROSPACE WORKERS
DISTRICT NO. 37, AFL-CIO
LOCAL LODGE NO. 1786

OCTOBER 1, 1998 THROUGH SEPTEMBER 30, 2001

ARTICLE II
RECOGNITION

2.1 Pursuant to NLRB certification in Case No. 23-RC-23 57, dated the 26th of April 1965, the Company recognizes the Union as the sole and exclusive collective bargaining agency for all employees engaged in special purpose equipment maintenance work which is work required to maintain, modify and install laboratory and shop equipment at NASA/JSC and whose classifications are listed in Exhibit A, excluding all professional, executive and office clerical employees, guards, watchmen, and supervisors as defined in the Act.

2.2 The scope of this Agreement covers all work as defined above under the Company's Base Operations Support Services Contract with NASA/JSC. This Agreement does not cover or include general purpose plant maintenance work which is work required to maintain facilities utility systems and plants.

ARTICLE XIII
LEAD MECHANIC/TECHNICIAN

13.1 Definition of Lead Mechanic/Technician: A Lead Mechanic/Technician is anyone who is employed to direct work of others, but who does not have the authority to hire and fire. He/She is charged with the responsibility of leading, directing and/or approving and signing for the work within his/her group. The Lead Mechanic/Technician shall perform work with tools to the extent consistent with his/her assigned supervisory duties.

13.2 The Company will use Lead Mechanics/Technicians only in those shops and locations and for such time periods as the Company deems appropriate and necessary.

13.3 Leadman assignments will be made as follows:

13.3.1 Temporary Lead Mechanics/Technicians assignments of 6 months or less will be awarded orally within the work unit and shift requiring the position in accordance with Article 9.4, first paragraph of the Agreement.

13.3.2 Permanent Lead Mechanics/Technicians assignments will be awarded in writing within 6 months or less of any vacancy being created.

ARTICLE XIV
HOURS OF WORK, WORK DAY, WORK WEEK

14.1 Subject to other provisions of this Agreement, employees will perform their work at such times as directed by the Company to meet the requirements of NASA/JSC. The work shift will be posted on the bulletin board so that every employee will know his/her regular assigned work shift.

14.2 Eight (8) consecutive hours (exclusive of one-half (1/2) hour unpaid lunch period) (except for graveyard shift employees) shall constitute the standard days work.

14.3 The standard work day shall be a twenty-four (24) hour period commencing with the starting time of an employee's work shift.

14.4 The work week shall commence at 12:01 a.m. on Monday and extend until 12:00 midnight the following Sunday.

14.5 Five (5) days, Monday through Friday, shall constitute the standard work week.

14.5.1 The scheduled daily hours of work are and will continue on a shift basis as follows, unless changed in accordance with Section 14.5.2, 14.5.3 and/or 14.7 hereof: Starting at 7:30 a.m. and ending at 4:00 p.m. with a thirty (30) minute unpaid lunch period in the middle of the day.

14.5.2 In the event the work is performed on a multiple shift basis, scheduled hours of work will be established to meet the request of NASA. The shift starting closest to 8:00 a.m., is considered to be Day Shift, and the next shift shall be the Swing Shift and the remaining shift shall be the Graveyard Shift.

14.5.3 The Company may move the starting or stopping time of regular shifts by as much as one and half (1-1/2) hours as necessary to meet the work needs. However, the regular shift will not commence before 6:00 a.m. or later than 9:00 a.m. The starting and stopping time of regular shifts shall prevail within such range unless otherwise directed by the Company to meet the directed requirements of NASA.

14.6 In the event more than one shift is established, shift differential will be paid in addition to the regular rate of pay in the following amounts per hour on the effective date indicated:

	EFFECTIVE OCTOBER 1, 1983	
(a)	Swing Shift	.48
(b)	Graveyard Shift	.60
(c)	Two Twelve Hour Shifts	.53

14.7 The Company may establish temporary shifts of longer duration than those specified above up to twelve (12) hours duration.

14.8 In case of a change in the regular shift, assignment of an employee without forty-eight (48) hours notice, the employee shall receive a premium of one and one-half (1-1/2) times his/her regular rate (except that if a higher premium multiplier would be applicable under another section of this Agreement he/she will be paid at the higher premium multiplier) for the first eight (8) hours worked on the new shift to which he/she has been assigned. (This clause has no application to extra or irregular work assignments performed on a temporary overtime or emergency basis, or in cases where temporary shifts are assigned for a given period of time, the 48 hour notice to return to the regular shift will not apply if the need for the temporary shift ends due to circumstances beyond the control of the Company).

14.9 The lunch period on each shift shall be substantially in the middle of the shift, at a time designated by the Company in accordance with the requirements of the work and the practices of NASA/JSC.

ARTICLE XVII
HOLIDAYS

17.1 The Company agrees to pay all employees on the Company's active payroll at their regular rate of pay for eight (8) hours on each of the ten (10) holidays per year. The holidays to be recognized shall be treated as hours worked for the purpose of computing overtime. The parties understood that under the existing NASA/JSC policy, the following ten (10) holidays are observed: (1) New Year's Day (2) Martin Luther King's Day (3) Washington's Birthday (4) Memorial Day (5) Independence Day (6) Labor Day (7) Columbus Day (8) Veteran's Day (9) Thanksgiving Day (10) Christmas Day. If the number of paid holidays or other special days by way of Executive Order or observed by NASA/JSC under existing policy are increased in number, such additional day(s) shall be recognized and paid for in accordance with this Agreement.

17.2 An employee shall not be eligible for holiday pay without working if he/she fails to work both (1) his/her last regular shift prior to, and (2) his/her first regular shift after, such holiday; except under the following conditions:

17.2.1 If excused by the Company. If an absence excused before the holiday, the employee's immediate supervisor will approve the absence in writing.

17.2.2 A non industrial bona fide illness or accident while on the Company's active payroll (and in case of doubt the matter will be decided by consultation between the employee's doctor and the Company's doctor).

17.2.3 Bona fide illness or accident (and in case of doubt the matter will be decided by consultation between the employee's doctor and the Company's doctor).

17.2.4 Absence in accordance with Article XXII Jury Duty.

17.2.5 Absence because of death in immediate family as set forth in Article XXIII Funeral Leave.

17.2.6 If an industrial accident occurs on the day before or day after a holiday, resulting in the employee being absent on either or both of such days, he/she shall nevertheless be paid for that holiday.

17.2.7 If an employee is scheduled to work on a holiday, but fails to work he/she shall not be paid for the holiday.

17.3 In the event a holiday falls within a scheduled vacation, as distinguished from falling at the commencement or termination of a scheduled vacation, the Company will arrange for a substitute holiday for the employee, at the end of his/her vacation unless the requirements of the work prevent, and in that event it will be given at some time mutually convenient to the employee and the Company.

17.4 Except for vacations as provided in Section 17.3 above, if an employee should be entitled to pay for the time worked on more than one basis (as, for example, being on jury duty on a recognized holiday) the employee shall be entitled to pay for that time not worked on one basis but not on more than one basis.

17.5 When a holiday falls on a Saturday, the preceding Friday will be observed as the holiday; when a holiday falls on a Sunday, the following Monday will be observed as the holiday.

ARTICLE XVIII
VACATION

18.1 Vacations shall be scheduled by the Company with primary consideration to the requirements of the work and secondary consideration to the preference of the employees. Preference of the employees will be expressed in the following manner:

18.1.1 Employee's having the greatest seniority will be given first choice in requesting the time of their vacation when two employee's make the request on the same day for the same days off.

18.1.2 Any vacation time must be approved by the company prior to the vacation period being taken. One week vacation periods are desirable. However, employees may take vacation in less than one (1) week increments, but in no event will vacations be granted in less than four (4) hour increments.

18.1.3 If an employee desires to reschedule his/her vacation, such an employee may not exercise his/her seniority rights with respect to any other employee who has already designated his/her vacation preference.

18.1.4 Notwithstanding the above, a shutdown of no more than five work days between the Christmas and New Years holidays may be designated by the Company. If so designated, the Company will establish the minimum work force required and give preference to be off to employees having the greatest seniority. If insufficient volunteers are received, employees will be scheduled off in reverse order of seniority. In either case the employees may elect to take the five days off as part of their paid vacation accrual or as excused absence without pay.

18.2 If the Company is unable to schedule a vacation within twelve (12) months after eligibility, the period within which it may be taken shall be extended as required to permit the vacation to be taken.

18.3 Employees will accrue vacation as follows:

18.3.1 If in the employ of the Company for less than one year, one workday for each month of service up to a maximum of 10 workdays.

18.3.2 If in the employ of the Company for one year, but less than five years, $10/12^{ths}$ of one workday for each month of service each year.

18.3.3 If in the employ of the Company for five (5) years, but less than 13 years, 15/12ths of one workday for each month of service each year.

18.3.4 If in the employ of the Company for 13 years or more, $20/12^{ths}$ of one workday for each month of service each year.

18.4 New hires employed on or before the 15th of the month will accrue vacation for the month, if hired after the 15th, the accrual will begin the following month. Employees will not accrue vacation for the final month of employment unless the separation date is after the 15th of the month.

18.5 Beginning each October 1st and each October 1st thereafter, employees are eligible to liquidate vacation accrued in the previous contract year provided they have completed at least one year's continuous service.

18.6 Between completion of 12 months of service and the October 1st immediately following, an employee will liquidate all vacation accrued in the previous contract year. However, should this accrual amount to four workdays or less, the accrued may be carried over for liquidation in the following vacation year.

18.7 Vacations will be extended one workday for each holiday falling within the vacation period.

18.8 The pay for each week of vacation shall be forty (40) times the employee's regular hourly rate of pay at the time the vacation is taken. An employee will be given vacation pay prior to taking his/her vacation provided he/she makes a request therefor in writing at least two (2) weeks in advance of the date scheduled for the commencement of his/her vacation.

18.9 Vacations are intended for rest and recreation, and must be taken by the employee to be paid. Upon termination, layoff, or death, an employee with six (6) months or more of continuous employment shall be paid for his/her accrued vacation, including any pro-rata portion of a vacation.

18.9.1 Any employee passing an anniversary seniority date which would entitle him/her to additional vacation eligibility may take that additional prorate portion of vacation between his/her anniversary date and the following October 1 vacation year. Employees may elect to carry forward such time to their next vacation year.

ARTICLE XIX
SICK LEAVE

19.1 Sick leave is provided by the Company in the event that an employee is, through illness or injury, unable to report to work and/or perform his/her work. This provision shall apply to absence due to illness or recuperation from non-industrial injuries not covered by Workman's Compensation. The pay compensations provided herein are intended only to provide wage continuation, within the limits provided, during such absences.

19.2 Effective October 1, 1993, employees will accrue sick leave at the rate of eight (8) hours for each month of service. Sick leave accrual for any one employee shall not exceed eight hundred (800) hours.

19.3 A month of service, for the purpose of this section, shall be defined as actual time on the active payroll no less than the first day through the 16th day of any calendar month or the 15th day through the last day of any calendar month.

19.4 A claim for sick pay must be made by the employee to his/her supervisor. If requested, the employee must supply a statement from a Doctor verifying that the absence was due to illness or injury. Such payments are to be computed at the straight time hourly rate the employee was receiving on the day or days of the absence. Employees on a letter of restriction for poor attendance will not be paid for the first day of an illness unless they are hospitalized. A letter of restriction for poor attendance will not exceed six months in duration unless the employee's attendance remains unacceptable.

19.5 If an employee is laid off, all unused sick pay hours accrued by him/her up to the time of his/her layoff will be credited to him/her on the date of recall from layoff. After two (2) years from time of layoff such employee will forfeit credited sick leave.

In the event an employee is laid-off in a reduction in force expected to last ninety (90) days or more, the employee will be eligible to be paid for one-half (1/2) of the employee's accrued unused sick leave pay hours up to a maximum of two hundred (200) hours. Sick leave paid off will not be credited to the employee's account should the employee be recalled. However, should the reduction in force result from work going to a successor contractor, any employee hired by the successor contractor will be ineligible to receive sick leave pay as established herein, if the contractor assumes the employee's accrued sick leave bank.

19.6 To be eligible for sick leave, the employee must notify the Company of his/her inability to report for duty, due to illness or injury, during the first one (1) hour of elapsed time on his/her regularly scheduled work shift.

19.7 Effective October 1, 1984, employees who have accumulated an unused credit of ten (10) days of sick leave during the preceding twelve month period from October 1, through September 30 of each year, will be allowed one (1) day off with pay, to be scheduled during the following twelve month period. Scheduling of these days are subject to reasonable operational limitations. The above days off will not be deducted from accrued sick leave.

19.8 Any employee covered under this bargaining agreement may give unused paid sick leave hours from his/her sick pay account on the following terms:

1) The employee donating sick leave from his/her sick pay account, must have at least four hundred (400) hours of unused sick pay in his/her sick pay account at the time of the donation.

2) No employee may donate more than 40 sick pay hours per year to other employees.

3) The employee that will receive the donation must have had a minimum of four hundred (400) hours of unused sick pay in his/her account when the employee began to deplete his/her account.

The depletion of the employee's account must have been in a continuous duration without return to work. Time lost that is due to a major debilitating disease or accident which allowed the employee to return to work for short periods of time may be exempt from the continuous duration requirement at the Company's option.

4) The donation of sick leave will not take place until the receiving employee has exhausted all paid sick leave and all vacation in his/her sick pay and vacation accounts.

5) Donated paid sick leave must be liquidated in full workday increments.

6) The Company will select which donor employee's sick leave will be used first when there are multiple donors.

19.9 At the time that an employee retires, if the employee is age 62 years or older, the employee will be paid for all accrued unused sick leave pay hours as follows:

All unused sick pay hours times one-half, times the employee's base rate in force on the date of retirement. For example: a sixty two (62) or older Mechanic/Technician retiring with eight hundred (800) hours of accrued unpaid sick pay, would be paid 800 x 1/2 x Mechanic/Technician's rate upon separation.

ARTICLE XX
PENSION PLAN

20.1 The Company agrees to make contributions, in accordance with ERISA regulations, into the Company's 401K Retirement Savings Plan for each employee covered by this Collective Bargaining Agreement, as follows:

20.1.1 Effective October 1, 1998, the Company contributions shall be equal to seven percent (7%) of the straight time rate for all pay hours.

20.1.2 Contributions for a new employee will be made upon him/her having completed six (6) continuous months of service. Payment will be made retroactive to his/her last in-hire date with the Company. (If this is inconsistent with IRS or other Federal regulations, the following will apply in lieu thereof: Contributions for a new employee are payable from the first day following forty-five (45) actual days worked from the date of hire.)

20.1.3 For purposes of this Article, each hour paid for, as well as hours of paid vacation, hours of paid holidays, and other hours for which pay is received by the employee, in accordance with this Collective Bargaining Agreement, shall be counted as hours for which contributions are payable.

20.1.4 Effective October 1, 1998, the maximum amount of an employee's elective tax deferred contributions into the Company's 401K Retirement Savings Plan will be the maximum allowed by the applicable Federal laws and regulations governing such plans.

ARTICLE XXI
GROUP INSURANCE

21.1 Effective 1 November 1998 the Company and the Union have agreed to replace the current group insurance plan with the National IAM Benefit Trust Fund Medical, Life, Short Term Disability, Dental and Vision benefits. (See Exhibit "M")

21.2 Effective 1 November 1999, if these insurance benefits premiums increase more than 10% per year, the employees will pay 10% of such increase (See Exhibit "M").

21.3 For employees on a Medical Leave of Absence, the Company will continue to pay it's share of the costs of the group insurance plan until the last day of the third month following the month during which the Leave of Absence was granted.

21.4 Effective October 1, 1998 all insurance premiums, coverages etc. will remain in effect. Effective 1 November 1998 the National IAM Benefit Trust Fund Medical - Co-Pay Plan, Life - $50,000.00 coverage, Short Term Disability, Dental - Plan C and Vision - Plan IV will be in force and provided to the employees represented by this Agreement will continue in full effect. The Company will assume one hundred percent (100%) of the premium cost of these coverages for these employees and their dependents subject to Article 21.2. The Company will manage an account to assure adequate funding.

21.5 Employee coverage, while on Medical Leave of Absence, will be consistent with the provisions of the Family Leave Act.

ARTICLE XXII
JURY DUTY

22.1 Employees who are required to report for or perform jury service or service as a witness under any court subpoena, or on any day during which they are scheduled to work shall be paid for their scheduled hours at their straight time rate of pay and shall not be required to report to work that day provided the Company is given advance notice that the employee has been called for such service. Such payment may be limited to twenty (20) days in any calendar year: satisfactory proof of such service must be given to the Company before this section shall apply.

However, employees who are subpoenaed as witnesses against the Company in such legal action will be, at the Company's option, compensated for their lost time.

Any employee who is a party to legal action against the Company will not be compensated for lost time under this Article.

ARTICLE XXIII
FUNERAL LEAVE

23.1 An employee shall be granted up to three (3) days leave with pay at his/her regular base rate for absences in conjunction with a funeral due to a death in his/her immediate family provided the employee attends the funeral. In addition, the Company will allow two (2) additional days for attendance of a funeral which is over seven hundred (700) miles round trip from JSC.

For the purpose of this provision, immediate family shall mean an employee's spouse and the brother and sister of the spouse, an employee's children, brother, sister, parents, grandparents, mother-law, and father in-law. Saturdays, Sundays and Holidays will be excluded for the purpose of this provision.

EXHIBIT "A"
WAGE RATES

	Effective 10/1/98	Effective 10/1/99	Effective 10/1/00
LEAD MECHANIC/TECHNICIAN:	$20.92	$21.60	$22.30
MECHANIC/TECHNICIAN:	$20.15	$20.81	$21.49
LEAD TOOLROOM ATTENDANT:	$15.00	$15.49	$15.99
TOOLROOM ATTENDANT:	$14.50	$14.97	$15.46
LABORER:	$11.04	$11.40	$11.77

EXHIBIT "A" (Continued)
CLASSIFICATIONS INCLUDED IN THIS AGREEMENT

Mechanical/Technical Classifications:
- Cryo/Vac Mechanic*
- Refrigeration Mechanic
- Photo Equipment Mechanic
- Reproduction Equipment Mechanic
- Electronic Technician
- Graphic Equipment Technician
- Instrumentation Technician
- Machine Tool Repairman/Hydraulics
- Welder/Systems Mechanic**
- Machinist
- Cooling Tower/Systems Mechanic
- Crane Maintenance/Systems Mechanic
- Boiler/System Mechanic
- PM/Oiler/Systems Mechanic
- Sewing Machine/Systems Mechanic
- Engine/Generator Mechanic
- Equipment Fueler
- Electrician

Toolroom Attendant
Laborer

* Must have current appropriate Texas drivers license (CDL) necessary to operate required vehicle

** Must be currently certified or immediately certifiable in the type of welding required by the Company

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
IUOE, LOCAL 347

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ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
IUOE, LOCAL 347

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AGREEMENT

BETWEEN

BRSP, A JOINT VENTURE

AND

INTERNATIONAL UNION OF OPERATING ENGINEERS

LOCAL NO. 347

AFL - CIO

SEPTEMBER 1, 1998 THROUGH AUGUST 31, 2001

ARTICLE 2

RECOGNITION

2.1 Pursuant to NLRB Certification in Case No. 23-RD-350, the Company recognizes the Union as the sole and exclusive collective bargaining agency for all employees engaged in the operations and operative maintenance of the utility systems as covered in a contract between the Company and the National Aeronautics and Space Administration, Johnson Space Center (NASA/ JSC) and the Sonny Carter Training Facility, Houston, Texas, whose classifications are in Exhibit "B" excluding all professional, executive, and office clerical employees, guards, watchmen and supervisors as defined in the act.

2.2 In addition, pursuant to certification in Case No. 23
4548, the Company recognizes the Union as the sole and exclusive collective bargaining agency for all Utility Control Systems Operator Dispatchers, Utility Coordinators, and Communications Operators employed by the Company in its Utility Control Systems computer section at the NASA Johnson Space Center and the Sonny Carter Training Facility, Houston, Texas, whose classifications are listed in Exhibit "C", excluding all other employees, including the System Specialist, Electronics and Senior Systems Analyst; Clerical employees, Guards, Watchmen and Supervisors as defined in the act.

2.3 The Articles pertaining to both units referred to in 2.1 and 2.2 above are contained in Part B of this Agreement The Articles pertaining solely to the unit referred to in 2.1 above are contained in Part C. The Articles pertaining solely to the unit referred to in 2.2 above are contained in Part D.

2.4 The scope of this Agreement covers work assigned by NASA/JSC to the Company and performed by the employees of the Company covered by this Agreement within the plant limits of the Johnson Space Center and the Sonny Carter Training Facility located in Harris County, Texas.

ARTICLE 23

OVERTIME

23.1 Premium pay at the rate of one and one half (1-1/2) times the employees regular hourly rate of pay shall be paid:

(a) For all hours worked in excess of eight (8) hours in any work day.

(b) For all hours worked in excess of forty (40) hours in any one week.

(c) For all hours worked outside the employee's regularly scheduled shift.

(d) For all hours worked continuous with and in excess of eight (8).

23.2 Premium pay at the rate of twice (2 times) the employee's regular hourly rate of pay shall be paid:

(a) For all hours worked on the employee's second scheduled day off in a work week.

(b) For all hours worked on an employee's single scheduled day of rest when the employee is scheduled six (6) days within a work week.

23.3 When an employee is required to work more than two (2) hours of unscheduled overtime beyond his regularly scheduled shift the Company will arrange either to have him/her receive one (1) hot meal or give him/her $6.50 in lieu of the meal. This provision will be repeated after each four (4) hours of overtime thereafter. In addition any employee called to work with less than two (2) hours notice shall be provided an overtime allowance of $6.50 two hours after reporting and each four (4) hours thereafter so long as he/she continues to work including hours during an employee's regular shift.

23.4 The work week for rotating shift employees shall begin 7:00 a.m. Sunday. The work for all others shall begin 7:00 am. Monday.

ARTICLE 24

HOLIDAYS

24.1 The following ten (10) days shall constitute the local holidays within the terms of this Agreement, except mutually agreed to changes with the parties.

New Year's Day (January 1st)
Martin Luther Kings' Day
Washington's Birthday
Memorial Day
Independence Day (July 4th)
Labor Day
Columbus' Day
Veteran's Day (November 11th)
Thanksgiving Day
Christmas Day (December 25th)

24.2 Holidays for rotating shift employees shall be observed on the actual.

24.3 For straight day employees, holidays falling on Sunday will be observed on the following Monday and those falling on Saturday will be observed on the preceding Friday.

24.4 The Company agrees to pay employees at their regular rate of pay for eight (8) hours on each of the ten (10) holidays per year. The eight (8) hours paid for a holiday shall be treated as hours worked for the purpose of computing overtime. The ten (10) holidays to be recognized shall be the holidays as observed by NASA/JSC. If the number of paid holidays observed by NASA/JSC under existing policy are increased in number, such additional holiday or holidays shall be recognized and paid for in accordance with this agreement.

24.5 Hours worked on a holiday will be compensated at the rate of one and one half (1-1/2) times the employee's regular hourly rate of pay for the regularly scheduled hours of work. All hours worked out of schedule will be compensated at the rate of two and one half (2-1/2) times the employee's regular hourly rate of pay.

24.6 An employees shall not be eligible for holiday pay without working if he/she fails to work both (1) his/her last regular shift prior to, and (2) his/her regular shift after such holiday; except under the following conditions:

24.6.1 If excused by the Company. If an absence is excused before the holiday, the employee's immediate Supervisor will approve the absence in writing.

24.6.2 If laid off on the work day preceding or following the holiday;

24.6.3 Bonafide illness or accident (and in case of doubt the matter will be decided by consultation between the employee's doctor and the company's doctor);

24.6.4 Absence in accordance with Article 28 Jury Duty.

24.6.5 Absence because of death in immediate family as set forth in Article 29 Funeral Leave;

24.6.6 If an industrial accident occurs on the day of, or the day after a holiday, resulting in the employee being absent on part of that day he/she shall nevertheless be paid for the holiday.

24.7 The employee shall be entitled to pay for that time not worked on one basis but not on more than one basis, for example, being on jury duty on a recognized holiday.

24.8 An employee who is instructed to work his regularly scheduled hours on a holiday, but who fails to report and does not have an acceptable excuse, will receive no pay for the holiday; it being agreed that this provision does not apply to an employee requested to work on a call-in. Disputes as to whether an excuse is acceptable shall be subject to the grievance and arbitration provisions of this Agreement.

ARTICLE 25

VACATION

25.1 Employees will accrue vacation as follows:

25.1.1 If in the employ of the Company for less than one year, 10/12ths of one workday for each month of service.

25.1.2 If in the employ of the Company for one year, but less than five years, 10/12ths of one workday for each month of service each year.

25.1.3 If in the employ of the Company for five years, but less than 13 years, 15/12ths of one workday for each month of service each year.

25.1.4 If in the employ of the Company for 13 years or more, 20/12ths of one workday for each month of service each year.

25.2 For purposes of determining eligibility for vacation accrual seniority as defined in 35.1 and 44.1 will apply.

25.3 If an employee resigns or is laid off because of a reduction of force or is on a ninety (90) day or more leave of absence, he/she shall be paid for any unused accrued vacation.

25.4 Employee accrue vacation time during the period they are on pay status, including sick or military leave.

25.5 The pay for each week of vacation shall be forty (40) times the employee's hourly rate of pay at the time the vacation is taken.

25.5.1 A vacation pay advance will be given if a request for pay is received two (2) weeks in advance of the date scheduled for the commencement of the vacation.

25.5.2 A rotating shift employee may, if he/she wishes, arrange for two additional days off without pay for each five (5)days vacation so long as the additional time off is in conjunction with the vacation.

25.6 New hired employee on or before the 15th of the month will accrue vacation for the month, if hired after the 15th, the accrual will began the following month.

25.6.1 Employees will not accrue vacation for the final month of employment unless the separation date is after the 15th of the month.

25.7 VACATION PERIOD: Vacation for which an employee is eligible as of any October shall be taken prior to the following September 30.

25.7.1 Vacation started during the vacation period shall be considered as taken, if it does not affect the seniority rights of another employee for the following year.

25.7.2 Vacation shall be taken and not be carried over to the following period.

25.8 VACATION SCHEDULE: The company shall post a vacation schedule on the bulletin board on September 1st of each year, the schedule will remain posted through September 30th of each year.

25.8.1 Employees shall schedule vacation during the month of September prior to the start of the vacation period.

25.8.2 Vacation shall be scheduled by seniority by shift. Employees having the greatest seniority will be giving first choice in requesting the time of vacation

25.8.2.1 If more employees request a vacation date than can be permitted off at one time, the senior employee's choice will be given preference except for the second week of a split vacation.

25.8.2.2 If an employee desires to reschedule his vacation, such an employee may not exercise his seniority right with respect to any other employee who has already designated his vacation preference.

25.8.2.3 If an employee is moved from one shift to another at the request of the Company, he/she will be allowed to carry his/her vacation assignment, or he/she may pick his/her vacation from the open periods on the shift to which moved.

25.9 SCHEDULED VACATION: Vacation taken in weekly periods.

25.9.1 No more than one Operator at a time may schedule vacation for a given period.

25.9.2 Vacations may be extended one work day for each observed holiday falling within the vacation period, at the option of the employee.

25.9.3 Relief Operators, if qualified, will be normally used to replace employees on vacation.

~~25.10 UNSCHEDULED VACATION "BANK DAYS" Employees may set aside~~ vacation days for use on a daily basis or in more than one day increments as follows:

a. Employees with ten (10) years or more service may set aside ten (10) "bank days"

b. Employees with less than ten (10) years service may set aside five (5) "bank days"

25.10.1 Vacation request for "bank days" may not be made prior to 0700, ten(10) days prior to the requested vacation.

25.10.1.1 If more than one request is made for "bank days" within the allowed ten (10) days period by Operators on the same shift, the Operator who turned in the request first will have his request considered first in accordance with other provisions of this article (Note: The supervisor will date and time each request and return a copy to the employee immediately upon receipt.)

25.10.2 Vacation request for "bank days" may be made two (2) days prior to the requested vacation, provided no employee on that shift is on vacation.

25.10.3 It will be permissible for one (1) person per shift to take one or more bank vacation days. A second person may also take a vacation bank day(s) if overtime is not required.

25.10.4 No more than three (3) "bank days" may overlap the scheduled vacation of another Operator.

25.10.5 Except for emergencies, "bank day" vacations are not to be approved if the company determines that overtime will result, or that the anticipated shift operations work load (mission support operations, special outage support, etc.) requires the Operators to be present. Emergencies must be documented by employees upon return to work.

25.11 The company and the union agree that jobs must be filled by fully qualified employees during flights and critical periods. During those periods of time scheduled vacation may be suspended. Any employee whose scheduled vacation is so suspended may reschedule same at a time of the employee's choice.

ARTICLE 26

GROUP INSURANCE

The Group Health, Life, and Weekly Income Insurance Plans presently in force and available to employees represented by this Agreement will continue in full effect. The Company will assume ninety percent (90%) of the cost of the Group Health and Weekly Income Insurance Plans with the employee assuming ten percent (10%) of the cost and fifty percent (50%) of the cost of the Life Insurance Plan. Effective January 1, 1996, the Company will contribute $5.213 per hour (40 hours/week) to fund Life, Weekly Income Insurance and Health coverages. The Company will manage this account and sub-accounts to assure adequate funding of each. The Collective Bargaining Agreement will be updated on an annual basis as to current cost of group insurance benefits.

ARTICLE 27

PAID SICK LEAVE

27.1 Sick leave is provided by the company for wage continuation in the event that an employee is, through illness, unable to perform his work. This provision shall apply to absences due to illness or recuperation from non-industrial injuries. Worker's Compensation covered illness and/or injuries are excluded from this coverage. Pay compensations provided herein are intended only to provide wage continuation within the described limits provided during such absences and are not intended to be used for the purpose of lump sum payment in lieu of wage continuation.

27.2 Employees will accrue sick leave at the rate of eight (8) hours for each month of service. Sick leave accrual for any one employee shall not exceed nine hundred (900) hours.

27.3 A month of service, for the purpose of this section, shall be defined as actual time on the active payroll no less than the first day through the 15th day of any calendar month or the 16th day through the last day of any calendar month.

27.4 A claim for sick pay must be made by the employee to his supervisor. The employee must supply, if requested, a statement from a doctor verifying that an absence was due to illness of the employee. Statements from a doctor will not normally be required for absences of three work days or less. When such statements will be required for said short absences by an employee, the employee shall be so notified in advance and in writing. Any employee placed on a letter of restriction for absence(s) shall not be paid for the first work day of absence unless the illness or accident requires hospitalization of the employee. Payments of sick leave under this Article shall be computed at the straight time hourly rate the employee would have received on the day or days of absence. The employee may elect to liquidate accrued sick leave at the rate of one-half per day.

27.5 If an employee is laid off, all unused sick pay hours accrued by him/her up to the time of his layoff will be credited to him/her on the date of recall from layoff. After two (2) years from the time of layoff, such employee will forfeit credited sick leave.

27.6 Any employee covered under this bargaining agreement may give unused paid sick leave hours from his/her sick pay account on the following terms.

1) The employee donating sick leave from his/her sick pay account, must have at least four hundred (400) hours of unused sick pay in his/her sick pay account at the time of the donation.

2) No employee may donate more than 40 sick pay hours per year to other employees.

3) The employee that will receive the donation must have had a minimum of four hundred (400) hours of unused sick pay in his/her account when the employee began to deplete his/her account.

The depletion of the employee's account must have been in a continuous duration without return to work. Time lost that is due to a major debilitating disease or accident which allowed the employee to return to work for short periods of time may be exempt from the continuous duration requirement at the company's option.

4) The donation of paid sick leave will not take place until the receiving employee has exhausted all paid sick leave and all vacation in his/her sick pay and vacation accounts.

5) Donated paid sick leave must be liquidated in full workday increments. The one half per day provision in this article (27.4) will not apply to donated paid sick leave.

6) The company will select which donor employee's sick leave will be used first when there are multiple donors.

27.7 In the event an employee is laid off in a reduction in force expected to last ninety (90) days or more, the employee will be eligible to be paid for one-half (1/2) of the employee's accrued unused sick leave pay hours up to a maximum of one hundred and twenty (120) hours. Sick leave paid off will not be credited to an employee's account should the employee be recalled. However, should the reduction in force result from work going to a Successor Contractor, any employee hired by the Successor Contractor will be ineligible to receive sick leave pay as established herein, if the Contractor assumes the employee's accrued sick leave bank.

At the time that an employee retires, at sixty-two 62 years or older, the employee will be paid for one-half (1/2) of unused sick leave pay hours.

ARTICLE 28

LEAVE OF ABSENCE

28.1 Time spent on leave of absence shall not count for sick leave or vacation, accrual or pay review.

28.2 Notwithstanding other provisions of this Agreement, time spent on a leave of absence occasioned by an industrial injury shall not affect the employee's wage review period to the extent that such wage review is automatic.

28.3 Upon written request from the Business Manager, One (1) employee shall be allowed up to two (2) years leave of absence to work for the local or International Union. The employee shall continue to accrue seniority for the two years. If the employee does not return after two years, his employment will be terminated along with all seniority and benefits.

ARTICLE 29

JURY DUTY

29.1 Employees who are required to report for or perform jury service or service as a witness under any court subpoena, on any day during which they are scheduled to work shall be paid for their scheduled hours at their straight time rate of pay less the amount received as jury or witness pay and shall not be required to report to work that day provided the company is given advance notice that the employee has been called for such service. Such payment may be limited to thirty (30) days in any calendar year; satisfactory proof of such services must be given to the company before this section shall apply.

29.2 The payment of wages under this article for day shift and afternoon shift employees will be limited to those scheduled straight time work hours that fall within the calendar day of the court appearance. Employees whose regularly scheduled straight time work hours on the day of the court appearance includes the midnight commencing the calendar day will be paid for that shift only. Under no circumstances will an employee be eligible for compensation of more than one shift per day of court appearance or compensation for a midnight shift that directly follows a court appearance.

ARTICLE 30

FUNERAL LEAVE

30.1 An employee shall be granted three (3) days leave with pay at his regular base rate for absences in conjunction with a funeral due to a death in his immediate family provided the employee attends the funeral. In addition, the Company will allow two (2) additional paid days for attendance of a funeral which is over five hundred (500) miles round trip from JSC. For the purpose of this provision, immediate family shall mean the grandparents of the employee or his spouse, and the employee's spouse, and employee's children, brother, sister, parents, mother-in-law, father-in-law and grandchildren. Off days, and holidays will be excluded for purposes of this provision.

ARTICLE 32

PENSION PLAN

32.1 Commencing February 1, 1976, and for the duration of this Collective Bargaining Agreement and any renewals or extensions thereof, the Company agrees to make payments to the Central Pension Fund of the International Union of Operating Engineers for each employee covered by this Collective bargaining Agreement as follows:

32.1.1 The Company shall make a contribution of $.30 per hour to the above named program on the basis of eight (8) hours a day up to a maximum of 40 hours per week for each week the employee is receiving any wage compensation either directly from the Company or as a result of the Weekly Insurance Plan provided under this Agreement, or a monthly contribution based on the annual monthly average of 173 hours a month.

32.1.2 Contributions for a new employee are payable from the first day following the completion of his probationary period.

32.1.3 Payments to the Program are due by the twentieth day of the month for which contributions are payable.

32.1.4 Commencing on September 1, 1982 the Company shall make a contribution of $.75 per hour as prescribed above.

32.1.5 Commencing on September 1, 1983 the Company shall make a contribution of $.85 per hour as prescribed above.

32.1.6 Commencing on September 1, 1986, the Company shall make a contribution of $1.00 per hour as prescribed above.

32.1.7 Commencing on February 1, 1988, the Company shall make a contribution of $1.05 per hour as prescribed above.

32.1.8 Commencing on August 1, 1989, the Company shall make a contribution of $1.10 per hour as prescribed above.

32.1.9 Commencing on February 1, 1990, the Company shall make a contribution of $1.15 per hour as prescribed above.

32.1.10 Commencing on September 1, 1993, the Company shall make a contribution of $1.25 per hour as prescribed above.

32.1.11 Commencing on September 1, 1994, the Company shall make a contribution of $1.30 per hour as prescribed above.

32.1.12 Commencing on September 1, 1995, the Company shall make a contribution of $1.35 per hour as prescribed above.

32.1.13 Commencing on September 1, 1996, the Company shall make a contribution of $1.50 per hour as prescribed above.

32.1.14 Commencing on September 1, 1997, the Company shall make a contribution of $1.60 per hour as prescribed above.

32.1.15 Commencing on April 1, 1999, the Company shall make a contribution of $1.75 per hour as prescribed above.

32.1.16 Commencing on September 1, 1999, the Company shall make a contribution of $1.90 per hour as prescribed above.

32.1.17 Commencing on September 1, 2000, the Company shall make a contribution of $2.10 per hour as prescribed above.

ARTICLE 41

HOURS OF WORK

41.1 Straight Day Work - Lab Technicians and Environmental Operators working the Straight Day schedule or afternoon shift will require eight (8) hours of work, from 7:00 am. to 3:30 p.m., with 30 minutes for lunch. Straight Day and afternoon workers shall work Monday through Friday with Saturday and Sundays as off days except for week-end coverage in the labs where two consecutive days off may be established by mutual consent of the Company and Union.

41.2 Straight Day Work - Operations - Workers assigned to operations on the day shift shall work a schedule which requires eight (8) hours of work from 7:00 am. to 3:00 p.m. Monday through Friday with Saturday and Sunday as off days, except for weekend coverage when two consecutive days off may be established by mutual consent of the Company and the Union.

41.3 Straight Afternoon Shift - Operations - Workers assigned to operations on the afternoon shin shall work a schedule which requires eight (8) hours of work from 3:00 p.m. to 11:00 p.m. Monday through Friday with Saturday and Sunday as off days, except for weekend coverage when two consecutive days off may be established by mutual consent of the Company and Union.

41.4 Rotating Shift Work - The schedule for rotating shift work shall be the schedule shown in Exhibit "A", Rotating Schedule. Employees so assigned shall work eight (8) consecutive hours per day and shall rotate in accordance with the schedule. Shifts shall be from 7:00 am. To 3:00 p.m.; from 3:00p.m.to 11:00p.m.; and from 11:OO p.m. to 7:00 am. Employees shall not report to work more than fifteen minutes before the time they are scheduled for the start of their shift unless they are requested to report early for overtime work. The names of employees assigned to rotating shift work will be published showing shift rotation and days off.

41.5 Shift differentials shall be added to the earnings ofthe employees required to work during the hours indicated in the following schedule for each hour worked during such period:

Effective September 1, 1981

Daywork	- No differential
Afternoon Shift	- S .50 differential
Night	- S1.00 differential

41.6 If the job conditions dictate a change in the established starting time the Company and the Union shall mutually agree to such changes. If no agreement can be reached between the parties, the Union may appeal the Company decision through the Grievance and Arbitration procedures with the matter to be determined on merit.

EXHIBIT "B"

WAGE RATES

The following rates of pay shall be effective on the dates indicated and thereafter for employees covered by this Agreement:*

Classification: OPERATORS

Effective Date:	9/1/98	9/1/99	9/1/00
	$19.98*	$20.58	$21.20

*To be paid April 1999 at the beginning of Employer's contract year.

1) Laboratory Technicians will receive a premium of forty cents ($.40) per hour Over the highest rate being paid for employees in the Operator classification.

2) Chief Operator will receive a premium of sixty-five cents ($.65) per hour over the highest rate being paid for employees in the Operator's classification.

3) Training Chief Operators will receive a premium of $1.85 per hour over the Highest rate being paid for employees in the Operator's classification.

EXHIBIT "C'

WAGE RATES

The following rates of pay shall be effective on the dates indicated and thereafter for employees covered by this Agreement:*

Effective Date:	9/1/98	9/1/99	9/1/00
Classification:			
UTILITY CONTROLS SYSTEM OPERATOR/DISPATCHER	$20.48*	$21.09	$21.72
UTILITY COORDINATOR	$19.98*	$20.58	$21.20

*To be paid April 1999 at the beginning of Employer's contract year.

EXHIBIT "Y"

APPRENTICE WAGE RATES

Operator	Current	9/1/98	9/1/99	9/1/00
	Start	$14.99	$15.44	$15.90
	6 mo	$16.24	$16.72	$17.22
	12 mo	$17.48	$18.01	$18.55
	18 mo	$18.73	$19.30	$19.87
	24 mo	$19.98	$20.58	$21.20
UCS Operator		9/1/98	9/1/99	9/1/00
	Start	$15.36	$15.82	$16.29
	6 mo	$16.64	$17.14	$17.65
	12 mo	$17.92	$18.45	$19.01
	18 mo	$19.20	$19.77	$20.37
	24 mo	$20.48	$21.09	$21.72

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
GENERAL PRESIDENTS' PROJECT MAINTENANCE AGREEMENT -
CONSTRUCTION BUILDING TRADES

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Technical Reference Library.

ECONOMIC TERMS OF COLLECTIVE BARGAINING AGREEMENT (CBA) BETWEEN BRSP AND GENERAL PRESIDENTS' PROJECT MAINTENANCE AGREEMENT – CONSTRUCTION BUILDING TRADES

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Scientific and Technical Information Center.

JOHN T. JOYCE, 1st Vice President
CHARLES W. JONES, 2nd Vice President
EARL J. KRUSE, 3rd Vice President
J.J. BARRY, 4th Vice President
WILLIAM G. BERNARD, 5th Vice President
JAKE WEST, 6th Vice President

FRANK HANLEY, 7th Vice President
JOHN N. RUSSELL, 8th Vice President
RON CAREY, 9th Vice President
A.L. MONROE, 10th Vice President
ARTHUR A. COIA, 11th Vice President
ARTHUR MOORE, 12th Vice President
DOUGLAS J. McCARRON, 13th Vice President
JOHN J. DOUGHERTY, 14th Vice President
MARTIN J. MADDALONI, 15th Vice President

Building and Construction Trades Department

AMERICAN FEDERATION OF LABOR — CONGRESS OF INDUSTRIAL ORGANIZATIONS
1155 FIFTEENTH ST., N.W., 4TH FLOOR • WASHINGTON, D.C. 20005-2707
(202) 347-1461 FAX (202) 628-0724

June 11, 1997

EMPLOYEE RELATIONS
RECEIVED
JUN 17 1997

Mr. Arnold J. Palmer
ERSR
P.O. Box 3 4100 Clinton Dr.
Houston, Texas 77001-0003

Subject: Revised General Presidents' Project
Maintenance Agreement (Blue Book)

Mr. Palmer:

The Joint Labor/Management Interpretations Committee, representing the General Presidents' Committee and the Associated Maintenance Contractors, has revised the General Presidents' agreement to be effective July 1, 1997. The revisions are mostly the language taken from the Joint Labor/Management Interpretations Bulletins that has been used in the administration of the agreement. The only new language appears in Article IX new paragraph 3 on page 10 of the draft agreement.

I have enclosed a copy of the newly revised agreement which will show the language taken from the General Presidents' Agreement Bulletins in italics and new language in bold print. We are asking each signatory contractor to sign an assent form which will indicate acceptance of the language changes and return same to this office immediately.

Copies of the new agreement will be available within three to four weeks and will be made available to all interested parties upon request.

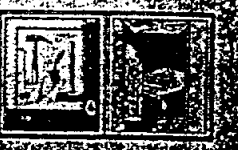
If you have any questions concerning this matter please contact our office immediately.

Sincerely,

Thomas H. Owens
Administrator

THO:rmk
cc: General Presidents' Committee

GENERAL PRESIDENTS' PROJECT MAINTENANCE AGREEMENT



Developed by General Presidents' Committee
September 1956

Revised by General Presidents' Committee
September 1960, June 1970 and October 1972

Approved November 28, 1972

Additions to Article VI and Article XII
September 1, 1975

Revised by General Presidents' Committee
January 1, 1983

PROJECT MAINTENANCE AGREEMENT BY CONTRACT

This Agreement is entered into this 14th day of February 19 97, by and between BRSP (Contractor) located in Houston, Texas and those INTERNATIONAL UNIONS OF THE AFL-CIO listed hereinafter (herein referred to as the "Unions") for the purpose of project maintenance, repair and renovation work for the NASA Johnson Space Center (Project) located at Houston, Texas (Location).

The Unions are composed of the following International Unions of the AFL-CIO:

International Association of Heat and Frost Insulators and Asbestos Workers

International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers

International Union of Bricklayers and Allied Craftsmen

United Brotherhood of Carpenters and Joiners of America

Operative Plasterers' and Cement Masons' International Association

International Brotherhood of Electrical Workers

International Association of Bridge, Structural and Ornamental Iron Workers

Laborers' International Union of North America

International Union of Operating Engineers

International Brotherhood of Painters and Allied Trades

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

United Union of Roofers, Waterproofers and Allied Workers

Sheet Metal Workers' International Association

International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers

COVENANTS

Whereas, the Contractor is engaged in the business of continuous plant maintenance, repair and renovation (as defined in Articles V and VI) with diversified industries and this work is of importance to the Unions herein listed, and it being recognized there is an essential difference in the conditions required to perform this type of work, the Unions herein listed with the Contractor wish to enter into an agreement for their mutual benefit covering work of this nature.

Whereas, the Unions have in their membership throughout the area members competent and qualified to perform the work of the Contractor.

Whereas, the Contractor has employed and now employs members of the Unions and the Contractor has a commitment and/or contract from the owner for maintenance, repair and renovation work recognized by the Unions of the AFL-CIO as being within the jurisdiction of said Unions. (Subject to General Presidents' Committee policies and criteria.)

Whereas, in order to insure relative equity and uniform interpretation and application, the Unions wish to establish and administer said Collective Agreement in concert, each with the other, and all with the Contractor.

Whereas, the Contractor and the Unions desire to mutually stabilize wages, hours and working conditions.

Whereas, the Contractor and the Unions agree that, due to the particular nature of the work covered by this Agreement, there shall be no lockouts or strikes during the life of this Agreement, and provisions must be made to achieve this end.

It is, therefore, agreed by the undersigned Contractor and Unions in consideration of the mutual promises and covenants contained herein that the Project Agreement be made as follows:

ARTICLE XI: LOCAL UNION REPRESENTATIVES

SECTION I: Officials of any of the signatory Unions shall be provided access to projects covered by this Agreement. Requests shall be arranged through the Contractor for such visitations in keeping with Owner's uniform rules of safety and security as expeditiously as possible. Each Local Union shall designate one (1) official as its representative and so inform the Contractor.

SECTION II: If relations between the Local Union Representative and the Contractor become non-cooperative, the Contractor may request the Administrator of the General Presidents' Committee on Contract Maintenance to investigate the circumstances and take the necessary action to keep this Agreement enforced in good faith. Continuing problems will be resolved by the General Presidents' Committee on Contract Maintenance and the Contractor's representatives.

ARTICLE XII: WAGE RATES AND PAYDAY (Bulletin #016)

1. Wage rates may be established by the General Presidents' Committee in the respective area or locality in which this Agreement is effective and shall be specified in Schedule "A" attached hereto (Bulletins #036A & #037)

2.A. Fringe benefits as negotiated in local and/or National working agreements shall be paid in addition to wage rates as specified in Schedule "A". This includes welfare funds, apprentice training funds, pension funds, and other monetary funds. Construction industry promotional funds are not applicable under terms of this Agreement. (Bulletins #006, #008 & #017)

B. In addition, each Contractor performing work under this Agreement shall be required to contribute to the General Presidents' Project Maintenance Agreement by Contract Labor-Management Trust Fund. Such contributions shall be made on an annual basis. The amount to be contributed shall be determined by the Fund Trustees.

Payment shall be made within thirty (30) days of notification by the General Presidents' Committee on Contract Maintenance to the Contractor of the amount owed.

The failure of the Contractor to comply with the provisions of this paragraph shall

constitute a breach of the Agreement, and any such debt due and owing to the Fund may be recovered by suit, initiated by the Fund or its assignee.

3. For purposes of this Agreement, wage premiums established under local and/or national agreement affecting maintenance, repair or renovation work such as hazard pay, acid pay, high or low work and other similar premiums shall not be applicable to this Agreement. (Bulletins #015 & #035)

Under the terms of this Agreement, no subsistence, travel allowance, mileage, or pay for travel time will be paid to any employee.

When zone type wage structures are established in the area of the project, the project for the purposes of this Agreement will be considered as if it was within the area of the base zone rate.

4. After the Contractor's operation has commenced in any particular area, no subsequent change in wages or working conditions in such area will become effective insofar as the Contractor is concerned, except to the extent that any such change in wages or working conditions shall have been agreed upon and in accordance with the effective date agreed upon in negotiations between the Local Union having jurisdiction over the area and a recognized bargaining agency of contractors in such area.

5. It is further agreed that at the implementation of a new project or any major change in policy on an existing project a pre-job meeting will be held jointly by the General Presidents' Committee on Contract Maintenance, the crafts involved and the contractor's representatives. Minutes of this meeting will be made available to all concerned for guidance in the administration of the project.

6. Wages will be paid weekly. The payroll period to close so that no more than three (3) days will be held back and payments to be made before the end of the employee's shift. (Bulletin #007)

GENERAL PRESIDENTS'
PROJECT MAINTENANCE AGREEMENT
BY CONTRACT
JOINT LABOR/MANAGEMENT
INTERPRETATIONS COMMITTEE

ASSOCIATED MAINTENANCE CONTRACTORS

Bulletin # 006

Reference: Article XII, Section 2

Subject: Wage Rates and Payday - Computations of fringe benefit contributions

Statement of Policy:

1. Payments to local union Health, Welfare and Pension funds shall be made in accordance with the provisions of the local and/or national union's agreements.
2. Where the local union agreement provides for payment of benefits based on hours worked, it is understood that when shift work is involved which provides eight (8) hours pay for a shift of less than eight (8) hours (see Article XV), payments shall be made to said funds on the basis of eight hours per shift, provided a full shift is worked.

For the Joint Interpretations Committee

Thomas Owens

Thomas Owens, Administrator
General Presidents' Project Maintenance
Agreement by Contract

June 15, 1978
Date of Decision

ARTICLE XIII: TWENTY-FOUR (24) HOUR RULE AND MEAL ALLOWANCE

All time worked before and after the regularly established shift hours in any twenty-four (24) hour period or on the sixth (6th) day shall be paid at the rate of time and one-half. All time worked on the seventh (7th) day and holidays shall be paid at the rate of double time. Any employee working overtime beyond his/her shift shall be paid overtime.

Meal Allowance

When an employee is required to work more than two (2) hours of unscheduled overtime beyond his regularly scheduled shift the Contractor will arrange either to have him receive one (1) hot meal or give him $8.00 in lieu of the meal. This provision will be repeated after each four (4) hours of overtime thereafter. (Bulletin #009B)

ARTICLE XIV: DAY WORK SCHEDULES (Bulletins #010 & #022)

1. The standard work day shall be an established consecutive eight (8) hour period between the hours of 7 a.m. and 5 p.m. exclusive of a thirty (30) minute lunch period. Forty (40) hours per week shall constitute a week's work Monday through Friday inclusive.

On any project when the job conditions dictate a change in the established starting time and/or a staggered lunch period on certain work of the project or with individual crafts, the Contractor and the Local Unions involved shall mutually agree to such changes. (Bulletin #029)

(a) If work schedule change cannot be mutually agreed to between the Contractor and the Union or Unions involved, the hours fixed in the Agreement shall prevail. However, the parties involved shall have the prerogative of calling on the Committee as a whole to request such change; requests shall be in writing; the Committee's decision shall be final.

2. All time before and after the established work day of eight (8) hours, Monday through Friday, and all time on Saturday shall be paid for at the rate of time and one-half. All time on Sundays and the holidays stated in Article XIX shall be paid for at the rate of double time. (Bulletin #026)

ARTICLE XV: STAGGERED WORK WEEK

Facilities requiring continuing maintenance on a seven (7) day basis can be established.

When a seven (7) day staggered work week is established, it is understood that the employees shall receive two (2) consecutive days off in lieu of Saturday and Sunday. If the employee works either of these two (2) days, the first regularly scheduled day off he/she shall receive time and one-half his/her regularly established rate; when an employee works his/her second day off, he/she shall receive two times his/her regularly established wage rate. All other overtime payment shall be consistent with the terms of this Agreement. Within the concept of the staggered work week a second (2nd) shift may be established. Employees working on such second (2nd) shift shall work seven and one half (7-1/2) hours and receive eight (8) hours pay. Employees working on third (3rd) shift shall work seven (7) hours and receive eight (8) hours pay.

ARTICLE XVI: TEMPORARY SHIFT WORK CONDITIONS (Bulletins #011A, #023 & 032)

1. When so elected by the Contractor, multiple shifts on a temporary basis of at least three (3) consecutive work days duration may be worked. When two (2) or three (3) shifts are worked, the first (1st) or day shift shall be established on an eight (8) hour basis, the second (2nd) shift shall be established on a seven and one-half (7-1/2) hour basis, and the third (3rd) shift shall be established on a seven (7) hour basis. NOTE: See Appendix for shift schedule.

Any violation of the temporary shift provisions to circumvent the regular overtime provisions of this Agreement by unnecessary fluctuation of the three (3) consecutive work day provision then all employees on such shifts will be paid at the appropriate overtime rate.

The determination of the start of multiple shifts is the prerogative of the Contractor. If it is necessary to use employees from a previous shift within a twenty-four (24) hour period, overtime provisions of Article XIV, Paragraph 1, shall apply and will be considered the beginning of the three (3) consecutive work days. (Bulletin #025 & #031)

2. The pay for the second (2nd) and third (3rd) shifts shall be equivalent of eight (8) times the employee's straight time hourly rate.

ARTICLE XVII: PERMANENT SHIFT WORK CONDITIONS

1. A four cycle shift system will be operated only when the work is considered to be a permanent nature. The names of those workers employed on permanent shifts will be published showing shift rotation and the working shift or days off for each worker for a period of at least three (3) months.

2. The permanent shift rate premium for the afternoon shift will be $0.25 per hour, and the permanent shift rate premium for the night shift will be $0.50 per hour.

3. The standard work day shall be eight (8) hours of continuous employment, including lunch period. Forty (40) hours per week shall constitute a week's work. All time worked in excess of eight (8) hours per work day shall be paid at the applicable overtime rate. If a regularly scheduled day off is worked, the first day shall be paid at the rate of time and one-half and the second scheduled day off worked shall be paid at the rate of double time.

4. The days off for permanent shift workers shall be two (2) consecutive days per week in lieu of Saturday and/or Sunday.

5. When permanent shifts are to be reduced or cancelled, the Unions shall be given at least three (3) days notice in writing.

ARTICLE XVIII: HOLIDAYS (Bulletins #012 & #038)

1. The following seven (7) days shall constitute the legal holidays within the terms of this Agreement, except mutually agreed to changes with the Committee:

New Year's Day
Washington's Birthday
Memorial Day
July 4th
Labor Day
Thanksgiving Day
Christmas Day

2. If any of the above holidays fall on Sunday, Monday shall be observed as the holiday; if any of the above holidays fall on Saturday, Friday shall be observed as the holiday. For premium purposes, holidays celebrated as such shall be utilized for the computation for overtime pay.

ARTICLE XIX: REPORTING TIME AND CALL-INS

1. Reporting Pay (Bulletins #020 & #034)

When an employee or new hire reports to work on any shift between the established hours of his/her regular work and is not given the opportunity to work because none was available and was not notified before the completion of the previous day's work, he/she shall be paid two (2) hours reporting time.

When employees start to work they shall be paid not less than four (4) hours and if they work beyond the four (4) hours, they shall be paid for actual time worked. It shall be the Contractor's prerogative whether or not to stop work.

If an employee refuses to start or stops work on his/her own volition, the minimum set forth herein shall not apply.

2. Call-Ins (Bulletins #027 & #030A)

A Call-in shall be defined as notification to report for work by whatever means to an employee for work outside of his/her regular shift or regularly scheduled day off or holiday.

Call-ins as defined above shall be paid in accordance with one of the following categories:

(a) A Call-in prior to and continuous with an employee's normally scheduled shift shall be paid for on the basis of hours actually worked at the applicable overtime rate.

(b) When an employee is called in to work at or after the established starting time on Saturday, Sunday, scheduled day off or holidays, he/she shall be paid not less than four (4) hours at the applicable overtime rate for that day except when his/her call-in is prior to and continuous with his/her normal work hours.

GENERAL PRESIDENT'S PROJECT AGREEMENT

	Current Rate	Date	Foreman Differential Per Hour	H & W	Pension	Other	Vacation
Asbestos Workers	$17.06	06/01/00	1.00	2.94	3.01	0.15	1.00
Carpenters	$18.140	04/01/00	1.00	2.51	1.32	0.16	
Roofers	$13.850	04/01/00	1.13	1.60	0.85		0.50
Millwrights	$20.790	04/01/00	1.00	2.51	1.32	1.81	
Electrical : Linemen	$20.080	09/01/00	1.34	2.10	3.92	0.70	
Electrical: Wiremen	$17.640	08/30/00	.88, F2 1.35, GF 2.54	2.51	2.67	0.85	
Iron Workers	$17.630	06/01/00	1.25	1.65	1.00	1.59	
Laborers	$13.310	04/01/00	0.85	1.23	1.01	0.17	
Painters	$13.190	08/01/00	F .25, GF .50	2.45	1.95	0.29	
Pipefitters	$19.040	04/01/00	1.00, F2 1.69, GF2.25	2.70	3.95	0.21	
Plumbers	$18.870	10/01/00	1.25	2.45	2.40	1.97	
Operator, Heavy Equip	$17.780	10/01/00		2.20	2.40	0.30	
Sheetmetal Workers	$18.140	04/01/00	F .75, GF 1.25	2.87	2.40	0.47	
Teamsters:							
Material Checkers	$15.010	04/10/00	0.84		3.75		
Heavy Truck Driver	$14.230	04/10/00	0.75		3.75		

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
TEAMSTERS, LOCAL 968, (LOGISTICS)

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Technical Reference Library.

ECONOMIC TERMS OF COLLECTIVE BARGAINING AGREEMENT (CBA) BETWEEN BRSP AND TEAMSTERS, LOCAL 968 (LOGISTICS)

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Scientific and Technical Information Center.

AGREEMENT

BETWEEN

BRSP

(LOGISTICS)

AND

TEAMSTERS
LOCAL UNION NO. 968

EFFECTIVE: **December 16, 2000**

EXPIRES: **December 15, 2003**

ARTICLE 3
RECOGNITION

The Company hereby agrees to recognize the Union as the exclusive bargaining representative with respect to wages, hours and other terms and conditions of employment for all employees engaged in Warehousing, Cataloging, Receiving, Stock Control, Clerk Typist, and Supply Services of the Base Operations Support Services Contract, at the Johnson Space Center, Houston, Texas.

Employees excluded from this agreement include all Stenographers, Secretaries, and all other employees and all professional employees, guards and supervisors as define din the National Labor Relations Act.

ARTICLE 10
WAGE RATES

Section 1 The Wage Schedule attached hereto and made a part hereof represents the wage rates effective May 1, 2001, May 1, 2002 and May 1, 2003, respectively.

Section 2. Changes in wage rates due to promotions.

Employees will at the time of promotion, be brought to the new job rate in accordance with their seniority and the appropriate schedule.

Section 3. Temporary Assignments.

Any employee performing two (2) hours work in a higher classification, shall be paid at the rate of the higher classification. If he is performing work in a lower classification, he shall retain his regular rate of pay.

ARTICLE 13
GROUP INSURANCE

Section 1. The Company will provide its employees with group insurance coverage that is equal to the present coverage. The Company reserves the right to determine the insurance carrier and may from time to time change carriers.

An outline of the provisions of the group insurance plan will be provided to the covered employees.

Section 2. Employees may opt to be covered by the Company sponsored Insurance Plan provided for in Section 1 above. Covered employees will be required to make a Co-payment of ten dollars ($10.00) each calendar week which shall be deducted by the Company from each employees wages. If an employee elects to withdraw from coverage by the plan, such employee may do so after a two (2) week written notice to the Company. The effective date of the withdrawal shall be the last workday of the current month.

Section 3. Employees desiring to opt out of the group insurance plan shall not be required to make co-payment contributions to such plan and will not receive compensation in lieu of plan participation. After an employee has withdrawn his/her participation from the plan he/she will be readmitted to the plan after he/she has complied with the insurance company's re-admittance requirements. Request for re-admittance to the plan shall be acted upon within one (1) month of receipt of the employees written request for re admittance.

ARTICLE 14
HOLIDAYS

Section 1. The following days are recognized by the Company as holidays.

New Year's Day	Labor Day
Martine Luther King's Birthday	Columbus Day
President's Birthday	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

If the number of paid holidays observed by JSC under existing policy are increased in number, such additional holiday(s) shall be recognized and paid for in accordance with this Agreement. This provision also applies to all hours observed by JSC as time off with pay. Employees will be entitled to two (2) additional holidays with pay (employees anniversary date of employment and employees birthday) both to be recognized as unassigned. An employee desiring to take these holidays is required to notify the company one week in advance.

Section 2. Holidays recognized by JSC will be observed in accordance with JSC policy.

Section 3. Holidays not worked.

(a) An employee who is (on a five (5) day eight (8) hour per day work week and) not required to work on a day observed as a holiday will receive eight (8) hours pay at his/her straight time rate of pay. An employee on a (non five (5) day eight (8) hour per day work week) who is not required to work on a day observed as a holiday will receive pay at his/her straight time of pay, provided for in the settlement reached in accordance with Section 7 of this Article.

(b) Not withstanding the language in this Section, to be eligible to be paid for holiday pay an employee must meet the following requirements.

(1) Has worked all his/her scheduled hours on the last workday before the day observed as the holiday and on his/her first scheduled workday after the day observed as the holiday, or was excused by the Company to be off work on such days.

(2) Is not on a Company paid leave of absence.

(3) Is not receiving workmen's compensation benefits.

(4) Has been on the Company's payroll for a period of at least sixty (60) days.

Section 4. Off Duty Holidays.

An employee, who is off on a holiday for a bona fide reason or is excused by the Company, will be compensated for holiday pay at the straight time rate of pay.

Section 5. Holidays Worked.

An employee required to work on a Company recognized holiday, will be paid at the rate of time and one-half (1 ½) the base hourly rate for all hours worked on the holiday plus his/her holiday pay. An employee who is off on a holiday for a bona fide reason or is excused by the Company, will be compensated for holiday pay at the straight time rate of pay.

Section 6. Holidays During Vacations

When a paid holiday occurs during the course of an employee's vacation, the Company shall designate the day prior to or the day following the vacation as an additional day off, except where the employee and the Company agree he shall take another day.

Section 7. Holiday Miscellaneous.

The parties shall meet to agree upon language to cover holidays affected by work schedules which may be different than the traditional five (5) days eight (8) hour week. The primary purpose of the parties is to agree upon a holiday schedule that will allow the Company to comply with NASA and/or EPA requirements. In such cases the hours paid for holidays shall be adjusted to conform to such work schedules.

ARTICLE 15
LEAVE OF ABSENCE

Section 1. Personal Leave of Absence

(a) The nature of the Company's business requires employees to be available for work at all times in order to meet operating requirements. Therefore, leave of absence for personal reasons shall not be granted except in cases of urgent personal need. It is understood that the Company is not obligated, under any circumstance to grant a request for a leave of absence for personal reasons. Request for a leave under this section must be submitted in writing by the requesting employee to his/her supervisor, at least twenty-four hours before such leave is to begin; a copy of an approved leave will be sent to the Union.

(b) Personal leaves of absence when granted by the Company will be without pay. During such leave, seniority will continue to accrue up to three (3) months during a leave of absence.

(c) The employee will be required to notify the Company at least five (5) working days prior to returning to work.

Section 2. Military Service Leave.

An employee of the Company who shall have been called, or volunteers for military service in any branch of the United States Armed Forces when the United States is at war or during any declared National emergency in peace time, and who has been placed on leave for same, who receives a certificate that the has satisfactorily completed his/her period of training and service in such military service makes application for reemployment within ninety (90) days after he is relieved from such training and service, will be reinstated in the position held by such employee at the time of entering such service, or to a position of like status, and pay, provided that under normal working conditions, such employee would have been employed by the Company except for such military service, and is not physically or otherwise incapacitated from performing his usual work in such previously held position. In the event that there is a statute fixing and declaring the rights and responsibilities of any employer or an employee in any such case, such statutory provision shall supersede this paragraph and thereafter this paragraph shall have no further force and effect.

Section 3. Military Training Leave.

An employee whose term of service in accordance with this Agreement, is at least six (6) months and who is called to serve in a reserve component of the Armed Forces of the United States, including the National Guard, for annual training usually a period of two (2) weeks, will receive the difference in his/her base forty (40) hour rate of pay and the pay he/she receives from the military up to a maximum of two (2) weeks once each calendar year. In order to receive this benefit, the employee must submit a copy of his/her official orders and an authorized accounting of his/her military pay. Time spent at such reserve training will count as hours worked towards vacation eligibility.

Section 4. Funeral Leave.

(a) Employee's with sixty days or more of continuous employment shall be eligible to receive pay a their straight time hourly rate for up to four (4) days during their basic work week schedule in the event of death in their immediate family. The number of hours per day shall not exceed the number of hours in their basic workday schedule. (Payment shall be made only when absence is taken for the purpose of attending, or attending and making arrangements for the funeral). For purposes of this payment, the immediate family includes the employee's parents, children, brothers, sisters, grandparents, spouse, spouses' parents, employee's brother-in-law and sister-in-law.

(b) If an employee on the active payroll of the Company dies and the family of such deceased employee makes an appropriate request to the Company, the Company will release up to two (2) employees for a period not to exceed four (4) hours with pay at the base hourly rate to act as pallbearer at the funeral, of such employee, unless unusual circumstances, requiring company approval for a longer period of time exist.

Section 5. Maternity Leave.

If an employee requests a leave of absence because of pregnancy, the employee will be entitled to reinstatement in her existing job and replacement during her absence will be arranged on a temporary basis, provided the following conditions are met:

(a) The employee is a regular full-time employee.

(b) A statement from the employee's physician is provided establishing the date that the employee should cease work from a medical point of view and a reasonable expected date of medical release to return to work.

(c) The employee obtains a release from her physician and returns to work within five (5) days of release.

Section 6. Family and Medical Leave Act (FMLA).

Employees approved by the Company to be off to attend a family member in accordance with FMLA shall be eligible to receive pay for unused unassigned holidays and vacation that the employee was eligible for prior to the start of such leave.

Employees approved by the Company to be off in accordance with FMLA for personal illness or off the job injury, shall be eligible to receive pay for unused sick leave days, unused unassigned holidays, and unused vacation that the employee was eligible for prior to the start of such leave.

Paid leave must be requested by the employee and will count against the total FMLA leave period.

Circumstances not covered in this section shall be subject to the terms of FMLA.

ARTICLE 16
JURY DUTY

Section 1. An employee with sixty (60) days or more of service who is called for or performs jury duty will be compensated by the Company for the straight-time hours he/she was thereby required to lose from his/her regular work schedule, but not to exceed five (5) eight (8) hour days per week, computed at his/her base hourly rate. The employee will also retain all fees received as a result of serving on Jury Duty.

Section 2. An employee temporarily excused from court during his/her regularly scheduled working hours shall report of work, provided that at least three (3) hours of his/her regular shift can be worked.

Section 3. Payment shall be made so long as such jury duty continues, only upon presentation of proof of jury duty.

ARTICLE 21
SICK LEAVE

Section 1. All full-time employees shall be eligible to receive pay due to sickness or accident on the following basis:

(a) 0-60 Days (Probationary Period)

Employees with less than (60) days service shall accrue eight (8) hours per month, in accordance with paragraph (d) of this article. Employees shall be eligible to receive pay for accrued sick leave upon completion of the probationary period.

(b) Less than (2) years service.

Employees shall accrue eight (8) hours for each month of completed service, up to at least ninety-six (96) hours per year until such employee has completed two (2) years (twenty four (24) months) of service. In accordance with paragraph (d) of this article.

(c) Beginning the third year.

On each anniversary date, thereafter, beginning with the third anniversary date eligible employees are entitled to a sickness and accident allowance of ninety-six (96) hours. In accordance with paragraph (d) of this article.

(d) Eligibility.

In order to be eligible to accrue six leave allowance for any month an employees must work at least 50% of the regular hours available for the month or be eligible to receive and have received Company pay for days off.

(e) Sick pay shall not duplicate any other Company pay.

Section 2. The employee will notify or have someone notify his/her immediate supervisor on the first day of absence, stating the nature of illness or injury and the anticipated date of his/her return to work. The employee will keep the Company informed of any changes in his anticipated date of return to work.

Section 3. The Company shall have the right to require such appropriate proof of illness or injury as it deems desirable.

Section 4. There shall be no payment made in lieu of unused sick leave at any time, nor may sick leave be used for any other purpose than for actual illness, during the employees scheduled work days.

Section 5. Sick leave accrued for any employee shall not exceed five hundred forty four (544) hours

Section 6. Employees may use accrued sick leave, equivalent to two (2) scheduled work days per year for emergency reasons, other than personal illness or injury. The employee will be required to provide the Company with proper notification and such leave will require management approval.

ARTICLE 22
TERMINATION ALLOWANCE

Employees who have twelve (12) months of continuous service and who are laid off for lack of work, shall receive termination pay based upon the following:

(a) Schedule of pay: One(1) year of service but less than two (2) – One (1) week's pay forty (40) hours. Two (2) years of service or more – Two (2) week's pay eighty (80) hours.

(b) An employee shall normally receive two (2) week's notice of lay-off prior to the date of the actual lay-off. When notice is given to an employee, the amount of notice shall be deduced from his termination allowance.

(c) If less than two (2) weeks prior notice is given, up to two (2) weeks termination pay shall be granted as determined above.

ARTICLE 23
VACATIONS

Section 1. An employee on the active payroll prior to May 1 of the current year, will be eligible for vacation in accordance with the following schedule.

(a) Less than seven (7) years.

Employees with less than seven (7) years service shall receive vacation at the rate of 5/6 of a day per month up to a maximum of eighty (80) hours per year.

(b) Seven (7) years or more.

Employees with seven (7) years service or more, but less than fifteen (15) years service receive vacation at the rate of one and one-fourth (1 ¼) days per month up to a maximum of one hundred twenty (120) hours per year.

(c) Fifteen (15) or more.

Employees with fifteen (15) years service or more but less than twenty (20) years service shall receive vacation at the rate of one and two thirds (1 2/3) days per month up to a maximum of one hundred sixty (160) hours per year.

(d) Twenty (20) years or more.

Employees with twenty (20) years service or more shall receive vacation at the rate of two and one twelfth (2 1/12) days per month up to a maximum of two hundred (200) hours per year.

Section 2. (a) Employees shall take their vacations within twelve (12) months after May 1, as scheduled by the Company in accordance with operational requirements, with seniority being given consideration insofar as is practical, except if the Company approves a delay of vacation, in which case it must be taken prior to May 1st of the following year.

(b) Active employees must take vacation time off and there shall be no pay in lieu thereof, and no vacation shall be allowed to accumulate from year to year beyond the period of time in (a) above.

Section 3. (a) An employee is laid off or is terminated after having six (6) months of continuous service with the Company shall receive the vacation pay for which he/she is eligible at the time of lay-off, less any vacation pay which may have been taken under Section 1. Eligible time will be determined based upon the provisions of Section 1 of this article. An employee must work at least 50% of the regular hours available for the month or be eligible to receive and have received Company pay for days off, in order to be eligible to accrue vacation allowance for that month.

(b) An employee who is recalled from lay-off, after having received vacation pay at the time of lay-off, shall be eligible for vacation on the next May 1, based only upon his service from time of recall. The computation will be based upon the provisions of Section 1, of this Article. In no event will the vacation time under Section 3(a) and Section 3(b) exceed the maximum allowance under Section 1.

Section 4. Holiday during vacation

Whenever a paid holiday occurs during the course of an employee's vacation, the Company shall designate the day prior to or the day following the vacation as an additional day off, except where the employee and the Company agree he shall take another day.

Section 5. Request for vacation pay

Provided the employee makes proper prior request to the Company, he will receive his vacation pay on his last scheduled workday prior to the beginning of the vacation.

ARTICLE 30
SAVINGS AND RETIREMENT PLAN

Section 1. Effective December 16, 2000 through to April 30, 2001, the Company shall contribute to a fund, which is to be administered through the Trust Fund Agreement and Declaration of trust of the Southern States Savings and Retirement plan, the sum of twelve (12) dollars per week for each regular full time employee covered by this Agreement. Effective May 1, 2001, the Company shall contribute to the fund the sum of twenty (20) dollars per week for each regular full-time employee covered by this agreement. Casual employees shall not be covered by the provisions of this Article.

Section 2. By the execution of this Agreement, the Company authorizes the Employers Association which are parties hereto to enter into appropriate trust agreements necessary to the administration of such fund, and to designate the Company Trustees under such agreement, hereby waiving all notice thereof and ratifying all actions already taken by such Trustees within the scope of their authority.

Section 3. If an employee is injured on the job, the Company will continue to make the contribution set forth in Section 1 above. Such contributions shall not be paid by the Company for a period of more than twelve (12) weeks.

Section 4. If an employee is granted a leave of absence the Company shall arrange to collect from said employee, sufficient monies to pay the required contributions into the fund during the period of absence.

Section 5. Contributions shall be paid to the fund monthly by the Company for each regular full time employee.

Section 6. Employees may elect to contribute twenty-five (25) percent, fifty (50) percent, seventy-five (75) percent or one hundred (100) percent in addition to Company contributions.

Section 7. All contributions shall be remitted to the trust by the tenth (10) day of the following month.

LOGISTICS WAGE SCHEDULE
EFFECTIVE MAY 1, 2001

Job Title	Start	6 Months	12 Months	18 Months
Logistics Librarian	11.28	12.57	12.72	12.95
Junior Cataloger	11.48	12.89	13.05	13.24
Cataloger	12.38	13.86	14.05	14.26
Clerk	10.47	11.66	11.90	12.01
Stock Control Clerk	10.92	12.19	12.39	12.52
Warehouse Person	11.25	12.56	12.72	12.95
Inchcker/Warehouse Person	11.25	12.56	12.72	12.95
Furn. Repair/Whse. Person	11.70	13.08	13.25	13.47
Storekeeper	11.91	13.35	13.52	13.70
Inspector	11.91	13.35	13.52	13.70
Senior Inspector	12.12	13.57	13.75	13.97
Property Specialist	12.45	14.00	14.14	14.40
Clerk Typist	10.13	11.31	11.51	11.72
Clerk/Dispatcher	10.13	11.31	11.51	11.72
Dispatcher	9.19	10.25	10.46	10.72
Computer Operator	11.28	12.57	12.72	12.95
Bond Room Storekeeper	12.12	13.57	13.75	13.97
Supply Technician	11.26	11.89	11.96	12.12
Property Technician	11.26	11.89	11.96	12.12
Property Clerk	10.66	11.35	11.55	11.78
Supply Clerk	10.66	11.35	11.55	11.78
Customer Service Clerk	11.26	11.89	11.96	12.12

Employees working in Building 380, on any assignment will receive a ten (.10) cent per hour premium.

The Senior Property Specialist will receive a ten (.10) cent per hour premium.

Bond Room Store Keepers will receive a ten (.10) cent per hour premium for the DV Stamp process.

LOGISTICS WAGE SCHEDULE
EFFECTIVE MAY 1, 2002

Job Title	Start	6 Months	12 Months	18 Months
Logistics Librarian	11.68	12.97	13.12	13.35
Junior Cataloger	11.88	13.29	13.45	13.64
Cataloger	12.78	14.26	14.45	14.66
Clerk	10.87	12.06	12.30	12.41
Stock Control Clerk	11.32	12.59	12.79	12.92
Warehouse Person	11.65	12.96	13.12	13.35
Inchcker/Warehouse Person	11.65	12.96	13.12	13.35
Furn. Repair/Whse. Person	12.10	13.48	13.65	13.87
Storekeeper	12.31	13.75	13.92	14.10
Inspector	12.31	13.75	13.92	14.10
Senior Inspector	12.52	13.97	14.15	14.37
Property Specialist	12.85	14.40	14.54	14.80
Clerk Typist	10.53	11.71	11.91	12.12
Clerk/Dispatcher	10.53	11.71	11.91	12.12
Dispatcher	9.59	10.65	10.86	11.12
Computer Operator	11.68	12.97	13.12	13.35
Bond Room Storekeeper	12.52	13.97	14.15	14.37
Supply Technician	11.66	12.29	12.36	12.52
Property Technician	11.66	12.29	12.36	12.52
Property Clerk	11.06	11.75	11.95	12.18
Supply Clerk	11.06	11.75	11.95	12.18
Customer Service Clerk	11.66	12.29	12.36	12.52

Employees working in Building 380, on any assignment will receive a ten (.10) cent per hour premium.

The Senior Property Specialist will receive a ten (.10) cent per hour premium.

Bond Room Store Keepers will receive a ten (.10) cent per hour premium for the DV Stamp process.

LOGISTICS WAGE SCHEDULE
EFFECTIVE MAY 1, 2003

Job Title	Start	6 Months	12 Months	18 Months
Logistics Librarian	12.03	13.32	13.47	13.70
Junior Cataloger	12.23	13.64	13.80	13.99
Cataloger	13.13	14.61	14.80	15.01
Clerk	11.22	12.41	12.65	12.76
Stock Control Clerk	11.67	12.94	13.14	13.27
Warehouse Person	12.00	13.31	13.47	13.70
Inchcker/Warehouse Person	12.00	13.31	13.47	13.70
Furn. Repair/Whse. Person	12.45	13.83	14.00	14.22
Storekeeper	12.66	14.10	14.27	14.45
Inspector	12.66	14.10	14.27	14.45
Senior Inspector	12.87	14.32	14.50	14.72
Property Specialist	13.20	14.75	14.89	15.15
Clerk Typist	10.88	12.06	12.26	12.47
Clerk/Dispatcher	10.88	12.06	12.26	12.47
Dispatcher	9.94	11.00	11.21	11.47
Computer Operator	12.03	13.32	13.47	13.70
Bond Room Storekeeper	12.87	14.32	14.50	14.72
Supply Technician	12.01	12.64	12.71	12.87
Property Technician	12.01	12.64	12.71	12.87
Property Clerk	11.41	12.10	12.30	12.53
Supply Clerk	11.41	12.10	12.30	12.53
Customer Service Clerk	12.01	12.64	12.71	12.87

Employees working in Building 380, on any assignment will receive a ten (.10) cent per hour premium.

The Senior Property Specialist will receive a ten (.10) cent per hour premium.

Bond Room Store Keepers will receive a ten (.10) cent per hour premium for the DV Stamp process.

LETTER OF UNDERSTANDING
BETWEEN BRSP AND TEAMSTERS, LOCAL UNION NO. 968

It is agreed and understood between the two parties that any Teamsters work performed at NASA for maintenance and operations (M&O) will be performed under the GPPMA (General Presidents' Project Maintenance Agreement). Any work performed alongside any Building & Trades Craft will be paid at the GPPMA rate of pay. If specific situations exist that necessitates using personnel on the Logistic and Transportation side to perform work for M&O, employees will suffer no loss of fringe benefits, and receive the GPPMA rate of pay. This may only be done if this local Union agrees and will be limited to eight hours per week.

Effective Date: April 1, 1997

FOR BRSP:

FOR THE UNION:

ECONOMIC TERMS OF
COLLECTIVE BARGAINING AGREEMENT (CBA)
BETWEEN
BRSP
AND
TEAMSTERS, LOCAL 968, (TRANSPORTATION)

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Technical Reference Library.

ECONOMIC TERMS OF COLLECTIVE BARGAINING AGREEMENT (CBA) BETWEEN BRSP AND TEAMSTERS, LOCAL 968 (TRANSPORTATION)

The following pages are taken from the above referenced CBA to assist contractors in proposal preparation. The pages pertain to a sampling of the economic terms (wages and fringe benefits) of the agreement. It is the contractors' responsibility to review the CBA in its entirety to ensure that the proper wages and benefits are proposed. Failure by this Agency to include any job classification, wage rate, or fringe benefit encompassed in the CBA does not relieve the terms of the CBA insofar as wages and fringe benefits are concerned. A copy of the CBA is available in the JSC Scientific and Technical Information Center.

AGREEMENT

BETWEEN

BRSP

(TRANSPORTATION)

AND

TEAMSTERS
LOCAL UNION NO. 968

EFFECTIVE: **December 16, 2000**

EXPIRES: **December 15, 2003**

ARTICLE 3
RECOGNITION

The Company hereby agrees to recognize the Union as the exclusive representative with respect to wages, hours and working conditions of the Bargaining Unit of Company employees performing the following: All Truck Drivers, Helpers and Warehouse persons as defined in the wage scheduled attached hereto employed at its Johnson Space Center and Ellington Field Locations in Houston, Harris, Texas.

It is understood that all other employees of the Company are excluded from coverage by this Agreement, and the term "employee" as used herein shall mean only those employees included in the Bargaining Unit described above.

ARTICLE 10
WAGE RATES

Section 1. The Wage Schedule attached hereto and made a part hereof represents the Wage Rates effective June 1, 2001, June 1, 2002 and June 1, 2003, respectively.

Section 2. Changes in wage rates due to Promotions.

Employees will at the time of promotion be brought to the new job rate in accordance with their seniority and the appropriate schedule.

Section 3. Temporary Assignments.

Any employee temporarily assigned to a higher job classification shall receive the higher rate of pay for time actually worked in the higher classification. This provision shall not apply unless the period of assignment is for more than one (1) hour. An employee temporarily assigned to work in a lower job classification shall suffer no loss in pay. This provision shall not apply if any employee is permanently assigned to a lower job classification rather than selecting layoff. Seniority shall apply to all assignments for any period that exceeds one (1) hour to the qualified employees.

ARTICLE 13
GROUP INSURANCE

Section 1. The Company will provide its employees with group insurance coverage that is equal to the present coverage. The Company reserves the right to determine the insurance carrier and may from time to time change carriers.

An outline of the provisions of the group insurance plan will be provided to the covered employees.

Section 2. Employees may opt to be covered by the Company sponsored Insurance Plan provided for in Section 1 above. Covered employees will be required to make a Co-payment of ten dollars ($10.00) each calendar week which shall be deducted by the Company from each employees wages. If an employee elects to withdraw from coverage by the plan, such employee may do so after a two-week written notice to the Company. The effective date of the withdrawal shall be the last workday of the current month.

Section 3. Employees desiring to opt out of the group insurance plan shall not be required to make co-payment contributions to such plan and will not receive compensation in lieu of plan participation. After an employee has withdrawn his/her participation from the plan he/she will be readmitted to the plan after he/she has complied with the insurance company's re-admittance requirements. Request for re-admittance to the plan shall be acted upon within one (1) month of receipt of the employees written request for re-admittance.

ARTICLE 14
HOLIDAYS

Section 1. The following days are recognized by the Company as holidays.

New Year's Day	Labor Day
Martine Luther King Jr.'s Birthday	Columbus Day
President's Birthday	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

If the number of paid holidays observed by JSC under existing policy are increased in number, such additional holiday(s) shall be recognized and paid for in accordance with this Agreement. This provision also applies to all hours observed by JSC as time off with pay. Employees will be entitled to two (2) additional holidays with pay (employees anniversary date of employment and employees birthday) both to be recognized as unassigned. An employee desiring to take these holidays is required to notify the company one week in advance.

Section 2. Holidays recognized by JSC will be observed in accordance with JSC policy.

Section 3. Holidays not worked.

(a) An employee who is (on a five (5) day eight (8) hour per day work week and) not required to work on a day observed as a holiday will receive eight (8) hours pay at his/her straight time rate of pay. An employee who is (on a non five (5) day eight (8) hour per day work week) not required to work on a day observed as a holiday will receive pay at his/her straight time of pay provided for in the settlement reached in accordance with Section 7 of this Article.

(b) Not withstanding the language in this Section, to be eligible to be paid for holiday pay an employee must meet the following requirements.

(1) Has worked all his/her scheduled hours on the last workday before the day observed as the holiday and on his/her first scheduled workday after the day observed as the holiday, or was excused by the Company to be off work on such days.

(2) Is not on a Company paid leave of absence.

(3) Is not receiving workmen's compensation benefits.

(4) Has been on the Company's payroll for a period of at least sixty (60) days.

Section 4. Off Duty Holidays.

An employee, who is off on a holiday for a bonafide reason or is excused by the Company, will be compensated for holiday pay at the straight time rate of pay.

Section 5. Holidays Worked

An employee required to work on a Company recognized holiday, will be paid at the rate of time and one-half (1 ½) the base hourly rate for all hours worked on the holiday plus his/her holiday pay. An employee who is assigned to work on a holiday, and who fails to do so, will not receive holiday pay.

Section 6. Holidays During Vacations.

When a paid holiday occurs during the course of an employee's vacation, the Company shall designate the day prior to or the day following the vacation as an additional day off, except where the employee and the Company agree he shall take another day.

Section 7. Holiday Miscellaneous.

The parties shall meet to agree upon language to cover holidays affected by work schedules which may be different than the traditional five (5) days eight (8) hour week. The primary purpose of the parties is to agree upon a holiday schedule that will allow the Company to comply with NASA and/or EPA requirements. In such cases the hours paid for holidays shall be adjusted to conform to such work schedules.

ARTICLE 15
LEAVE OF ABSENCE

Section 1. Personal Leave of Absence

(a) The nature of the Company's business requires employees to be available for work at all times in order to meet operating requirements. Therefore, leave of absence for personal reasons shall not be granted except in cases of urgent personal need. It is understood that the Company is not obligated, under any circumstance to grant a request for a leave of absence for personal reasons. Request for a leave under this section must be submitted in writing by the requesting employee to his/her supervisor, at least twenty-four hours before such leave is to begin; a copy of an approved leave will be sent to the Union.

(b) Personal leaves of absence when granted by the Company will be without pay. During such leave, seniority will continue to accrue up to three (3) months during a leave of absence.

(c) The employee will be required to notify the Company at least five (5) working days prior to returning to work.

Section 2. Military Service Leave.

An employee of the Company who shall have been called, or volunteers for military service in any branch of the United States Armed Forces when the United States is at war or during any declared National emergency in peace time, and who has been placed on leave for same, who receives a certificate that the has satisfactorily completed his/her period of training and service in such military service makes application for reemployment within ninety (90) days after he is relieved from such training and service, will be reinstated in the position held by such employee at the time of entering such service, or to a position of like status, and pay, provided that under normal working conditions, such employee would have been employed by the Company except for such military service, and is not physically or otherwise incapacitated from performing his usual work in such previously held position. In the event that there is a statute fixing and declaring the rights and responsibilities of any employer or an employee in any such case, such statutory provision shall supersede this paragraph and thereafter this paragraph shall have no further force and effect.

Section 3. Military Training Leave.

An employee whose term of service in accordance with this Agreement, is at least six (6) months and who is called to serve in a reserve component of the Armed Forces of the United States, including the National Guard, for annual training usually a period of two (2) weeks, will receive the difference in his/her base forty (40) hour rate of pay and the pay he/she receives from the military up to a maximum of two (2) weeks once each calendar year. In order to receive this benefit, the employee must submit a copy of his/her official orders and an authorized accounting of his/her military pay. Time spent at such reserve training will count as hours worked towards vacation eligibility.

Section 4. Funeral Leave.

(a) Employee's with sixty days or more of continuous employment shall be eligible to receive pay a their straight time hourly rate for up to four (4) days during their basic work week schedule in the event of death in their immediate family The number of hours per day shall not exceed the number of hours in their basic workday schedule. (Payment shall be made only when absence is taken for the purpose of attending, or attending and making arrangements for the funeral). For purposes of this payment, the immediate family includes the employee's parents, children, brothers, sisters, grandparents, spouse, spouse's parents, employee's brother-in-law and sister-in-law.

(b) If an employee on the active payroll of the Company dies and the family of such deceased employee makes an appropriate request to the Company, the Company will release up to two (2) employees for a period not to exceed four (4) hours with pay at the base hourly rate to act as pallbearer at the funeral, of such employee, unless unusual circumstances, requiring company approval for a longer period of time exist.

Section 5. Maternity Leave.

If an employee requests a leave of absence because of pregnancy, the employee will be entitled to reinstatement in her existing job and replacement during her absence will be arranged on a temporary basis, provided the following conditions are met:

(a) The employee is a regular full-time employee.

(b) A statement from the employee's physician is provided establishing the date that the employee should cease work from a medical point of view and a reasonable expected date of medical release to return to work.

(c) The employee obtains a release from her physician and returns to work within five (5) days of release.

Section 6. Family and Medical Leave Act (FMLA)

Employees approved by the Company to be off to attend a family member in accordance with FMLA shall be eligible to receive pay for unused unassigned holidays and vacation that the employee was eligible for prior to the start of such leave.

Employees approved by the Company to be off in accordance with FMLA for personal illness or off the job injury, shall be eligible to receive pay for unused sick leave days, unused unassigned holidays, and unused vacation that the employee was eligible for prior to the start of such leave.

Paid leave must be requested by the employee and will count against the total FMLA leave period

Circumstances not covered in this section shall be subject to the terms of FMLA

ARTICLE 16
JURY DUTY

Section 1. An employee with sixty (60) days or more of service who is called for or performs jury duty will be compensated by the Company for the straight-time hours he/she was thereby required to lose from his/her regular work schedule, but not to exceed five (5) eight (8) hour days per week, computed at his/her base hourly rate. The employee will also retain all fees received as a result of serving on Jury Duty.

Section 2. An employee temporarily excused from court during his/her regularly scheduled working hours shall report of work, provided that at least three (3) hours of his/her regular shift can be worked.

Section 3. Payment shall be made so long as such jury duty continues, only upon presentation of proof of jury duty.

ARTICLE 21
SICK LEAVE

Section 1. All full-time employees shall be eligible to receive pay due to sickness or accident on the following basis:

(a) Less than one (1) year service. Employees shall accrue eight (8) hours for each month of completed service, up to at least ninety-six (96) hours per year, until such employee has completed one (1) year (twelve (12) months) of service.

(b) Beginning the second year. One each anniversary date, thereafter, beginning with the second anniversary date eligible employees are entitled to a sickness and accident allowance of ninety-six (96) hours.

(c) Thirty (30) days but less than one hundred eighty (180) days of service. Employees are eligible to receive pay after a waiting period of one (1) working day without pay for each absence due to sickness or an accident.

(d) One hundred eighty (180) days of service or more. Employees are eligible to receive pay commencing the first day of each absence due to sickness or an accident.

(e) Eligibility. In order to be eligible to accrue sick leave allowance for any month, an employee must work at least 50% of the regular hours available for the month or be eligible to receive and have received Company pay for days off.

(f) Sick pay shall not duplicate any other Company pay.

Section 2. The employee will notify or have someone notify his/her immediate supervisor on the first day of absence, stating the nature of illness or injury and the anticipated date of his/her return to work. The employee will keep the Company informed of any changes in his anticipated date of return to work.

Section 3. The Company shall have the right to require such appropriate proof of illness or injury as it deems desirable.

Section 4. There shall be no payment made in lieu of unused sick leave at any time, nor may sick leave be used for any other purpose than for actual illness, during the employees scheduled work days.

Section 5. Sick leave accrued for any employee shall not exceed three hundred eighty four (384) hours.

Section 6. Employees may use accrued sick leave, equivalent to two (2) scheduled work days per year for emergency reasons, other than personal illness or injury. The employee will be required to provide the Company with proper notification and such leave will require management approval.

ARTICLE 22
TERMINATION ALLOWANCE

Employees who have twelve (12) months of continuous service and who are laid off for lack of work, shall receive termination pay based upon the following:

(a) Schedule of pay: One(1) year of service but less than two (2) – One (1) week's pay forty (40) hours. Two (2) years of service or more – Two (2) week's pay eighty (80) hours.

(b) An employee shall normally receive two (2) week's notice of lay-off prior to the date of the actual lay-off. When notice is given to an employee, the amount of notice shall be deduced from his termination allowance.

(c) If less than two (2) weeks prior notice is given, up to two (2) weeks termination pay shall be granted as determined above.

ARTICLE 23
VACATIONS

Section 1. An employee on the active payroll prior to June 1 of the current year, will be eligible for vacation in accordance with the following schedule:

(a) Less than seven (7) years - Employees with less than seven (7) years service will receive vacation on a monthly basis at the rate of 5/6 of a day per month up to a maximum of eighty (80) hours per year.

(b) Seven (7) years or more - Employees with seven (7) years or more of service, but less than fifteen (15) years will receive vacation on a monthly basis at the rate of one and one fourth (1 ¼) days per month up to a maximum of one hundred twenty (120) hours per year.

(c) Fifteen (15) or more - Employees with fifteen (15) years or more of service but less than twenty (20) years will receive vacation on a monthly basis at the rate of one and two thirds (1 2/3) days per month up to a maximum of one hundred sixty (160) hours per year.

(d) Twenty (20) years or more - Employees with twenty (20) years or more of service will receive vacation on a monthly basis at the rate of two and one twelfth (2 1/12) days per month up to a maximum of two hundred (200) hours per year.

Section 2. (a) Employees shall take their vacations within twelve (12) months after June 1, as scheduled by the Company in accordance with operational requirements, with seniority being given consideration insofar as is practical, except if the Company approves a delay of vacation, in which case it must be taken prior to June 1st of the following year.

(b) Active employees must take vacation time off and there shall be no pay in lieu thereof, and no vacation shall be allowed to accumulate from year to year beyond the period of time in (a) above.

Section 3. (a) An employee is laid off or is terminated after having six (6) months of continuous service with the Company shall receive the vacation pay for which he/she is eligible at the time of lay-off, less any vacation pay which may have been taken under Section 1. Eligible time will be determined based upon the provisions of Section 1 of this article. An employee must work at least 50% of the regular hours available for the month or be eligible to receive and have received Company pay for days off, in order to be eligible to accrue vacation allowance for that month

(b) An employee who is recalled from lay-off, after having received vacation pay at the time of lay-off, shall be eligible for vacation on the next June 1, based only upon his service from time of recall. The computation will be based upon the provisions of Section 1 of this Article. In no event will the vacation time under Section 3(a) and Section 3(b) exceed the maximum allowance under Section 1.

Section 4. Holiday during vacation.

Whenever a paid holiday occurs during the course of an employee's vacation, the Company shall designate the day prior to or the day following the vacation as an additional day off, except where the employee and the Company agree he shall take another day.

Section 5. Request for vacation pay.

Provided the employee makes proper prior request to the Company, he will receive his vacation pay on his last scheduled work day prior to the beginning of the vacation.

ARTICLE 30
SAVINGS AND RETIREMENT PLAN

Section 1. Effective December 16, 2000 through May 31, 2001, the Company shall contribute to a fund, which is to be administered through the Trust Fund Agreement and Declaration of trust of the Southern States Savings and Retirement plan, the sum of twelve (12) dollars per week for each regular full time employee covered by this Agreement. Effective June 1, 2001, the Company shall contribute to the fund the sum of twenty (20) dollars per week for each regular full-time employee covered by this agreement. Casual employees shall not be covered by the provisions of this Article.

Section 2. By the execution of this Agreement, the Company authorizes the Employers Association which are parties hereto to enter into appropriate trust agreements necessary to the administration of such fund, and to designate the Company Trustees under such agreement, hereby waiving all notice thereof and ratifying all actions under such Trustees within the scope of their authority.

Section 3. If an employee is injured on the job, the Company will continue to make the contribution set forth in Section 1 above. Such contributions shall not be paid by the Company for a period of more than twelve (12) weeks.

Section 4. If an employee is granted a leave of absence the Company shall arrange to collect from said employee, sufficient monies to pay the required contributions into the fund during the period of absence.

Section 5. Contributions shall be paid to the fund monthly by the Company for each regular full time employee.

Section 6. Employees may elect to contribute twenty-five (25) percent, fifty (50) percent, seventy-five (75) percent or one hundred (100) percent in addition to the Company contributions.

Section 7. All contributions shall be remitted to the trust by the tenth (10) day of the following month.

TRANSPORTATION WAGE SCHEDULE
EFFECTIVE JUNE 1, 2001

Job Title	Start	60 Days	6 Months	1 Year
Tractor-Trailer Driver	8.85	9.89	11.01	11.80
Bobtail Driver	8.85	9.89	11.01	11.80
Quick Dispatch Driver	8.85	9.89	11.01	11.80
Forklift Operator	8.85	9.89	11.01	11.80
Crater & Flight Packer	8.85	9.89	11.01	11.80
Helper	8.16	9.31	10.07	11.01
Flight Packing Specialist (Lead)	12.40 (Single Rate Classification)			

TRANSPORTATION WAGE SCHEDULE
EFFECTIVE JUNE 1, 2002

Job Title	Start	60 Days	6 Months	1 Year
Tractor-Trailer Driver	9.25	10.29	11.41	12.20
Bobtail Driver	9.25	10.29	11.41	12.20
Quick Dispatch Driver	9.25	10.29	11.41	12.20
Forklift Operator	9.25	10.29	11.41	12.20
Crater & Flight Packer	9.25	10.29	11.41	12.20
Helper	8.56	9.71	10.47	11.41
Flight Packing Specialist (Lead)	12.80 (Single Rate Classification)			

TRANSPORTATION WAGE SCHEDULE
EFFECTIVE JUNE 1, 2003

Job Title	Start	60 Days	6 Months	1 Year
Tractor-Trailer Driver	9.60	10.64	11.76	12.55
Bobtail Driver	9.60	10.64	11.76	12.55
Quick Dispatch Driver	9,60	10.64	11.76	12.55
Forklift Operator	9.60	10.64	11.76	12.55
Crater & Flight Packer	9.60	10.64	11.76	12.55
Helper	8.91	10.06	10.82	11.76
Flight Packing Specialist (Lead)	13.15 (Single Rate Classification)			

Employees completing five (5) years continuous services will receive a ten (.10) cent per hour premium.

Tractor-Trailer Drivers shall be paid (.40) cent per hour premium.

Cylinder Truck Drivers and Cylinder Helpers shall be paid a fifteen (15) cent per hour premium.

The Company shall continue to pay total cost of sufficient uniforms, as long as the Company requires employees to be in uniform.

LETTER OF UNDERSTANDING
BETWEEN BRSP AND TEAMSTERS, LOCAL UNION NO. 968

It is agreed and understood between the two parties that any Teamsters work performed at NASA for maintenance and operations (M&O) will be performed under the GPPMA (General Presidents' Project Maintenance Agreement). Any work performed alongside any Building & Trades Craft will be paid at the GPPMA rate of pay. If specific situations exist that necessitates using personnel on the Logistic and Transportation side to perform work for M&O, employees will suffer no loss of fringe benefits, and receive the GPPMA rate of pay. This may only be done if this local Union agrees and will be limited to eight hours per week.

Effective Date: April 1, 1997

FOR BRSP:

FOR THE UNION:

Davis Bacon General Wage Decision
Harris County, TX
Construction Type: Building
TX010010 dated 04/13/01 Mod. 1

The following pages reflect the wages and fringe benefit requirements for new construction work performed on this contract. If new modifications are made to this General Decision by the Department of Labor, those modifications will be incorporated into the RFP by amendment.

GENERAL DECISION TX010010 04/13/01 TX10
General Decision Number TX010010

Superseded General Decision No. **TX000010**

State: TEXAS

Construction Type:
BUILDING

County(ies):
GALVESTON HARRIS

BUILDING CONSTRUCTION PROJECTS (does not include single family homes & apartments up to & including 4 stories). (Use current highway general wage determination for Paving & Utilities incidental to Building Construction for Galveston (excluding Galveston Island) & Harris Cos.) (DOES NOT APPLY TO ANY WORK ON TREATMENT PLANT SITES IN HARRIS CO.)

Modification Number	Publication Date
0	03/02/2001
1	04/13/2001

COUNTY(ies):
GALVESTON HARRIS

ASBE0022A 06/01/1999

	Rates	Fringes
INSULATOR/ASBESTOS WORKERS (includes application of all insulationg materials, protective coverings, coatings and finishing to all types of mechanical systems)	17.59	5.75

BRTX0001A 11/01/1999

	Rates	Fringes
GALVESTON COUNTY		
BRICKLAYERS & STONEMASONS	16.05	3.05

BRTX0007A 01/01/1999

	Rates	Fringes
HARRIS COUNTY		
BRICKLAYERS & STONEMASONS	15.55	4.65

ELEV0031A 06/29/2000

	Rates	Fringes
ELEVATOR MECHANICS	22.10	6.935+a

FOOTNOTES:
a.- Employer contributes 8% of basic hourly rate for over 5

years' service and 6% of basic hourly rate for 6 months to 5 years' service as Vacation Pay Credit. Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day.

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* ENGI0450E 04/01/2001

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
GALVESTON COUNTY		
Cranes	19.81	3.89
Forklifts	19.81	3.89
HARRIS COUNTY		
Crane	18.34	4.65
Forklifts	18.34	4.65

FOOTNOTE: +1.00 per hour differential paid to all certified tower crane operators and all certified crane operators of 100 tons capacity and over

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IRON0084A 06/01/2000

	Rates	Fringes
IRONWORKERS	17.27	4.20

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* PAIN1008A 07/01/2000

	Rates	Fringes
GLAZIERS	17.00	4.59

PAIN1008D 10/03/1999

	Rates	Fringes
SOFT FLOOR LAYERS	15.30	1.11

PLAS0079A 04/01/1993

	Rates	Fringes
PLASTERERS	16.55	1.94

PLUM0068A 10/01/2000

	Rates	Fringes
PLUMBERS	22.73	5.25

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* PLUM0211A 04/01/2001

	Rates	Fringes
PIPEFITTERS (including HVAC WORK)	21.71	7.35

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* SFTX0669A 04/01/2001

	Rates	Fringes
SPRINKLER FITTERS	22.62	7.35

SHEE0054A 04/01/2000

	Rates	Fringes
SHEET METAL WORKERS (Including HVAC Duct Work)	20.15	5.54

SUTX1082A 04/01/1989

	Rates	Fringes
CARPENTERS:		
Excluding Drywall Hangers and Acoustical Ceiling	13.45	2.42
Acoustical Ceiling Installation Only	12.65	
Drywall Hanging Only	10.99	
CEMENT MASONS	13.43	2.18
ELECTRICIANS (Including Low Voltage Work)	14.68	3.83
LABORERS, Unskilled	7.20	
PAINTERS (Including Drywall Finishers)	12.02	3.30
POWER EQUIPMENT OPERATORS:		
Backhoes	11.79	
Front End Loaders	12.17	
ROOFERS	10.94	
TILE SETTERS	14.41	
TRUCK DRIVERS	10.63	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests

for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT F – CORRECTIVE/PREVENTIVE ACTION REQUIREMENTS TABLE OF CONTENTS

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F-1	CORRECTIVE/PREVENTIVE ACTION REQUIREMENTS	J-F, 1

SECTION J, ATTACHMENT F
EXHIBIT F-1, CONTRACTOR'S QUALITY MANAGEMENT SYSTEM
CORRECTIVE/PREVENTIVE ACTION REQUIREMENTS

1.1 SUMMARY

The Quality Control (QC) Program shall be compliant with the requirements of ANSI/ISO/ASQC Q9001 – 2000. Quality Management Systems (QMS) Requirements. One component of an ISO 9001 QMS is a Corrective/Preventive system that eliminates the cause of nonconformities in order to prevent recurrence. . This attachment identifies the process for Corrective/Preventive Action System the Contractor shall establish, which meets the requirement outlined in this attachment.

1.2 DEFINITIONS

Action to Prevent: The action taken to eliminate the root cause of the nonconformance, defect, or other undesirable situation to prevent the identified problem requiring corrective action from reoccurring. (NOTE: This may also be known as permanent action.)

Corrective Action: The action taken to eliminate the root cause of the nonconformance, defect, or other undesirable situation to prevent recurrence. A corrective action may be initiated by the Government or internally within the Contractors organization.

Corrective action process: The process that effectively collects and records customer complaints and product and quality system nonconformances to eliminate the causes of an existing nonconformity, defect, or other undesirable situation to prevent recurrence.

Corrective Action Report: A document used to record product or service, process, and quality system nonconformances identified within Contractor processes, and to address customer complaints received.

Customer: The recipient of a Contractor-supplied product or service.

Effectiveness: Corrective actions can not be closed until assessed as having effectively dealt with the identified root cause. Effectiveness may be based on a measurable reduction in the occurrence of the problem.

Independent Testing Laboratory: An organization, approved by the Contracting Officer, engaged to perform specific inspections or tests of work, either at the site, or elsewhere, and report the results.

Immediate action: Action taken in response to a nonconformance to mitigate or reduce the severity of events, which may potentially occur as a result of the nonconformance.

Inspection: Examining and testing supplies, services, materials, components or assemblies to determine contract performance.

Interim action: Temporary action taken to rectify an existing process nonconformance until permanent corrective action can be implemented.

Preventive Action: An action taken to eliminate the causes of a potential nonconformity, defect, or other ~~undesirable situation in order to prevent~~ occurrence

Process: A set of interrelated resources and activities, which transform inputs into outputs. Resources may include personnel, finance, facilities, equipment, techniques, and methods.

Process Owner: The Contractor organization or function with institutional responsibility for overseeing a process to ensure it is implemented effectively.

Product: A product or service is the result of activities or processes. A product or service may include service, hardware, processed materials, software, or a combination thereof. A product or service can be tangible (e.g. assemblies or processed materials) or intangible (e.g. knowledge or concepts), or a combination thereof. Note: Throughout this attachment, wherever the term "product" occurs, it can also mean "service".

Quality: Conformance with the process requirements, specifications, referenced codes and standards.

Quality Assurance: Those actions that verify and assure in the effectiveness of the Contractor's quality control program.

Quality Control: Those actions that control the quality of the work to be performed and the documentation that reflects that control.

Remedial action: Actions taken to ensure that the observed problem did not produce defects in already delivered products, or that similar problems do not exist in related processes.

Root cause: The underlying reason for, or cause of, one or more nonconformances or deficiencies identified through investigations and studies which, when corrected, will prevent or reduce the recurrence of the realized or potential nonconformance(s) deficiency (ies).

Testing: Element of inspection that determines the properties of functional operation of materials, applications, or components by the application of established scientific principles and procedures with formally documented records.

1.3 CORRECTIVE ACTION IMPLEMENTATION

The Contractor shall take action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the nonconformities encountered. A documented procedure shall be established that captures the requirements outlined in this attachment for corrective and preventive action.

1.4 CORRECTIVE ACTION CATEGORIES

The Contractor shall initial corrective action to ensure an identified problem never or rarely happens again. Some typical categories requiring the Contractor to initiate corrective action are, but are not limited to, the following:

a. Individual product or service non-conformances where the risk of not taking corrective action may have a larger impact to product, safety, cost, schedule or process.

b. Recurring similar product or service non-conformances or negative trends identified from a quarterly collective review of non-conformances.

c. Technical, management, or administrative Contractor processes that are not operating as intended.

d. Review monthly objective data of established Contractor performance (metrics) that establishes the need to take preventive action before a potential problem occurs.

e. Internal and third party audits performed as part of the Contractor's quality system, and all non-conformances and observations identified during those audits.

f. Customer Feedback

All Corrective Actions fall in two classes:

1. Reactive where you take action after a negative event.
2. Proactive where you take action before the negative event.

For the purposes of the Contractor's Quality Management System, the "reactive" event will be referred to as corrective action and the "proactive" event referred to as preventive action.

It should be noted that corrective action is not required every time there is a problem. Corrective action should be taken when the problem identified is significant enough that the desire is to ensure it never or rarely happens again. Simply fixing a product "broken" is not corrective action. Process improvements are not considered corrective action.

1.4 CORRECTIVE ACTION PROCESS

The following Corrective Action Process shall have each identified corrective action documented on a single record, which captures the entire history from start to finish. Upon identification of a corrective action, the Contractor shall initiate, develop, and document a corrective action plan (CAP) for entry and tracking within their corrective action database and:

1. Identify the interim actions to prevent the nonconformance or process issue from causing more damage.

   NOTE: This may not apply to preventive action. If it is determined that no interim action is required, the justification should be stated. Do not use "none required", "not applicable" (n/a) or any other such terms if no interim action is required.

2. See how the problem or issue affected previous product or services and identify remedial actions that resolve any problems.

   NOTE: This may not apply to preventive action. If it is determined that no remedial action is required, the justification should be stated. Do not use "none required", "not applicable" (n/a) or other such terms if no remedial action is required.

3. Determine the problems root cause and whether that root cause is related to a process the Contractor controls. NOTE: If the Contractor does not control the process in which the corrective action has been identified corrective action cannot be taken, and the Government should be notified.

4. Identify the action to prevent recurrence the root cause from happening. NOTE: The action to prevent recurrence should be directly related to the identified root cause. By keeping the actions focused on the root cause you will simplify the CAP and make it easier to verify and close.

5. Assign responsibilities and authorities for the plan's actions.

6. Determine the verification methodology for the action implemented to prevent recurrence.

7. Establish and document the corrective action plan schedule. Determine when the actions identified in the CAP will be completed and when there will be sufficient objective evidence to show the actions were effective.

8. Provide a copy of the corrective action plan to the Government.

9. Keep the CAP actions on schedule

10. Make sure the corrective action has removed the root cause.

11. Rework the corrective action plan if verification of the implemented corrective action plan determines the root cause was not eliminated or the identified problem reoccurs.

12. Notify the Government upon completion and closure of all corrective actions.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT G – WORKLOAD UNIT AMOUNTS
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Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		**Description of Services**	**Unit**	**No. Units**	**Unit Value**	**Total Value**
ANNEX 1		ADMINISTRATIVE SUPPORT				
1.2		Work Control Center	Daily	365		
1.3.1		Designate Building Manager	Square Feet	122,809		
1.3.2		Maintain Facilities	Daily	365		
1.3.3		Facilities Utilization Records	Daily	365		
1.4		Contractor Work Area Cleaning	Daily	365		
1.5		Site Critical Installation Provided Property	Item	40		
1.6.1		Quality Control Program	Program	1		
1.6.1	a	Corrective Actions Summary	Summary	12		
1.6.1	b	QC Performance Reports	Report	12		
1.6.2		Quality Control Plan	Plan	1		
1.6.3		ISO 9001- 2000 Certification	Certification	1		
1.6.4		Continuous Improvement Teams	Team	8		
1.7.1		Safety and Health Program	Program	1		
1.7.1.1		VPP Certification	Certification	1		
1.7.2		Safety and Health Plan	Plan	1		
1.7.3.1		Statistical Information Report	Report	12		
1.7.3.2		Self Evaluation Report	Report	1		
1.7.3.3		Terminated Employees Report	Report	1		
1.7.3.4		Material Safety Data Sheets	Day	365		
1.7.3.5		Hazardous Materials Inventory	Report	1		
1.7.3.6		Hazard Abatement Notices and Plans	Review	12		
1.7.3.7		Lessons Learned Report	Report	4		
1.7.3.8		Safety and Health Metrics	Report	12		
1.7.3.9		Log of Occupational Injuries/Illnesses	Report	1		
1.7.3.10		Hazards Identification	Report	1		
1.8.1		Energy and Water Conservation	Plan	1		
1.8.1.a		Y2K HVAC Equipment and Lighting Baseline Status Report	Reports	12		
1.8.1.b		Monthly Utility Report (MUR)	Reports	12		
1.8.1.c		Quarterly Energy Report (QER)	Reports	4		
1.8.1.d	a	Cold Weather Protection Plan	Plan	1		
1.8.1.d	b	Freeze Protection Survey	Survey	1		
1.90		Functional Metrics	Report	12		
1.10.1		Environmental Program (for COSS Activities)	Day	365		
1.10.2		Procure Recycled Items/Materials	Day	365		
1.10.3		Environmental Management System	Day	365		
1.10.4		Affirmative Procurement	Day	365		
1.10.5		Prohibited & Restricted Materials	Day	365		
1.10.6		Ozone Depleting Substances	Item	75		
1.10.7		Polychlorinated Biphenyls	Item	75		
1.10.8		Participate in Recycling Programs	Day	365		
1.11		Emergency Management Program	Plan	1		
1.12.5		Energy Manager	Day	365		
1.12.6		Environmental Training	Day	365		
1.13.1		Workload Data Collection Report	Report	1		
1.13.3		Cost Data Report	Report	1		
ANNEX 2		SCHEDULED MAINTENANCE AND REPAIR				
2.2.1		Implement the SM Plan	Database	1		
2.2.2		Accomplish Scheduled Maintenance				
2.2.2	ACCI001	Air Condenor Unit Inspection	PM	344		
2.2.2	ACUI001	Air Conditioner Unit, Inspection	PM	201		
2.2.2	AHUI001	Air Handler Unit, Inspection	PM	15		
2.2.2	AHUI003	Air Handler Unit Humidifier, Inspection	PM	5		
2.2.2	AHUI004	Air Handler Unit, Pre-Flight Checks	PM	173		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	AHUI005	Film Vault Air Handler Unit, Inspection	PM	1		
2.2.2	AHUI006	Air Handler Unit With Generator, Inspection	PM	2		
2.2.2	AHUM001	Air Handler Unit, Filter Change	PM	12		
2.2.2	AHUV001	Air Handler Unit, Vibration	PM	1,115		
2.2.2	APLI001	Ultra Low Freezer, Inspection And Maintenance	PM	1		
2.2.2	APLI002	Toaster Conveyor, Inspection And Maintenance	PM	4		
2.2.2	APLI003	Refrigerator, Inspection And Maintenance	PM	2		
2.2.2	APLI004	Steam Jacketed Kettle, Maintenance	PM	3		
2.2.2	APLI005	Kitchen Equipment, Inspection And Maintenance	PM	34		
2.2.2	APLM001	Dishwasher, Inspect And Maintenance	PM	3		
2.2.2	APLM002	Steamer, Inspection And Maintenance	PM	7		
2.2.2	APLM003	Ice Machine Water Filter, Replacement	PM	14		
2.2.2	APLM005	Ice Machine, Maintenance And Inspection	PM	9		
2.2.2	BATI001	Electric Storage Battery Monitoring System, Data Collection	PM	5		
2.2.2	BATI002	Electric Storage Battery, Maintenance And Testing	PM	14		
2.2.2	BATM001	Electric Storage Battery, Replacement	PM	14		
2.2.2	BATM002	Battery Charger, Maintenance And Testing	PM	22		
2.2.2	BATT001	Electric Storage Battery, Maintenance And Impedance Testing	PM	14		
2.2.2	BFPT001	DCK Backflow Preventer, Test	PM	41		
2.2.2	BFPT002	PVB Backflow Preventer, Test	PM	66		
2.2.2	BFPT003	RPZ Backflow Preventer, Test	PM	176		
2.2.2	BRKM001	Vacuum Circuit Breaker, Maintenance And Test	PM	55		
2.2.2	BRKT001	Air Circuit Breaker, Maintenance And Test	PM	552		
2.2.2	BRKT002	Air Circuit Breaker Protective Relay, Functional Test	PM	26		
2.2.2	BRSC001	Steam Boiler Force Draft Air Fan, Calibrate And Inspection	PM	3		
2.2.2	BRSC002	Steam Boiler, Fuel Oil Calibration	PM	3		
2.2.2	BRSC003	Steam Boiler, Transmitter Calibration.	PM	3		
2.2.2	BRSI001	Steam Boiler, Pre Flight Checks	PM	3		
2.2.2	BRSI002	Low Pressure Gas Fired Steam Boiler, Operational Inspection	PM	37		
2.2.2	BRSI003	Boiler, Sampling And Data Collection	PM	37		
2.2.2	BRSI004	Steam Boiler, Internal Inspection	PM	37		
2.2.2	BRSM001	Steam Boiler Feed Water, Maintenance And Inspection	PM	3		
2.2.2	BRSV001	Steam Boiler Force Draft Air Fan, Vibration Check	PM	3		
2.2.2	CAPI001	Capacitor Bank, Inspection	PM	3		
2.2.2	CBLI001	15kv Feeder Cable, Inspection And Testing	PM	36		
2.2.2	CHLC001	Chiller, Calibration	PM	13		
2.2.2	CHLC003	Chiller Lube Oil System, Calibration And Inspection	PM	13		
2.2.2	CHLI001	Chiller Refrigerant System, Inspection And Calibration	PM	1		
2.2.2	CHLI003	Chiller Balance Piston, Inspection	PM	13		
2.2.2	CHLI004	Chiller, Electrical Operational Inspection	PM	13		
2.2.2	CHLI005	Chiller, Mechanical Operational Inspection	PM	13		
2.2.2	CHLI006	Chiller Gearbox, Inspection	PM	13		
2.2.2	CHLI009	Small Chiller, Operational Inspection	PM	11		
2.2.2	CHLI012	Medium Chiller, Operational Inspection	PM	5		
2.2.2	CHLV001	Chiller, Vibration Data Collection And Analysis	PM	18		
2.2.2	CLTI001	Cooling Tower Structure, Inspection	PM	15		
2.2.2	CLTI002	Cooling Tower, Mechanical Inspection	PM	1		
2.2.2	CLTM001	Cooling Tower Water Treatment, Sampling	PM	15		
2.2.2	CLTV001	Cooling Tower Fan, Vibration Data Collection	PM	14		
2.2.2	COMI001	Inspection	PM	49		
2.2.2	COMI002	Stand Alone Control Air Compressor, Function Test And Inspection	PM	40		
2.2.2	COMI003	Shop Air Compressor, Function Test And Inspection	PM	41		
2.2.2	COMV001	Centrifugal Compressor, Vibration Data Collection	PM	9		
2.2.2	COMV002	Operational Inspection	PM	6		
2.2.2	CPSI001	Immersed & Buried Anode Cathodic Protection System, Inspection	PM	4		
2.2.2	CPSI002	Water Wells Buried Anode Cathodic Protection System, Inspection	PM	2		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	CRNC001	Hoist And Crane, Certification	PM	125		
2.2.2	CRNI001	Hoist And Crane, Inspection	PM	125		
2.2.2	CRNM001	Hoist And Crane, Lubrication	PM	30		
2.2.2	CTBI001	Containment Berms, Inspection And Repair	PM	2		
2.2.2	DORI001	Vertical Lift Door, Inspection	PM	12		
2.2.2	DORI002	Horizontal Sectional Hanger Door	PM	3		
2.2.2	DORI003	Automatic Sliding Door, Inspection	PM	36		
2.2.2	DORI004	Roll Up Electric Door, Inspection And Maintenance	PM	59		
2.2.2	DORI005	Electric Overhead Door, Inspection	PM	113		
2.2.2	DORM001	Automatic Sliding Door, Maintenance	PM	36		
2.2.2	EEWI001	Plumbed Eyewash And Safety Shower, Flush	PM	210		
2.2.2	EEWI002	Eyewash And Safety Shower, Inspection	PM	256		
2.2.2	EEWM001	Portable Eyewash And Safety Shower, Flush And Maintenance	PM	47		
2.2.2	ELSM001	Emergency Lighting System, Full Maintenance And Inspection	PM	70		
2.2.2	ELST002	Emergency Lighting System, 30 Second Function Test	PM	71		
2.2.2	ELST003	Emergency Lighting System, 90 Minute Test And Inspection	PM	71		
2.2.2	ELUT001	Emergency Lighting Unit, 30 Second Function Test	PM	62		
2.2.2	ELVI001	Hydraulic Elevator, Monthly Inspection	PM	36		
2.2.2	ELVI002	Hydraulic Elevator, Quarterly Inspection	PM	36		
2.2.2	ELVI003	Hydraulic Elevator, Semi-Annual Inspection	PM	36		
2.2.2	ELVI004	Hydraulic Elevators, Inspection	PM	36		
2.2.2	ELVI005	Electrical Traction Elevator, Monthly Inspection	PM	23		
2.2.2	ELVI006	Electrical Traction Elevator, Quarterly Inspection	PM	23		
2.2.2	ELVI007	Electrical Traction Elevator, Semi-Annual Inspection	PM	23		
2.2.2	ELVI008	Electrical Traction Elevator, Annual Inspection	PM	23		
2.2.2	ENGI001	Diesel Engine, Air Starter Inspection	PM	5		
2.2.2	ENGI002	Diesel Engine, Inspect And Run	PM	5		
2.2.2	ENGI005	Natural Gas Engine, Inspect And Run	PM	7		
2.2.2	ENGI007	Diesel Engine, Cooling Water Checks	PM	11		
2.2.2	ENGM002	Diesel Engine, Lube Oil Pump Service	PM	5		
2.2.2	ENGM003	Diesel Engine, Flex Hose Inspection	PM	6		
2.2.2	ENGM004	Diesel Engine, Maintenance	PM	5		
2.2.2	ENGM005	Natural Gas Engine, Clean And Lubricate	PM	7		
2.2.2	ENGM006	Natural Gas Engine, Maintenance	PM	7		
2.2.2	ENGM008	Diesel Engine, Governor Oil Change	PM	6		
2.2.2	ENGT001	Diesel Engine Protective Relay Maintenance And Testing	PM	5		
2.2.2	EWSI001	Emergency Warning System, Maintenance And Repair	PM	1		
2.2.2	EXCI001	Exchanger, Operational Inspection	PM	103		
2.2.2	FANI001	Fan, Inspection	PM	674		
2.2.2	FANV001	Fan, Vibration Data Collection And Inspection	PM	15		
2.2.2	FGTI001	Perimeter Fencing Gates, Inspect And Repair	PM	3		
2.2.2	FILM001	Water Fountain Filter, Replacement	PM	73		
2.2.2	FILM002	Filter Bank, Replacement	PM	53		
2.2.2	GENI002	Portable Generator, Inspection	PM	67		
2.2.2	GENI004	Power Generators, Operation	PM	5		
2.2.2	GENI007	5000 Watt Portable Generator, Inspection	PM	6		
2.2.2	GENM003	Portable Generator, Maintenance And Inspection	PM	67		
2.2.2	GENM011	Power Generator, Inspection And Testing	PM	5		
2.2.2	GENT002	Portable Generator, Mission Run Test	PM	5		
2.2.2	GENT003	Power Generators, Verify Output Capacity 100% Load Test	PM	5		
2.2.2	GTSI001	Groundwater Treatment System, Inspection	PM	1		
2.2.2	GTSI002	Groundwater Treatment System Control Valve, Inspection	PM	1		
2.2.2	GTST001	Groundwater Treatment System, Sample Testing	PM	1		
2.2.2	HTRI001	Gas Fired Space Heater, Inspection	PM	91		
2.2.2	HTRI002	Gas Fired Hot Water Heater, Inspection	PM	2		
2.2.2	LFTC001	Lift, Certification	PM	79		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	LFTI001	Lift, Inspection	PM	79		
2.2.2	LTGM001	Ceiling Lights, Partial Relamp	PM	161		
2.2.2	LTGM002	Ceiling Lights, Total Relamp	PM	10		
2.2.2	MCCI001	Motor Control Center, Clean And Inspection	PM	101		
2.2.2	NGST001	Natural Gas Valve Regulator Station 4, Exercise	PM	1		
2.2.2	NGST002	Natural Gas Valve Regulator Station 6, Exercise	PM	1		
2.2.2	NGST003	Natural Gas Valve Regulator Station 5, Exercise	PM	1		
2.2.2	NGST004	Natural Gas Valve Ave B Main Line, Exercise	PM	1		
2.2.2	NGST005	Natural Gas Valve Regulator Stations 10 12 And 13, Exercise	PM	1		
2.2.2	NGST006	Natural Gas Valve Regulator Stations 7 And 8, Exercise	PM	1		
2.2.2	NGST007	Natural Gas Valve Regulator Station 14, Exercise	PM	1		
2.2.2	NGST008	Natural Gas Valve Regulator Station 3, Exercise	PM	1		
2.2.2	NGST009	Natural Gas Valve Ellington Field, Exercise	PM	1		
2.2.2	OILI001	Rotating Equipment Oil Analysis, Sampling Instructions	PM	28		
2.2.2	OILI002	Chiller Oil And Refrigerant, Sampling And Analysis	PM	18		
2.2.2	OILI003	Dielectric Insulating Liquid, Inspection & Tests	PM	126		
2.2.2	PLWI001	Plating Waste Pretreatment System UCS Alarm, Inspection	PM	15		
2.2.2	PLWI002	Plating Waste Pretreatment System Control Equipment, Inspection	PM	15		
2.2.2	PMPI001	Pump, Inspection And Maintenance	PM	257		
2.2.2	PMPI002	Boiler Feed Water Pump, Inspection	PM	5		
2.2.2	PMPM001	Fuel Oil Pump Coupling, Grease	PM	3		
2.2.2	PMPV001	Pump, Vibration Data Collection And Inspection	PM	427		
2.2.2	PNLI001	Electrical Distribution Panel, Inspection	PM	259		
2.2.2	PWDT001	Potable Water Valve, Exercise Valves And Fire Hydrant	PM	1		
2.2.2	RADM001	Radio Base Station, Maintenance	PM	3		
2.2.2	RPDM001	Memorials, Inspect And Maintain	PM	2		
2.2.2	RPDM002	Flag Pole, Inspect And Maintain	PM	2		
2.2.2	SCRI001	Steam Trap Ultrasonic And Temperature, Inspection	PM	98		
2.2.2	SETI001	Structural Exterior, Inspection	PM	188		
2.2.2	SISI001	Intercom System, Maintenance And Repair	PM	1		
2.2.2	SKRI001	Oil Skimmer, Inspection	PM	9		
2.2.2	SKRM001	JSC Site Oil Skimmer, Clean Out	PM	4		
2.2.2	SKRM002	ELL Site Oil Skimmer, Clean Out	PM	9		
2.2.2	SNSI001	Grease Trap, Inspect	PM	4		
2.2.2	SWGI002	Switchgear Enclosure, Inspection And Maintenance	PM	133		
2.2.2	SWII001	15kv Automatic Circuit Recloser, Inspect And Maintain	PM	3		
2.2.2	SWII002	Load Break Switch, Inspection And Maintenance	PM	43		
2.2.2	SWII003	Automatic Transfer Switch, Inspection And Maintenance	PM	36		
2.2.2	SWII004	Manual Transfer Switch, Inspection And Maintenance	PM	35		
2.2.2	SWII005	High Voltage Oil Switch, Inspection And Maintenance	PM	15		
2.2.2	SWIM001	Switch, inspection And Maintenance High Voltage Air Switch	PM	8		
2.2.2	SWIM003	High.Voltage SF6 or Vacuum Switch Inspection And Maintenance	PM	11		
2.2.2	SWSM001	Storm Water Collection System, Clean And Inspect	PM	1		
2.2.2	TISI001	Turf Irrigation Valve, Inspection And Repair	PM	1		
2.2.2	TRLI001	Trailer, Inspection	PM	52		
2.2.2	TRNT001	Dry Transformer, Insulation Testing	PM	19		
2.2.2	UPSI003	Uninterrupted Power Source, Inspection	PM	48		
2.2.2	UPSM001	Uninterrupted Power Source, Five Year Maintenance	PM	22		
2.2.2	UPSM002	Uninterrupted Power Source, Annual Maintenance	PM	47		
2.2.2	UPSM003	Uninterrupted Power Source, Semi-Annual Maintenance	PM	22		
2.2.2	UPSM004	Uninterrupted Power Source, Rotary Ups Inspect And Maintain	PM	2		
2.2.2	UPST001	Uninterrupted Power Source, Inferred Thermography Testing	PM	22		
2.2.2	VEHI001	ATV Inspection And Service	PM	1		
2.2.2	VEHI002	Electric Forklift, Maintenance And Inspection	PM	22		
2.2.2	VEHI003	General Mobile Equipment, Inspection	PM	55		
2.2.2	VEHI005	Manlift, Pallet Lift, And Pallet Jacks, Maintenance And Repair	PM	5		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	VEHI006	Equipment And Vehicle, Meter Reading	PM	59		
2.2.2	VEHM001	Oil And Filter Change	PM	55		
2.2.2	VFDI001	Variable Frequency Drive, Maintenance And Inspection	PM	122		
2.2.2	VIBI001	General Vibration Data Collection And Analysis	PM	2		
2.2.3		Equipment Inventories	Inventory	1		
2.2.4		Equipment Identification	Program	1		
2.2.5	a	Class I Pressure Vessel Inspections	Inspection	535		
2.2.5	b	Class II Pressure Vessel Inspections	Inspection	8		
2.2.5	c	Class III Pressure Vessel Inspections	Inspection	50		
2.2.5	d	Relief Valve Certification and Support	Certification	450		
2.2.5	e	Flex Hose Certification	Certification	24		
2.2.6		Light/Lamp Replacement	Fixture	20,000		
2.3.1	a	JA/COD Repair Program	Day	365		
2.3.2		Non Lump Sum Emergency Response	Emergency Call	200		
2.3.3		Critical Spare Parts Management	Day	365		
2.4		Maintenance Activation Program	Day	365		
2.4.h		Quarterly Reconciliation Report	Report	4		
2.5		Warranty Program	Program	1		
2.5	a	Administer Warranty	Warranty	300		
2.5	f	Warranty Report	Report	12		
2.6		Availability & Reliability	Day	365		
2.7		Reliability Centered Maintenance	Analysis	4		
2.9.1		User Equipment Maintenance Report	Report	12		
2.9.2		Pressue System Certification Testing Report	Report	12		
ANNEX 3		DIRECTED SERVICES				
3.2.1	a	Paint All Pedestrian Crosswalks	Linear Foot	3,000		
3.2.1	b	Paint street markings & parking lot markings	Mile	60		
3.2.1	c	Re-stencil all reserved parking space designations	Restored Space	1,650		
3.2.1	d	Resecure traffic control signs/nameplate holders	Sign/Nameplate Holder	15		
3.2.1	e	Install new traffic control signs/nameplate holders	Sign/Nameplate Holder	60		
3.2.1	f	Install new traffic control signs with posts	Sign/Post	15		
3.2.1	g	Maintain road surface reflectorized buttons & ceramic markers	Button/Marker	10		
3.2.1	h	Paint fire hydrants, post indicator valves, etc.	Month	12		
3.2.1	i	Maintain records for Building 304 surface coating activities	Occurrence	30		
3.2.2	a	Plan	Review	2		
3.2.2	b	Maintain Contents of Hurricane Cabinets	Cabinet	26		
3.2.2	c	Maintain Emergency Storm Supplies List	Review	1		
3.2.2	d	Accomplish Hurricane/Severe Weather Level IV Activities	Annual	1		
3.2.3	a	Special Events	Event	4		
3.2.3	b	Minor Events	Annual	1		
3.2.3	c	Crew Returns	Mission	6		
3.2.4	a	COSS Technical Reference Library Plan	Plan	1		
3.2.4	c	Maintain COSS Technical Library Collection	Month	12		
3.3.2	a	Develop the FCA Plan	Plan	1		
3.3.2	b	Implement the FCA Plan	Monthly	12		
3.3.2	c	Document and Maintain FCA Database	Day	365		
3.3.2	d	Provide Monthly FCA Status Report	Report	12		
3.3.2	e	Provide Annual Facility Condition Assessment Report	Report	1		
3.3.3	a	Perform Comprehensive Visual Roof Inspection	Report	1		
3.3.3	b	Perform Non-Destructive Roof Inspections	Day	365		
3.3.3	d	Roof Mounted Appurtenance Inspection	Day	365		
3.3.4		Perform Building Exterior Inspection	Report	1		
3.3.5		Perform Roads Inspection	Report	1		
3.3.6		Perform Sidewalk Inspection	Report	1		
3.3.7		Perform Inspections of All Fences	Report	1		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
3.3.8		FCA Inspection - Sanitary Sewer System	Report	1		
3.3.9		FCA Inspection - Stormwater Collection System	Report	1		
ANNEX 4		OPERATIONS				
4.2.1.1.1.a		Boiler and Condendate Return System	Day	365		
4.2.1.1.2.a		Building 24 Central Plant Steam/Boiler System	Day	365		
4.2.1.2.1.a		138 kV JSC Site Elecrical Substation	Day	365		
4.2.1.2.1.b		Operate Building 48 Power Systems	Day	365		
4.2.1.2.1.c		Building 48 Power Generators and UPS	Day	365		
4.2.1.2.2.a		Mission Shuttle Support	Mission	6		
4.2.1.2.2.a	a	Provide Alternate Mission Manager	Day	30		
4.2.1.2.2.a	b	Provide Mission Meeting Support	Mission	6		
4.2.1.2.2.a	c	Provide Utility System Drawings	Drawing	40		
4.2.1.2.2.b		Preflight Checkout of Power Systems	Mission	6		
4.2.1.2.2.b	a	Provide Mission Support Plan	Plan	6		
4.2.1.2.2.c		Read and Record Power Systems Meters	Day	365		
4.2.1.2.3.a		Read and Record Kilowatt Hours Meters	Reading	12		
4.2.1.2.3.b		Test Power Protective Devices	Annually	1		
4.2.1.2.3.c		Output Capacity	Annually	1		
4.2.1.2.3.d		Power Recording Charts	Day	365		
4.2.1.3.1.a		Heating and Cooling Plant Chilled Water Production Systems	Day	365		
4.2.1.3.1.b		Building 48 Chilled Water Production System	Day	365		
4.2.1.3.2.a		Chilled Water System Meters/Gauges	Day	365		
4.2.1.3.2.b		Operate Condenser Water Treatment Systems	Day	365		
4.2.1.4.1.a		Operate Water Treatment System	Day	365		
4.2.1.4.1.b		Operate Water Storage System	Day	365		
4.2.1.4.1.c		Operate Water Pumping System	Day	365		
4.2.1.4.1.d		Operate JSC Water Well	Day	365		
4.2.1.4.2.a		Read and Record Water Plant Meters	Day	365		
4.2.1.4.2.b		Maintain Water Plant Operations Log	Day	365		
4.2.1.4.2.c		Maintain Water Chart Recorder	Day	365		
4.2.1.4.2.d		Well Drawdown Test	Test	4		
4.2.1.5.1.a		Operate Compressed Air System	Day	365		
4.2.1.5.2		Read and Record Compressed Air System Meters/Gauges	Day	365		
4.2.1.6.1.a		Man & Operate Operations Control Center	Day	365		
4.2.1.6.1.b		Man & Operate EMCS	Day	365		
4.2.1.6.1.c		Manage EMCS Software	Day	365		
4.2.1.6.1.d		EBi Workstation Support	Day	365		
4.2.1.6.1.d	a	Field Configuration Report	Report	5		
4.2.1.6.1.e		EMCS Building Control Systems Support	Day	365		
4.2.1.6.2.a		Action Item File	Week	52		
4.2.1.6.2.b		Operating Set Point Limits	Day	365		
4.2.1.6.2.c		~~Monitoring and Control Systems~~	~~Day~~	~~365~~		
4.2.1.6.2.d		EMCS Operations Review Board	Week	52		
4.2.1.6.3.a		Preflight Checkout of EMCS	Mission	6		
4.2.1.6.3.b		Maintain EBi Historical File Media	Day	365		
4.2.1.6.3.c		Service System Printers	Day	365		
4.2.1.7.1.a		Operate Site Fuel Systems	Gallon	90,000		
4.2.1.7.2		Fuel Mobile Support Equipment	Gallon	600		
4.2.1.7.3		Fuel Oil Monitoring	Day	365		
4.2.2.1		Operate Steam and Condensate Return	Day	365		
4.2.2.1.2		Inspect Visual Checks Steam Distribution System	Inspection	4		
4.2.2.2.1.a		Site 15kV Distribution System Operation	Day	365		
4.2.2.2.1.b		Site 15kV Distribution System Inspection	Day	365		
4.2.2.2.1.c		Inspect EF & SCTF Electrical Distribution Systems	Inspection	4		
4.2.2.2.1.d		Exterior Lighting System	Day	365		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
4.2.2.2.2.a		High Voltage Switching Documentation	Document	6		
4.2.2.2.2.b		Read and Record System Meters and Gauges	Day	365		
4.2.2.2.2.c		Dranetz Recorder Service	Day	365		
4.2.2.2.2.d		Control Access to Building 221 Area	Day	365		
4.2.2.3.1.a		Operate Chilled Water Distribution System	Day	365		
4.2.2.3.2		Inspect Tunnel Chilled Water Distribution	Inspection	4		
4.2.2.4.1.a		Operate Water Distribution System	Day	365		
4.2.2.4.2.a		Water Distribution System Activities Log	Day	365		
4.2.2.4.2.b		Fire Hydrant System Test	Day	365		
4.2.2.5.1.a		Operate Sanitary Sewer Pumping and Distribution System	Day	365		
4.2.2.5.2.a		JSC and EF Operator Activities Log	Day	365		
4.2.2.5.2.b		Read and Record Distribution System Meters and Rainfall	Day	365		
4.2.2.5.3.a	a	Grease Traps	Pump Out	36		
4.2.2.5.3.a	b	Oil/Water Separators	Pump Out	19		
4.2.2.5.3.b		JSC Stormwater	Pump Out	6		
4.2.2.6.1.a		Operate Compressed Air Distribution System	Day	365		
4.2.2.6.1.b		Inspect Compressed Air Distribution System	Inspection	4		
4.2.2.7.1.a		Operate Natural Gas Distribution System	Day	365		
4.2.2.7.2.a		Maintain Daily Log	Day	365		
4.2.2.7.2.b		Read and Record Distribution System Meters	Day	365		
4.2.2.7.2.c		Inspect Natural Gas Distribution System	Inspection	1		
4.2.3.1		Operate Steam and Condensate Return	Day	365		
4.2.3.1.2		Low Pressure Steam Boiler Systems	Day	365		
4.2.3.2.1.a		Operate 15kV Facility Switches	Day	365		
4.2.3.2.1.b		Operate JSC Low Voltage Systems	Day	365		
4.2.3.2.2.a		Test the Test Power Generators	Week	52		
4.2.3.2.2.b		Read / Record Electrical Power Loads	Day	365		
4.2.3.2.3		Electrical Power Systems Loads Transfer	Day	365		
4.2.3.3.1.a		Operator / Monitor HVAC Systems	Day	365		
4.2.3.3.2.a		Read / Record MCC Complex HVAC System	Day	365		
4.2.3.3.2.b		Monitor / Inspect Hot Water Converters and Boilers	Day	365		
4.2.3.3.2.c		Inspect JSC Humidifiers	Day	365		
4.2.3.4		Operate Potable Water and Domestic Hot Water	Day	365		
4.2.3.4.2		Water Operations Log	Day	365		
4.2.3.5.1		Operate Compressed Air Systems	Day	365		
4.2.3.5.2		Inspect Facility Compressed Air Systems	Inspection	4		
4.2.3.5.3		Test Backup Control Compressed Air System	Annual	1		
4.2.3.6.1		Test Building Control System Interface	Annual	1		
4.2.3.7.1		Operate Natural Gas Distribution Systems	Day	365		
4.2.3.7.1	a	Inspect Natural Gas Distribution System	Inspection	4		
4.2.3.7.2		JSC and EF Natural Gas Distribution System Log	Day	365		
4.2.3.8.1		Fill Portable and Stationary Equipment Tanks	Gallon	15,000		
4.2.3.9.1		Inspect Valve Marker Identification	Day	365		
4.2.3.9.2.a		Mark Utility Systems	Utility Marking	75		
4.2.3.9.2.b		Documentation	Annual	1		
4.2.5.1		Water Utility Report	Month	12		
4.2.5.2	a	Submit Mission Readiness Plan	Plan	1		
4.2.5.2	b	Submit Fire Hydrant	Plan	1		
4.2.5.2	c	Submit O&M Manuals	Plan	1		
4.2.5.2	d	Submit EMCS Alarm Management Plan	Plan	1		
ANNEX 5		ENGINEERING				
5.2		Scope of Work	SOW	300		
5.2.d		Design Status Meeting	Meeting	26		
5.3.a		$0 - $2,500 Designs	Design	70		
5.3.b		$2,501 - $10,000 Designs	Design	120		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
5.3.c		$10,001 - $25,000 Designs	Design	70		
5.3.d		$25,000 - $50,000 Designs	Design	20		
5.3.e		$50,001 - $100,000 Designs	Design	10		
5.3.f		$100,001 - $200,000 Designs	Design	10		
5.3.1		Field Design Fix	Field Fix	20		
5.4		Submittal Shop Drawing Review	Review	15		
5.5		Master Facility Drawing Updates	Drawing	2,500		
5.6		Redline Verification Reviews	Review	5		
5.7.1		Standard Detail Drafting	Drawing	25		
5.7.2		Miscellaneous Design Drafting	Drawing	120		
5.7.3		CAD File Support	Review	5		
5.7.4		Electronic File Distribution	Files	1,100		
5.8.1		Cable Permits	Tunnel Permit	25		
5.8.2		Inspect Cable Changes	Inspection	35		
5.8.2	a	Tunnel Cable Records	Record	25		
5.8.3		Digging Permits	Digging Permit	50		
5.9	a	Field Check Updates	Drawing	525		
5.9	b	Redline Updates	Drawing	75		
5.9	c	Construction Updates	Drawing	80		
5.9	d	Room Number Assignments	Room Number	150		
5.9	e	Distribute Updated FHP Drawings	Request	100		
5.9	f	Disribute FHP Document	Document	200		
5.10	a	Update FEP Drawings	Drawing	35		
5.10	b	Create New FEP	Drawing	15		
5.10	c	Distribute FEP	Drawing	75		
5.11		Real Property Accounting	Voucher	250		
5.11.1		Account Reconciliation	Account	400		
5.11.2		Real Property Inventory	Line Item	800		
5.11.3		Inventory Tagging	Tagged Item	110		
5.11.4		Records Research	Researches	75		
5.11.5		Real Property Accounting System Data Entry	Voucher	250		
5.11.6		Update Real Estate Drawings and Facilty Master Plans	Drawing Update	4		
5.12		SPECTSINTACT System Maintenance	Update	6		
5.12.1		SWT Meeting Support	Meeting	12		
5.12.2		Process SPECTSINTACT Text Changes	Change	30		
5.12.4		Specification Production	Edit	30		
ANNEX 8		INFORMATION TECHNOLOGY				
8.2		Mainframe Application IT Support	Day	365		
8.3.1		IT Support for the CMMS	Day	365		
8.3.2		Provide CMMS Capability	Day	365		
8.3.3		Maintain CMMS Program	Day	365		
8.3.4		Maintain History Files	Day	365		
8.4		Environment Management IT Support	Day	365		
8.5		EMCS Database Support	Day	365		
8.6		System Operations/Maintenance	Day	365		
8.7		Online System Access and Support	Day	365		
8.8.1		Provide CAD Software Support	Hour	200		
8.8.2		Provide CAD Software License	License	2		
8.8.3		CGM Viewing Support/ Facility Drawing Database	Day	365		
8.8.4		Data Entry	Hours	40		
8.9.1		Gas Tracking System	Tracking System	1		
8.9.2.1		Barcode Scanners/ Support Maintenance	Day	365		
8.9.3		Thermography Data Support	Day	365		
8.9.4		Vibration Data Support	Day	365		
8.9.5		Real Property Database Support	Hour	40		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
8.9.6		Winest/ Means	Hour	40		
8.10	a	NEMS System Scanning	System	1		
8.10	b	IT Scanning Support	Hour	80		
8.11		Computer Systems and Data Security	Day	365		
8.11.2		Computer Security Manager	Day	365		
8.12.1	a	IT Help Support - Routine	Week	52		
8.12.1	b	IT Help Support - Emergency	Day	365		
8.12.2		Documentation Maintenance/ Update for Major Systems	Day	365		
8.12.3		Minor Systems Documentation	Day	365		
8.12.4		Minor Applications Documentation	Survey	1		
8.13.1		IT Security Plan	Plan	1		
ANNEX 9		ENVIRONMENTAL SERVICES				
9.2		Environmental Compliance Management (Site Activities)	Day	365		
9.2.1		Corrective Action	Day	365		
9.2.2	a	Compliance Inspection	Inspection	8		
9.2.2	b	Compliance EMS Audits	Audit	5		
9.2.2	c	External Compliance Audit	Audit	1		
9.2.2	d	Pre Audit Check List	Check List	4		
9.2.3	a	Building Audits	Audit	186		
9.2.3	b	Program Assessment	Assessment	1		
9.3		Industrial Solid Waste Management Program	Day	365		
9.3.1	a	Waste Pickup	Pickups	1,920		
9.3.1	b	Provide containers to waste generators	Containers	1,080		
9.3.2		Administer ISW Waste Streams	Day	365		
9.3.3		Maintain Waste Satellite Accumulation Areas (SAPs)	SAPs	150		
9.3.4	a	Operate and Manage all ISW Storage Facilities	Day	365		
9.3.4	b	Perform Tank Integrity Testing	Test	13		
9.3.5	a	Operate and Manage Waste treatment system	Day	365		
9.3.5	b	Sample Treated Batch	Samples	52		
9.3.6		Arrange for ISW Waste Transport and Disposition	Day	365		
9.3.7		Conduct Audits of TSDRs Facilities	Audit	10		
9.4		Air Quality Program	Day	365		
9.4.1		Operate the Building 222 CEMs	Day	365		
9.4.1	a	Inspect the CEMS	Day	286		
9.4.1	b	Building 222 CEMS Records	Record	286		
9.4.1	c1	Building 222 Rolling Average Calculations-Weekly	Calculation	52		
9.4.1	c2	Building 222 Rolling Average Calculations-Monthly	Calculation	12		
9.4.1	d	Building 222 CEMS Relative Accuracy Test Audit	Test	1		
9.4.1	e	Building 222 CEMS Cylinder Gas Audit	Test	3		
9.4.2		Ensure Building 24 Boiler Emission Compliance	Day	365		
9.4.2	a	Building 24 Boiler Data Entry and Records	Record	12		
9.4.2	b	Natural Gas Supplier Certificate	Certificate	1		
9.4.2	c	Natural Gas Sample Analysis	Sample	1		
9.4.2	d	Diesel Supplier Certificate	Certificate	10		
9.4.2	e	Fuel Delivery Record	Record	12		
9.4.3		Ensure Surface Coating Facilities Compliance	Day	365		
9.4.3	a	Monthly Records	Record	60		
9.4.3	b	Monthly Inspections	Inspection	52		
9.4.4	a	Track Air Emmissions	Day	365		
9.4.4	b	Perform TNRCC Standard Exemption Reviews	Review	1		
9.4.4	c	Building 262 Data Collection	Record	12		
9.4.4	d	JSC and EF Oil/ Water Separators Sampling	Sample	18		
9.4.4	e	Emergency Generators Data	Record	480		
9.4.4	f	Building 383 Air Stripper System	Record	52		
9.4.5		Perform Calculations for Emissions Inventory Report	Month	12		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.4.6		Opacity Readings	Opacity Reading	18		
9.5		Water Pollution Control and Prevention Program	Day	365		
9.5.1		Manage Sanitary Sewer Discharges	Discharge Points	400		
9.5.1	a	Develop & Update List of Sanitary Sewer Discharges	Day	365		
9.5.1	b	Implement Sanitary Sewer Discharge Mgt Plan	Day	365		
9.5.1	c	Review Request for Changes	Review	50		
9.5.1	d	Collect Samples	Sample	100		
9.5.2		Storm Water Management Program implementation	Day	365		
9.5.2	a1.	Conduct SWPPP inspections	Location	40		
9.5.2	a2	Inspect & Manage Rainfall at Containments	Containment	50		
9.5.2	b	Conduct Periodic Field Investigations	Investigation	20		
9.5.2	c	Conduct Annual Audits	Audit	3		
9.5.2	d	Review Sedimentation and Erosion Control Plans	Plan Review	20		
9.5.3		Spill Prevention Control and Countermeasure (SPCC) Program	Day	365		
9.5.3	a	Conduct Monthly Inspections	Inspection	60		
9.5.3	a1	Conduct Weekly Inspections	Inspection	3,016		
9.5.3	a2	Conduct Daily Inspections	Inspection	365		
9.5.4		Operation and Maintenance of Impoundments	Day	365		
9.5.4	a	Perform Annual Cleaning	Cleaning	1		
9.5.4	c	Clean Water Knives	Cleaning	2		
9.6		Implement Lead Program	Day	365		
9.7		Asbestos Program	Day	365		
9.7	d	Provide HEPA Vacuum Decontamination & Sevicing	Cleaning	150		
9.8		Implement Petroleum Storage Tank Program	Day	365		
9.8	b	Perform Annual ImpoundmentTank Integrity Testing	Tests	5		
9.9		Implement Groundwater Protection Program	Day	365		
9.9.1	c	Collect Samples	Sample	16		
9.10	a	Emergency Response	Chemical Spill	60		
9.10	b	Asbestos Spill Cleanup	Asbestos Spill	60		
9.11		Pollution Prevention and Resource Conservation	Day	365		
9.11.1		Track and Evaluate Information	Month	12		
9.11.2	a	Pollution Prevention Opportunity Assessments (PPOA)	PPOAs	20		
9.11.2	b	Develop standard PPOA data collection form	Form	1		
9.11.2	c	Implement PPOAs	PPOA implementation	6		
9.11.3		Ozone Depleting Substance Tracking Program	Day	365		
9.11.4		EPCRA Compliance Program	Day	365		
9.12		Communication, Training and Participation in Work Groups	Day	365		
9.12.2		Participate in Committees and Work Groups	Week	52		
9.13		Environmental Management System (EMS)	Day	365		
9.13	a	EMS User Access support	User	150		
9.13	b	Impact Team Meetings	Meeting	26		
9.13	c	Develop/Revise EMS Procedures	Procedure	25		
9.13	d	Develop Presentations	Presentations	20		
9.13	e	EMS Webpage Updates	Weekly	52		
9.14		Implement Toxic Substances Control Act (TSCA) Program	Day	365		
9.15		Personnel Qualification Requirements	Day	365		
9.16		Records, Reports, and Submittals	Day	365		
9.16.1.1		Environmental Compliance Plan	Year	1		
9.16.1.2		Annual Building Inspection Report	Report	186		
9.16.1.3		Self Assessment Findings Report	Report	1		
9.16.1.4		Environmental Resource Documents	Year	4		
9.16.1.5		Develop Standard Operating Procedures	Procedure	10		
9.16.2.1		Annual Waste Summary	Report	3		
9.16.2.2		Annual Site Activity Report	Report	1		
9.16.2.3		Monthly Waste Shipment	Report	36		
9.16.2.4		Monthly Waste Receipt Summary	Report	12		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.16.2.5		Monthly ISW Generator Report	Report	12		
9.16.2.6		ISW Contingency Plan	Plan	3		
9.16.2.7		ISW Waste Analysis Plans	Plan	3		
9.16.2.8		TSDR and Transportation Facility Audit Reports	Report	10		
9.16.2.9		ISW Tank Inspection Reports	Report	1		
9.16.2.10	a	ISW Tank Cleaning Plan	Plan	1		
9.16.2.10	b	ISW Tank Cleaning Report	Report	1		
9.16.2.11		Manifest Exception Reports	Report	3		
9.16.2.12		Biennial Hazardous Waste Report	Report	2		
9.16.2.13		Review and Update Closure Plan	Plan	4		
9.16.2.14		Review and Update RCRA Training Plan	Plan	3		
9.16.3.1		Develop and Submit RATA Report	Report	1		
9.16.3.2		Develop and Submit CGA Report	Report	3		
9.16.3.3		Develop and Submit Semiannual Db Excess Emission Report	Report	2		
9.16.3.4		Develop and Submit Semiannual Dc Excess Emission Report	Report	2		
9.16.3.5		Develop and Submit Emissions Inventory Report	Report	3		
9.16.3.6		Develop and Submit IPG Report	Report	1		
9.16.3.7		Report Analytical Results of Samples of O/W Separators at JSC and EF	Report	5		
9.16.4.1		Sanitary Sewer Industrial Discharge Management Plan	Day	365		
9.16.4.2		Annual Storm Water Plan Compliance Report	Report	3		
9.16.4.3		Update the JSC, EF and EPFOL Storm Water Pollution Prevention Plans	Plan	2		
9.16.4.4		Sedimentation and Erosion Control (SEC) Plan Reports	Report	20		
9.16.4.5		Spill Prevention Control and Countermeasure (SPCC) Report	Review	4		
9.16.5.1		Site-wide Annual Asbestos Inspection and Assessment	Inspection/Assessment	1		
9.16.5.2		Submit Asbestos Notifications to OMOH / FM	Notification	1,200		
9.16.6.1		Annual Petroleum Storage Tank (PST) Integrity Report	Report	1		
9.16.6.2	a	General Land Office Applications and Certificates	Application	2		
9.16.6.2	b	Submit Response Certification	Certification	2		
9.16.6.3		Regulated and Unregulated Petroleum Storage Tank (PST) Database Submit PST database	Report	1		
9.16.7.1		Groundwater Monitoring Well (MW) Statistics and Recovery Trends Report	Report	1		
9.16.8.1		Source Reduction and Waste Minimization Report	Report	3		
9.16.8.2		Pollution Prevention Plans	Plan	3		
9.16.8.3		NASA Recycling and Affirmative Procurement Report	Report	1		
9.16.8.4		Pollution Prevention Opportunity Assessment (PPOA) Reports	Report	20		
9.16.8.5		Annual ODS Usage Report	Report	1		
9.16.8.6		Develop Environmental Award Applications	Application	3		
9.16.8.7		Notifications to Agencies	Day	365		
9.16.8.8		Toxic Release Inventory	Report	4		
9.16.9.1		Environmental Study/Design Review	Study/Design Review	20		
9.16.10.1		Polychlorinated Biphenyl Annual Written Document Log	Report	2		
ANNEX 10		SUPPLY				
10.2.2	a	Ensure shelf life material	Line Item	840		
10.2.2	b	Document Tracking	Transaction	27,000		
10.2.2	c	Inventory Reconciliation	Day	365		
10.2.2	d	Document Control	Document	12,251		
10.2.2	e	JSC Form 1710	Form	3,000		
10.2.2	f	Cataloging	Day	365		
10.2.2	g	JSC Form 500	Form	10		
10.2.2	h	Prepare and Submit JSC Form 1303	Submission	10		
10.2.2	i	Assign Stock Numbers	Line Item	1,300		
10.2.2	j	Perform Add/User/Withdraw Actions	Action	12		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
10.2.2	k	Form 1685	Form	12		
10.2.2	l	SFM Tapes	Tape	10		
10.2.2	m	Standardization Studies	Study	12		
10.2.2	n	Acquistion and Inventory Management	Day	365		
10.2.2	n1	Purchase Stock Items	Purchase	800		
10.2.2	n2	Suspended receipt & Issue Transactions	Day	365		
10.2.2	n3	JSC Form 500/ 500a	Form	10		
10.2.2	n4	NSMS Complete Access Report	Report	4		
10.2.2	o	Cost Accounting System	Day	365		
10.2.2	p1	Issue Stock	Issue	8,000		
10.2.2	p2	Stock Returns	Return	156		
10.2.2	p3	Work Stoppages	Work stoppage	100		
10.2.2	q	DV Program	Day	365		
10.2.2	r	Program Stock Receipts	Receipt	3,000		
10.2.2	s	Program Stock Discrepancies	Line Item	25		
10.2.2	t	Program Stock Temporary Hold	Piece	60		
10.2.2	u	Program Stock Issues	Issue	8,000		
10.2.2	v	NASA Tagged Hardware	Day	365		
10.2.3		Sample Physical Inventory of Assets	Inventory	3		
10.2.4		Temporary Storage	Case File	125		
10.2.5	a	Gas Cylinder Purchases	Day	365		
10.2.5	b	Repaint/Refurbish Cylinders	Cylinder	120		
10.2.5	c	Scrub/scrap Cylinders	Cylinder	50		
10.2.5	d	Rejected Cylinders (contents)	Cylinder	130		
10.2.6.1		Master Case File Listing	Report	12		
10.2.6.2		Case File Listing	Report	125		
10.2.6.3		Physical Inventory Schedule	Schedule	1		
10.2.6.4		Store Stock and Critical Spares Catalogs	Catalog	3		
10.2.7		Personnel Requirements	Day	365		
10.3.2	a	New Furniture Receipts	Piece	3,200		
10.3.2	b	Used Furniture Receipts	Piece	13,000		
10.3.2	c	Prepare Furniture for Delivery	Piece	11,750		
10.3.2	d	Connect/Disconnect Furniture	Piece	11,000		
10.3.3		In-Field Furniture Repair	Piece	4,000		
10.3.4		Carpet Operations	Square Yard	2,000		
10.3.5		Conduct Carpet/Furniture Inventories	Inventory	12		
10.3.6		Furniture & Carpet Inventory Report	Report	12		
10.3.7		Personnel Expertise Requirements	Day	365		
10.4.2		Maintenance and Repair - Radio Communications Equipment	Day	365		
10.4.2	a	Priority 1	Request	15		
10.4.2	b	Priority 2	Request	15		
10.4.3		Maintenance and Repair - Portable Radios and Chargers	Request	30		
10.4.4		Installation and Removal	Operation	28		
10.4.5		Radio Equipment Preventive Maintenance	Day	365		
ANNEX 11		PROPERTY AND EQUIPMENT				
11.2.2	a	Requested NEMS Report	Report	5,100		
11.2.2	b	Quarterly/Monthly NEMS Reports	Report	65,000		
11.2.2	c	NEMS User List	List	10,000		
11.2.2.1		NEMS Documentation	Transaction	37,000		
11.2.2.2		CD-Rom Archival	Document	50,000		
11.2.2.3	a	Wall to Wall Equipment Inventory	Inventory Item	18,000		
11.2.2.3	b	Sensitive Inventory	Inventory Item	5,000		
11.2.2.4	a	In-place Equipment tagging	Equipment Item	500		
11.2.2.4	b	In-place Equipment de-tagging	Equipment Item	1,000		
11.2.2.4	c	Found on Station Form	Form	15		

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
11.2.2.4	d	Cannibalization/Modification Form	Form	50		
11.3.1	a	Process Shipping Document	Form	2,670		
11.3.1	b	Maintain & track logs & data	Day	365		
11.3.1	c	Create folders and log records	Day	365		
11.3.1	d	Annotate Records	Day	365		
11.3.1	e	Process Employee Clearances	Form	106		
11.4.2.a		Reutilization and Disposal Operations	Line Item	20,500		
11.4.2.b		Pick up of Scrap Metals	Pickup	250		
11.4.3		Stevenson-Wydler Program and Computers for Learning Program	Requests	50 - 75		
11.4.4		Shuttle Orbiter Tile Program	Tiles Shipped	400		
11.4.5.a		Perform Physical Inventory	Inventory	1		
11.4.5.b		Final Inventory Report	Report	1		
11.4.5.c		Inventory Adjustment Record for Shortages	Record	1		
11.4.5.d		Inventory Adjustment Record for Overages	Record	1		
11.4.6.a		Contractor Monthly Production Report	Report	12		
11.4.6.b		Property held by the Property Disposal Officer Report	Report	12		
11.4.6.c		Annual Report of Exchange/Sale Transactons	Report	1		
11.4.6.d		Personal Property	Report	1		
11.4.6.e		Report of Activities Generating Precious Metals	Report	1		
11.4.6.f		Organizations	Report	1		
11.4.6.g		Performance Measures Report	Report	2		
11.4.6.h		Semiannual Report of Personal Property Management Operations	Report	2		
ANNEX 12		TRANSPORTATION				
12.2.1		General Transporation Services	Work request	4,000		
12.2.2	a	Core Hour Personnel Moves	People	1,300		
12.2.2	b	Non-core Hour Personnel Moves	People	100		
12.2.3		Quick Dispatch	Request	3,000		
12.2.4		Nitrogen Delivery	Gallons	283,000		
12.2.5		Personnel Licensed	Day	365		
12.3.2	a	Packing & Shipping Routine Shipments	Shipment	4,500		
12.3.2	b	Packing & Shipping Priority Shipments	Shipment	6,500		
12.3.2	c	Hazardous Shipments	Shipment	225		
12.3.3		Vehicle Load Plans	Loads	25		
12.3.4		Delivery to/From Offsite Locations	Shipment	300		
12.3.5		Packaging Personnel Requirements	Day	365		
12.3.6.1		Monthly Production Report	Report	12		
12.4.1	a	Rigging Support for Priority 1 Work Order	Priority	5		
12.4.1	b	Rigging Support for Priority 2 Work Order	Priority	300		
12.4.1	c	Rigging Support for Priority 3 Work Order	General	400		
12.4.2	a	Priority 2 Load Test	Test	200		
12.4.2	b	Load Tests General Support	Test	400		
12.4.3		Lifting Equipment Listing	Day	365		
12.4.4		Personnel Requirements	Day	365		
12.5.3		Vehicle Administrative Operations	Day	365		
12.5.3.1		Maintain Extra Vehicle Keys	Key	150		
12.5.3.2		Maintain Vehicle Credit Cards	Card	107		
12.5.3.3		Report of Accidents	Report	10		
12.5.3.4		Vehicle Safety Recall Notifications	Notice	4		
12.5.3.5		Daily Vehicle Dispatch Sheets	Monthly	12		
12.5.3.6	a	Issue Government Pool Vehicles	Request	550		
12.5.3.6	b	Maintain/Update Reservations Calendar	Day	365		
12.5.3.7	a	Process Full Time Vehicle Assignments	Request	10		
12.5.3.8		Maintain/Update Vehicle Fleet Database	Day	365		
12.5.3.9		Vehicle Preventive Maintenance	Notification	300		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year One						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
12.5.3.10		Pool Vehicles, Preventive Maintenance, Servicing, and Replacement	Vehicle	120		
12.5.3.11		Vehicle Emissions Inspections	Notice	100		
12.5.4		Special Events Transportation	Request	8		
12.5.5.1		Provide Vehicle Mileage Reports	Report	12		
12.5.5.2		Federal Automotive Statistical Tool Report	Report	1		
12.5.5.3		Alternative Transportation Fuel and Alternative Vehicles Survey, Energy Information Agency Survey Report	Report	1		
12.5.5.4		Alternative Fuel Vehicle Acuisition Report	Report	1		
12.5.5.5		Agency Reporting of Motor Vehicle Data for Budget Submission Report, Office of Management and Budget Report	Report	1		
12.5.5.6		General Purpose Vehicle Accident Report	Report	2		
12.5.5.7		OIG Audit Response (General Purpose) Vehicle Cost Savings Summary Report	Report	2		
12.5.5.8		Vehicle Cost Per Mile Metrics Report	Report	4		
12.5.5.9		Vehicle Fleet Mileage Express Report	Report	12		
12.5.5.10		OPAC Report	Report	12		
12.5.5.11		Vehicle Statistical Report	Report	12		
12.5.5.12		One-Time/New Reports	Report	5		
12.5.6.		Personnel Requirements	Day	365		
12.6.1		Receive/Deliver Inbound Freight	Shipment	27,000		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
ANNEX 1		ADMINISTRATIVE SUPPORT				
1.2		Work Control Center	Daily	365		
1.3.1		Designate Building Manager	Square Feet	122,809		
1.3.2		Maintain Facilities	Daily	365		
1.3.3		Facilities Utilization Records	Daily	365		
1.4		Contractor Work Area Cleaning	Daily	365		
1.5		Site Critical Installation Provided Property	Item	40		
1.6.1		Quality Control Program	Program	1		
1.6.1	a	Corrective Actions Summary	Summary	12		
1.6.1	b	QC Performance Reports	Report	12		
1.6.2		Quality Control Plan	Plan	1		
1.6.3		ISO 9001- 2000 Certification	Certification	1		
1.6.4		Continuous Improvement Teams	Team	8		
1.7.1		Safety and Health Program	Program	1		
1.7.1.1		VPP Certification	Certification	1		
1.7.2		Safety and Health Plan	Plan	1		
1.7.3.1		Statistical Information Report	Report	12		
1.7.3.2		Self Evaluation Report	Report	1		
1.7.3.3		Terminated Employees Report	Report	1		
1.7.3.4		Material Safety Data Sheets	Day	365		
1.7.3.5		Hazardous Materials Inventory	Report	1		
1.7.3.6		Hazard Abatement Notices and Plans	Review	12		
1.7.3.7		Lessons Learned Report	Report	4		
1.7.3.8		Safety and Health Metrics	Report	12		
1.7.3.9		Log of Occupational Injuries/ Illnesses	Report	1		
1.7.3.10		Hazards Identification	Report	1		
1.8.1		Energy and Water Conservation	Plan	1		
1.8.1.a		Y2K HVAC Equipment and Lighting Baseline Status Report	Reports	12		
1.8.1.b		Monthly Utility Report (MUR)	Reports	12		
1.8.1.c		Quarterly Energy Report (QER)	Reports	4		
1.8.1.d	a	Cold Weather Protection Plan	Plan	1		
1.8.1.d	b	Freeze Protection Survey	Survey	1		
1.90		Functional Metrics	Report	12		
1.10.1		Environmental Program (for COSS Activities)	Day	365		
1.10.2		Procure Recycled Items/Materials	Day	365		
1.10.3		Environmental Management System	Day	365		
1.10.4		Affirmative Procurement	Day	365		
1.10.5		Prohibited & Restricted Materials	Day	365		
1.10.6		Ozone Depleting Substances	Item	75		
1.10.7		Polychlorinated Biphenyls	Item	75		
1.10.8		Participate in Recycling Programs	Day	365		
1.11		Emergency Management Program	Plan	1		
1.12.5		Energy Manager	Day	365		
1.12.6		Environmental Training	Day	365		
1.13.1		Workload Data Collection Report	Report	1		
1.13.3		Cost Data Report	Report	1		
ANNEX 2		SCHEDULED MAINTENANCE AND REPAIR				
2.2.1		Implement the SM Plan	Database	1		
2.2.2		Accomplish Scheduled Maintenance				
2.2.2	ACCI001	Air Condenor Unit Inspection	PM	344		
2.2.2	ACUI001	Air Conditioner Unit, Inspection	PM	201		
2.2.2	AHUI001	Air Handler Unit, Inspection	PM	15		
2.2.2	AHUI003	Air Handler Unit Humidifier, Inspection	PM	5		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	AHUI004	Air Handler Unit, Pre-Flight Checks	PM	173		
2.2.2	AHUI005	Film Vault Air Handler Unit, Inspection	PM	1		
2.2.2	AHUI006	Air Handler Unit With Generator, Inspection	PM	2		
2.2.2	AHUM001	Air Handler Unit, Filter Change	PM	12		
2.2.2	AHUV001	Air Handler Unit, Vibration	PM	1115		
2.2.2	APLI001	Ultra Low Freezer, Inspection And Maintenance	PM	1		
2.2.2	APLI002	Toaster Conveyor, Inspection And Maintenance	PM	4		
2.2.2	APLI003	Refrigerator, Inspection And Maintenance	PM	2		
2.2.2	APLI004	Steam Jacketed Kettle, Maintenance	PM	3		
2.2.2	APLI005	Kitchen Equipment, Inspection And Maintenance	PM	34		
2.2.2	APLM001	Dishwasher, Inspect And Maintenance	PM	3		
2.2.2	APLM002	Steamer, Inspection And Maintenance	PM	7		
2.2.2	APLM003	Ice Machine Water Filter, Replacement	PM	14		
2.2.2	APLM005	Ice Machine, Maintenance And Inspection	PM	9		
2.2.2	BATI001	Electric Storage Battery Monitoring System, Data Collection	PM	5		
2.2.2	BATI002	Electric Storage Battery, Maintenance And Testing	PM	14		
2.2.2	BATM001	Electric Storage Battery, Replacement	PM	14		
2.2.2	BATM002	Battery Charger, Maintenance And Testing	PM	22		
2.2.2	BATT001	Electric Storage Battery, Maintenance And Impedance Testing	PM	14		
2.2.2	BFPT001	DCK Backflow Preventer, Test	PM	41		
2.2.2	BFPT002	PVB Backflow Preventer, Test	PM	66		
2.2.2	BFPT003	RPZ Backflow Preventer, Test	PM	176		
2.2.2	BRKM001	Vacuum Circuit Breaker, Maintenance And Test	PM	55		
2.2.2	BRKT001	Air Circuit Breaker, Maintenance And Test	PM	552		
2.2.2	BRKT002	Air Circuit Breaker Protective Relay, Functional Test	PM	26		
2.2.2	BRSC001	Steam Boiler Force Draft Air Fan, Calibrate And Inspection	PM	3		
2.2.2	BRSC002	Steam Boiler, Fuel Oil Calibration	PM	3		
2.2.2	BRSC003	Steam Boiler, Transmitter Calibration.	PM	3		
2.2.2	BRSI001	Steam Boiler, Pre Flight Checks	PM	3		
2.2.2	BRSI002	Low Pressure Gas Fired Steam Boiler, Operational Inspection	PM	37		
2.2.2	BRSI003	Boiler, Sampling And Data Collection	PM	37		
2.2.2	BRSI004	Steam Boiler, Internal Inspection	PM	37		
2.2.2	BRSM001	Steam Boiler Feed Water, Maintenance And Inspection	PM	3		
2.2.2	BRSV001	Steam Boiler Force Draft Air Fan, Vibration Check	PM	3		
2.2.2	CAPI001	Capacitor Bank, Inspection	PM	3		
2.2.2	CBLI001	15kv Feeder Cable, Inspection And Testing	PM	36		
2.2.2	CHLC001	Chiller, Calibration	PM	13		
2.2.2	CHLC003	Chiller Lube Oil System, Calibration And Inspection	PM	13		
2.2.2	CHLI001	Chiller Refrigerant System, Inspection And Calibration	PM	1		
2.2.2	CHLI003	Chiller Balance Piston, Inspection	PM	13		
2.2.2	CHLI004	Chiller, Electrical Operational Inspection	PM	13		
2.2.2	CHLI005	Chiller, Mechanical Operational Inspection	PM	13		
2.2.2	CHLI006	Chiller Gearbox, Inspection	PM	13		
2.2.2	CHLI009	Small Chiller, Operational Inspection	PM	11		
2.2.2	CHLI012	Medium Chiller, Operational Inspection	PM	5		
2.2.2	CHLV001	Chiller, Vibration Data Collection And Analysis	PM	18		
2.2.2	CLTI001	Cooling Tower Structure, Inspection	PM	15		
2.2.2	CLTI002	Cooling Tower, Mechanical Inspection	PM	1		
2.2.2	CLTM001	Cooling Tower Water Treatment, Sampling	PM	15		
2.2.2	CLTV001	Cooling Tower Fan, Vibration Data Collection	PM	14		
2.2.2	COMI001	Inspection	PM	49		
2.2.2	COMI002	Stand Alone Control Air Compressor, Function Test And Inspection	PM	40		
2.2.2	COMI003	Shop Air Compressor, Function Test And Inspection	PM	41		
2.2.2	COMV001	Centrifugal Compressor, Vibration Data Collection	PM	9		
2.2.2	COMV002	Operational Inspection	PM	6		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	CPSI001	Immersed & Buried Anode Cathodic Protection System, Inspection	PM	4		
2.2.2	CPSI002	Water Wells Buried Anode Cathodic Protection System, Inspection	PM	2		
2.2.2	CRNC001	Hoist And Crane, Certification	PM	125		
2.2.2	CRNI001	Hoist And Crane, Inspection	PM	125		
2.2.2	CRNM001	Hoist And Crane, Lubrication	PM	30		
2.2.2	CTBI001	Containment Berms, Inspection And Repair	PM	2		
2.2.2	DORI001	Vertical Lift Door, Inspection	PM	12		
2.2.2	DORI002	Horizontal Sectional Hanger Door	PM	3		
2.2.2	DORI003	Automatic Sliding Door, Inspection	PM	36		
2.2.2	DORI004	Roll Up Electric Door, Inspection And Maintenance	PM	59		
2.2.2	DORI005	Electric Overhead Door, Inspection	PM	113		
2.2.2	DORM001	Automatic Sliding Door, Maintenance	PM	36		
2.2.2	EEWI001	Plumbed Eyewash And Safety Shower, Flush	PM	210		
2.2.2	EEWI002	Eyewash And Safety Shower, Inspection	PM	256		
2.2.2	EEWM001	Portable Eyewash And Safety Shower, Flush And Maintenance	PM	47		
2.2.2	ELSM001	Emergency Lighting System, Full Maintenance And Inspection	PM	70		
2.2.2	ELST002	Emergency Lighting System, 30 Second Function Test	PM	71		
2.2.2	ELST003	Emergency Lighting System, 90 Minute Test And Inspection	PM	71		
2.2.2	ELUT001	Emergency Lighting Unit, 30 Second Function Test	PM	62		
2.2.2	ELVI001	Hydraulic Elevator, Monthly Inspection	PM	36		
2.2.2	ELVI002	Hydraulic Elevator, Quarterly Inspection	PM	36		
2.2.2	ELVI003	Hydraulic Elevator, Semi-Annual Inspection	PM	36		
2.2.2	ELVI004	Hydraulic Elevators, Inspection	PM	36		
2.2.2	ELVI005	Electrical Traction Elevator, Monthly Inspection	PM	23		
2.2.2	ELVI006	Electrical Traction Elevator, Quarterly Inspection	PM	23		
2.2.2	ELVI007	Electrical Traction Elevator, Semi-Annual Inspection	PM	23		
2.2.2	ELVI008	Electrical Traction Elevator, Annual Inspection	PM	23		
2.2.2	ENGI001	Diesel Engine, Air Starter Inspection	PM	5		
2.2.2	ENGI002	Diesel Engine, Inspect And Run	PM	5		
2.2.2	ENGI005	Natural Gas Engine, Inspect And Run	PM	7		
2.2.2	ENGI007	Diesel Engine, Cooling Water Checks	PM	11		
2.2.2	ENGM002	Diesel Engine, Lube Oil Pump Service	PM	5		
2.2.2	ENGM003	Diesel Engine, Flex Hose Inspection	PM	6		
2.2.2	ENGM004	Diesel Engine, Maintenance	PM	5		
2.2.2	ENGM005	Natural Gas Engine, Clean And Lubricate	PM	7		
2.2.2	ENGM006	Natural Gas Engine, Maintenance	PM	7		
2.2.2	ENGM008	Diesel Engine, Governor Oil Change	PM	6		
2.2.2	ENGT001	Diesel Engine Protective Relay, Maintenance And Testing	PM	5		
2.2.2	EWSI001	Emergency Warning System, Maintenance And Repair	PM	1		
2.2.2	EXCI001	Exchanger, Operational Inspection	PM	103		
2.2.2	FANI001	Fan, Inspection	PM	674		
2.2.2	FANV001	Fan, Vibration Data Collection And Inspection	PM	15		
2.2.2	FGTI001	Perimeter Fencing Gates, Inspect And Repair	PM	3		
2.2.2	FILM001	Water Fountain Filter, Replacement	PM	73		
2.2.2	FILM002	Filter Bank, Replacement	PM	53		
2.2.2	GENI002	Portable Generator, Inspection	PM	67		
2.2.2	GENI004	Power Generators, Operation	PM	5		
2.2.2	GENI007	5000 Watt Portable Generator, Inspection	PM	6		
2.2.2	GENM003	Portable Generator, Maintenance And Inspection	PM	67		
2.2.2	GENM011	Power Generator, Inspection And Testing	PM	5		
2.2.2	GENT002	Portable Generator, Mission Run Test	PM	5		
2.2.2	GENT003	Power Generators, Verify Output Capacity 100% Load Test	PM	5		
2.2.2	GTSI001	Groundwater Treatment System, Inspection	PM	1		
2.2.2	GTSI002	Groundwater Treatment System Control Valve, Inspection	PM	1		
2.2.2	GTST001	Groundwater Treatment System, Sample Testing	PM	1		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	HTRI001	Gas Fired Space Heater, Inspection	PM	91		
2.2.2	HTRI002	Gas Fired Hot Water Heater, Inspection	PM	2		
2.2.2	LFTC001	Lift, Certification	PM	79		
2.2.2	LFTI001	Lift, Inspection	PM	79		
2.2.2	LTGM001	Ceiling Lights, Partial Relamp	PM	161		
2.2.2	LTGM002	Ceiling Lights, Total Relamp	PM	10		
2.2.2	MCCI001	Motor Control Center, Clean And Inspection	PM	101		
2.2.2	NGST001	Natural Gas Valve Regulator Station 4, Exercise	PM	1		
2.2.2	NGST002	Natural Gas Valve Regulator Station 6, Exercise	PM	1		
2.2.2	NGST003	Natural Gas Valve Regulator Station 5, Exercise	PM	1		
2.2.2	NGST004	Natural Gas Valve Ave B Main Line, Exercise	PM	1		
2.2.2	NGST005	Natural Gas Valve Regulator Stations 10 12 And 13, Exercise	PM	1		
2.2.2	NGST006	Natural Gas Valve Regulator Stations 7 And 8, Exercise	PM	1		
2.2.2	NGST007	Natural Gas Valve Regulator Station 14, Exercise	PM	1		
2.2.2	NGST008	Natural Gas Valve Regulator Station 3, Exercise	PM	1		
2.2.2	NGST009	Natural Gas Valve Ellington Field, Exercise	PM	1		
2.2.2	OILI001	Rotating Equipment Oil Analysis, Sampling Instructions	PM	28		
2.2.2	OILI002	Chiller Oil And Refrigerant, Sampling And Analysis	PM	18		
2.2.2	OILI003	Dielectric Insulating Liquid, Inspection & Tests	PM	126		
2.2.2	PLWI001	Plating Waste Pretreatment System UCS Alarm, Inspection	PM	15		
2.2.2	PLWI002	Plating Waste Pretreatment System Control Equipment, Inspection	PM	15		
2.2.2	PMPI001	Pump, Inspection And Maintenance	PM	257		
2.2.2	PMPI002	Boiler Feed Water Pump, Inspection	PM	5		
2.2.2	PMPM001	Fuel Oil Pump Coupling, Grease	PM	3		
2.2.2	PMPV001	Pump, Vibration Data Collection And Inspection	PM	427		
2.2.2	PNLI001	Electrical Distribution Panel, Inspection	PM	259		
2.2.2	PWDT001	Potable Water Valve, Exercise Valves And Fire Hydrant	PM	1		
2.2.2	RADM001	Radio Base Station, Maintenance	PM	3		
2.2.2	RPDM001	Memorials, Inspect And Maintain	PM	2		
2.2.2	RPDM002	Flag Pole, Inspect And Maintain	PM	2		
2.2.2	SCRI001	Steam Trap Ultrasonic And Temperature, Inspection	PM	98		
2.2.2	SETI001	Structural Exterior, Inspection	PM	188		
2.2.2	SISI001	Intercom System, Maintenance And Repair	PM	1		
2.2.2	SKRI001	Oil Skimmer, Inspection	PM	9		
2.2.2	SKRM001	JSC Site Oil Skimmer, Clear Out	PM	4		
2.2.2	SKRM002	ELL Site Oil Skimmer, Clean Out	PM	9		
2.2.2	SNSI001	Grease Trap, Inspect	PM	4		
2.2.2	SWGI002	Switchgear Enclosure, Inspection And Maintenance	PM	133		
2.2.2	SWII001	15kv Automatic Circuit Recloser, Inspect And Maintain	PM	3		
2.2.2	SWII002	Load Break Switch, Inspection And Maintenance	PM	43		
2.2.2	SWII003	Automatic Transfer Switch, Inspection And Maintenance	PM	36		
2.2.2	SWII004	Manual Transfer Switch, Inspection And Maintenance	PM	35		
2.2.2	SWII005	High Voltage Oil Switch, Inspection And Maintenance	PM	15		
2.2.2	SWIM001	Switch, Inspection And Maintenance High Voltage Air Switch	PM	8		
2.2.2	SWIM003	High Voltage SF6 or Vacuum Switch Inspection And Maintenance	PM	11		
2.2.2	SWSM001	Storm Water Collection System, Clean And Inspect	PM	1		
2.2.2	TISI001	Turf Irrigation Valve, Inspection And Repair	PM	1		
2.2.2	TRLI001	Trailer, Inspection	PM	52		
2.2.2	TRNT001	Dry Transformer, Insulation Testing	PM	19		
2.2.2	UPSI003	Uninterrupted Power Source, Inspection	PM	48		
2.2.2	UPSM001	Uninterrupted Power Source, Five Year Maintenance	PM	22		
2.2.2	UPSM002	Uninterrupted Power Source, Annual Maintenance	PM	47		
2.2.2	UPSM003	Uninterrupted Power Source, Semi-Annual Maintenance	PM	22		
2.2.2	UPSM004	Uninterrupted Power Source, Rotary Ups Inspect And Maintain	PM	2		
2.2.2	UPST001	Uninterrupted Power Source, Inferred Thermography Testing	PM	22		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	VEHI001	ATV Inspection And Service	PM	1		
2.2.2	VEHI002	Electric Forklift, Maintenance And Inspection	PM	22		
2.2.2	VEHI003	General Mobile Equipment, Inspection	PM	55		
2.2.2	VEHI005	Manlift, Pallet Lift, And Pallet Jacks, Maintenance And Repair	PM	5		
2.2.2	VEHI006	Equipment And Vehicle, Meter Reading	PM	59		
2.2.2	VEHM001	Oil And Filter Change	PM	55		
2.2.2	VFDI001	Variable Frequency Drive, Maintenance And Inspection	PM	122		
2.2.2	VIBI001	General Vibration Data Collection And Analysis	PM	2		
2.2.4		Equipment Identification	Program	1		
2.2.5	a	Class I Pressure Vessel Inspections	Inspection	564		
2.2.5	b	Class II Pressure Vessel Inspections	Inspection	11		
2.2.5	c	Class III Pressure Vessel Inspections	Inspection	93		
2.2.5	d	Relief Valve Certification and Support	Certification	359		
2.2.5	e	Flex Hose Certification	Certification	34		
2.2.6		Light/Lamp Replacement	Fixture	20,000		
2.3.1	a	JA/COD Repair Program	Day	365		
2.3.2		Non Lump Sum Emergency Response	Emergency Call	200		
2.3.3		Critical Spare Parts Management	Day	365		
2.4		Maintenance Activation Program	Day	365		
2.4.h		Quarterli Reconciliation Report	Report	4		
2.5		Warranty Program	Program	1		
2.5	a	Administer Warranty	Warranty	300		
2.5	f	Warranty Report	Report	12		
2.6		Availability & Reliability	Day	365		
2.7		Reliability Cenetered Maintenance	Analysis	4		
2.9.1		User Equipment Maintenance Report	Report	12		
2.9.2		Pressue System Certification Testing Report	Report	12		
ANNEX 3		DIRECTED SERVICES				
3.2.1	a	Paint All Pedestrian Crosswalks	Linear Foot	3,000		
3.2.1	b	Paint street markings & parking lot markings	Mile	60		
3.2.1	c	Re-stencil all reserved parking space designations	Restored Space	1,650		
3.2.1	d	Resecure traffic control signs/nameplate holders	Sign/Nameplate Holder	15		
3.2.1	e	Install new traffic control signs/nameplate holders	Sign/Nameplate Holder	60		
3.2.1	f	Install new traffic control signs with posts	Sign/Post	15		
3.2.1	g	Maintain road surface reflectonzed buttons & ceramic markers	Button/Marker	10		
3.2.1	h	Paint fire hydrants, post indicator valves, etc.	Month	12		
3.2.1	I	Maintain records for Building 304 surface coating activities	Occurrence	30		
3.2.2	a	Plan	Review	2		
3.2.2	b	Maintain Contents of Hurricane Cabinets	Cabinet	26		
3.2.2	c	Maintain Emergency Storm Supplies List	Review	1		
3.2.2	d	Accomplish Hurricane/Severe Weather Level IV Activities	Annual	1		
3.2.3	a	Special Events	Event	4		
3.2.3	b	Minor Events	Annual	1		
3.2.3	c	Crew Returns	Mission	6		
3.2.4	a	COSS Technical Reference Library Plan	Plan	1		
3.2.4	c	Maintain COSS Technical Library Collection	Month	12		
3.3.2	a	Develop the FCA Plan	Plan	1		
3.3.2	b	Implement the FCA Plan	Monthly	12		
3.3.2	c	Document and Maintain FCA Database	Day	365		
3.3.2	d	Provide Monthly FCA Status Report	Report	12		
3.3.2	e	Provide Annual Facility Condition Assessment Report	Report	1		
3.3.3	a	Perform Comprehensive Visual Roof Inspection	Report	1		
3.3.3	b	Perform Non-Destructive Roof Inspections	Day	365		
3.3.3	d	Roof Mounted Appurtenance Inspection	Day	365		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
3.3.4		Perform Building Exterior Inspection	Report	1		
3.3.5		Perform Roads Inspection	Report	1		
3.3.6		Perform Sidewalk Inspection	Report	1		
3.3.7		Perform Inspections of All Fences	Report	1		
3.3.8		FCA Inspection - Sanitary Sewer System	Report	1		
3.3.9		FCA Inspection - Stormwater Collection System	Report	1		
ANNEX 4		OPERATIONS				
4.2.1.1.1.a		Boiler and Condendate Return System	Day	365		
4.2.1.1.2.a		Building 24 Central Plant Steam/Boiler System	Day	365		
4.2.1.2.1.a		138 kV JSC Site Electrical Substation	Day	365		
4.2.1.2.1.b		Operate Building 48 Power Systems	Day	365		
4.2.1.2.1.c		Building 48 Power Generators and UPS	Day	365		
4.2.1.2.2.a		Mission Shuttle Support	Mission	6		
4.2.1.2.2.a	a	Provide Alternate Mission Manager	Day	30		
4.2.1.2.2.a	b	Provide Mission Meeting Support	Mission	6		
4.2.1.2.2.a	c	Provide Utility System Drawings	Drawing	40		
4.2.1.2.2.b		Preflight Checkout of Power Systems	Mission	6		
4.2.1.2.2.b	a	Provide Mission Support Plan	Plan	6		
4.2.1.2.2.c		Read and Record Power Systems Meters	Day	365		
4.2.1.2.3.a		Read and Record Kilowatt Hours Meters	Reading	12		
4.2.1.2.3.b		Test Power Protective Devices	Annually	1		
4.2.1.2.3.c		Output Capacity	Annually	1		
4.2.1.2.3.d		Power Recording Charts	Day	365		
4.2.1.3.1.a		Heating and Cooling Plant Chilled Water Production Systems	Day	365		
4.2.1.3.1.b		Building 48 Chilled Water Production System	Day	365		
4.2.1.3.2.a		Chilled Water System Meters/Gauges	Day	365		
4.2.1.3.2.b		Operate Condenser Water Treatment Systems	Day	365		
4.2.1.4.1.a		Operate Water Treatment System	Day	365		
4.2.1.4.1.b		Operate Water Storage System	Day	365		
4.2.1.4.1.c		Operate Water Pumping System	Day	365		
4.2.1.4.1.d		Operate JSC Water Well	Day	365		
4.2.1.4.2.a		Read and Record Water Plant Meters	Day	365		
4.2.1.4.2.b		Maintain Water Plant Operations Log	Day	365		
4.2.1.4.2.c		Maintain Water Chart Recorder	Day	365		
4.2.1.4.2.d		Well Drawdown Test	Test	4		
4.2.1.5.1.a		Operate Compressed Air System	Day	365		
4.2.1.5.2		Read and Record Compressed Air System Meters/Gauges	Day	365		
4.2.1.6.1.a		Man & Operate Operations Control Center	Day	365		
4.2.1.6.1.b		Man & Operate EMCS	Day	365		
4.2.1.6.1.c		Manage EMCS Software	Day	365		
4.2.1.6.1.d		EBi Workstation Support	Day	365		
4.2.1.6.1.d	a	Field Configuration Report	Report	5		
4.2.1.6.1.e		EMCS Building Control Systems Support	Day	365		
4.2.1.6.2.a		Action Item File	Week	52		
4.2.1.6.2.b		Operating Set Point Limits	Day	365		
4.2.1.6.2.c		Monitoring and Control Systems	Day	365		
4.2.1.6.2.d		EMCS Operations Review Board	Week	52		
4.2.1.6.3.a		Preflight Checkout of EMCS	Mission	6		
4.2.1.6.3.b		Maintain EBi Historical File Media	Day	365		
4.2.1.6.3.c		Service System Printers	Day	365		
4.2.1.7.1.a		Operate Site Fuel Systems	Gallon	90,000		
4.2.1.7.2		Fuel Mobile Support Equipment	Gallon	600		
4.2.1.7.3		Fuel Oil Monitoring	Day	365		
4.2.2.1		Operate Steam and Condensate Return	Day	365		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
4.2.2.1.2		Inspect Visual Checks Steam Distribution System	Inspection	4		
4.2.2.2.1.a		Site 15kV Distribution System Operation	Day	365		
4.2.2.2.1.b		Site 15kV Distribution System Inspection	Day	365		
4.2.2.2.1.c		Inspect EF & SCTF Electrical Distribution Systems	Inspection	4		
4.2.2.2.1.d		Exterior Lighting System	Day	365		
4.2.2.2.2.a		High Voltage Switching Documentation	Document	6		
4.2.2.2.2.b		Read and Record System Meters and Gauges	Day	365		
4.2.2.2.2.c		Dranetz Recorder Service	Day	365		
4.2.2.2.2.d		Control Access to Building 221 Area	Day	365		
4.2.2.3.1.a		Operate Chilled Water Distribution System	Day	365		
4.2.2.3.2		Inspect Tunnel Chilled Water Distribution	Inspection	4		
4.2.2.4.1.a		Operate Water Distribution System	Day	365		
4.2.2.4.2.a		Water Distribution System Activities Log	Day	365		
4.2.2.4.2.b		Fire Hydrant System Test	Day	365		
4.2.2.5.1.a		Operate Sanitary Sewer Pumping and Distribution System	Day	365		
4.2.2.5.2.a		JSC and EF Operator Activities Log	Day	365		
4.2.2.5.2.b		Read and Record Distribution System Meters and Rainfall	Day	365		
4.2.2.5.3.a	a	Grease Traps	Pump Out	36		
4.2.2.5.3.a	b	Oil/Water Separators	Pump Out	19		
4.2.2.5.3.b		JSC Stormwater	Pump Out	6		
4.2.2.6.1.a		Operate Compressed Air Distribution System	Day	365		
4.2.2.6.1.b		Inspect Compressed Air Distribution System	Inspection	4		
4.2.2.7.1.a		Operate Natural Gas Distribution System	Day	365		
4.2.2.7.2.a		Maintain Daily Log	Day	365		
4.2.2.7.2.b		Read and Record Distribution System Meters	Day	365		
4.2.2.7.2.c		Inspect Natural Gas Distribution System	Inspection	1		
4.2.3.1		Operate Steam and Condensate Return	Day	365		
4.2.3.1.2		Low Pressure Steam Boiler Systems	Day	365		
4.2.3.2.1.a		Operate 15kV Facility Switches	Day	365		
4.2.3.2.1.b		Operate JSC Low Voltage Systems	Day	365		
4.2.3.2.2.a		Test the Test Power Generators	Week	52		
4.2.3.2.2.b		Read / Record Electrical Power Loads	Day	365		
4.2.3.2.3		Electrical Power Systems Loads Transfer	Day	365		
4.2.3.3.1.a		Operator / Monitor HVAC Systems	Day	365		
4.2.3.3.2.a		Read / Record MCC Complex HVAC System	Day	365		
4.2.3.3.2.b		Monitor / Inspect Hot Water Converters and Boilers	Day	365		
4.2.3.3.2.c		Inspect JSC Humidifiers	Day	365		
4.2.3.4		Operate Potable Water and Domestic Hot Water	Day	365		
4.2.3.4.2		Water Operations Log	Day	365		
4.2.3.5.1		Operate Compressed Air Systems	Day	365		
4.2.3.5.2		Inspect Facility Compressed Air Systems	Inspection	4		
4.2.3.5.3		Test Backup Control Compressed Air System	Annual	1		
4.2.3.6.1		Test Building Control System Interface	Annual	1		
4.2.3.7.1		Operate Natural Gas Distribution Systems	Day	365		
4.2.3.7.1	a	Inspect Natural Gas Distribution System	Inspection	4		
4.2.3.7.2		JSC and EF Natural Gas Distribution System Log	Day	365		
4.2.3.8.1		Fill Portable and Stationary Equipment Tanks	Gallon	15,000		
4.2.3.9.1		Inspect Valve Marker Identification	Day	365		
4.2.3.9.2.a		Mark Utility Systems	Utility Marking	75		
4.2.3.9.2.b		Documentation	Annual	1		
4.2.5.1		Water Utility Report	Month	12		
4.2.5.2	a	Submit Mission Readiness Plan	Plan	1		
4.2.5.2	b	Submit Fire Hydrant	Plan	1		
4.2.5.2	c	Submit O&M Manuals	Plan	1		
4.2.5.2	d	Submit EMCS Alarm Management Plan	Plan	1		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
ANNEX 5		ENGINEERING				
5.2		Scope of Work	SOW	300		
5.2.d		Design Status Meeting	Meeting	26		
5.3.a		$0 - $2,500 Designs	Design	70		
5.3.b		$2,501 - $10,000 Designs	Design	120		
5.3.c		$10,001 - $25,000 Designs	Design	70		
5.3.d		$25,000 - $50,000 Designs	Design	20		
5.3.e		$50,001 - $100,000 Designs	Design	10		
5.3.f		$100,001 - $200,000 Designs	Design	10		
5.3.1		Field Design Fix	Field Fix	20		
5.4		Submittal Shop Drawing Review	Review	15		
5.5		Master Facility Drawing Updates	Drawing	2,500		
5.6		Redline Verification Reviews	Review	5		
5.7.1		Standard Detail Drafting	Drawing	25		
5.7.2		Miscellaneous Design Drafting	Drawing	120		
5.7.3		CAD File Support	Review	5		
5.7.4		Electronic File Distribution	Files	1,100		
5.8.1		Cable Permits	Tunnel Permit	25		
5.8.2		Inspect Cable Changes	Inspection	35		
5.8.2	a	Tunnel Cable Records	Record	25		
5.8.3		Digging Permits	Digging Permit	50		
5.9	a	Field Check Updates	Drawing	525		
5.9	b	Redline Updates	Drawing	75		
5.9	c	Construction Updates	Drawing	80		
5.9	d	Room Number Assignments	Room Number	150		
5.9	e	Distribute Updated FHP Drawings	Request	100		
5.9	f	Disribute FHP Document	Document	200		
5.10	a	Update FEP Drawings	Drawing	35		
5.10	b	Create New FEP	Drawing	15		
5.10	c	Distribute FEP	Drawing	75		
5.11		Real Property Accounting	Voucher	250		
5.11.1		Account Reconciliation	Account	400		
5.11.2		Real Property Inventory	Line Item	800		
5.11.3		Inventory Tagging	Tagged Item	110		
5.11.4		Records Research	Researches	75		
5.11.5		Real Property Accounting System Data Entry	Voucher	250		
5.11.6		Update Real Estate Drawings and Facility Master Plans	Drawing Update	4		
5.12		SPECTSINTACT System Maintenance	Update	6		
5.12.1		SWT Meeting Support	Meeting	12		
5.12.2		Process SPECTSINTACT Text Changes	Change	30		
5.12.4		Specification Production	Edit	30		
ANNEX 8		INFORMATION TECHNOLOGY				
8.2		Mainframe Application IT Support	Day	365		
8.3.1		IT Support for the CMMS	Day	365		
8.3.2		Provide CMMS Capability	Day	365		
8.3.3		Maintain CMMS Program	Day	365		
8.3.4		Maintain History Files	Day	365		
8.4		Environment Management IT Support	Day	365		
8.5		EMCS Database Support	Day	365		
8.6		System Operations/Maintenance	Day	365		
8.7		Online System Access and Support	Day	365		
8.8.1		Provide CAD Software Support	Hour	200		
8.8.2		Provide CAD Software License	License	2		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
8.8.3		CGM Viewing Support/ Facility Drawing Database	Day	365		
8.8.4		Entry	Hours	40		
8.9.1		Gas Tracking System	Tracking System	1		
8.9.2.1		Barcode Scanners/ Support Maintenance	Day	365		
8.9.3		Thermography Data Support	Day	365		
8.9.4		Vibration Data Support	Day	365		
8.9.5		Real Property Database Support	Hour	40		
8.9.6		Winest/ Means	Hour	40		
8.10	a	NEMS System Scanning	System	1		
8.10	b	IT Scanning Support	Hour	80		
8.11		Computer Systems and Data Security	Day	365		
8.11.2		Computer Security Manager	Day	365		
8.12.1	a	IT Help Support - Routine	Week	52		
8.12.1	b	IT Help Support - Emergency	Day	365		
8.12.2		Documentation Maintenance/ Update for Major Systems	Day	365		
8.12.3		Minor Systems Documentation	Day	365		
8.12.4		Minor Applications Documentation	Survey	1		
8.13.1		IT Security Plan	Plan	1		
ANNEX 9		ENVIRONMENTAL SERVICES				
9.2		Environmental Compliance Management (Site Activities)	Day	365		
9.2.1		Corrective Action	Day	365		
9.2.2	a	Compliance Inspection	Inspection	8		
9.2.2	b	Compliance EMS Audits	Audit	5		
9.2.2	c	External Compliance Audit	Audit	1		
9.2.2	d	Pre Audit Check List	Check List	4		
9.2.3	a	Building Audits	Audit	186		
9.2.3	b	Program Assessment	Assessment	1		
9.3		Industrial Solid Waste Management Program	Day	365		
9.3.1	a	Waste Pickup	Pickups	1,920		
9.3.1	b	Provide containers to waste generators	Containers	1,080		
9.3.2		Administer ISW Waste Streams	Day	365		
9.3.3		Maintain Waste Satellite Accumulation Areas (SAPs)	SAPs	150		
9.3.4	a	Operate and Manage all ISW Storage Facilities	Day	365		
9.3.4	b	Perform Tank Integrity Testing	Test	13		
9.3.5	a	Operate and Manage Waste treatment system	Day	365		
9.3.5	b	Sample Treated Batch	Samples	52		
9.3.6		Arrange for ISW Waste Transport and Disposition	Day	365		
9.3.7		Conduct Audits of TSDRs Facilities	Audit	10		
9.4		Air Quality Program	Day	365		
9.4.1		Operate the Building 222 CEMs	Day	365		
9.4.1	a	Inspect the CEMS	Day	286		
9.4.1	b	Building 222 CEMS Records	Record	286		
9.4.1	c1	Building 222 Rolling Average Calculations-Weekly	Calculation	52		
9.4.1	c2	Building 222 Rolling Average Calculations-Monthly	Calculation	12		
9.4.1	d	Building 222 CEMS Relative Accuracy Test Audit	Test	1		
9.4.1	e	Building 222 CEMS Cylinder Gas Audit	Test	3		
9.4.2		Ensure Building 24 Boiler Emission Compliance	Day	365		
9.4.2	a	Building 24 Boiler Data Entry and Records	Record	12		
9.4.2	b	Natural Gas Supplier Certificate	Certificate	1		
9.4.2	c	Natural Gas Sample Analysis	Sample	1		
9.4.2	d	Diesel Supplier Certificate	Certificate	10		
9.4.2	e	Fuel Delivery Record	Record	12		
9.4.3		Ensure Surface Coating Facilities Compliance	Day	365		
9.4.3	a	Monthly Records	Record	60		

Section J, Attachment G
Workload Unit Amounts

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.4.3	b	Monthly Inspections	Inspection	52		
9.4.4	a	Track Air Emmissions	Day	365		
9.4.4	b	Perform TNRCC Standard Exemption Reviews	Review	1		
9.4.4	c	Building 262 Data Collection	Record	12		
9.4.4	d	JSC and EF Oil/ Water Separators Sampling	Sample	18		
9.4.4	e	Emergency Generators Data	Record	480		
9.4.4	f	Building 383 Air Stripper System	Record	52		
9.4.5		Perform Calculations for Emissions Inventory Report	Month	12		
9.4.6		Opacity Readings	Opacity Reading	18		
9.5		Water Pollution Control and Prevention Program	Day	365		
9.5.1		Manage Sanitary Sewer Discharges	Discharge Points	400		
9.5.1	a	Develop & Update List of Sanitary Sewer Discharges	Day	365		
9.5.1	b	Implement Sanitary Sewer Discharge Mgt Plan	Day	365		
9.5.1	c	Review Request for Changes	Review	50		
9.5.1	d	Collect Samples	Sample	100		
9.5.2		Storm Water Management Program implementation	Day	365		
9.5.2	a1.	Conduct SWPPP inspections	Location	40		
9.5.2	a2	Inspect & Manage Rainfall a: Containments	Containment	50		
9.5.2	b	Conduct Periodic Field Investigations	Investigation	20		
9.5.2	c	Conduct Annual Audits	Audit	3		
9.5.2	d	Review Sedimentation and Erosion Control Plans	Plan Review	20		
9.5.3		Spill Prevention Control and Countermeasure (SPCC) Program	Day	365		
9.5.3	a	Conduct Monthly Inspections	Inspection	60		
9.5.3	a1	Conduct Weekly Inspections	Inspection	3,016		
9.5.3	a2	Conduct Daily Inspections	Inspection	365		
9.5.4		Operation and Maintenance of Impoundments	Day	365		
9.5.4	a	Perform Annual Cleaning	Cleaning	1		
9.5.4	c	Clean Water Knives	Cleaning	2		
9.6		Implement Lead Program	Day	365		
9.7		Asbestos Program	Day	365		
9.7	d	Provide HEPA Vacuum Decontamination & Sevicing	Cleaning	150		
9.8		Implement Petroleum Storage Tank Program	Day	365		
9.8	b	Perform Annual ImpoundmentTank Integrity Testing	Tests	5		
9.9		Implement Groundwater Protection Program	Day	365		
9.9.1	c	Collect Samples	Sample	16		
9.10	a	Emergency Response	Chemical Spill	60		
9.10	b	Asbestos Spill Cleanup	Asbestos Spill	60		
9.11		Pollution Prevention and Resource Conservation	Day	365		
9.11.1		Track and Evaluate Information	Month	12		
9.11.2	a	Pollution Prevention Opportunity Assessments (PPOA)	PPOAs	20		
9.11.2	c	Implement PPOAs	PPOA implementation	6		
9.11.3		Ozone Depleting Substance Tracking Program	Day	365		
9.11.4		EPCRA Compliance Program	Day	365		
9.12		Communication, Training and Participation in Work Groups	Day	365		
9.12.2		Participate in Committees and Work Groups	Week	52		
9.13		Environmental Management System (EMS)	Day	365		
9.13	a	EMS User Access support	User	150		
9.13	b	Impact Team Meetings	Meeting	26		
9.13	c	Develop/Revise EMS Procedures	Procedure	25		
9.13	d	Develop Presentations	Presentations	20		
9.13	e	EMS Webpage Updates	Weekly	52		
9.14		Implement Toxic Substances Control Act (TSCA) Program	Day	365		
9.15		Personnel Qualification Requirements	Day	365		
9.16		Records, Reports, and Submittals	Day	365		
9.16.1.1		Environmental Compliance Plan	Year	1		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.16.1.2		Annual Building Inspection Report	Report	186		
9.16.1.3		Self Assessment Findings Report	Report	1		
9.16.1.4		Environmental Resource Documents	Year	4		
9.16.1.5		Develop Standard Operating Procedures	Procedure	10		
9.16.2.1		Annual Waste Summary	Report	3		
9.16.2.2		Annual Site Activity Report	Report	1		
9.16.2.3		Monthly Waste Shipment	Report	36		
9.16.2.4		Monthly Waste Receipt Summary	Report	12		
9.16.2.5		Monthly ISW Generator Report	Report	12		
9.16.2.6		ISW Contingency Plan	Plan	3		
9.16.2.7		ISW Waste Analysis Plans	Plan	3		
9.16.2.8		TSDR and Transportation Facility Audit Reports	Report	10		
9.16.2.9		ISW Tank Inspection Reports	Report	1		
9.16.2.10	a	ISW Tank Cleaning Plan	Plan	1		
9.16.2.10	b	ISW Tank Cleaning Report	Report	1		
9.16.2.11		Manifest Exception Reports	Report	3		
9.16.2.13		Review and Update Closure Plan	Plan	4		
9.16.2.14		Review and Update RCRA Training Plan	Plan	3		
9.16.3.1		Develop and Submit RATA Report	Report	1		
9.16.3.2		Develop and Submit CGA Report	Report	3		
9.16.3.3		Develop and Submit Semiannual Db Excess Emission Report	Report	2		
9.16.3.4		Develop and Submit Semiannual Dc Excess Emission Report	Report	2		
9.16.3.5		Develop and Submit Emissions Inventory Report	Report	3		
9.16.3.6		Develop and Submit IPG Report	Report	1		
9.16.3.7		EF	Report	5		
9.16.4.1		Sanitary Sewer Industrial Discharge Management Plan	Day	365		
9.16.4.2		Annual Storm Water Plan Compliance Report	Report	3		
9.16.4.3		Plans	Plan	2		
9.16.4.4		Sedimentation and Erosion Control (SEC) Plan Reports	Report	20		
9.16.4.5		Spill Prevention Control and Countermeasure (SPCC) Report	Review	4		
9.16.5.1		Site-wide Annual Asbestos Inspection and Assessment	Inspection/Assessment	1		
9.16.5.2		Submit Asbestos Notifications to OMOH / FM	Notification	1,200		
9.16.6.1		Annual Petroleum Storage Tank (PST) Integrity Report	Report	1		
9.16.6.2	a	General Land Office Applications and Certificates	Application	2		
9.16.6.2	b	Submit Response Certification	Certification	2		
9.16.6.3		Database Submit PST database	Report	1		
9.16.7.1		Report	Report	1		
9.16.8.1		Source Reduction and Waste Minimization Report	Report	3		
9.16.8.2		Pollution Prevention Plans	Plan	3		
9.16.8.3		NASA Recycling and Affirmative Procurement Report	Report	1		
9.16.8.4		Pollution Prevention Opportunity Assessment (PPOA) Reports	Report	20		
9.16.8.5		Annual ODS Usage Report	Report	1		
9.16.8.6		Develop Environmental Award Applications	Application	3		
9.16.8.7		Notifications to Agencies	Day	365		
9.16.8.8		Toxic Release Inventory	Report	4		
9.16.9.1		Environmental Study/Design Review	Study/Design Review	20		
9.16.10.1		Polychlorinated Biphenyl Annual Written Document Log	Report	2		
ANNEX 10		SUPPLY				
10.2.2	a	Ensure shelf life material	Line Item	840		
10.2.2	b	Document Tracking	Transaction	27,000		
10.2.2	c	Inventory Reconciliation	Day	365		
10.2.2	d	Document Control	Document	12,251		
10.2.2	e	JSC Form 1710	Form	3,000		
10.2.2	f	Cataloging	Day	365		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
10.2.2	g	JSC Form 500	Form	10		
10.2.2	h	Prepare and Submit JSC Form 1303	Submission	10		
10.2.2	i	Assign Stock Numbers	Line Item	1,300		
10.2.2	j	Perform Add/User/Withdraw Actions	Action	12		
10.2.2	k	Form 1685	Form	12		
10.2.2	l	SFM Tapes	Tape	10		
10.2.2	m	Standardization Studies	Study	12		
10.2.2	n	Acquistion and Inventory Management	Day	365		
10.2.2	n1	Purchase Stock Items	Purchase	800		
10.2.2	n2	Suspended receipt & Issue Transactions	Day	365		
10.2.2	n3	JSC Form 500/ 500a	Form	10		
10.2.2	n4	NSMS Complete Access Report	Report	4		
10.2.2	o	Cost Accounting System	Day	365		
10.2.2	p1	Issue Stock	Issue	8,000		
10.2.2	p2	Stock Returns	Return	156		
10.2.2	p3	Work Stoppages	Work stoppage	100		
10.2.2	q	DV Program	Day	365		
10.2.2	r	Program Stock Receipts	Receipt	3,000		
10.2.2	s	Program Stock Discrepancies	Line Item	25		
10.2.2	t	Program Stock Temporary Hold	Piece	60		
10.2.2	u	Program Stock Issues	Issue	8,000		
10.2.2	v	NASA Tagged Hardware	Day	365		
10.2.3		Sample Physical Inventory of Assets	Inventory	3		
10.2.4		Temporary Storage	Case File	125		
10.2.5	a	Gas Cylinder Purchases	Day	365		
10.2.5	b	Repaint/Refurbish Cylinders	Cylinder	120		
10.2.5	c	Scrub/scrap Cylinders	Cylinder	50		
10.2.5	d	Rejected Cylinders (contents)	Cylinder	130		
10.2.6.1		Master Case File Listing	Report	12		
10.2.6.2		Case File Listing	Report	125		
10.2.6.3		Physical Inventory Schedule	Schedule	1		
10.2.6.4		Store Stock and Critical Spares Catalogs	Catalog	3		
10.2.7		Personnel Requirements	Day	365		
10.3.2	a	New Furniture Receipts	Piece	3,200		
10.3.2	b	Used Furniture Receipts	Piece	13,000		
10.3.2	c	Prepare Furniture for Delivery	Piece	11,750		
10.3.2	d	Connect/Disconnect Furniture	Piece	11,000		
10.3.3		In-Field Furniture Repair	Piece	4,000		
10.3.4		Carpet Operations	Square Yard	2,000		
10.3.5		Conduct Carpet/Furniture Inventories	Inventory	12		
10.3.6		Furniture & Carpet Inventory Report	Report	12		
10.3.7		Personnel Expertise Requirements	Day	365		
10.4.2		Maintenance and Repair - Radio Communications Equipment	Day	365		
10.4.2	a	Priority 1	Request	15		
10.4.2	b	Priority 2	Request	15		
10.4.3		Maintenance and Repair - Portable Radios and Chargers	Request	30		
10.4.4		Installation and Removal	Operation	28		
10.4.5		Radio Equipment Preventive Maintenance	Day	365		
ANNEX 11		PROPERTY AND EQUIPMENT				
11.2.2	a	Requested NEMS Report	Report	5,100		
11.2.2	b	Quarterly/Monthly NEMS Reports	Report	65,000		
11.2.2	c	NEMS User List	List	10,000		
11.2.2.1		NEMS Documentation	Transaction	37,000		
11.2.2.2		CD-Rom Archival	Document	50,000		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
11.2.2.3	a	Wall to Wall Equipment Inventory	Inventory Item	18,000		
11.2.2.3	b	Sensitive Inventory	Inventory Item	5,000		
11.2.2.4	a	In-place Equipment tagging	Equipment Item	500		
11.2.2.4	b	In-place Equipment de-tagging	Equipment Item	1,000		
11.2.2.4	c	Found on Station Form	Form	15		
11.2.2.4	d	Cannibalization/Modification Form	Form	50		
11.3.1	a	Process Shipping Document	Form	2,670		
11.3.1	b	Maintain & track logs & data	Day	365		
11.3.1	c	Create folders and log records	Day	365		
11.3.1	d	Annotate Records	Day	365		
11.3.1	e	Process Employee Clearances	Form	106		
11.4.2.a		Reutilization and Disposal Operations	Line Item	20,500		
11.4.2.b		Pick up of Scrap Metals	Pickup	250		
11.4.3		Stevenson-Wydler Program and Computers for Learning Program	Requests	50 - 75		
11.4.4		Shuttle Orbiter Tile Program	Tiles Shipped	400		
11.4.6.a		Contractor Monthly Production Report	Report	12		
11.4.6.b		Property held by the Property Disposal Officer Report	Report	12		
11.4.6.c		Annual Report of Exchange/Sale Transactons	Report	1		
11.4.6.d		Personal Property	Report	1		
11.4.6.e		Report of Activities Generating Precious Metals	Report	1		
11.4.6.f		Organizations	Report	1		
11.4.6.g		Performance Measures Report	Report	2		
11.4.6.h		Semiannual Report of Personal Property Management Operations	Report	2		
ANNEX 12		TRANSPORTATION				
12.2.1		General Transporation Services	Work request	4,000		
12.2.2	a	Core Hour Personnel Moves	People	1,300		
12.2.2	b	Non-core Hour Personnel Moves	People	100		
12.2.3		Quick Dispatch	Request	3,000		
12.2.4		Nitrogen Delivery	Gallons	283,000		
12.2.5		Personnel Licensed	Day	365		
12.3.2	a	Packing & Shipping Routine Shipments	Shipment	4,500		
12.3.2	b	Packing & Shipping Priority Shipments	Shipment	6,500		
12.3.2	c	Hazardous Shipments	Shipment	225		
12.3.3		Vehicle Load Plans	Loads	25		
12.3.4		Delivery to/From Offsite Locations	Shipment	300		
12.3.5		Packaging Personnel Requirements	Day	365		
12.3.6.1		Monthly Production Report	Report	12		
12.4.1	a	Rigging Support for Priority 1 Work Order	Priority	5		
12.4.1	b	Rigging Support for Priority 2 Work Order	Priority	300		
12.4.1	c	Rigging Support for Priority 3 Work Order	General	400		
12.4.2	a	Priority 2 Load Test	Test	200		
12.4.2	b	Load Tests General Support	Test	400		
12.4.3		Lifting Equipment Listing	Day	365		
12.4.4		Personnel Requirements	Day	365		
12.5.3		Vehicle Administrative Operations	Day	365		
12.5.3.1		Maintain Extra Vehicle Keys	Key	150		
12.5.3.2		Maintain Vehicle Credit Cards	Card	107		
12.5.3.3		Report of Accidents	Report	10		
12.5.3.4		Vehicle Safety Recall Notifications	Notice	4		
12.5.3.5		Daily Vehicle Dispatch Sheets	Monthly	12		
12.5.3.6	a	Issue Government Pool Vehicles	Request	550		
12.5.3.6	b	Maintain/Update Reservations Calendar	Day	365		
12.5.3.7	a	Process Full Time Vehicle Assignments	Request	10		
12.5.3.7	b	**Process Vehicle Rejustifications	Request	275		

Values for Basic Period, Contract Year Two						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
12.5.3.8		Maintain/Update Vehicle Fleet Database	Day	365		
12.5.3.9		Vehicle Preventive Maintenance	Notification	300		
12.5.3.10		Replacement	Vehicle	120		
12.5.3.11		Vehicle Emissions Inspections	Notice	100		
12.5.4		Special Events Transportation	Request	8		
12.5.5.1		Provide Vehicle Mileage Reports	Report	12		
12.5.5.2		Federal Automotive Statistical Tool Report	Report	1		
12.5.5.3		Energy Information Agency Survey Report	Report	1		
12.5.5.4		Alternative Fuel Vehicle Acquisition Report	Report	1		
12.5.5.5		Report, Office of Management and Budget Report	Report	1		
12.5.5.6		General Purpose Vehicle Accident Report	Report	2		
12.5.5.7		Summary Report	Report	2		
12.5.5.8		Vehicle Cost Per Mile Metrics Report	Report	4		
12.5.5.9		Vehicle Fleet Mileage Express Report	Report	12		
12.5.5.10		OPAC Report	Report	12		
12.5.5.11		Vehicle Statistical Report	Report	12		
12.5.5.12		One-Time/New Reports	Report	5		
12.5.6.		Personnel Requirements	Day	365		
12.6.1		Receive/Deliver Inbound Freight	Shipment	27,000		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
ANNEX 1		ADMINISTRATIVE SUPPORT				
1.2		Work Control Center	Daily	365		
1.3.1		Designate Building Manager	Square Feet	122,809		
1.3.2		Maintain Facilities	Daily	365		
1.3.3		Facilities Utilization Records	Daily	365		
1.4		Contractor Work Area Cleaning	Daily	365		
1.5		Site Critical Installation Provided Property	Item	40		
1.6.1		Quality Control Program	Program	1		
1.6.1	a	Corrective Actions Summary	Summary	12		
1.6.1	b	QC Performance Reports	Report	12		
1.6.2		Quality Control Plan	Plan	1		
1.6.3		ISO 9001- 2000 Certification	Certification	1		
1.6.4		Continuous Improvement Teams	Team	8		
1.7.1		Safety and Health Program	Program	1		
1.7.1.1		VPP Certification	Certification	1		
1.7.2		Safety and Health Plan	Plan	1		
1.7.3.1		Statistical Information Report	Report	12		
1.7.3.2		Self Evaluation Report	Report	1		
1.7.3.3		Terminated Employees Report	Report	1		
1.7.3.4		Material Safety Data Sheets	Day	365		
1.7.3.5		Hazardous Materials Inventory	Report	1		
1.7.3.6		Hazard Abatement Notices and Plans	Review	12		
1.7.3.7		Lessons Learned Report	Report	4		
1.7.3.8		Safety and Health Metrics	Report	12		
1.7.3.9		Log of Occupational Injuries/Illnesses	Report	1		
1.7.3.10		Hazards Identification	Report	1		
1.8.1		Energy and Water Conservation	Plan	1		
1.8.1.a		Y2K HVAC Equipment and Lighting Baseline Status Report	Reports	12		
1.8.1.b		Monthly Utility Report (MUR)	Reports	12		
1.8.1.c		Quarterly Energy Report (QER)	Reports	4		
1.8.1.d	a	Cold Weather Protection Plan	Plan	1		
1.8.1.d	b	Freeze Protection Survey	Survey	1		
1.90		Functional Metrics	Report	12		
1.10.1		Environmental Program (for COSS Activities)	Day	365		
1.10.2		Procure Recycled Items/Materials	Day	365		
1.10.3		Environmental Management System	Day	365		
1.10.4		Affirmative Procurement	Day	365		
1.10.5		Prohibited & Restricted Materials	Day	365		
1.10.6		Ozone Depleting Substances	Item	75		
1.10.7		Polychlorinated Biphenyls	Item	75		
1.10.8		Participate in Recycling Programs	Day	365		
1.11		~~Emergency Management Program~~	Plan	1		
1.12.5		Energy Manager	Day	365		
1.12.6		Environmental Training	Day	365		
1.13.1		Workload Data Collection Report	Report	1		
1.13.2		Fixed Price Award Proposal	Proposal	1		
1.13.3		Cost Data Report	Report	1		
ANNEX 2		SCHEDULED MAINTENANCE AND REPAIR				
2.2.1		Implement the SM Plan	Database	1		
2.2.2		Accomplish Scheduled Maintenance				
2.2.2	ACCI001	Air Condenor Unit Inspection	PM	344		
2.2.2	ACUI001	Air Conditioner Unit, Inspection	PM	201		
2.2.2	AHUI001	Air Handler Unit, Inspection	PM	15		
2.2.2	AHUI003	Air Handler Unit Humidifier, Inspection	PM	5		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	AHUI004	Air Handler Unit, Pre-Flight Checks	PM	173		
2.2.2	AHUI005	Film Vault Air Handler Unit, Inspection	PM	1		
2.2.2	AHUI006	Air Handler Unit With Generator, Inspection	PM	2		
2.2.2	AHUM001	Air Handler Unit, Filter Change	PM	12		
2.2.2	AHUV001	Air Handler Unit, Vibration	PM	1115		
2.2.2	APLI001	Ultra Low Freezer, Inspection And Maintenance	PM	1		
2.2.2	APLI002	Toaster Conveyor, Inspection And Maintenance	PM	4		
2.2.2	APLI003	Refrigerator, Inspection And Maintenance	PM	2		
2.2.2	APLI004	Steam Jacketed Kettle, Maintenance	PM	3		
2.2.2	APLI005	Kitchen Equipment, Inspection And Maintenance	PM	34		
2.2.2	APLM001	Dishwasher, Inspect And Maintenance	PM	3		
2.2.2	APLM002	Steamer, Inspection And Maintenance	PM	7		
2.2.2	APLM003	Ice Machine Water Filter, Replacement	PM	14		
2.2.2	APLM005	Ice Machine, Maintenance And Inspection	PM	9		
2.2.2	BATI001	Electric Storage Battery Monitoring System, Data Collection	PM	5		
2.2.2	BATI002	Electric Storage Battery, Maintenance And Testing	PM	14		
2.2.2	BATM001	Electric Storage Battery, Replacement	PM	14		
2.2.2	BATM002	Battery Charger, Maintenance And Testing	PM	22		
2.2.2	BATT001	Electric Storage Battery, Maintenance And Impedance Testing	PM	14		
2.2.2	BFPT001	DCK Backflow Preventer, Test	PM	41		
2.2.2	BFPT002	PVB Backflow Preventer, Test	PM	66		
2.2.2	BFPT003	RPZ Backflow Preventer, Test	PM	176		
2.2.2	BRKM001	Vacuum Circuit Breaker, Maintenance And Test	PM	55		
2.2.2	BRKT001	Air Circuit Breaker, Maintenance And Test	PM	552		
2.2.2	BRKT002	Air Circuit Breaker Protective Relay, Functional Test	PM	26		
2.2.2	BRSC001	Steam Boiler Force Draft Air Fan, Calibrate And Inspection	PM	3		
2.2.2	BRSC002	Steam Boiler, Fuel Oil Calibration	PM	3		
2.2.2	BRSC003	Steam Boiler, Transmitter Calibration.	PM	3		
2.2.2	BRSI001	Steam Boiler, Pre Flight Checks	PM	3		
2.2.2	BRSI002	Low Pressure Gas Fired Steam Boiler, Operational Inspection	PM	37		
2.2.2	BRSI003	Boiler, Sampling And Data Collection	PM	37		
2.2.2	BRSI004	Steam Boiler, Internal Inspection	PM	37		
2.2.2	BRSM001	Steam Boiler Feed Water, Maintenance And Inspection	PM	3		
2.2.2	BRSV001	Steam Boiler Force Draft Air Fan, Vibration Check	PM	3		
2.2.2	CAPI001	Capacitor Bank, Inspection	PM	3		
2.2.2	CBLI001	15kv Feeder Cable, Inspection And Testing	PM	36		
2.2.2	CHLC001	Chiller, Calibration	PM	13		
2.2.2	CHLC003	Chiller Lube Oil System, Calibration And Inspection	PM	13		
2.2.2	CHLI001	Chiller Refrigerant System, Inspection And Calibration	PM	1		
2.2.2	CHLI003	Chiller Balance Piston, Inspection	PM	13		
2.2.2	CHLI004	Chiller, Electrical Operational Inspection	PM	13		
2.2.2	CHLI005	Chiller, Mechanical Operational Inspection	PM	13		
2.2.2	CHLI006	Chiller Gearbox, Inspection	PM	13		
2.2.2	CHLI009	Small Chiller, Operational Inspection	PM	11		
2.2.2	CHLI012	Medium Chiller, Operational Inspection	PM	5		
2.2.2	CHLV001	Chiller, Vibration Data Collection And Analysis	PM	18		
2.2.2	CLTI001	Cooling Tower Structure, Inspection	PM	15		
2.2.2	CLTI002	Cooling Tower, Mechanical Inspection	PM	1		
2.2.2	CLTM001	Cooling Tower Water Treatment, Sampling	PM	15		
2.2.2	CLTV001	Cooling Tower Fan, Vibration Data Collection	PM	14		
2.2.2	COMI001	Inspection	PM	49		
2.2.2	COMI002	Stand Alone Control Air Compressor, Function Test And Inspection	PM	40		
2.2.2	COMI003	Shop Air Compressor, Function Test And Inspection	PM	41		
2.2.2	COMV001	Centrifugal Compressor, Vibration Data Collection	PM	9		
2.2.2	COMV002	Operational Inspection	PM	6		
2.2.2	CPSI001	Immersed & Buried Anode Cathodic Protection System, Inspection	PM	4		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	CPSI002	Water Wells Buried Anode Cathodic Protection System, Inspection	PM	2		
2.2.2	CRNC001	Hoist And Crane, Certification	PM	125		
2.2.2	CRNI001	Hoist And Crane, Inspection	PM	125		
2.2.2	CRNM001	Hoist And Crane, Lubrication	PM	30		
2.2.2	CTBI001	Containment Berms, Inspection And Repair	PM	2		
2.2.2	DORI001	Vertical Lift Door, Inspection	PM	12		
2.2.2	DORI002	Horizontal Sectional Hanger Door	PM	3		
2.2.2	DORI003	Automatic Sliding Door, Inspection	PM	36		
2.2.2	DORI004	Roll Up Electric Door, Inspection And Maintenance	PM	59		
2.2.2	DORI005	Electric Overhead Door, Inspection	PM	113		
2.2.2	DORM001	Automatic Sliding Door, Maintenance	PM	36		
2.2.2	EEWI001	Plumbed Eyewash And Safety Shower, Flush	PM	210		
2.2.2	EEWI002	Eyewash And Safety Shower, Inspection	PM	256		
2.2.2	EEWM001	Portable Eyewash And Safety Shower, Flush And Maintenance	PM	47		
2.2.2	ELSM001	Emergency Lighting System, Full Maintenance And Inspection	PM	70		
2.2.2	ELST002	Emergency Lighting System, 30 Second Function Test	PM	71		
2.2.2	ELST003	Emergency Lighting System, 90 Minute Test And Inspection	PM	71		
2.2.2	ELUT001	Emergency Lighting Unit, 30 Second Function Test	PM	62		
2.2.2	ELVI001	Hydraulic Elevator, Monthly Inspection	PM	36		
2.2.2	ELVI002	Hydraulic Elevator, Quarterly Inspection	PM	36		
2.2.2	ELVI003	Hydraulic Elevator, Semi-Annual Inspection	PM	36		
2.2.2	ELVI004	Hydraulic Elevators, Inspection	PM	36		
2.2.2	ELVI005	Electrical Traction Elevator, Monthly Inspection	PM	23		
2.2.2	ELVI006	Electrical Traction Elevator, Quarterly Inspection	PM	23		
2.2.2	ELVI007	Electrical Traction Elevator, Semi-Annual Inspection	PM	23		
2.2.2	ELVI008	Electrical Traction Elevator, Annual Inspection	PM	23		
2.2.2	ENGI001	Diesel Engine, Air Starter Inspection	PM	5		
2.2.2	ENGI002	Diesel Engine, Inspect And Run	PM	5		
2.2.2	ENGI005	Natural Gas Engine, Inspect And Run	PM	7		
2.2.2	ENGI007	Diesel Engine, Cooling Water Checks	PM	11		
2.2.2	ENGM002	Diesel Engine, Lube Oil Pump Service	PM	5		
2.2.2	ENGM003	Diesel Engine, Flex Hose Inspection	PM	6		
2.2.2	ENGM004	Diesel Engine, Maintenance	PM	5		
2.2.2	ENGM005	Natural Gas Engine, Clean And Lubricate	PM	7		
2.2.2	ENGM006	Natural Gas Engine, Maintenance	PM	7		
2.2.2	ENGM008	Diesel Engine, Governor Oil Change	PM	6		
2.2.2	ENGT001	Diesel Engine Protective Relay, Maintenance And Testing	PM	5		
2.2.2	EWSI001	Emergency Warning System, Maintenance And Repair	PM	1		
2.2.2	EXCI001	Exchanger, Operational Inspection	PM	103		
2.2.2	FANI001	Fan, Inspection	PM	674		
2.2.2	FANV001	Fan, Vibration Data Collection And Inspection	PM	15		
2.2.2	FGTI001	Perimeter Fencing Gates, Inspect And Repair	PM	3		
2.2.2	FILM001	Water Fountain Filter, Replacement	PM	73		
2.2.2	FILM002	Filter Bank, Replacement	PM	53		
2.2.2	GENI002	Portable Generator, Inspection	PM	67		
2.2.2	GENI004	Power Generators, Operation	PM	5		
2.2.2	GENI007	5000 Watt Portable Generator, Inspection	PM	6		
2.2.2	GENM003	Portable Generator, Maintenance And Inspection	PM	67		
2.2.2	GENM011	Power Generator, Inspection And Testing	PM	5		
2.2.2	GENT002	Portable Generator, Mission Run Test	PM	5		
2.2.2	GENT003	Power Generators, Verify Output Capacity 100% Load Test	PM	5		
2.2.2	GTSI001	Groundwater Treatment System, Inspection	PM	1		
2.2.2	GTSI002	Groundwater Treatment System Control Valve, Inspection	PM	1		
2.2.2	GTST001	Groundwater Treatment System, Sample Testing	PM	1		
2.2.2	HTRI001	Gas Fired Space Heater, Inspection	PM	91		
2.2.2	HTRI002	Gas Fired Hot Water Heater, Inspection	PM	2		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	LFTC001	Lift, Certification	PM	79		
2.2.2	LFTI001	Lift, Inspection	PM	79		
2.2.2	LTGM001	Ceiling Lights, Partial Relamp	PM	161		
2.2.2	LTGM002	Ceiling Lights, Total Relamp	PM	10		
2.2.2	MCCI001	Motor Control Center, Clean And Inspection	PM	101		
2.2.2	NGST001	Natural Gas Valve Regulator Station 4, Exercise	PM	1		
2.2.2	NGST002	Natural Gas Valve Regulator Station 6, Exercise	PM	1		
2.2.2	NGST003	Natural Gas Valve Regulator Station 5, Exercise	PM	1		
2.2.2	NGST004	Natural Gas Valve Ave B Main Line, Exercise	PM	1		
2.2.2	NGST005	Natural Gas Valve Regulator Stations 10 12 And 13, Exercise	PM	1		
2.2.2	NGST006	Natural Gas Valve Regulator Stations 7 And 8, Exercise	PM	1		
2.2.2	NGST007	Natural Gas Valve Regulator Station 14, Exercise	PM	1		
2.2.2	NGST008	Natural Gas Valve Regulator Station 3, Exercise	PM	1		
2.2.2	NGST009	Natural Gas Valve Ellington Field, Exercise	PM	1		
2.2.2	OILI001	Rotating Equipment Oil Analysis, Sampling Instructions	PM	28		
2.2.2	OILI002	Chiller Oil And Refrigerant, Sampling And Analysis	PM	18		
2.2.2	OILI003	Dielectric Insulating Liquid, Inspection & Tests	PM	126		
2.2.2	PLWI001	Plating Waste Pretreatment System UCS Alarm, Inspection	PM	15		
2.2.2	PLWI002	Plating Waste Pretreatment System Control Equipment, Inspection	PM	15		
2.2.2	PMPI001	Pump, Inspection And Maintenance	PM	257		
2.2.2	PMPI002	Boiler Feed Water Pump, Inspection	PM	5		
2.2.2	PMPM001	Fuel Oil Pump Coupling, Grease	PM	3		
2.2.2	PMPV001	Pump, Vibration Data Collection And Inspection	PM	427		
2.2.2	PNLI001	Electrical Distribution Panel, Inspection	PM	259		
2.2.2	PWDT001	Potable Water Valve, Exercise Valves And Fire Hydrant	PM	1		
2.2.2	RADM001	Radio Base Station, Maintenance	PM	3		
2.2.2	RPDM001	Memorials, Inspect And Maintain	PM	2		
2.2.2	RPDM002	Flag Pole, Inspect And Maintain	PM	2		
2.2.2	SCRI001	Steam Trap Ultrasonic And Temperature, Inspection	PM	98		
2.2.2	SETI001	Structural Exterior, Inspection	PM	188		
2.2.2	SISI001	Intercom System, Maintenance And Repair	PM	1		
2.2.2	SKRI001	Oil Skimmer, Inspection	PM	9		
2.2.2	SKRM001	JSC Site Oil Skimmer, Clean Out	PM	4		
2.2.2	SKRM002	ELL Site Oil Skimmer, Clean Out	PM	9		
2.2.2	SNSI001	Grease Trap, Inspect	PM	4		
2.2.2	SWGI002	Switchgear Enclosure, Inspection And Maintenance	PM	133		
2.2.2	SWII001	15kv Automatic Circuit Recloser, Inspect And Maintain	PM	3		
2.2.2	SWII002	Load Break Switch, Inspection And Maintenance	PM	43		
2.2.2	SWII003	Automatic Transfer Switch, Inspection And Maintenance	PM	36		
2.2.2	SWII004	Manual Transfer Switch, Inspection And Maintenance	PM	35		
2.2.2	SWII005	High Voltage Oil Switch, Inspection And Maintenance	PM	15		
2.2.2	SWIM001	Switch, Inspection And Maintenance High Voltage Air Switch	PM	8		
2.2.2	SWIM003	High.Voltage SF6 or Vacuum Switch Inspection And Maintenance	PM	11		
2.2.2	SWSM001	Storm Water Collection System, Clean And Inspect	PM	1		
2.2.2	TISI001	Turf Irrigation Valve, Inspection And Repair	PM	1		
2.2.2	TRLI001	Trailer, Inspection	PM	52		
2.2.2	TRNT001	Dry Transformer, Insulation Testing	PM	19		
2.2.2	UPSI003	Uninterrupted Power Source, Inspection	PM	48		
2.2.2	UPSM001	Uninterrupted Power Source, Five Year Maintenance	PM	22		
2.2.2	UPSM002	Uninterrupted Power Source, Annual Maintenance	PM	47		
2.2.2	UPSM003	Uninterrupted Power Source, Semi-Annual Maintenance	PM	22		
2.2.2	UPSM004	Uninterrupted Power Source, Rotary Ups Inspect And Maintain	PM	2		
2.2.2	UPST001	Uninterrupted Power Source, Inferred Thermography Testing	PM	22		
2.2.2	VEHI001	ATV Inspection And Service	PM	1		
2.2.2	VEHI002	Electric Forklift, Maintenance And Inspection	PM	22		
2.2.2	VEHI003	General Mobile Equipment, Inspection	PM	55		

Values for First Option Period , Contract Year Three						
Item No.		**Description of Services**	**Unit**	**No. Units**	**Unit Value**	**Total Value**
2.2.2	VEHI005	Manlift, Pallet Lift, And Pallet Jacks, Maintenance And Repair	PM	5		
2.2.2	VEHI006	Equipment And Vehicle, Meter Reading	PM	59		
2.2.2	VEHM001	Oil And Filter Change	PM	55		
2.2.2	VFDI001	Variable Frequency Drive, Maintenance And Inspection	PM	122		
2.2.2	VIBI001	General Vibration Data Collection And Analysis	PM	2		
2.2.4		Equipment Identification	Program	1		
2.2.5	a	Class I Pressure Vessel Inspections	Inspection	535		
2.2.5	b	Class II Pressure Vessel Inspections	Inspection	22		
2.2.5	c	Class III Pressure Vessel Inspections	Inspection	95		
2.2.5	d	Relief Valve Certification and Support	Certification	514		
2.2.5	e	Flex Hose Certification	Certification	46		
2.2.6		Light/Lamp Replacement	Fixture	20,000		
2.3.1	a	JA/COD Repair Program	Day	365		
2.3.2		Non Lump Sum Emergency Response	Emergency Call	200		
2.3.3		Critical Spare Parts Management	Day	365		
2.4		Maintenance Activation Program	Day	365		
2.4.h		Quarterrt Reconciliation Report	Report	4		
2.5		Warranty Program	Program	1		
2.5	a	Administer Warranty	Warranty	300		
2.5	f	Warranty Report	Report	12		
2.6		Availability & Reliability	Day	365		
2.7		Reliability Cenetered Maintenance	Analysis	4		
2.9.1		User Equipment Maintenance Report	Report	12		
2.9.2		Pressue System Certification Testing Report	Report	12		
ANNEX 3		DIRECTED SERVICES				
3.2.1	a	Paint All Pedestrian Crosswalks	Linear Foot	3,000		
3.2.1	b	Paint street markings & parking lot markings	Mile	60		
3.2.1	c	Re-stencil all reserved parking space designations	Restored Space	1,650		
3.2.1	d	Resecure traffic control signs/nameplate holders	Sign/Nameplate Holder	15		
3.2.1	e	Install new traffic control signs/nameplate holders	Sign/Nameplate Holder	60		
3.2.1	f	Install new traffic control signs with posts	Sign/Post	15		
3.2.1	g	Maintain road surface reflectorized buttons & ceramic markers	Button/Marker	10		
3.2.1	h	Paint fire hydrants, post indicator valves, etc.	Month	12		
3.2.1	I	Maintain records for Building 304 surface coating activities	Occurrence	30		
3.2.2	a	Participate in review & update of the Hurricane/Severe Weather Plan	Review	2		
3.2.2	b	Maintain Contents of Hurricane Cabinets	Cabinet	26		
3.2.2	c	Maintain Emergency Storm Supplies List	Review	1		
3.2.2	d	Accomplish Hurricane/Severe Weather Level IV Activities	Annual	1		
3.2.3	a	Special Events	Event	4		
3.2.3	b	Minor Events	Annual	1		
3.2.3	c	Crew Returns	Mission	6		
3.2.4	a	COSS Technical Reference Library Plan	Plan	1		
3.2.4	c	Maintain COSS Technical Library Collection	Month	12		
3.3.2	a	Develop the FCA Plan	Plan	1		
3.3.2	b	Implement the FCA Plan	Monthly	12		
3.3.2	c	Document and Maintain FCA Database	Day	365		
3.3.2	d	Provide Monthly FCA Status Report	Report	12		
3.3.2	e	Provide Annual Facility Condition Assessment Report	Report	1		
3.3.3	a	Perform Comprehensive Visual Roof Inspection	Report	1		
3.3.3	b	Perform Non-Destructive Roof Inspections	Day	365		
3.3.3	d	Roof Mounted Appurtenance Inspection	Day	365		
3.3.4		Perform Building Exterior Inspection	Report	1		
3.3.5		Perform Roads Inspection	Report	1		
3.3.6		Perform Sidewalk Inspection	Report	1		
3.3.7		Perform Inspections of All Fences	Report	1		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
3.3.8		FCA Inspection - Sanitary Sewer System	Report	1		
3.3.9		FCA Inspection - Stormwater Collection System	Report	1		
ANNEX 4		OPERATIONS				
4.2.1.1.1.a		Boiler and Condendate Return System	Day	365		
4.2.1.1.2.a		Building 24 Central Plant Steam/Boiler System	Day	365		
4.2.1.2.1.a		138 kV JSC Site Electrical Substation	Day	365		
4.2.1.2.1.b		Operate Building 48 Power Systems	Day	365		
4.2.1.2.1.c		Building 48 Power Generators and UPS	Day	365		
4.2.1.2.2.a		Mission Shuttle Support	Mission	6		
4.2.1.2.2.a	a	Provide Alternate Mission Manager	Day	30		
4.2.1.2.2.a	b	Provide Mission Meeting Support	Mission	6		
4.2.1.2.2.a	c	Provide Utility System Drawings	Drawing	40		
4.2.1.2.2.b		Preflight Checkout of Power Systems	Mission	6		
4.2.1.2.2.b	a	Provide Mission Support Plan	Plan	6		
4.2.1.2.2.c		Read and Record Power Systems Meters	Day	365		
4.2.1.2.3.a		Read and Record Kilowatt Hours Meters	Reading	12		
4.2.1.2.3.b		Test Power Protective Devices	Annually	1		
4.2.1.2.3.c		Output Capacity	Annually	1		
4.2.1.2.3.d		Power Recording Charts	Day	365		
4.2.1.3.1.a		Heating and Cooling Plant Chilled Water Production Systems	Day	365		
4.2.1.3.1.b		Building 48 Chilled Water Production System	Day	365		
4.2.1.3.2.a		Chilled Water System Meters/Gauges	Day	365		
4.2.1.3.2.b		Operate Condenser Water Treatment Systems	Day	365		
4.2.1.4.1.a		Operate Water Treatment System	Day	365		
4.2.1.4.1.b		Operate Water Storage System	Day	365		
4.2.1.4.1.c		Operate Water Pumping System	Day	365		
4.2.1.4.1.d		Operate JSC Water Well	Day	365		
4.2.1.4.2.a		Read and Record Water Plant Meters	Day	365		
4.2.1.4.2.b		Maintain Water Plant Operations Log	Day	365		
4.2.1.4.2.c		Maintain Water Chart Recorder	Day	365		
4.2.1.4.2.d		Well Drawdown Test	Test	4		
4.2.1.5.1.a		Operate Compressed Air System	Day	365		
4.2.1.5.2		Read and Record Compressed Air System Meters/Gauges	Day	365		
4.2.1.6.1.a		Man & Operate Operations Control Center	Day	365		
4.2.1.6.1.b		Man & Operate EMCS	Day	365		
4.2.1.6.1.c		Manage EMCS Software	Day	365		
4.2.1.6.1.d		EBi Workstation Support	Day	365		
4.2.1.6.1.d	a	Field Configuration Report	Report	5		
4.2.1.6.1.e		EMCS Building Control Systems Support	Day	365		
4.2.1.6.2.a		Action Item File	Week	52		
4.2.1.6.2.b		Operating Set Point Limits	Day	365		
4.2.1.6.2.c		Monitoring and Control Systems	Day	365		
4.2.1.6.2.d		EMCS Operations Review Board	Week	52		
4.2.1.6.3.a		Preflight Checkout of EMCS	Mission	6		
4.2.1.6.3.b		Maintain EBi Historical File Media	Day	365		
4.2.1.6.3.c		Service System Printers	Day	365		
4.2.1.7.1.a		Operate Site Fuel Systems	Gallon	90,000		
4.2.1.7.2		Fuel Mobile Support Equipment	Gallon	600		
4.2.1.7.3		Fuel Oil Monitoring	Day	365		
4.2.2.1		Operate Steam and Condensate Return	Day	365		
4.2.2.1.2		Inspect Visual Checks Steam Distribution System	Inspection	4		
4.2.2.2.1.a		Site 15kV Distribution System Operation	Day	365		
4.2.2.2.1.b		Site 15kV Distribution System Inspection	Day	365		
4.2.2.2.1.c		Inspect EF & SCTF Electrical Distribution Systems	Inspection	4		
4.2.2.2.1.d		Exterior Lighting System	Day	365		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
4.2.2.2.2.a		High Voltage Switching Documentation	Document	6		
4.2.2.2.2.b		Read and Record System Meters and Gauges	Day	365		
4.2.2.2.2.c		Dranetz Recorder Service	Day	365		
4.2.2.2.2.d		Control Access to Building 221 Area	Day	365		
4.2.2.3.1.a		Operate Chilled Water Distribution System	Day	365		
4.2.2.3.2		Inspect Tunnel Chilled Water Distribution	Inspection	4		
4.2.2.4.1.a		Operate Water Distribution System	Day	365		
4.2.2.4.2.a		Water Distribution System Activities Log	Day	365		
4.2.2.4.2.b		Fire Hydrant System Test	Day	365		
4.2.2.5.1.a		Operate Sanitary Sewer Pumping and Distribution System	Day	365		
4.2.2.5.2.a		JSC and EF Operator Activities Log	Day	365		
4.2.2.5.2.b		Read and Record Distribution System Meters and Rainfall	Day	365		
4.2.2.5.3.a	a	Grease Traps	Pump Out	36		
4.2.2.5.3.a	b	Oil/Water Separators	Pump Out	19		
4.2.2.5.3.b		JSC Stormwater	Pump Out	6		
4.2.2.6.1.a		Operate Compressed Air Distribution System	Day	365		
4.2.2.6.1.b		Inspect Compressed Air Distribution System	Inspection	4		
4.2.2.7.1.a		Operate Natural Gas Distribution System	Day	365		
4.2.2.7.2.a		Maintain Daily Log	Day	365		
4.2.2.7.2.b		Read and Record Distribution System Meters	Day	365		
4.2.2.7.2.c		Inspect Natural Gas Distribution System	Inspection	1		
4.2.3.1		Operate Steam and Condensate Return	Day	365		
4.2.3.1.2		Low Pressure Steam Boiler Systems	Day	365		
4.2.3.2.1.a		Operate 15kV Facility Switches	Day	365		
4.2.3.2.1.b		Operate JSC Low Voltage Systems	Day	365		
4.2.3.2.2.a		Test the Test Power Generators	Week	52		
4.2.3.2.2.b		Read / Record Electrical Power Loads	Day	365		
4.2.3.2.3		Electrical Power Systems Loads Transfer	Day	365		
4.2.3.3.1.a		Operator / Monitor HVAC Systems	Day	365		
4.2.3.3.2.a		Read / Record MCC Complex HVAC System	Day	365		
4.2.3.3.2.b		Monitor / Inspect Hot Water Converters and Boilers	Day	365		
4.2.3.3.2.c		Inspect JSC Humidifiers	Day	365		
4.2.3.4		Operate Potable Water and Domestic Hot Water	Day	365		
4.2.3.4.2		Water Operations Log	Day	365		
4.2.3.5.1		Operate Compressed Air Systems	Day	365		
4.2.3.5.2		Inspect Facility Compressed Air Systems	Inspection	4		
4.2.3.5.3		Test Backup Control Compressed Air System	Annual	1		
4.2.3.6.1		Test Building Control System Interface	Annual	1		
4.2.3.7.1		Operate Natural Gas Distribution Systems	Day	365		
4.2.3.7.1	a	Inspect Natural Gas Distribution System	Inspection	4		
4.2.3.7.2		JSC and EF Natural Gas Distribution System Log	Day	365		
4.2.3.8.1		Fill Portable and Stationary Equipment Tanks	Gallon	15,000		
4.2.3.9.1		Inspect Valve Marker Identification	Day	365		
4.2.3.9.2.a		Mark Utility Systems	Utility Marking	75		
4.2.3.9.2.b		Documentation	Annual	1		
4.2.5.1		Water Utility Report	Month	12		
4.2.5.2	a	Submit Mission Readiness Plan	Plan	1		
4.2.5.2	b	Submit Fire Hydrant	Plan	1		
4.2.5.2	c	Submit O&M Manuals	Plan	1		
4.2.5.2	d	Submit EMCS Alarm Management Plan	Plan	1		
ANNEX 5		ENGINEERING				
5.2		Scope of Work	SOW	300		
5.2.d		Design Status Meeting	Meeting	26		
5.3.a		$0 - $2,500 Designs	Design	70		
5.3.b		$2,501 - $10,000 Designs	Design	120		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
5.3.c		$10,001 - $25,000 Designs	Design	70		
5.3.d		$25,000 - $50,000 Designs	Design	20		
5.3.e		$50,001 - $100,000 Designs	Design	10		
5.3.f		$100,001 - $200,000 Designs	Design	10		
5.3.1		Field Design Fix	Field Fix	20		
5.4		Submittal Shop Drawing Review	Review	15		
5.5		Master Facility Drawing Updates	Drawing	2,500		
5.6		Redline Verification Reviews	Review	5		
5.7.1		Standard Detail Drafting	Drawing	25		
5.7.2		Miscellaneous Design Drafting	Drawing	120		
5.7.3		CAD File Support	Review	5		
5.7.4		Electronic File Distribution	Files	1,100		
5.8.1		Cable Permits	Tunnel Permit	25		
5.8.2		Inspect Cable Changes	Inspection	35		
5.8.2	a	Tunnel Cable Records	Record	25		
5.8.3		Digging Permits	Digging Permit	50		
5.9	a	Field Check Updates	Drawing	525		
5.9	b	Redline Updates	Drawing	75		
5.9	c	Construction Updates	Drawing	80		
5.9	d	Room Number Assignments	Room Number	150		
5.9	e	Distribute Updated FHP Drawings	Request	100		
5.9	f	Disribute FHP Document	Document	200		
5.10	a	Update FEP Drawings	Drawing	35		
5.10	b	Create New FEP	Drawing	15		
5.10	c	Distribute FEP	Drawing	75		
5.11		Real Property Accounting	Voucher	250		
5.11.1		Account Reconciliation	Account	400		
5.11.2		Real Property Inventory	Line Item	800		
5.11.3		Inventory Tagging	Tagged Item	110		
5.11.4		Records Research	Researches	75		
5.11.5		Real Property Accounting System Data Entry	Voucher	250		
5.11.6		Update Real Estate Drawings and Facility Master Plans	Drawing Update	4		
5.12		SPECTSINTACT System Maintenance	Update	6		
5.12.1		SWT Meeting Support	Meeting	12		
5.12.2		Process SPECTSINTACT Text Changes	Change	30		
5.12.4		Specification Production	Edit	30		
ANNEX 8		INFORMATION TECHNOLOGY				
8.2		Mainframe Application IT Support	Day	365		
8.3.1		IT Support for the CMMS	Day	365		
8.3.2		Provide CMMS Capability	Day	365		
8.3.3		Maintain CMMS Program	Day	365		
8.3.4		Maintain History Files	Day	365		
8.4		Environment Management IT Support	Day	365		
8.5		EMCS Database Support	Day	365		
8.6		System Operations/Maintenance	Day	365		
8.7		Online System Access and Support	Day	365		
8.8.1		Provide CAD Software Support	Hour	200		
8.8.2		Provide CAD Software License	License	2		
8.8.3		CGM Viewing Support/ Facility Drawing Database	Day	365		
8.8.4		Entry	Hours	40		
8.9.1		Gas Tracking System	Tracking System	1		
8.9.2.1		Barcode Scanners/ Support Maintenance	Day	365		
8.9.3		Themography Data Support	Day	365		
8.9.4		Vibration Data Support	Day	365		
8.9.5		Real Property Database Support	Hour	40		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
8.9.6		Winest/ Means	Hour	40		
8.10	a	NEMS System Scanning	System	1		
8.10	b	IT Scanning Support	Hour	80		
8.11		Computer Systems and Data Security	Day	365		
8.11.2		Computer Security Manager	Day	365		
8.12.1	a	IT Help Support - Routine	Week	52		
8.12.1	b	IT Help Support - Emergency	Day	365		
8.12.2		Documentation Maintenance/ Update for Major Systems	Day	365		
8.12.3		Minor Systems Documentation	Day	365		
8.12.4		Minor Applications Documentation	Survey	1		
8.13.1		IT Security Plan	Plan	1		
ANNEX 9		ENVIRONMENTAL SERVICES				
9.2		Environmental Compliance Management (Site Activities)	Day	365		
9.2.1		Corrective Action	Day	365		
9.2.2	a	Compliance Inspection	Inspection	8		
9.2.2	b	Compliance EMS Audits	Audit	5		
9.2.2	c	External Compliance Audit	Audit	1		
9.2.2	d	Pre Audit Check List	Check List	4		
9.2.3	a	Building Audits	Audit	186		
9.2.3	b	Program Assessment	Assessment	1		
9.3		Industrial Solid Waste Management Program	Day	365		
9.3.1	a	Waste Pickup	Pickups	1,920		
9.3.1	b	Provide containers to waste generators	Containers	1,080		
9.3.2		Administer ISW Waste Streams	Day	365		
9.3.3		Maintain Waste Satellite Accumulation Areas (SAPs)	SAPs	150		
9.3.4	a	Operate and Manage all ISW Storage Facilities	Day	365		
9.3.4	b	Perform Tank Integrity Testing	Test	13		
9.3.5	a	Operate and Manage Waste treatment system	Day	365		
9.3.5	b	Sample Treated Batch	Samples	52		
9.3.6		Arrange for ISW Waste Transport and Disposition	Day	365		
9.3.7		Conduct Audits of TSDRs Facilities	Audit	10		
9.4		Air Quality Program	Day	365		
9.4.1		Operate the Building 222 CEMs	Day	365		
9.4.1	a	Inspect the CEMS	Day	286		
9.4.1	b	Building 222 CEMS Records	Record	286		
9.4.1	c1	Building 222 Rolling Average Calculations-Weekly	Calculation	52		
9.4.1	c2	Building 222 Rolling Average Calculations-Monthly	Calculation	12		
9.4.1	d	Building 222 CEMS Relative Accuracy Test Audit	Test	1		
9.4.1	e	Building 222 CEMS Cylinder Gas Audit	Test	3		
9.4.2		Ensure Building 24 Boiler Emission Compliance	Day	365		
9.4.2	a	Building 24 Boiler Data Entry and Records	Record	12		
9.4.2	b	Natural Gas Supplier Certificate	Certificate	1		
9.4.2	c	Natural Gas Sample Analysis	Sample	1		
9.4.2	d	Diesel Supplier Certificate	Certificate	10		
9.4.2	e	Fuel Delivery Record	Record	12		
9.4.3		Ensure Surface Coating Facilities Compliance	Day	365		
9.4.3	a	Monthly Records	Record	60		
9.4.3	b	Monthly Inspections	Inspection	52		
9.4.4	a	Track Air Emmissions	Day	365		
9.4.4	b	Perform TNRCC Standard Exemption Reviews	Review	1		
9.4.4	c	Building 262 Data Collection	Record	12		
9.4.4	d	JSC and EF Oil/ Water Separators Sampling	Sample	18		
9.4.4	e	Emergency Generators Data	Record	480		
9.4.4	f	Building 383 Air Stripper System	Record	52		
9.4.5		Perform Calculations for Emissions Inventory Report	Month	12		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.4.6		Opacity Readings	Opacity Reading	18		
9.5		Water Pollution Control and Prevention Program	Day	365		
9.5.1		Manage Sanitary Sewer Discharges	Discharge Points	400		
9.5.1	a	Develop & Update List of Sanitary Sewer Discharges	Day	365		
9.5.1	b	Implement Sanitary Sewer Discharge Mgt Plan	Day	365		
9.5.1	c	Review Request for Changes	Review	50		
9.5.1	d	Collect Samples	Sample	100		
9.5.2		Storm Water Management Program implementation	Day	365		
9.5.2	a1.	Conduct SWPPP inspections	Location	40		
9.5.2	a2	Inspect & Manage Rainfall at Containments	Containment	50		
9.5.2	b	Conduct Periodic Field Investigations	Investigation	20		
9.5.2	c	Conduct Annual Audits	Audit	3		
9.5.2	d	Review Sedimentation and Erosion Control Plans	Plan Review	20		
9.5.3		Spill Prevention Control and Countermeasure (SPCC) Program	Day	365		
9.5.3	a	Conduct Monthly Inspections	Inspection	60		
9.5.3	a1	Conduct Weekly Inspections	Inspection	3,016		
9.5.3	a2	Conduct Daily Inspections	Inspection	365		
9.5.4		Operation and Maintenance of Impoundments	Day	365		
9.5.4	a	Perform Annual Cleaning	Cleaning	1		
9.5.4	c	Clean Water Knives	Cleaning	2		
9.6		Implement Lead Program	Day	365		
9.7		Asbestos Program	Day	365		
9.7	d	Provide HEPA Vacuum Decontamination & Sevicing	Cleaning	150		
9.8		Implement Petroleum Storage Tank Program	Day	365		
9.8	b	Perform Annual ImpoundmentTank Integrity Testing	Tests	5		
9.9		Implement Groundwater Protection Program	Day	365		
9.9.1	c	Collect Samples	Sample	16		
9.10	a	Emergency Response	Chemical Spill	60		
9.10	b	Asbestos Spill Cleanup	Asbestos Spill	60		
9.11		Pollution Prevention and Resource Conservation	Day	365		
9.11.1		Track and Evaluate Information	Month	12		
9.11.2	a	Pollution Prevention Opportunity Assessments (PPOA)	PPOAs	20		
9.11.2	c	Implement PPOAs	PPOA implementation	6		
9.11.3		Ozone Depleting Substance Tracking Program	Day	365		
9.11.4		EPCRA Compliance Program	Day	365		
9.12		Communication, Training and Participation in Work Groups	Day	365		
9.12.2		Participate in Committees and Work Groups	Week	52		
9.13		Environmental Management System (EMS)	Day	365		
9.13	a	EMS User Access support	User	150		
9.13	b	Impact Team Meetings	Meeting	26		
9.13	c	Develop/Revise EMS Procedures	Procedure	25		
9.13	d	Develop Presentations	Presentations	20		
9.13	e	EMS Webpage Updates	Weekly	52		
9.14		Implement Toxic Substances Control Act (TSCA) Program	Day	365		
9.15		Personnel Qualification Requirements	Day	365		
9.16		Records, Reports, and Submittals	Day	365		
9.16.1.1		Environmental Compliance Plan	Year	1		
9.16.1.2		Annual Building Inspection Report	Report	186		
9.16.1.3		Self Assessment Findings Report	Report	1		
9.16.1.4		Environmental Resource Documents	Year	4		
9.16.1.5		Develop Standard Operating Procedures	Procedure	10		
9.16.2.1		Annual Waste Summary	Report	3		
9.16.2.2		Annual Site Activity Report	Report	1		
9.16.2.3		Monthly Waste Shipment	Report	36		
9.16.2.4		Monthly Waste Receipt Summary	Report	12		
9.16.2.5		Monthly ISW Generator Report	Report	12		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.16.2.6		ISW Contingency Plan	Plan	3		
9.16.2.7		ISW Waste Analysis Plans	Plan	3		
9.16.2.8		TSDR and Transportation Facility Audit Reports	Report	10		
9.16.2.9		ISW Tank Inspection Reports	Report	1		
9.16.2.10	a	ISW Tank Cleaning Plan	Plan	1		
9.16.2.10	b	ISW Tank Cleaning Report	Report	1		
9.16.2.11		Manifest Exception Reports	Report	3		
9.16.2.12		Biennial Hazardous Waste Repor:	Report	2		
9.16.2.13		Review and Update Closure Plan	Plan	4		
9.16.2.14		Review and Update RCRA Training Plan	Plan	3		
9.16.3.1		Develop and Submit RATA Report	Report	1		
9.16.3.2		Develop and Submit CGA Report	Report	3		
9.16.3.3		Develop and Submit Semiannual Db Excess Emission Report	Report	2		
9.16.3.4		Develop and Submit Semiannual Dc Excess Emission Report	Report	2		
9.16.3.5		Develop and Submit Emissions Inventory Report	Report	3		
9.16.3.6		Develop and Submit IPG Report	Report	1		
9.16.3.7		EF	Report	5		
9.16.4.1		Sanitary Sewer Industrial Discharge Management Plan	Day	365		
9.16.4.2		Annual Storm Water Plan Compliance Report	Report	3		
9.16.4.3		Plans	Plan	2		
9.16.4.4		Sedimentation and Erosion Control (SEC) Plan Reports	Report	20		
9.16.4.5		Spill Prevention Control and Countermeasure (SPCC) Report	Review	4		
9.16.5.1		Site-wide Annual Asbestos Inspection and Assessment	Inspection/Assessment	1		
9.16.5.2		Submit Asbestos Notifications to OMOH / FM	Notification	1,200		
9.16.6.1		Annual Petroleum Storage Tank (PST) Integrity Report	Report	1		
9.16.6.2	a	General Land Office Applications and Certificates	Application	2		
9.16.6.2	b	Submit Response Certification	Certification	2		
9.16.6.3		Database Submit PST database	Report	1		
9.16.7.1		Report	Report	1		
9.16.8.1		Source Reduction and Waste Minimization Report	Report	3		
9.16.8.2		Pollution Prevention Plans	Plan	3		
9.16.8.3		NASA Recycling and Affirmative Procurement Report	Report	1		
9.16.8.4		Pollution Prevention Opportunity Assessment (PPOA) Reports	Report	20		
9.16.8.5		Annual ODS Usage Report	Report	1		
9.16.8.6		Develop Environmental Award Applications	Application	3		
9.16.8.7		Notifications to Agencies	Day	365		
9.16.8.8		Toxic Release Inventory	Report	4		
9.16.9.1		Environmental Study/Design Rev ew	Study/Design Review	20		
9.16.10.1		Polychlorinated Biphenyl Annual Written Document Log	Report	2		
ANNEX 10		SUPPLY				
10.2.2	a	Ensure shelf life material	Line Item	840		
10.2.2	b	Document Tracking	Transaction	27,000		
10.2.2	c	Inventory Reconciliation	Day	365		
10.2.2	d	Document Control	Document	12,251		
10.2.2	e	JSC Form 1710	Form	3,000		
10.2.2	f	Cataloging	Day	365		
10.2.2	g	JSC Form 500	Form	10		
10.2.2	h	Prepare and Submit JSC Form 1303	Submission	10		
10.2.2	i	Assign Stock Numbers	Line Item	1,300		
10.2.2	j	Perform Add/User/Withdraw Actions	Action	12		
10.2.2	k	Form 1685	Form	12		
10.2.2	l	SFM Tapes	Tape	10		
10.2.2	m	Standardization Studies	Study	12		
10.2.2	n	Acquistion and Inventory Management	Day	365		
10.2.2	n1	Purchase Stock Items	Purchase	800		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
10.2.2	n2	Suspended receipt & Issue Transactions	Day	365		
10.2.2	n3	JSC Form 500/ 500a	Form	10		
10.2.2	n4	NSMS Complete Access Report	Report	4		
10.2.2	o	Cost Accounting System	Day	365		
10.2.2	p1	Issue Stock	Issue	8,000		
10.2.2	p2	Stock Returns	Return	156		
10.2.2	p3	Work Stoppages	Work stoppage	100		
10.2.2	q	DV Program	Day	365		
10.2.2	r	Program Stock Receipts	Receipt	3,000		
10.2.2	s	Program Stock Discrepancies	Line Item	25		
10.2.2	t	Program Stock Temporary Hold	Piece	60		
10.2.2	u	Program Stock Issues	Issue	8,000		
10.2.2	v	NASA Tagged Hardware	Day	365		
10.2.3		Sample Physical Inventory of Assets	Inventory	3		
10.2.4		Temporary Storage	Case File	125		
10.2.5	a	Gas Cylinder Purchases	Day	365		
10.2.5	b	Repaint/Refurbish Cylinders	Cylinder	120		
10.2.5	c	Scrub/scrap Cylinders	Cylinder	50		
10.2.5	d	Rejected Cylinders (contents)	Cylinder	130		
10.2.5	e	Gas Cylinder Inventory (Triennial - Year 3 Only)	Inventory	1		
10.2.6.1		Master Case File Listing	Report	12		
10.2.6.2		Case File Listing	Report	125		
10.2.6.3		Physical Inventory Schedule	Schedule	1		
10.2.6.4		Store Stock and Critical Spares Catalogs	Catalog	3		
10.2.7		Personnel Requirements	Day	365		
10.3.2	a	New Furniture Receipts	Piece	3,200		
10.3.2	b	Used Furniture Receipts	Piece	13,000		
10.3.2	c	Prepare Furniture for Delivery	Piece	11,750		
10.3.2	d	Connect/Disconnect Furniture	Piece	11,000		
10.3.3		In-Field Furniture Repair	Piece	4,000		
10.3.4		Carpet Operations	Square Yard	2,000		
10.3.5		Conduct Carpet/Furniture Inventories	Inventory	12		
10.3.6		Furniture & Carpet Inventory Report	Report	12		
10.3.7		Personnel Expertise Requirements	Day	365		
10.4.2		Maintenance and Repair - Radio Communications Equipment	Day	365		
10.4.2	a	Priority 1	Request	15		
10.4.2	b	Priority 2	Request	15		
10.4.3		Maintenance and Repair - Portable Radios and Chargers	Request	30		
10.4.4		Installation and Removal	Operation	28		
10.4.5		Radio Equipment Preventive Maintenance	Day	365		
ANNEX 11		PROPERTY AND EQUIPMENT				
11.2.2	a	Requested NEMS Report	Report	5,100		
11.2.2	b	Quarterly/Monthly NEMS Reports	Report	65,000		
11.2.2	c	NEMS User List	List	10,000		
11.2.2.1		NEMS Documentation	Transaction	37,000		
11.2.2.2		CD-Rom Archival	Document	50,000		
11.2.2.3	a	Wall to Wall Equipment Inventory	Inventory Item	18,000		
11.2.2.3	b	Sensitive Inventory	Inventory Item	5,000		
11.2.2.4	a	In-place Equipment tagging	Equipment Item	500		
11.2.2.4	b	In-place Equipment de-tagging	Equipment Item	1,000		
11.2.2.4	c	Found on Station Form	Form	15		
11.2.2.4	d	Cannibalization/Modification Form	Form	50		
11.3.1	a	Process Shipping Document	Form	2,670		
11.3.1	b	Maintain & track logs & data	Day	365		
11.3.1	c	Create folders and log records	Day	365		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
11.3.1	d	Annotate Records	Day	365		
11.3.1	e	Process Employee Clearances	Form	106		
11.4.2.a		Reutilization and Disposal Operations	Line Item	20,500		
11.4.2.b		Pick up of Scrap Metals	Pickup	250		
11.4.3		Stevenson-Wydler Program and Computers for Learning Program	Requests	50 - 75		
11.4.4		Shuttle Orbiter Tile Program	Tiles Shipped	400		
11.4.6.a		Contractor Monthly Production Report	Report	12		
11.4.6.b		Property held by the Property Disposal Officer Report	Report	12		
11.4.6.c		Annual Report of Exchange/Sale Transactons	Report	1		
11.4.6.d		Personal Property	Report	1		
11.4.6.e		Report of Activities Generating Precious Metals	Report	1		
11.4.6.f		Organizations	Report	1		
11.4.6.g		Performance Measures Report	Report	2		
11.4.6.h		Semiannual Report of Personal Property Management Operations	Report	2		
ANNEX 12		TRANSPORTATION				
12.2.1		General Transporation Services	Work request	4,000		
12.2.2	a	Core Hour Personnel Moves	People	1,300		
12.2.2	b	Non-core Hour Personnel Moves	People	100		
12.2.3		Quick Dispatch	Request	3,000		
12.2.4		Nitrogen Delivery	Gallons	283,000		
12.2.5		Personnel Licensed	Day	365		
12.3.2	a	Packing & Shipping Routine Shipments	Shipment	4,500		
12.3.2	b	Packing & Shipping Priority Shipments	Shipment	6,500		
12.3.2	c	Hazardous Shipments	Shipment	225		
12.3.3		Vehicle Load Plans	Loads	25		
12.3.4		Delivery to/From Offsite Locations	Shipment	300		
12.3.5		Packaging Personnel Requirements	Day	365		
12.3.6.1		Monthly Production Report	Report	12		
12.4.1	a	Rigging Support for Priority 1 Work Order	Priority	5		
12.4.1	b	Rigging Support for Priority 2 Work Order	Priority	300		
12.4.1	c	Rigging Support for Priority 3 Work Order	General	400		
12.4.2	a	Priority 2 Load Test	Test	200		
12.4.2	b	Load Tests General Support	Test	400		
12.4.3		Lifting Equipment Listing	Day	365		
12.4.4		Personnel Requirements	Day	365		
12.5.3		Vehicle Administrative Operations	Day	365		
12.5.3.1		Maintain Extra Vehicle Keys	Key	150		
12.5.3.2		Maintain Vehicle Credit Cards	Card	107		
12.5.3.3		Report of Accidents	Report	10		
12.5.3.4		Vehicle Safety Recall Notifications	Notice	4		
12.5.3.5		Daily Vehicle Dispatch Sheets	Monthly	12		
12.5.3.6	a	Issue Government Pool Vehicles	Request	550		
12.5.3.6	b	Maintain/Update Reservations Calendar	Day	365		
12.5.3.7	a	Process Full Time Vehicle Assignments	Request	10		
12.5.3.8		Maintain/Update Vehicle Fleet Database	Day	365		
12.5.3.9		Vehicle Preventive Maintenance	Notification	300		
12.5.3.10		Pool Vehicles, Preventive Maintenance, Servicing, and Replacement	Vehicle	120		
12.5.3.11		Vehicle Emissions Inspections	Notice	100		
12.5.4		Special Events Transportation	Request	8		
12.5.5.1		Provide Vehicle Mileage Reports	Report	12		
12.5.5.2		Federal Automotive Statistical Tool Report	Report	1		
12.5.5.3		Energy Information Agency Survey Report	Report	1		
12.5.5.4		Alternative Fuel Vehicle Acuisition Report	Report	1		
12.5.5.5		Report, Office of Management and Budget Report	Report	1		
12.5.5.6		General Purpose Vehicle Accident Report	Report	2		

Values for First Option Period , Contract Year Three						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
12.5.5.7		Summary Report	Report	2		
12.5.5.8		Vehicle Cost Per Mile Metrics Report	Report	4		
12.5.5.9		Vehicle Fleet Mileage Express Report	Report	12		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
ANNEX 1		ADMINISTRATIVE SUPPORT				
1.2		Work Control Center	Daily	365		
1.3.1		Designate Building Manager	Square Feet	122,809		
1.3.2		Maintain Facilities	Daily	365		
1.3.3		Facilities Utilization Records	Daily	365		
1.4		Contractor Work Area Cleaning	Daily	365		
1.5		Site Critical Installation Provided Property	Item	40		
1.6.1		Quality Control Program	Program	1		
1.6.1	a	Corrective Actions Summary	Summary	12		
1.6.1	b	QC Performance Reports	Report	12		
1.6.2		Quality Control Plan	Plan	1		
1.6.3		ISO 9001- 2000 Certification	Certification	1		
1.6.4		Continuous Improvement Teams	Team	8		
1.7.1		Safety and Health Program	Program	1		
1.7.1.1		VPP Certification	Certification	1		
1.7.2		Safety and Health Plan	Plan	1		
1.7.3.1		Statistical Information Report	Report	12		
1.7.3.2		Self Evaluation Report	Report	1		
1.7.3.3		Terminated Employees Report	Report	1		
1.7.3.4		Material Safety Data Sheets	Day	365		
1.7.3.5		Hazardous Materials Inventory	Report	1		
1.7.3.6		Hazard Abatement Notices and Plans	Review	12		
1.7.3.7		Lessons Learned Report	Report	4		
1.7.3.8		Safety and Health Metrics	Report	12		
1.7.3.9		Log of Occupational Injuries/Illnesses	Report	1		
1.7.3.10		Hazards Identification	Report	1		
1.8.1		Energy and Water Conservation	Plan	1		
1.8.1.a		Y2K HVAC Equipment and Lighting Baseline Status Report	Reports	12		
1.8.1.b		Monthly Utility Report (MUR)	Reports	12		
1.8.1.c		Quarterly Energy Report (QER)	Reports	4		
1.8.1.d	a	Cold Weather Protection Plan	Plan	1		
1.8.1.d	b	Freeze Protection Survey	Survey	1		
1.90		Functional Metrics	Report	12		
1.10.1		Environmental Program (for COSS Activities)	Day	365		
1.10.2		Procure Recycled Items/Materials	Day	365		
1.10.3		Environmental Management System	Day	365		
1.10.4		Affirmative Procurement	Day	365		
1.10.5		Prohibited & Restricted Materials	Day	365		
1.10.6		Ozone Depleting Substances	Item	75		
1.10.7		Polychlorinated Biphenyls	Item	75		
1.10.8		Participate in Recycling Programs	Day	365		
1.11		Emergency Management Program	Plan	1		
1.12.5		Energy Manager	Day	365		
1.12.6		Environmental Training	Day	365		
1.13.1		Workload Data Collection Report	Report	1		
1.13.3		Cost Data Report	Report	1		
ANNEX 2		SCHEDULED MAINTENANCE AND REPAIR				
2.2.1		Implement the SM Plan	Database	1		
2.2.2		Accomplish Scheduled Maintenance				
2.2.2	ACCI001	Air Condenor Unit Inspection	PM	344		
2.2.2	ACUI001	Air Conditioner Unit, Inspection	PM	201		
2.2.2	AHUI001	Air Handler Unit, Inspection	PM	15		
2.2.2	AHUI003	Air Handler Unit Humidifier, Inspection	PM	5		
2.2.2	AHUI004	Air Handler Unit, Pre-Flight Checks	PM	173		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	AHUI005	Film Vault Air Handler Unit, Inspection	PM	1		
2.2.2	AHUI006	Air Handler Unit With Generator, Inspection	PM	2		
2.2.2	AHUM001	Air Handler Unit, Filter Change	PM	12		
2.2.2	AHUV001	Air Handler Unit, Vibration	PM	1115		
2.2.2	APLI001	Ultra Low Freezer, Inspection And Maintenance	PM	1		
2.2.2	APLI002	Toaster Conveyor, Inspection And Maintenance	PM	4		
2.2.2	APLI003	Refrigerator, Inspection And Maintenance	PM	2		
2.2.2	APLI004	Steam Jacketed Kettle, Maintenance	PM	3		
2.2.2	APLI005	Kitchen Equipment, Inspection And Maintenance	PM	34		
2.2.2	APLM001	Dishwasher, Inspect And Maintenance	PM	3		
2.2.2	APLM002	Steamer, Inspection And Maintenance	PM	7		
2.2.2	APLM003	Ice Machine Water Filter, Replacement	PM	14		
2.2.2	APLM005	Ice Machine, Maintenance And Inspection	PM	9		
2.2.2	BATI001	Electric Storage Battery Monitoring System, Data Collection	PM	5		
2.2.2	BATI002	Electric Storage Battery, Maintenance And Testing	PM	14		
2.2.2	BATM001	Electric Storage Battery, Replacement	PM	14		
2.2.2	BATM002	Battery Charger, Maintenance And Testing	PM	22		
2.2.2	BATT001	Electric Storage Battery, Maintenance And Impedance Testing	PM	14		
2.2.2	BFPT001	DCK Backflow Preventer, Test	PM	41		
2.2.2	BFPT002	PVB Backflow Preventer, Test	PM	66		
2.2.2	BFPT003	RPZ Backflow Preventer, Test	PM	176		
2.2.2	BRKM001	Vacuum Circuit Breaker, Maintenance And Test	PM	55		
2.2.2	BRKT001	Air Circuit Breaker, Maintenance And Test	PM	552		
2.2.2	BRKT002	Air Circuit Breaker Protective Relay, Functional Test	PM	26		
2.2.2	BRSC001	Steam Boiler Force Draft Air Fan, Calibrate And Inspection	PM	3		
2.2.2	BRSC002	Steam Boiler, Fuel Oil Calibration	PM	3		
2.2.2	BRSC003	Steam Boiler, Transmitter Calibration.	PM	3		
2.2.2	BRSI001	Steam Boiler, Pre Flight Checks	PM	3		
2.2.2	BRSI002	Low Pressure Gas Fired Steam Boiler, Operational Inspection	PM	37		
2.2.2	BRSI003	Boiler, Sampling And Data Collection	PM	37		
2.2.2	BRSI004	Steam Boiler, Internal Inspection	PM	37		
2.2.2	BRSM001	Steam Boiler Feed Water, Maintenance And Inspection	PM	3		
2.2.2	BRSV001	Steam Boiler Force Draft Air Fan, Vibration Check	PM	3		
2.2.2	CAPI001	Capacitor Bank, Inspection	PM	3		
2.2.2	CBLI001	15kv Feeder Cable, Inspection And Testing	PM	36		
2.2.2	CHLC001	Chiller, Calibration	PM	13		
2.2.2	CHLC003	Chiller Lube Oil System, Calibration And inspection	PM	13		
2.2.2	CHLI001	Chiller Refrigerant System, Inspection And Calibration	PM	1		
2.2.2	CHLI003	Chiller Balance Piston, Inspection	PM	13		
2.2.2	CHLI004	Chiller, Electrical Operational Inspection	PM	13		
2.2.2	CHLI005	Chiller, Mechanical Operational Inspection	PM	13		
2.2.2	CHLI006	Chiller Gearbox, Inspection	PM	13		
2.2.2	CHLI009	Small Chiller, Operational Inspection	PM	11		
2.2.2	CHLI012	Medium Chiller, Operational Inspection	PM	5		
2.2.2	CHLV001	Chiller, Vibration Data Collection And Analysis	PM	18		
2.2.2	CLTI001	Cooling Tower Structure, Inspection	PM	15		
2.2.2	CLTI002	Cooling Tower, Mechanical Inspection	PM	1		
2.2.2	CLTM001	Cooling Tower Water Treatment, Sampling	PM	15		
2.2.2	CLTV001	Cooling Tower Fan, Vibration Data Collection	PM	14		
2.2.2	COMI001	Inspection	PM	49		
2.2.2	COMI002	Stand Alone Control Air Compressor, Function Test And Inspection	PM	40		
2.2.2	COMI003	Shop Air Compressor, Function Test And Inspection	PM	41		
2.2.2	COMV001	Centrifugal Compressor, Vibration Data Collection	PM	9		
2.2.2	COMV002	Operational Inspection	PM	6		
2.2.2	CPSI001	Immersed & Buried Anode Cathodic Protection System, Inspection	PM	4		
2.2.2	CPSI002	Water Wells Buried Anode Cathodic Protection System, Inspection	PM	2		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	CRNC001	Hoist And Crane, Certification	PM	125		
2.2.2	CRNI001	Hoist And Crane, Inspection	PM	125		
2.2.2	CRNM001	Hoist And Crane, Lubrication	PM	30		
2.2.2	CTBI001	Containment Berms, Inspection And Repair	PM	2		
2.2.2	DORI001	Vertical Lift Door, Inspection	PM	12		
2.2.2	DORI002	Horizontal Sectional Hanger Door	PM	3		
2.2.2	DORI003	Automatic Sliding Door, Inspection	PM	36		
2.2.2	DORI004	Roll Up Electric Door, Inspection And Maintenance	PM	59		
2.2.2	DORI005	Electric Overhead Door, Inspection	PM	113		
2.2.2	DORM001	Automatic Sliding Door, Maintenance	PM	36		
2.2.2	EEWI001	Plumbed Eyewash And Safety Shower, Flush	PM	210		
2.2.2	EEWI002	Eyewash And Safety Shower, Inspection	PM	256		
2.2.2	EEWM001	Portable Eyewash And Safety Shower, Flush And Maintenance	PM	47		
2.2.2	ELSM001	Emergency Lighting System, Full Maintenance And Inspection	PM	70		
2.2.2	ELST002	Emergency Lighting System, 30 Second Function Test	PM	71		
2.2.2	ELST003	Emergency Lighting System, 90 Minute Test And Inspection	PM	71		
2.2.2	ELUT001	Emergency Lighting Unit, 30 Second Function Test	PM	62		
2.2.2	ELVI001	Hydraulic Elevator, Monthly Inspection	PM	36		
2.2.2	ELVI002	Hydraulic Elevator, Quarterly Inspection	PM	36		
2.2.2	ELVI003	Hydraulic Elevator, Semi-Annual Inspection	PM	36		
2.2.2	ELVI004	Hydraulic Elevators, Inspection	PM	36		
2.2.2	ELVI005	Electrical Traction Elevator, Monthly Inspection	PM	23		
2.2.2	ELVI006	Electrical Traction Elevator, Quarterly Inspection	PM	23		
2.2.2	ELVI007	Electrical Traction Elevator, Semi-Annual Inspection	PM	23		
2.2.2	ELVI008	Electrical Traction Elevator, Annual Inspection	PM	23		
2.2.2	ENGI001	Diesel Engine, Air Starter Inspection	PM	5		
2.2.2	ENGI002	Diesel Engine, Inspect And Run	PM	5		
2.2.2	ENGI005	Natural Gas Engine, Inspect And Run	PM	7		
2.2.2	ENGI007	Diesel Engine, Cooling Water Checks	PM	11		
2.2.2	ENGM002	Diesel Engine, Lube Oil Pump Service	PM	5		
2.2.2	ENGM003	Diesel Engine, Flex Hose Inspection	PM	6		
2.2.2	ENGM004	Diesel Engine, Maintenance	PM	5		
2.2.2	ENGM005	Natural Gas Engine, Clean And Lubricate	PM	7		
2.2.2	ENGM006	Natural Gas Engine, Maintenance	PM	7		
2.2.2	ENGM008	Diesel Engine, Governor Oil Change	PM	6		
2.2.2	ENGT001	Diesel Engine Protective Relay, Maintenance And Testing	PM	5		
2.2.2	EWSI001	Emergency Warning System, Maintenance And Repair	PM	1		
2.2.2	EXCI001	Exchanger, Operational Inspection	PM	103		
2.2.2	FANI001	Fan, Inspection	PM	674		
2.2.2	FANV001	Fan, Vibration Data Collection And Inspection	PM	15		
2.2.2	FGTI001	Perimeter Fencing Gates, Inspec: And Repair	PM	3		
2.2.2	FILM001	Water Fountain Filter, Replacement	PM	73		
2.2.2	FILM002	Filter Bank, Replacement	PM	53		
2.2.2	GENI002	Portable Generator, Inspection	PM	67		
2.2.2	GENI004	Power Generators, Operation	PM	5		
2.2.2	GENI007	5000 Watt Portable Generator, Inspection	PM	6		
2.2.2	GENM003	Portable Generator, Maintenance And Inspection	PM	67		
2.2.2	GENM011	Power Generator, Inspection And Testing	PM	5		
2.2.2	GENT002	Portable Generator, Mission Run Test	PM	5		
2.2.2	GENT003	Power Generators, Verify Output Capacity 100% Load Test	PM	5		
2.2.2	GTSI001	Groundwater Treatment System, Inspection	PM	1		
2.2.2	GTSI002	Groundwater Treatment System Control Valve, Inspection	PM	1		
2.2.2	GTST001	Groundwater Treatment System, Sample Testing	PM	1		
2.2.2	HTRI001	Gas Fired Space Heater, Inspection	PM	91		
2.2.2	HTRI002	Gas Fired Hot Water Heater, Inspection	PM	2		
2.2.2	LFTC001	Lift, Certification	PM	79		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	LFTI001	Lift, Inspection	PM	79		
2.2.2	LTGM001	Ceiling Lights, Partial Relamp	PM	161		
2.2.2	LTGM002	Ceiling Lights, Total Relamp	PM	10		
2.2.2	MCCI001	Motor Control Center, Clean And Inspection	PM	101		
2.2.2	NGST001	Natural Gas Valve Regulator Station 4, Exercise	PM	1		
2.2.2	NGST002	Natural Gas Valve Regulator Station 6, Exercise	PM	1		
2.2.2	NGST003	Natural Gas Valve Regulator Station 5, Exercise	PM	1		
2.2.2	NGST004	Natural Gas Valve Ave B Main Line, Exercise	PM	1		
2.2.2	NGST005	Natural Gas Valve Regulator Stations 10 12 And 13, Exercise	PM	1		
2.2.2	NGST006	Natural Gas Valve Regulator Stations 7 And 8, Exercise	PM	1		
2.2.2	NGST007	Natural Gas Valve Regulator Station 14, Exercise	PM	1		
2.2.2	NGST008	Natural Gas Valve Regulator Station 3, Exercise	PM	1		
2.2.2	NGST009	Natural Gas Valve Ellington Field, Exercise	PM	1		
2.2.2	OILI001	Rotating Equipment Oil Analysis, Sampling Instructions	PM	28		
2.2.2	OILI002	Chiller Oil And Refrigerant, Sampling And Analysis	PM	18		
2.2.2	OILI003	Dielectric Insulating Liquid, Inspection & Tests	PM	126		
2.2.2	PLWI001	Plating Waste Pretreatment System UCS Alarm, Inspection	PM	15		
2.2.2	PLWI002	Plating Waste Pretreatment System Control Equipment, Inspection	PM	15		
2.2.2	PMPI001	Pump, Inspection And Maintenance	PM	257		
2.2.2	PMPI002	Boiler Feed Water Pump, Inspection	PM	5		
2.2.2	PMPM001	Fuel Oil Pump Coupling, Grease	PM	3		
2.2.2	PMPV001	Pump, Vibration Data Collection And Inspection	PM	427		
2.2.2	PNLI001	Electrical Distribution Panel, Inspection	PM	259		
2.2.2	PWDT001	Potable Water Valve, Exercise Valves And Fire Hydrant	PM	1		
2.2.2	RADM001	Radio Base Station, Maintenance	PM	3		
2.2.2	RPDM001	Memorials, Inspect And Maintain	PM	2		
2.2.2	RPDM002	Flag Pole, Inspect And Maintain	PM	2		
2.2.2	SCRI001	Steam Trap Ultrasonic And Temperature, Inspection	PM	98		
2.2.2	SETI001	Structural Exterior, Inspection	PM	188		
2.2.2	SISI001	Intercom System, Maintenance And Repair	PM	1		
2.2.2	SKRI001	Oil Skimmer, Inspection	PM	9		
2.2.2	SKRM001	JSC Site Oil Skimmer, Clean Out	PM	4		
2.2.2	SKRM002	ELL Site Oil Skimmer, Clean Out	PM	9		
2.2.2	SNSI001	Grease Trap, Inspect	PM	4		
2.2.2	SWGI002	Switchgear Enclosure, Inspection And Maintenance	PM	133		
2.2.2	SWII001	15kv Automatic Circuit Recloser, Inspect And Maintain	PM	3		
2.2.2	SWII002	Load Break Switch, Inspection And Maintenance	PM	43		
2.2.2	SWII003	Automatic Transfer Switch, Inspection And Maintenance	PM	36		
2.2.2	SWII004	Manual Transfer Switch, Inspection And Maintenance	PM	35		
2.2.2	SWII005	High Voltage Oil Switch, Inspection And Maintenance	PM	15		
2.2.2	SWIM001	Switch, Inspection And Maintenance High Voltage Air Switch	PM	8		
2.2.2	SWIM003	High Voltage SF6 or Vacuum Switch Inspection And Maintenance	PM	11		
2.2.2	SWSM001	Storm Water Collection System, Clean And Inspect	PM	1		
2.2.2	TISI001	Turf Irrigation Valve, Inspection And Repair	PM	1		
2.2.2	TRLI001	Trailer, Inspection	PM	52		
2.2.2	TRNT001	Dry Transformer, Insulation Testing	PM	19		
2.2.2	UPSI003	Uninterrupted Power Source, Inspection	PM	48		
2.2.2	UPSM001	Uninterrupted Power Source, Five Year Maintenance	PM	22		
2.2.2	UPSM002	Uninterrupted Power Source, Annual Maintenance	PM	47		
2.2.2	UPSM003	Uninterrupted Power Source, Semi-Annual Maintenance	PM	22		
2.2.2	UPSM004	Uninterrupted Power Source, Rotary Ups Inspect And Maintain	PM	2		
2.2.2	UPST001	Uninterrupted Power Source, Inferred Thermography Testing	PM	22		
2.2.2	VEHI001	ATV Inspection And Service	PM	1		
2.2.2	VEHI002	Electric Forklift, Maintenance And Inspection	PM	22		
2.2.2	VEHI003	General Mobile Equipment, Inspection	PM	55		
2.2.2	VEHI005	Manlift, Pallet Lift, And Pallet Jacks, Maintenance And Repair	PM	5		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	VEHI006	Equipment And Vehicle, Meter Reading	PM	59		
2.2.2	VEHM001	Oil And Filter Change	PM	55		
2.2.2	VFDI001	Variable Frequency Drive, Maintenance And Inspection	PM	122		
2.2.2	VIBI001	General Vibration Data Collection And Analysis	PM	2		
2.2.3		Equipment Inventories	Inventory	1		
2.2.4		Equipment Identification	Program	1		
2.2.5	a	Class I Pressure Vessel Inspections	Inspection	520		
2.2.5	b	Class II Pressure Vessel Inspections	Inspection	10		
2.2.5	c	Class III Pressure Vessel Inspections	Inspection	46		
2.2.5	d	Relief Valve Certification and Support	Certification	295		
2.2.5	e	Flex Hose Certification	Certification	19		
2.2.6		Light/Lamp Replacement	Fixture	20,000		
2.3.1	a	JA/COD Repair Program	Day	365		
2.3.2		Non Lump Sum Emergency Response	Emergency Call	200		
2.3.3		Critical Spare Parts Management	Day	365		
2.4		Maintenance Activation Program	Day	365		
2.4.n		Quarterly Reconciliation Report	Report	4		
2.5		Warranty Program	Program	1		
2.5	a	Administer Warranty	Warranty	300		
2.5	f	Warranty Report	Report	12		
2.6		Availability & Reliability	Day	365		
2.7		Reliability Cenetered Maintenance	Analysis	4		
2.9.1		User Equipment Maintenance Report	Report	12		
2.9.2		Pressue System Certification Testing Report	Report	12		
ANNEX 3		DIRECTED SERVICES				
3.2.1	a	Paint All Pedestrian Crosswalks	Linear Foot	3,000		
3.2.1	b	Paint street markings & parking lot markings	Mile	60		
3.2.1	c	Re-stencil all reserved parking space designations	Restored Space	1,650		
3.2.1	d	Resecure traffic control signs/nameplate holders	Sign/Nameplate Holder	15		
3.2.1	e	Install new traffic control signs/nameplate holders	Sign/Nameplate Holder	60		
3.2.1	f	Install new traffic control signs with posts	Sign/Post	15		
3.2.1	g	Maintain road surface reflectorized buttons & ceramic markers	Button/Marker	10		
3.2.1	h	Paint fire hydrants, post indicator valves, etc.	Month	12		
3.2.1	I	Maintain records for Building 304 surface coating activities	Occurrence	30		
3.2.2	a	Participate in review & update of the Hurricane/Severe Weather Plan	Review	2		
3.2.2	b	Maintain Contents of Hurricane Cabinets	Cabinet	26		
3.2.2	c	Maintain Emergency Storm Supplies List	Review	1		
3.2.2	d	Accomplish Hurricane/Severe Weather Level IV Activities	Annual	1		
3.2.3	a	Special Events	Event	4		
3.2.3	b	Minor Events	Annual	1		
3.2.3	c	Crew Returns	Mission	6		
3.2.4	a	COSS Technical Reference Library Plan	Plan	1		
3.2.4	c	Maintain COSS Technical Library Collection	Month	12		
3.3.2	a	Develop the FCA Plan	Plan	1		
3.3.2	b	Implement the FCA Plan	Monthly	12		
3.3.2	c	Document and Maintain FCA Database	Day	365		
3.3.2	d	Provide Monthly FCA Status Report	Report	12		
3.3.2	e	Provide Annual Facility Condition Assessment Report	Report	1		
3.3.3	a	Perform Comprehensive Visual Roof Inspection	Report	1		
3.3.3	b	Perform Non-Destructive Roof Inspections	Day	365		
3.3.3	d	Roof Mounted Appurtenance Inspection	Day	365		
3.3.4		Perform Building Exterior Inspection	Report	1		
3.3.5		Perform Roads Inspection	Report	1		
3.3.6		Perform Sidewalk Inspection	Report	1		
3.3.7		Perform Inspections of All Fences	Report	1		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
3.3.8		FCA Inspection - Sanitary Sewer System	Report	1		
3.3.9		FCA Inspection - Stormwater Collection System	Report	1		
ANNEX 4		OPERATIONS				
4.2.1.1.1.a		Boiler and Condendate Return System	Day	365		
4.2.1.1.2.a		Building 24 Central Plant Steam/Boiler System	Day	365		
4.2.1.2.1.a		138 kV JSC Site Electrical Substation	Day	365		
4.2.1.2.1.b		Operate Building 48 Power Systems	Day	365		
4.2.1.2.1.c		Building 48 Power Generators and UPS	Day	365		
4.2.1.2.2.a		Mission Shuttle Support	Mission	6		
4.2.1.2.2.a	a	Provide Alternate Mission Manager	Day	30		
4.2.1.2.2.a	b	Provide Mission Meeting Support	Mission	6		
4.2.1.2.2.a	c	Provide Utility System Drawings	Drawing	40		
4.2.1.2.2.b		Preflight Checkout of Power Systems	Mission	6		
4.2.1.2.2.b	a	Provide Mission Support Plan	Plan	6		
4.2.1.2.2.c		Read and Record Power Systems Meters	Day	365		
4.2.1.2.3.a		Read and Record Kilowatt Hours Meters	Reading	12		
4.2.1.2.3.b		Test Power Protective Devices	Annually	1		
4.2.1.2.3.c		Output Capacity	Annually	1		
4.2.1.2.3.d		Power Recording Charts	Day	365		
4.2.1.3.1.a		Heating and Cooling Plant Chilled Water Production Systems	Day	365		
4.2.1.3.1.b		Building 48 Chilled Water Production System	Day	365		
4.2.1.3.2.a		Chilled Water System Meters/Gauges	Day	365		
4.2.1.3.2.b		Operate Condenser Water Treatment Systems	Day	365		
4.2.1.4.1.a		Operate Water Treatment System	Day	365		
4.2.1.4.1.b		Operate Water Storage System	Day	365		
4.2.1.4.1.c		Operate Water Pumping System	Day	365		
4.2.1.4.1.d		Operate JSC Water Well	Day	365		
4.2.1.4.2.a		Read and Record Water Plant Meters	Day	365		
4.2.1.4.2.b		Maintain Water Plant Operations Log	Day	365		
4.2.1.4.2.c		Maintain Water Chart Recorder	Day	365		
4.2.1.4.2.d		Well Drawdown Test	Test	4		
4.2.1.5.1.a		Operate Compressed Air System	Day	365		
4.2.1.5.2		Read and Record Compressed Air System Meters/Gauges	Day	365		
4.2.1.6.1.a		Man & Operate Operations Control Center	Day	365		
4.2.1.6.1.b		Man & Operate EMCS	Day	365		
4.2.1.6.1.c		Manage EMCS Software	Day	365		
4.2.1.6.1.d		EBi Workstation Support	Day	365		
4.2.1.6.1.d	a	Field Configuration Report	Report	5		
4.2.1.6.1.e		EMCS Building Control Systems Support	Day	365		
4.2.1.6.2.a		Action Item File	Week	52		
4.2.1.6.2.b		Operating Set Point Limits	Day	365		
4.2.1.6.2.c		Monitoring and Control Systems	Day	365		
4.2.1.6.2.d		EMCS Operations Review Board	Week	52		
4.2.1.6.3.a		Preflight Checkout of EMCS	Mission	6		
4.2.1.6.3.b		Maintain EBi Historical File Media	Day	365		
4.2.1.6.3.c		Service System Printers	Day	365		
4.2.1.7.1.a		Operate Site Fuel Systems	Gallon	90,000		
4.2.1.7.2		Fuel Mobile Support Equipment	Gallon	600		
4.2.1.7.3		Fuel Oil Monitoring	Day	365		
4.2.2.1		Operate Steam and Condensate Return	Day	365		
4.2.2.1.2		Inspect Visual Checks Steam Distribution System	Inspection	4		
4.2.2.2.1.a		Site 15kV Distribution System Operation	Day	365		
4.2.2.2.1.b		Site 15kV Distribution System Inspection	Day	365		
4.2.2.2.1.c		Inspect EF & SCTF Electrical Distribution Systems	Inspection	4		
4.2.2.2.1.d		Exterior Lighting System	Day	365		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
4.2.2.2.2.a		High Voltage Switching Documentation	Document	6		
4.2.2.2.2.b		Read and Record System Meters and Gauges	Day	365		
4.2.2.2.2.c		Dranetz Recorder Service	Day	365		
4.2.2.2.2.d		Control Access to Building 221 Area	Day	365		
4.2.2.3.1.a		Operate Chilled Water Distribution System	Day	365		
4.2.2.3.2		Inspect Tunnel Chilled Water Distribution	Inspection	4		
4.2.2.4.1.a		Operate Water Distribution System	Day	365		
4.2.2.4.2.a		Water Distribution System Activities Log	Day	365		
4.2.2.4.2.b		Fire Hydrant System Test	Day	365		
4.2.2.5.1.a		Operate Sanitary Sewer Pumping and Distribution System	Day	365		
4.2.2.5.2.a		JSC and EF Operator Activities Log	Day	365		
4.2.2.5.2.b		Read and Record Distribution System Meters and Rainfall	Day	365		
4.2.2.5.3.a	a	Grease Traps	Pump Out	36		
4.2.2.5.3.a	b	Oil/Water Separators	Pump Out	19		
4.2.2.5.3.b		JSC Stormwater	Pump Out	6		
4.2.2.6.1.a		Operate Compressed Air Distribution System	Day	365		
4.2.2.6.1.b		Inspect Compressed Air Distribution System	Inspection	4		
4.2.2.7.1.a		Operate Natural Gas Distribution System	Day	365		
4.2.2.7.2.a		Maintain Daily Log	Day	365		
4.2.2.7.2.b		Read and Record Distribution System Meters	Day	365		
4.2.2.7.2.c		Inspect Natural Gas Distribution System	Inspection	1		
4.2.3.1		Operate Steam and Condensate Return	Day	365		
4.2.3.1.2		Low Pressure Steam Boiler Systems	Day	365		
4.2.3.2.1.a		Operate 15kV Facility Switches	Day	365		
4.2.3.2.1.b		Operate JSC Low Voltage Systems	Day	365		
4.2.3.2.2.a		Test the Test Power Generators	Week	52		
4.2.3.2.2.b		Read / Record Electrical Power Loads	Day	365		
4.2.3.2.3		Electrical Power Systems Loads Transfer	Day	365		
4.2.3.3.1.a		Operator / Monitor HVAC Systems	Day	365		
4.2.3.3.2.a		Read / Record MCC Complex HVAC System	Day	365		
4.2.3.3.2.b		Monitor / Inspect Hot Water Converters and Boilers	Day	365		
4.2.3.3.2.c		Inspect JSC Humidifiers	Day	365		
4.2.3.4		Operate Potable Water and Domestic Hot Water	Day	365		
4.2.3.4.2		Water Operations Log	Day	365		
4.2.3.5.1		Operate Compressed Air Systems	Day	365		
4.2.3.5.2		Inspect Facility Compressed Air Systems	Inspection	4		
4.2.3.5.3		Test Backup Control Compressed Air System	Annual	1		
4.2.3.6.1		Test Building Control System Interface	Annual	1		
4.2.3.7.1		Operate Natural Gas Distribution Systems	Day	365		
4.2.3.7.1	a	Inspect Natural Gas Distribution System	Inspection	4		
4.2.3.7.2		JSC and EF Natural Gas Distribution System Log	Day	365		
4.2.3.8.1		Fill Portable and Stationary Equipment Tanks	Gallon	15,000		
4.2.3.9.1		Inspect Valve Marker Identification	Day	365		
4.2.3.9.2.a		Mark Utility Systems	Utility Marking	75		
4.2.3.9.2.b		Documentation	Annual	1		
4.2.5.1		Water Utility Report	Month	12		
4.2.5.2	a	Submit Mission Readiness Plan	Plan	1		
4.2.5.2	b	Submit Fire Hydrant	Plan	1		
4.2.5.2	c	Submit O&M Manuals	Plan	1		
4.2.5.2	d	Submit EMCS Alarm Management Plan	Plan	1		
ANNEX 5		ENGINEERING				
5.2		Scope of Work	SOW	300		
5.2.d		Design Status Meeting	Meeting	26		
5.3.a		$0 - $2,500 Designs	Design	70		
5.3.b		$2,501 - $10,000 Designs	Design	120		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
5.3.c		$10,001 - $25,000 Designs	Design	70		
5.3.d		$25,000 - $50,000 Designs	Design	20		
5.3.e		$50,001 - $100,000 Designs	Design	10		
5.3.f		$100,001 - $200,000 Designs	Design	10		
5.3.1		Field Design Fix	Field Fix	20		
5.4		Submittal Shop Drawing Review	Review	15		
5.5		Master Facility Drawing Updates	Drawing	2,500		
5.6		Redline Verification Reviews	Review	5		
5.7.1		Standard Detail Drafting	Drawing	25		
5.7.2		Miscellaneous Design Drafting	Drawing	120		
5.7.3		CAD File Support	Review	5		
5.7.4		Electronic File Distribution	Files	1,100		
5.8.1		Cable Permits	Tunnel Permit	25		
5.8.2		Inspect Cable Changes	Inspection	35		
5.8.2	a	Tunnel Cable Records	Record	25		
5.8.3		Digging Permits	Digging Permit	50		
5.9	a	Field Check Updates	Drawing	525		
5.9	b	Redline Updates	Drawing	75		
5.9	c	Construction Updates	Drawing	80		
5.9	d	Room Number Assignments	Room Number	150		
5.9	e	Distribute Updated FHP Drawings	Request	100		
5.9	f	Disribute FHP Document	Document	200		
5.10	a	Update FEP Drawings	Drawing	35		
5.10	b	Create New FEP	Drawing	15		
5.10	c	Distribute FEP	Drawing	75		
5.11		Real Property Accounting	Voucher	250		
5.11.1		Account Reconciliation	Account	400		
5.11.2		Real Property Inventory	Line Item	800		
5.11.3		Inventory Tagging	Tagged Item	110		
5.11.4		Records Research	Researches	75		
5.11.5		Real Property Accounting System Data Entry	Voucher	250		
5.11.6		Update Real Estate Drawings and Facility Master Plans	Drawing Update	4		
5.12		SPECTSINTACT System Maintenance	Update	6		
5.12.1		SWT Meeting Support	Meeting	12		
5.12.2		Process SPECTSINTACT Text Changes	Change	30		
5.12.4		Specification Production	Edit	30		
ANNEX 8		INFORMATION TECHNOLOGY				
8.2		Mainframe Application IT Support	Day	365		
8.3.1		IT Support for the CMMS	Day	365		
8.3.2		Provide CMMS Capability	Day	365		
8.3.3		Maintain CMMS Program	Day	365		
8.3.4		Maintain History Files	Day	365		
8.4		Environment Management IT Support	Day	365		
8.5		EMCS Database Support	Day	365		
8.6		System Operations/Maintenance	Day	365		
8.7		Online System Access and Support	Day	365		
8.8.1		Provide CAD Software Support	Hour	200		
8.8.2		Provide CAD Software License	License	2		
8.8.3		CGM Viewing Support/ Facility Drawing Database	Day	365		
8.8.4		Entry	Hours	40		
8.9.1		Gas Tracking System	Tracking System	1		
8.9.2.1		Barcode Scanners/ Support Maintenance	Day	365		
8.9.3		Thermography Data Support	Day	365		
8.9.4		Vibration Data Support	Day	365		
8.9.5		Real Property Database Support	Hour	40		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
8.9.6		Winest/ Means	Hour	40		
8.10	a	NEMS System Scanning	System	1		
8.10	b	IT Scanning Support	Hour	80		
8.11		Computer Systems and Data Security	Day	365		
8.11.2		Computer Security Manager	Day	365		
8.12.1	a	IT Help Support - Routine	Week	52		
8.12.1	b	IT Help Support - Emergency	Day	365		
8.12.2		Documentation Maintenance/ Update for Major Systems	Day	365		
8.12.3		Minor Systems Documentation	Day	365		
8.12.4		Minor Applications Documentatior	Survey	1		
8.13.1		IT Security Plan	Plan	1		
ANNEX 9		ENVIRONMENTAL SERVICES				
9.2		Environmental Compliance Management (Site Activities)	Day	365		
9.2.1		Corrective Action	Day	365		
9.2.2	a	Compliance Inspection	Inspection	8		
9.2.2	b	Compliance EMS Audits	Audit	5		
9.2.2	c	External Compliance Audit	Audit	1		
9.2.2	d	Pre Audit Check List	Check List	4		
9.2.3	a	Building Audits	Audit	186		
9.2.3	b	Program Assessment	Assessment	1		
9.3		Industrial Solid Waste Management Program	Day	365		
9.3.1	a	Waste Pickup	Pickups	1,920		
9.3.1	b	Provide containers to waste generators	Containers	1,080		
9.3.2		Administer ISW Waste Streams	Day	365		
9.3.3		Maintain Waste Satellite Accumulation Areas (SAPs)	SAPs	150		
9.3.4	a	Operate and Manage all ISW Storage Facilities	Day	365		
9.3.4	b	Perform Tank Integrity Testing	Test	13		
9.3.5	a	Operate and Manage Waste treatment system	Day	365		
9.3.5	b	Sample Treated Batch	Samples	52		
9.3.6		Arrange for ISW Waste Transport and Disposition	Day	365		
9.3.7		Conduct Audits of TSDRs Facilities	Audit	10		
9.4		Air Quality Program	Day	365		
9.4.1		Operate the Building 222 CEMs	Day	365		
9.4.1	a	Inspect the CEMS	Day	286		
9.4.1	b	Building 222 CEMS Records	Record	286		
9.4.1	c1	Building 222 Rolling Average Calculations-Weekly	Calculation	52		
9.4.1	c2	Building 222 Rolling Average Calculations-Monthly	Calculation	12		
9.4.1	d	Building 222 CEMS Relative Accuracy Test Audit	Test	1		
9.4.1	e	Building 222 CEMS Cylinder Gas Audit	Test	3		
9.4.2		Ensure Building 24 Boiler Emission Compliance	Day	365		
9.4.2	a	Building 24 Boiler Data Entry and Records	Record	12		
9.4.2	b	Natural Gas Supplier Certificate	Certificate	1		
9.4.2	c	Natural Gas Sample Analysis	Sample	1		
9.4.2	d	Diesel Supplier Certificate	Certificate	10		
9.4.2	e	Fuel Delivery Record	Record	12		
9.4.3		Ensure Surface Coating Facilities Compliance	Day	365		
9.4.3	a	Monthly Records	Record	60		
9.4.3	b	Monthly Inspections	Inspection	52		
9.4.4	a	Track Air Emmissions	Day	365		
9.4.4	b	Perform TNRCC Standard Exemption Reviews	Review	1		
9.4.4	c	Building 262 Data Collection	Record	12		
9.4.4	d	JSC and EF Oil/ Water Separators Sampling	Sample	18		
9.4.4	e	Emergency Generators Data	Record	480		
9.4.4	f	Building 383 Air Stripper System	Record	52		
9.4.5		Perform Calculations for Emissions Inventory Report	Month	12		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.4.6		Opacity Readings	Opacity Reading	18		
9.5		Water Pollution Control and Prevention Program	Day	365		
9.5.1		Manage Sanitary Sewer Discharges	Discharge Points	400		
9.5.1	a	Develop & Update List of Sanitary Sewer Discharges	Day	365		
9.5.1	b	Implement Sanitary Sewer Discharge Mgt Plan	Day	365		
9.5.1	c	Review Request for Changes	Review	50		
9.5.1	d	Collect Samples	Sample	100		
9.5.2		Storm Water Management Program implementation	Day	365		
9.5.2	a1.	Conduct SWPPP inspections	Location	40		
9.5.2	a2	Inspect & Manage Rainfall at Containments	Containment	50		
9.5.2	b	Conduct Periodic Field Investigations	Investigation	20		
9.5.2	c	Conduct Annual Audits	Audit	3		
9.5.2	d	Review Sedimentation and Erosion Control Plans	Plan Review	20		
9.5.3		Spill Prevention Control and Countermeasure (SPCC) Program	Day	365		
9.5.3	a	Conduct Monthly Inspections	Inspection	60		
9.5.3	a1	Conduct Weekly Inspections	Inspection	3,016		
9.5.3	a2	Conduct Daily Inspections	Inspection	365		
9.5.4		Operation and Maintenance of Impoundments	Day	365		
9.5.4	a	Perform Annual Cleaning	Cleaning	1		
9.5.4	c	Clean Water Knives	Cleaning	2		
9.6		Implement Lead Program	Day	365		
9.7		Asbestos Program	Day	365		
9.7	d	Provide HEPA Vacuum Decontamination & Sevicing	Cleaning	150		
9.8		Implement Petroleum Storage Tank Program	Day	365		
9.8	b	Perform Annual ImpoundmentTank Integrity Testing	Tests	5		
9.9		Implement Groundwater Protection Program	Day	365		
9.9.1	c	Collect Samples	Sample	16		
9.10	a	Emergency Response	Chemical Spill	60		
9.10	b	Asbestos Spill Cleanup	Asbestos Spill	60		
9.11		Pollution Prevention and Resource Conservation	Day	365		
9.11.1		Track and Evaluate Information	Month	12		
9.11.2	a	Pollution Prevention Opportunity Assessments (PPOA)	PPOAs	20		
9.11.2	c	Implement PPOAs	PPOA implementation	6		
9.11.3		Ozone Depleting Substance Tracking Program	Day	365		
9.11.4		EPCRA Compliance Program	Day	365		
9.12		Communication, Training and Participation in Work Groups	Day	365		
9.12.2		Participate in Committees and Work Groups	Week	52		
9.13		Environmental Management System (EMS)	Day	365		
9.13	a	EMS User Access support	User	150		
9.13	b	Impact Team Meetings	Meeting	26		
9.13	c	Develop/Revise EMS Procedures	Procedure	25		
9.13	d	Develop Presentations	Presentations	20		
9.13	e	EMS Webpage Updates	Weekly	52		
9.14		Implement Toxic Substances Control Act (TSCA) Program	Day	365		
9.15		Personnel Qualification Requirements	Day	365		
9.16		Records, Reports, and Submittals	Day	365		
9.16.1.1		Environmental Compliance Plan	Year	1		
9.16.1.2		Annual Building Inspection Report	Report	186		
9.16.1.3		Self Assessment Findings Report	Report	1		
9.16.1.4		Environmental Resource Documents	Year	4		
9.16.1.5		Develop Standard Operating Procedures	Procedure	10		
9.16.2.1		Annual Waste Summary	Report	3		
9.16.2.2		Annual Site Activity Report	Report	1		
9.16.2.3		Monthly Waste Shipment	Report	36		
9.16.2.4		Monthly Waste Receipt Summary	Report	12		
9.16.2.5		Monthly ISW Generator Report	Report	12		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.16.2.6		ISW Contingency Plan	Plan	3		
9.16.2.7		ISW Waste Analysis Plans	Plan	3		
9.16.2.8		TSDR and Transportation Facility Audit Reports	Report	10		
9.16.2.9		ISW Tank Inspection Reports	Report	1		
9.16.2.10	a	ISW Tank Cleaning Plan	Plan	1		
9.16.2.10	b	ISW Tank Cleaning Report	Report	1		
9.16.2.11		Manifest Exception Reports	Report	3		
9.16.2.13		Review and Update Closure Plan	Plan	4		
9.16.2.14		Review and Update RCRA Training Plan	Plan	3		
9.16.3.1		Develop and Submit RATA Report	Report	1		
9.16.3.2		Develop and Submit CGA Report	Report	3		
9.16.3.3		Develop and Submit Semiannual Db Excess Emission Report	Report	2		
9.16.3.4		Develop and Submit Semiannual Dc Excess Emission Report	Report	2		
9.16.3.5		Develop and Submit Emissions Inventory Report	Report	3		
9.16.3.6		Develop and Submit IPG Report	Report	1		
9.16.3.7		EF	Report	5		
9.16.4.1		Sanitary Sewer Industrial Discharge Management Plan	Day	365		
9.16.4.2		Annual Storm Water Plan Compliance Report	Report	3		
9.16.4.3		Plans	Plan	2		
9.16.4.4		Sedimentation and Erosion Control (SEC) Plan Reports	Report	20		
9.16.4.5		Spill Prevention Control and Countermeasure (SPCC) Report	Review	4		
9.16.5.1		Site-wide Annual Asbestos Inspection and Assessment	Inspection/Assessment	1		
9.16.5.2		Submit Asbestos Notifications to OMOH / FM	Notification	1,200		
9.16.6.1		Annual Petroleum Storage Tank (PST) Integrity Report	Report	1		
9.16.6.2	a	General Land Office Applications and Certificates	Application	2		
9.16.6.2	b	Submit Response Certification	Certification	2		
9.16.6.3		Database Submit PST database	Report	1		
9.16.7.1		Report	Report	1		
9.16.8.1		Source Reduction and Waste Minimization Report	Report	3		
9.16.8.2		Pollution Prevention Plans	Plan	3		
9.16.8.3		NASA Recycling and Affirmative Procurement Report	Report	1		
9.16.8.4		Pollution Prevention Opportunity Assessment (PPOA) Reports	Report	20		
9.16.8.5		Annual ODS Usage Report	Report	1		
9.16.8.6		Develop Environmental Award Applications	Application	3		
9.16.8.7		Notifications to Agencies	Day	365		
9.16.8.8		Toxic Release Inventory	Report	4		
9.16.9.1		Environmental Study/Design Review	Study/Design Review	20		
9.16.10.1		Polychlorinated Biphenyl Annual Written Document Log	Report	2		
ANNEX 10		SUPPLY				
10.2.2	a	Ensure shelf life material	Line Item	840		
10.2.2	b	Document Tracking	Transaction	27,000		
10.2.2	c	Inventory Reconciliation	Day	365		
10.2.2	d	Document Control	Document	12,251		
10.2.2	e	JSC Form 1710	Form	3,000		
10.2.2	f	Cataloging	Day	365		
10.2.2	g	JSC Form 500	Form	10		
10.2.2	h	Prepare and Submit JSC Form 1303	Submission	10		
10.2.2	i	Assign Stock Numbers	Line Item	1,300		
10.2.2	j	Perform Add/User/Withdraw Actions	Action	12		
10.2.2	k	Form 1685	Form	12		
10.2.2	l	SFM Tapes	Tape	10		
10.2.2	m	Standardization Studies	Study	12		
10.2.2	n	Acquistion and Inventory Management	Day	365		
10.2.2	n1	Purchase Stock Items	Purchase	800		
10.2.2	n2	Suspended receipt & Issue Transactions	Day	365		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
10.2.2	n3	JSC Form 500/ 500a	Form	10		
10.2.2	n4	NSMS Complete Access Report	Report	4		
10.2.2	o	Cost Accounting System	Day	365		
10.2.2	p1	Issue Stock	Issue	8,000		
10.2.2	p2	Stock Returns	Return	156		
10.2.2	p3	Work Stoppages	Work stoppage	100		
10.2.2	q	DV Program	Day	365		
10.2.2	r	Program Stock Receipts	Receipt	3,000		
10.2.2	s	Program Stock Discrepancies	Line Item	25		
10.2.2	t	Program Stock Temporary Hold	Piece	60		
10.2.2	u	Program Stock Issues	Issue	8,000		
10.2.2	v	NASA Tagged Hardware	Day	365		
10.2.3		Sample Physical Inventory of Assets	Inventory	3		
10.2.4		Temporary Storage	Case File	125		
10.2.5	a	Gas Cylinder Purchases	Day	365		
10.2.5	b	Repaint/Refurbish Cylinders	Cylinder	120		
10.2.5	c	Scrub/scrap Cylinders	Cylinder	50		
10.2.5	d	Rejected Cylinders (contents)	Cylinder	130		
10.2.6.1		Master Case File Listing	Report	12		
10.2.6.2		Case File Listing	Report	125		
10.2.6.3		Physical Inventory Schedule	Schedule	1		
10.2.6.4		Store Stock and Critical Spares Catalogs	Catalog	3		
10.2.7		Personnel Requirements	Day	365		
10.3.2	a	New Furniture Receipts	Piece	3,200		
10.3.2	b	Used Furniture Receipts	Piece	13,000		
10.3.2	c	Prepare Furniture for Delivery	Piece	11,750		
10.3.2	d	Connect/Disconnect Furniture	Piece	11,000		
10.3.3		In-Field Furniture Repair	Piece	4,000		
10.3.4		Carpet Operations	Square Yard	2,000		
10.3.5		Conduct Carpet/Furniture Inventories	Inventory	12		
10.3.6		Furniture & Carpet Inventory Report	Report	12		
10.3.7		Personnel Expertise Requirements	Day	365		
10.4.2		Maintenance and Repair - Radio Communications Equipment	Day	365		
10.4.2	a	Priority 1	Request	15		
10.4.2	b	Priority 2	Request	15		
10.4.3		Maintenance and Repair - Portable Radios and Chargers	Request	30		
10.4.4		Installation and Removal	Operation	28		
10.4.5		Radio Equipment Preventive Maintenance	Day	365		
ANNEX 11		PROPERTY AND EQUIPMENT				
11.2.2	a	Requested NEMS Report	Report	5,100		
11.2.2	b	Quarterly/Monthly NEMS Reports	Report	65,000		
11.2.2	c	NEMS User List	List	10,000		
11.2.2.1		NEMS Documentation	Transaction	37,000		
11.2.2.2		CD-Rom Archival	Document	50,000		
11.2.2.3	a	Wall to Wall Equipment Inventory	Inventory Item	18,000		
11.2.2.3	b	Sensitive Inventory	Inventory Item	5,000		
11.2.2.4	a	In-place Equipment tagging	Equipment Item	500		
11.2.2.4	b	In-place Equipment de-tagging	Equipment Item	1,000		
11.2.2.4	c	Found on Station Form	Form	15		
11.2.2.4	d	Cannibalization/Modification Form	Form	50		
11.3.1	a	Process Shipping Document	Form	2,670		
11.3.1	b	Maintain & track logs & data	Day	365		
11.3.1	c	Create folders and log records	Day	365		
11.3.1	d	Annotate Records	Day	365		
11.3.1	e	Process Employee Clearances	Form	106		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
11.4.2.a		Reutilization and Disposal Operations	Line Item	20,500		
11.4.2.b		Pick up of Scrap Metals	Pickup	250		
11.4.3		Stevenson-Wydler Program and Computers for Learning Program	Requests	50 - 75		
11.4.4		Shuttle Orbiter Tile Program	Tiles Shipped	400		
11.4.5.a		Perform Physical Inventory	Inventory	1		
11.4.5.b		Final Inventory Report	Report	1		
11.4.5.c		Inventory Adjustment Record for Shortages	Record	1		
11.4.5.d		Inventory Adjustment Record for Overages	Record	1		
11.4.6.a		Contractor Monthly Production Report	Report	12		
11.4.6.b		Property held by the Property Disposal Officer Report	Report	12		
11.4.6.c		Annual Report of Exchange/Sale Transactons	Report	1		
11.4.6.d		Personal Property	Report	1		
11.4.6.e		Report of Activities Generating Precious Metals	Report	1		
11.4.6.f		Organizations	Report	1		
11.4.6.g		Performance Measures Report	Report	2		
11.4.6.h		Semiannual Report of Personal Property Management Operations	Report	2		
ANNEX 12		TRANSPORTATION				
12.2.1		General Transporation Services	Work request	4,000		
12.2.2	a	Core Hour Personnel Moves	People	1,300		
12.2.2	b	Non-core Hour Personnel Moves	People	100		
12.2.3		Quick Dispatch	Request	3,000		
12.2.4		Nitrogen Delivery	Gallons	283,000		
12.2.5		Personnel Licensed	Day	365		
12.3.2	a	Packing & Shipping Routine Shipments	Shipment	4,500		
12.3.2	b	Packing & Shipping Priority Shipments	Shipment	6,500		
12.3.2	c	Hazardous Shipments	Shipment	225		
12.3.3		Vehicle Load Plans	Loads	25		
12.3.4		Delivery to/From Offsite Locations	Shipment	300		
12.3.5		Packaging Personnel Requirements	Day	365		
12.3.6.1		Monthly Production Report	Report	12		
12.4.1	a	Rigging Support for Priority 1 Work Order	Priority	5		
12.4.1	b	Rigging Support for Priority 2 Work Order	Priority	300		
12.4.1	c	Rigging Support for Priority 3 Work Order	General	400		
12.4.2	a	Priority 2 Load Test	Test	200		
12.4.2	b	Load Tests General Support	Test	400		
12.4.3		Lifting Equipment Listing	Day	365		
12.4.4		Personnel Requirements	Day	365		
12.5.3		Vehicle Administrative Operations	Day	365		
12.5.3.1		Maintain Extra Vehicle Keys	Key	150		
12.5.3.2		Maintain Vehicle Credit Cards	Card	107		
12.5.3.3		Report of Accidents	Report	10		
12.5.3.4		Vehicle Safety Recall Notifications	Notice	4		
12.5.3.5		Daily Vehicle Dispatch Sheets	Monthly	12		
12.5.3.6	a	Issue Government Pool Vehicles	Request	550		
12.5.3.6	b	Maintain/Update Reservations Calendar	Day	365		
12.5.3.7	a	Process Full Time Vehicle Assignments	Request	10		
12.5.3.8		Maintain/Update Vehicle Fleet Database	Day	365		
12.5.3.9		Vehicle Preventive Maintenance	Notification	300		
12.5.3.10		Pool Vehicles, Preventive Maintenance, Servicing, and Replacement	Vehicle	120		
12.5.3.11		Vehicle Emissions Inspections	Notice	100		
12.5.4		Special Events Transportation	Request	8		
12.5.5.1		Provide Vehicle Mileage Reports	Report	12		
12.5.5.2		Federal Automotive Statistical Tool Report	Report	1		

Values for Second Option Period, Contract Year Four						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
12.5.5.3		Alternative Transportation Fuel and Alternative Vehicles Survey, Energy Information Agency Survey Report	Report	1		
12.5.5.4		Alternative Fuel Vehicle Acuisition Report	Report	1		
12.5.5.5		Agency Reporting of Motor Vehicle Data for Budget Submission Report, Office of Management and Budget Report	Report	1		
12.5.5.6		General Purpose Vehicle Accident Report	Report	2		
12.5.5.7		OIG Audit Response (General Purpose) Vehicle Cost Savings Summary Report	Report	2		
12.5.5.8		Vehicle Cost Per Mile Metrics Report	Report	4		
12.5.5.9		Vehicle Fleet Mileage Express Report	Report	12		
12.5.5.10		OPAC Report	Report	12		
12.5.5.11		Vehicle Statistical Report	Report	12		
12.5.5.12		One-Time/New Reports	Report	5		
12.5.6.		Personnel Requirements	Day	365		
12.6.1		Receive/Deliver Inbound Freight	Shipment	27,000		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
ANNEX 1		ADMINISTRATIVE SUPPORT				
1.2		Work Control Center	Daily	365		
1.3.1		Designate Building Manager	Square Feet	122,809		
1.3.2		Maintain Facilities	Daily	365		
1.3.3		Facilities Utilization Records	Daily	365		
1.4		Contractor Work Area Cleaning	Daily	365		
1.5		Site Critical Installation Provided Property	Item	40		
1.6.1		Quality Control Program	Program	1		
1.6.1	a	Corrective Actions Summary	Summary	12		
1.6.1	b	QC Performance Reports	Report	12		
1.6.2		Quality Control Plan	Plan	1		
1.6.3		ISO 9001- 2000 Certification	Certification	1		
1.6.4		Continuous Improvement Teams	Team	8		
1.7.1		Safety and Health Program	Program	1		
1.7.1.1		VPP Certification	Certification	1		
1.7.2		Safety and Health Plan	Plan	1		
1.7.3.1		Statistical Information Report	Report	12		
1.7.3.2		Self Evaluation Report	Report	1		
1.7.3.3		Terminated Employees Report	Report	1		
1.7.3.4		Material Safety Data Sheets	Day	365		
1.7.3.5		Hazardous Materials Inventory	Report	1		
1.7.3.6		Hazard Abatement Notices and Plans	Review	12		
1.7.3.7		Lessons Learned Report	Report	4		
1.7.3.8		Safety and Health Metrics	Report	12		
1.7.3.9		Log of Occupational Injuries/Illnesses	Report	1		
1.7.3.10		Hazards Identification	Report	1		
1.8.1		Energy and Water Conservation	Plan	1		
1.8.1.a		Y2K HVAC Equipment and Lighting Baseline Status Report	Reports	12		
1.8.1.b		Monthly Utility Report (MUR)	Reports	12		
1.8.1.c		Quarterly Energy Report (QER)	Reports	4		
1.8.1.d	a	Cold Weather Protection Plan	Plan	1		
1.8.1.d	b	Freeze Protection Survey	Survey	1		
1.90		Functional Metrics	Report	12		
1.10.1		Environmental Program (for COSS Activities)	Day	365		
1.10.2		Procure Recycled Items/Materials	Day	365		
1.10.3		Environmental Management System	Day	365		
1.10.4		Affirmative Procurement	Day	365		
1.10.5		Prohibited & Restricted Materials	Day	365		
1.10.6		Ozone Depleting Substances	Item	75		
1.10.7		Polychlorinated Biphenyls	Item	75		
1.10.8		Participate in Recycling Programs	Day	365		
1.11		~~Emergency Management Program~~	Plan	1		
1.12.5		Energy Manager	Day	365		
1.12.6		Environmental Training	Day	365		
1.13.1		Workload Data Collection Report	Report	1		
1.13.3		Cost Data Report	Report	1		
ANNEX 2		SCHEDULED MAINTENANCE AND REPAIR				
2.2.1		Implement the SM Plan	Database	1		
2.2.2		Accomplish Scheduled Maintenance				
2.2.2	ACCI001	Air Condenor Unit Inspection	PM	344		
2.2.2	ACUI001	Air Conditioner Unit, Inspection	PM	201		
2.2.2	AHUI001	Air Handler Unit, Inspection	PM	15		
2.2.2	AHUI003	Air Handler Unit Humidifier, Inspection	PM	5		
2.2.2	AHUI004	Air Handler Unit, Pre-Flight Checks	PM	173		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	AHUI005	Film Vault Air Handler Unit, Inspection	PM	1		
2.2.2	AHUI006	Air Handler Unit With Generator, Inspection	PM	2		
2.2.2	AHUM001	Air Handler Unit, Filter Change	PM	12		
2.2.2	AHUV001	Air Handler Unit, Vibration	PM	1115		
2.2.2	APLI001	Ultra Low Freezer, Inspection And Maintenance	PM	1		
2.2.2	APLI002	Toaster Conveyor, Inspection And Maintenance	PM	4		
2.2.2	APLI003	Refrigerator, Inspection And Maintenance	PM	2		
2.2.2	APLI004	Steam Jacketed Kettle, Maintenance	PM	3		
2.2.2	APLI005	Kitchen Equipment, Inspection And Maintenance	PM	34		
2.2.2	APLM001	Dishwasher, Inspect And Maintenance	PM	3		
2.2.2	APLM002	Steamer, Inspection And Maintenance	PM	7		
2.2.2	APLM003	Ice Machine Water Filter, Replacement	PM	14		
2.2.2	APLM005	Ice Machine, Maintenance And Inspection	PM	9		
2.2.2	BATI001	Electric Storage Battery Monitoring System, Data Collection	PM	5		
2.2.2	BATI002	Electric Storage Battery, Maintenance And Testing	PM	14		
2.2.2	BATM001	Electric Storage Battery, Replacement	PM	14		
2.2.2	BATM002	Battery Charger, Maintenance And Testing	PM	22		
2.2.2	BATT001	Electric Storage Battery, Maintenance And Impedance Testing	PM	14		
2.2.2	BFPT001	DCK Backflow Preventer, Test	PM	41		
2.2.2	BFPT002	PVB Backflow Preventer, Test	PM	66		
2.2.2	BFPT003	RPZ Backflow Preventer, Test	PM	176		
2.2.2	BRKM001	Vacuum Circuit Breaker, Maintenance And Test	PM	55		
2.2.2	BRKT001	Air Circuit Breaker, Maintenance And Test	PM	552		
2.2.2	BRKT002	Air Circuit Breaker Protective Relay, Functional Test	PM	26		
2.2.2	BRSC001	Steam Boiler Force Draft Air Fan, Calibrate And Inspection	PM	3		
2.2.2	BRSC002	Steam Boiler, Fuel Oil Calibration	PM	3		
2.2.2	BRSC003	Steam Boiler, Transmitter Calibration.	PM	3		
2.2.2	BRSI001	Steam Boiler, Pre Flight Checks	PM	3		
2.2.2	BRSI002	Low Pressure Gas Fired Steam Boiler, Operational Inspection	PM	37		
2.2.2	BRSI003	Boiler, Sampling And Data Collection	PM	37		
2.2.2	BRSI004	Steam Boiler, Internal Inspection	PM	37		
2.2.2	BRSM001	Steam Boiler Feed Water, Maintenance And Inspection	PM	3		
2.2.2	BRSV001	Steam Boiler Force Draft Air Fan, Vibration Check	PM	3		
2.2.2	CAPI001	Capacitor Bank, Inspection	PM	3		
2.2.2	CBLI001	15kv Feeder Cable, Inspection And Testing	PM	36		
2.2.2	CHLC001	Chiller, Calibration	PM	13		
2.2.2	CHLC003	Chiller Lube Oil System, Calibration And Inspection	PM	13		
2.2.2	CHLI001	Chiller Refrigerant System, Inspection And Calibration	PM	1		
2.2.2	CHLI003	Chiller Balance Piston, Inspection	PM	13		
2.2.2	CHLI004	Chiller, Electrical Operational Inspection	PM	13		
2.2.2	CHLI005	Chiller, Mechanical Operational Inspection	PM	13		
2.2.2	CHLI006	Chiller Gearbox, Inspection	PM	13		
2.2.2	CHLI009	Small Chiller, Operational Inspection	PM	11		
2.2.2	CHLI012	Medium Chiller, Operational Inspection	PM	5		
2.2.2	CHLV001	Chiller, Vibration Data Collection And Analysis	PM	18		
2.2.2	CLTI001	Cooling Tower Structure, Inspection	PM	15		
2.2.2	CLTI002	Cooling Tower, Mechanical Inspection	PM	1		
2.2.2	CLTM001	Cooling Tower Water Treatment, Sampling	PM	15		
2.2.2	CLTV001	Cooling Tower Fan, Vibration Data Collection	PM	14		
2.2.2	COMI001	Inspection	PM	49		
2.2.2	COMI002	Stand Alone Control Air Compressor, Function Test And Inspection	PM	40		
2.2.2	COMI003	Shop Air Compressor, Function Test And Inspection	PM	41		
2.2.2	COMV001	Centrifugal Compressor, Vibration Data Collection	PM	9		
2.2.2	COMV002	Inspection	PM	6		
2.2.2	CPSI001	Immersed & Buried Anode Cathodic Protection System, Inspection	PM	4		
2.2.2	CPSI002	Water Wells Buried Anode Cathodic Protection System, Inspection	PM	2		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	CRNC001	Hoist And Crane, Certification	PM	125		
2.2.2	CRNI001	Hoist And Crane, Inspection	PM	125		
2.2.2	CRNM001	Hoist And Crane, Lubrication	PM	30		
2.2.2	CTBI001	Containment Berms, Inspection And Repair	PM	2		
2.2.2	DORI001	Vertical Lift Door, Inspection	PM	12		
2.2.2	DORI002	Horizontal Sectional Hanger Door	PM	3		
2.2.2	DORI003	Automatic Sliding Door, Inspection	PM	36		
2.2.2	DORI004	Roll Up Electric Door, Inspection And Maintenance	PM	59		
2.2.2	DORI005	Electric Overhead Door, Inspection	PM	113		
2.2.2	DORM001	Automatic Sliding Door, Maintenance	PM	36		
2.2.2	EEWI001	Plumbed Eyewash And Safety Shower, Flush	PM	210		
2.2.2	EEWI002	Eyewash And Safety Shower, Inspection	PM	256		
2.2.2	EEWM001	Portable Eyewash And Safety Shower, Flush And Maintenance	PM	47		
2.2.2	ELSM001	Emergency Lighting System, Full Maintenance And Inspection	PM	70		
2.2.2	ELST002	Emergency Lighting System, 30 Second Function Test	PM	71		
2.2.2	ELST003	Emergency Lighting System, 90 Minute Test And Inspection	PM	71		
2.2.2	ELUT001	Emergency Lighting Unit, 30 Second Function Test	PM	62		
2.2.2	ELVI001	Hydraulic Elevator, Monthly Inspection	PM	36		
2.2.2	ELVI002	Hydraulic Elevator, Quarterly Inspection	PM	36		
2.2.2	ELVI003	Hydraulic Elevator, Semi-Annual Inspection	PM	36		
2.2.2	ELVI004	Hydraulic Elevators, Inspection	PM	36		
2.2.2	ELVI005	Electrical Traction Elevator, Monthly Inspection	PM	23		
2.2.2	ELVI006	Electrical Traction Elevator, Quarterly Inspection	PM	23		
2.2.2	ELVI007	Electrical Traction Elevator, Semi-Annual Inspection	PM	23		
2.2.2	ELVI008	Electrical Traction Elevator, Annual Inspection	PM	23		
2.2.2	ENGI001	Diesel Engine, Air Starter Inspection	PM	5		
2.2.2	ENGI002	Diesel Engine, Inspect And Run	PM	5		
2.2.2	ENGI005	Natural Gas Engine, Inspect And Run	PM	7		
2.2.2	ENGI007	Diesel Engine, Cooling Water Checks	PM	11		
2.2.2	ENGM002	Diesel Engine, Lube Oil Pump Service	PM	5		
2.2.2	ENGM003	Diesel Engine, Flex Hose Inspection	PM	6		
2.2.2	ENGM004	Diesel Engine, Maintenance	PM	5		
2.2.2	ENGM005	Natural Gas Engine, Clean And Lubricate	PM	7		
2.2.2	ENGM006	Natural Gas Engine, Maintenance	PM	7		
2.2.2	ENGM008	Diesel Engine, Governor Oil Change	PM	6		
2.2.2	ENGT001	Diesel Engine Protective Relay, Maintenance And Testing	PM	5		
2.2.2	EWSI001	Emergency Warning System, Maintenance And Repair	PM	1		
2.2.2	EXCI001	Exchanger, Operational Inspection	PM	103		
2.2.2	FANI001	Fan, Inspection	PM	674		
2.2.2	FANV001	Fan, Vibration Data Collection And Inspection	PM	15		
2.2.2	FGTI001	Perimeter Fencing Gates, Inspect And Repair	PM	3		
2.2.2	FILM001	Water Fountain Filter, Replacement	PM	73		
2.2.2	FILM002	Filter Bank, Replacement	PM	53		
2.2.2	GENI002	Portable Generator, Inspection	PM	67		
2.2.2	GENI004	Power Generators, Operation	PM	5		
2.2.2	GENI007	5000 Watt Portable Generator, Inspection	PM	6		
2.2.2	GENM003	Portable Generator, Maintenance And Inspection	PM	67		
2.2.2	GENM011	Power Generator, Inspection And Testing	PM	5		
2.2.2	GENT002	Portable Generator, Mission Run Test	PM	5		
2.2.2	GENT003	Power Generators, Verify Output Capacity 100% Load Test	PM	5		
2.2.2	GTSI001	Groundwater Treatment System, Inspection	PM	1		
2.2.2	GTSI002	Groundwater Treatment System Control Valve, Inspection	PM	1		
2.2.2	GTST001	Groundwater Treatment System, Sample Testing	PM	1		
2.2.2	HTRI001	Gas Fired Space Heater, Inspection	PM	91		
2.2.2	HTRI002	Gas Fired Hot Water Heater, Inspection	PM	2		
2.2.2	LFTC001	Lift, Certification	PM	79		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	LFTI001	Lift, Inspection	PM	79		
2.2.2	LTGM001	Ceiling Lights, Partial Relamp	PM	161		
2.2.2	LTGM002	Ceiling Lights, Total Relamp	PM	10		
2.2.2	MCCI001	Motor Control Center, Clean And Inspection	PM	101		
2.2.2	NGST001	Natural Gas Valve Regulator Station 4, Exercise	PM	1		
2.2.2	NGST002	Natural Gas Valve Regulator Station 6, Exercise	PM	1		
2.2.2	NGST003	Natural Gas Valve Regulator Station 5, Exercise	PM	1		
2.2.2	NGST004	Natural Gas Valve Ave B Main Line, Exercise	PM	1		
2.2.2	NGST005	Natural Gas Valve Regulator Stations 10 12 And 13, Exercise	PM	1		
2.2.2	NGST006	Natural Gas Valve Regulator Stations 7 And 8, Exercise	PM	1		
2.2.2	NGST007	Natural Gas Valve Regulator Station 14, Exercise	PM	1		
2.2.2	NGST008	Natural Gas Valve Regulator Station 3, Exercise	PM	1		
2.2.2	NGST009	Natural Gas Valve Ellington Field, Exercise	PM	1		
2.2.2	OILI001	Rotating Equipment Oil Analysis, Sampling Instructions	PM	28		
2.2.2	OILI002	Chiller Oil And Refrigerant, Sampling And Analysis	PM	18		
2.2.2	OILI003	Dielectric Insulating Liquid, Inspection & Tests	PM	126		
2.2.2	PLWI001	Plating Waste Pretreatment System UCS Alarm, Inspection	PM	15		
2.2.2	PLWI002	Plating Waste Pretreatment System Control Equipment, Inspection	PM	15		
2.2.2	PMPI001	Pump, Inspection And Maintenance	PM	257		
2.2.2	PMPI002	Boiler Feed Water Pump, Inspection	PM	5		
2.2.2	PMPM001	Fuel Oil Pump Coupling, Grease	PM	3		
2.2.2	PMPV001	Pump, Vibration Data Collection And Inspection	PM	427		
2.2.2	PNLI001	Electrical Distribution Panel, Inspection	PM	259		
2.2.2	PWDT001	Potable Water Valve, Exercise Valves And Fire Hydrant	PM	1		
2.2.2	RADM001	Radio Base Station, Maintenance	PM	3		
2.2.2	RPDM001	Memorials, Inspect And Maintain	PM	2		
2.2.2	RPDM002	Flag Pole, Inspect And Maintain	PM	2		
2.2.2	SCRI001	Steam Trap Ultrasonic And Temperature, Inspection	PM	98		
2.2.2	SETI001	Structural Exterior, Inspection	PM	188		
2.2.2	SISI001	Intercom System, Maintenance And Repair	PM	1		
2.2.2	SKRI001	Oil Skimmer, Inspection	PM	9		
2.2.2	SKRM001	JSC Site Oil Skimmer, Clean Out	PM	4		
2.2.2	SKRM002	ELL Site Oil Skimmer, Clean Out	PM	9		
2.2.2	SNSI001	Grease Trap, Inspect	PM	4		
2.2.2	SWGI002	Switchgear Enclosure, Inspection And Maintenance	PM	133		
2.2.2	SWII001	15kv Automatic Circuit Recloser, Inspect And Maintain	PM	3		
2.2.2	SWII002	Load Break Switch, Inspection And Maintenance	PM	43		
2.2.2	SWII003	Automatic Transfer Switch, Inspection And Maintenance	PM	36		
2.2.2	SWII004	Manual Transfer Switch, Inspection And Maintenance	PM	35		
2.2.2	SWII005	High Voltage Oil Switch, Inspection And Maintenance	PM	15		
2.2.2	SWIM001	Switch, Inspection And Maintenance High Voltage Air Switch	PM	8		
2.2.2	SWIM003	High.Voltage SF6 or Vacuum Switch Inspection And Maintenance	PM	11		
2.2.2	SWSM001	Storm Water Collection System, Clean And Inspect	PM	1		
2.2.2	TISI001	Turf Irrigation Valve, Inspection And Repair	PM	1		
2.2.2	TRLI001	Trailer, Inspection	PM	52		
2.2.2	TRNT001	Dry Transformer, Insulation Testing	PM	19		
2.2.2	UPSI003	Uninterrupted Power Source, Inspection	PM	48		
2.2.2	UPSM001	Uninterrupted Power Source, Five Year Maintenance	PM	22		
2.2.2	UPSM002	Uninterrupted Power Source, Annual Maintenance	PM	47		
2.2.2	UPSM003	Uninterrupted Power Source, Semi-Annual Maintenance	PM	22		
2.2.2	UPSM004	Uninterrupted Power Source, Rotary Ups Inspect And Maintain	PM	2		
2.2.2	UPST001	Uninterrupted Power Source, Inferred Thermography Testing	PM	22		
2.2.2	VEHI001	ATV Inspection And Service	PM	1		
2.2.2	VEHI002	Electric Forklift, Maintenance And Inspection	PM	22		
2.2.2	VEHI003	General Mobile Equipment, Inspection	PM	55		
2.2.2	VEHI005	Manlift, Pallet Lift, And Pallet Jacks, Maintenance And Repair	PM	5		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
2.2.2	VEHI006	Equipment And Vehicle, Meter Reading	PM	59		
2.2.2	VEHM001	Oil And Filter Change	PM	55		
2.2.2	VFDI001	Variable Frequency Drive, Maintenance And Inspection	PM	122		
2.2.2	VIBI001	General Vibration Data Collection And Analysis	PM	2		
2.2.4		Equipment Identification	Program	1		
2.2.5	a	Class I Pressure Vessel Inspections	Inspection	535		
2.2.5	b	Class II Pressure Vessel Inspections	Inspection	9		
2.2.5	c	Class III Pressure Vessel Inspections	Inspection	59		
2.2.5	d	Relief Valve Certification and Support	Certification	514		
2.2.5	e	Flex Hose Certification	Certification	29		
2.2.6		Light/Lamp Replacement	Fixture	20,000		
2.3.1	a	JA/COD Repair Program	Day	365		
2.3.2		Non Lump Sum Emergency Response	Emergency Call	200		
2.3.3		Critical Spare Parts Management	Day	365		
2.4		Maintenance Activation Program	Day	365		
2.4.h		Quarterlt Reconciliation Report	Report	4		
2.5		Warranty Program	Program	1		
2.5	a	Administer Warranty	Warranty	300		
2.5	f	Warranty Report	Report	12		
2.6		Availability & Reliability	Day	365		
2.7		Reliability Cenetered Maintenance	Analysis	4		
2.9.1		User Equipment Maintenance Report	Report	12		
2.9.2		Pressue System Certification Testing Report	Report	12		
ANNEX 3		DIRECTED SERVICES				
3.2.1	a	Paint All Pedestrian Crosswalks	Linear Foot	3,000		
3.2.1	b	Paint street markings & parking lot markings	Mile	60		
3.2.1	c	Re-stencil all reserved parking space designations	Restored Space	1,650		
3.2.1	d	Resecure traffic control signs/nameplate holders	Sign/Nameplate Holder	15		
3.2.1	e	Install new traffic control signs/nameplate holders	Sign/Nameplate Holder	60		
3.2.1	f	Install new traffic control signs with posts	Sign/Post	15		
3.2.1	g	Maintain road surface reflectorized buttons & ceramic markers	Button/Marker	10		
3.2.1	h	Paint fire hydrants, post indicator valves, etc.	Month	12		
3.2.1	i	Maintain records for Building 304 surface coating activities	Occurrence	30		
3.2.2	a	Participate in review & update of the Hurricane/Severe Weather Plan	Review	2		
3.2.2	b	Maintain Contents of Hurricane Cabinets	Cabinet	26		
3.2.2	c	Maintain Emergency Storm Supplies List	Review	1		
3.2.2	d	Accomplish Hurricane/Severe Weather Level IV Activities	Annual	1		
3.2.3	a	Special Events	Event	4		
3.2.3	b	Minor Events	Annual	1		
3.2.3	c	Crew Returns	Mission	6		
3.2.4	a	COSS Technical Reference Library Plan	Plan	1		
3.2.4	c	Maintain COSS Technical Library Collection	Month	12		
3.3.2	a	Develop the FCA Plan	Plan	1		
3.3.2	b	Implement the FCA Plan	Monthly	12		
3.3.2	c	Document and Maintain FCA Database	Day	365		
3.3.2	d	Provide Monthly FCA Status Report	Report	12		
3.3.2	e	Provide Annual Facility Condition Assessment Report	Report	1		
3.3.3	a	Perform Comprehensive Visual Roof Inspection	Report	1		
3.3.3	b	Perform Non-Destructive Roof Inspections	Day	365		
3.3.3	d	Roof Mounted Appurtenance Inspection	Day	365		
3.3.4		Perform Building Exterior Inspection	Report	1		
3.3.5		Perform Roads Inspection	Report	1		
3.3.6		Perform Sidewalk Inspection	Report	1		
3.3.7		Perform Inspections of All Fences	Report	1		
3.3.8		FCA Inspection - Sanitary Sewer System	Report	1		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
3.3.9		FCA Inspection - Stormwater Collection System	Report	1		
ANNEX 4		OPERATIONS				
4.2.1.1.1.a		Boiler and Condendate Return System	Day	365		
4.2.1.1.2.a		Building 24 Central Plant Steam/Boiler System	Day	365		
4.2.1.2.1.a		138 kV JSC Site Electrical Substation	Day	365		
4.2.1.2.1.b		Operate Building 48 Power Systems	Day	365		
4.2.1.2.1.c		Building 48 Power Generators and UPS	Day	365		
4.2.1.2.2.a		Mission Shuttle Support	Mission	6		
4.2.1.2.2.a	a	Provide Alternate Mission Manager	Day	30		
4.2.1.2.2.a	b	Provide Mission Meeting Support	Mission	6		
4.2.1.2.2.a	c	Provide Utility System Drawings	Drawing	40		
4.2.1.2.2.b		Preflight Checkout of Power Systems	Mission	6		
4.2.1.2.2.b	a	Provide Mission Support Plan	Plan	6		
4.2.1.2.2.c		Read and Record Power Systems Meters	Day	365		
4.2.1.2.3.a		Read and Record Kilowatt Hours Meters	Reading	12		
4.2.1.2.3.b		Test Power Protective Devices	Annually	1		
4.2.1.2.3.c		Output Capacity	Annually	1		
4.2.1.2.3.d		Power Recording Charts	Day	365		
4.2.1.3.1.a		Heating and Cooling Plant Chilled Water Production Systems	Day	365		
4.2.1.3.1.b		Building 48 Chilled Water Production System	Day	365		
4.2.1.3.2.a		Chilled Water System Meters/Gauges	Day	365		
4.2.1.3.2.b		Operate Condenser Water Treatment Systems	Day	365		
4.2.1.4.1.a		Operate Water Treatment System	Day	365		
4.2.1.4.1.b		Operate Water Storage System	Day	365		
4.2.1.4.1.c		Operate Water Pumping System	Day	365		
4.2.1.4.1.d		Operate JSC Water Well	Day	365		
4.2.1.4.2.a		Read and Record Water Plant Meters	Day	365		
4.2.1.4.2.b		Maintain Water Plant Operations Log	Day	365		
4.2.1.4.2.c		Maintain Water Chart Recorder	Day	365		
4.2.1.4.2.d		Well Drawdown Test	Test	4		
4.2.1.5.1.a		Operate Compressed Air System	Day	365		
4.2.1.5.2		Read and Record Compressed Air System Meters/Gauges	Day	365		
4.2.1.6.1.a		Man & Operate Operations Contro Center	Day	365		
4.2.1.6.1.b		Man & Operate EMCS	Day	365		
4.2.1.6.1.c		Manage EMCS Software	Day	365		
4.2.1.6.1.d		EBi Workstation Support	Day	365		
4.2.1.6.1.d	a	Field Configuration Report	Report	5		
4.2.1.6.1.e		EMCS Building Control Systems Support	Day	365		
4.2.1.6.2.a		Action Item File	Week	52		
4.2.1.6.2.b		Operating Set Point Limits	Day	365		
4.2.1.6.2.c		Monitoring and Control Systems	Day	365		
4.2.1.6.2.d		EMCS Operations Review Board	Week	52		
4.2.1.6.3.a		Preflight Checkout of EMCS	Mission	6		
4.2.1.6.3.b		Maintain EBi Historical File Media	Day	365		
4.2.1.6.3.c		Service System Printers	Day	365		
4.2.1.7.1.a		Operate Site Fuel Systems	Gallon	90,000		
4.2.1.7.2		Fuel Mobile Support Equipment	Gallon	600		
4.2.1.7.3		Fuel Oil Monitoring	Day	365		
4.2.2.1		Operate Steam and Condensate Return	Day	365		
4.2.2.1.2		Inspect Visual Checks Steam Distribution System	Inspection	4		
4.2.2.2.1.a		Site 15kV Distribution System Operation	Day	365		
4.2.2.2.1.b		Site 15kV Distribution System Inspection	Day	365		
4.2.2.2.1.c		Inspect EF & SCTF Electrical Distribution Systems	Inspection	4		
4.2.2.2.1.d		Exterior Lighting System	Day	365		
4.2.2.2.2.a		High Voltage Switching Documentation	Document	6		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
4.2.2.2.2.b		Read and Record System Meters and Gauges	Day	365		
4.2.2.2.2.c		Dranetz Recorder Service	Day	365		
4.2.2.2.2.d		Control Access to Building 221 Area	Day	365		
4.2.2.3.1.a		Operate Chilled Water Distribution System	Day	365		
4.2.2.3.2		Inspect Tunnel Chilled Water Distribution	Inspection	4		
4.2.2.4.1.a		Operate Water Distribution System	Day	365		
4.2.2.4.2.a		Water Distribution System Activities Log	Day	365		
4.2.2.4.2.b		Fire Hydrant System Test	Day	365		
4.2.2.5.1.a		Operate Sanitary Sewer Pumping and Distribution System	Day	365		
4.2.2.5.2.a		JSC and EF Operator Activities Log	Day	365		
4.2.2.5.2.b		Read and Record Distribution System Meters and Rainfall	Day	365		
4.2.2.5.3.a	a	Grease Traps	Pump Out	36		
4.2.2.5.3.a	b	Oil/Water Separators	Pump Out	19		
4.2.2.5.3.b		JSC Stormwater	Pump Out	6		
4.2.2.6.1.a		Operate Compressed Air Distribution System	Day	365		
4.2.2.6.1.b		Inspect Compressed Air Distribution System	Inspection	4		
4.2.2.7.1.a		Operate Natural Gas Distribution System	Day	365		
4.2.2.7.2.a		Maintain Daily Log	Day	365		
4.2.2.7.2.b		Read and Record Distribution System Meters	Day	365		
4.2.2.7.2.c		Inspect Natural Gas Distribution System	Inspection	1		
4.2.3.1		Operate Steam and Condensate Return	Day	365		
4.2.3.1.2		Low Pressure Steam Boiler Systems	Day	365		
4.2.3.2.1.a		Operate 15kV Facility Switches	Day	365		
4.2.3.2.1.b		Operate JSC Low Voltage Systems	Day	365		
4.2.3.2.2.a		Test the Test Power Generators	Week	52		
4.2.3.2.2.b		Read / Record Electrical Power Loads	Day	365		
4.2.3.2.3		Electrical Power Systems Loads Transfer	Day	365		
4.2.3.3.1.a		Operator / Monitor HVAC Systems	Day	365		
4.2.3.3.2.a		Read / Record MCC Complex HVAC System	Day	365		
4.2.3.3.2.b		Monitor / Inspect Hot Water Converters and Boilers	Day	365		
4.2.3.3.2.c		Inspect JSC Humidifiers	Day	365		
4.2.3.4		Operate Potable Water and Domestic Hot Water	Day	365		
4.2.3.4.2		Water Operations Log	Day	365		
4.2.3.5.1		Operate Compressed Air Systems	Day	365		
4.2.3.5.2		Inspect Facility Compressed Air Systems	Inspection	4		
4.2.3.5.3		Test Backup Control Compressed Air System	Annual	1		
4.2.3.6.1		Test Building Control System Interface	Annual	1		
4.2.3.7.1		Operate Natural Gas Distribution Systems	Day	365		
4.2.3.7.1	a	Inspect Natural Gas Distribution System	Inspection	4		
4.2.3.7.2		JSC and EF Natural Gas Distribution System Log	Day	365		
4.2.3.8.1		Fill Portable and Stationary Equipment Tanks	Gallon	15,000		
4.2.3.9.1		Inspect Valve Marker Identification	Day	365		
4.2.3.9.2.a		Mark Utility Systems	Utility Marking	75		
4.2.3.9.2.b		Documentation	Annual	1		
4.2.5.1		Water Utility Report	Month	12		
4.2.5.2	a	Submit Mission Readiness Plan	Plan	1		
4.2.5.2	b	Submit Fire Hydrant	Plan	1		
4.2.5.2	c	Submit O&M Manuals	Plan	1		
4.2.5.2	d	Submit EMCS Alarm Management Plan	Plan	1		
ANNEX 5		ENGINEERING				
5.2		Scope of Work	SOW	300		
5.2.d		Design Status Meeting	Meeting	26		
5.3.a		$0 - $2,500 Designs	Design	70		
5.3.b		$2,501 - $10,000 Designs	Design	120		
5.3.c		$10,001 - $25,000 Designs	Design	70		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
5.3.d		$25,000 - $50,000 Designs	Design	20		
5.3.e		$50,001 - $100,000 Designs	Design	10		
5.3.f		$100,001 - $200,000 Designs	Design	10		
5.3.1		Field Design Fix	Field Fix	20		
5.4		Submittal Shop Drawing Review	Review	15		
5.5		Master Facility Drawing Updates	Drawing	2,500		
5.6		Redline Verification Reviews	Review	5		
5.7.1		Standard Detail Drafting	Drawing	25		
5.7.2		Miscellaneous Design Drafting	Drawing	120		
5.7.3		CAD File Support	Review	5		
5.7.4		Electronic File Distribution	Files	1,100		
5.8.1		Cable Permits	Tunnel Permit	25		
5.8.2		Inspect Cable Changes	Inspection	35		
5.8.2	a	Tunnel Cable Records	Record	25		
5.8.3		Digging Permits	Digging Permit	50		
5.9	a	Field Check Updates	Drawing	525		
5.9	b	Redline Updates	Drawing	75		
5.9	c	Construction Updates	Drawing	80		
5.9	d	Room Number Assignments	Room Number	150		
5.9	e	Distribute Updated FHP Drawings	Request	100		
5.9	f	Disribute FHP Document	Document	200		
5.10	a	Update FEP Drawings	Drawing	35		
5.10	b	Create New FEP	Drawing	15		
5.10	c	Distribute FEP	Drawing	75		
5.11		Real Property Accounting	Voucher	250		
5.11.1		Account Reconciliation	Account	400		
5.11.2		Real Property Inventory	Line Item	800		
5.11.3		Inventory Tagging	Tagged Item	110		
5.11.4		Records Research	Researches	75		
5.11.5		Real Property Accounting System Data Entry	Voucher	250		
5.11.6		Update Real Estate Drawings and Facility Master Plans	Drawing Update	4		
5.12		SPECTSINTACT System Maintenance	Update	6		
5.12.1		SWT Meeting Support	Meeting	12		
5.12.2		Process SPECTSINTACT Text Changes	Change	30		
5.12.4		Specification Production	Edit	30		
ANNEX 8		INFORMATION TECHNOLOGY				
8.2		Mainframe Application IT Support	Day	365		
8.3.1		IT Support for the CMMS	Day	365		
8.3.2		Provide CMMS Capability	Day	365		
8.3.3		Maintain CMMS Program	Day	365		
8.3.4		Maintain History Files	Day	365		
8.4		Environment Management IT Support	Day	365		
8.5		EMCS Database Support	Day	365		
8.6		System Operations/Maintenance	Day	365		
8.7		Online System Access and Support	Day	365		
8.8.1		Provide CAD Software Support	Hour	200		
8.8.2		Provide CAD Software License	License	2		
8.8.3		CGM Viewing Support/ Facility Drawing Database	Day	365		
8.8.4		Entry	Hours	40		
8.9.1		Gas Tracking System	Tracking System	1		
8.9.2.1		Barcode Scanners/ Support Maintenance	Day	365		
8.9.3		Themography Data Support	Day	365		
8.9.4		Vibration Data Support	Day	365		
8.9.5		Real Property Database Support	Hour	40		
8.9.6		Winest/ Means	Hour	40		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
8.10	a	NEMS System Scanning	System	1		
8.10	b	IT Scanning Support	Hour	80		
8.11		Computer Systems and Data Security	Day	365		
8.11.2		Computer Security Manager	Day	365		
8.12.1	a	IT Help Support - Routine	Week	52		
8.12.1	b	IT Help Support - Emergency	Day	365		
8.12.2		Documentation Maintenance/ Update for Major Systems	Day	365		
8.12.3		Minor Systems Documentation	Day	365		
8.12.4		Minor Applications Documentation	Survey	1		
8.13.1		IT Security Plan	Plan	1		
ANNEX 9		ENVIRONMENTAL SERVICES				
9.2		Environmental Compliance Management (Site Activities)	Day	365		
9.2.1		Corrective Action	Day	365		
9.2.2	a	Compliance Inspection	Inspection	8		
9.2.2	b	Compliance EMS Audits	Audit	5		
9.2.2	c	External Compliance Audit	Audit	1		
9.2.2	d	Pre Audit Check List	Check List	4		
9.2.3	a	Building Audits	Audit	186		
9.2.3	b	Program Assessment	Assessment	1		
9.3		Industrial Solid Waste Management Program	Day	365		
9.3.1	a	Waste Pickup	Pickups	1,920		
9.3.1	b	Provide containers to waste generators	Containers	1,080		
9.3.2		Administer ISW Waste Streams	Day	365		
9.3.3		Maintain Waste Satellite Accumulation Areas (SAPs)	SAPs	150		
9.3.4	a	Operate and Manage all ISW Storage Facilities	Day	365		
9.3.4	b	Perform Tank Integrity Testing	Test	13		
9.3.5	a	Operate and Manage Waste treatment system	Day	365		
9.3.5	b	Sample Treated Batch	Samples	52		
9.3.6		Arrange for ISW Waste Transport and Disposition	Day	365		
9.3.7		Conduct Audits of TSDRs Facilities	Audit	10		
9.4		Air Quality Program	Day	365		
9.4.1		Operate the Building 222 CEMs	Day	365		
9.4.1	a	Inspect the CEMS	Day	286		
9.4.1	b	Building 222 CEMS Records	Record	286		
9.4.1	c1	Building 222 Rolling Average Calculations-Weekly	Calculation	52		
9.4.1	c2	Building 222 Rolling Average Calculations-Monthly	Calculation	12		
9.4.1	d	Building 222 CEMS Relative Accuracy Test Audit	Test	1		
9.4.1	e	Building 222 CEMS Cylinder Gas Audit	Test	3		
9.4.2		Ensure Building 24 Boiler Emission Compliance	Day	365		
9.4.2	a	Building 24 Boiler Data Entry and Records	Record	12		
9.4.2	b	Natural Gas Supplier Certificate	Certificate	1		
9.4.2	c	Natural Gas Sample Analysis	Sample	1		
9.4.2	d	Diesel Supplier Certificate	Certificate	10		
9.4.2	e	Fuel Delivery Record	Record	12		
9.4.3		Ensure Surface Coating Facilities Compliance	Day	365		
9.4.3	a	Monthly Records	Record	60		
9.4.3	b	Monthly Inspections	Inspection	52		
9.4.4	a	Track Air Emmissions	Day	365		
9.4.4	b	Perform TNRCC Standard Exemption Reviews	Review	1		
9.4.4	c	Building 262 Data Collection	Record	12		
9.4.4	d	JSC and EF Oil/ Water Separators Sampling	Sample	18		
9.4.4	e	Emergency Generators Data	Record	480		
9.4.4	f	Building 383 Air Stripper System	Record	52		
9.4.5		Perform Calculations for Emissions Inventory Report	Month	12		
9.4.6		Opacity Readings	Opacity Reading	18		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.5		Water Pollution Control and Prevention Program	Day	365		
9.5.1		Manage Sanitary Sewer Discharges	Discharge Points	400		
9.5.1	a	Develop & Update List of Sanitary Sewer Discharges	Day	365		
9.5.1	b	Implement Sanitary Sewer Discharge Mgt Plan	Day	365		
9.5.1	c	Review Request for Changes	Review	50		
9.5.1	d	Collect Samples	Sample	100		
9.5.2		Storm Water Management Program implementation	Day	365		
9.5.2	a1.	Conduct SWPPP inspections	Location	40		
9.5.2	a2	Inspect & Manage Rainfall at Containments	Containment	50		
9.5.2	b	Conduct Periodic Field Investigations	Investigation	20		
9.5.2	c	Conduct Annual Audits	Audit	3		
9.5.2	d	Review Sedimentation and Erosion Control Plans	Plan Review	20		
9.5.3		Spill Prevention Control and Countermeasure (SPCC) Program	Day	365		
9.5.3	a	Conduct Monthly Inspections	Inspection	60		
9.5.3	a1	Conduct Weekly Inspections	Inspection	3,016		
9.5.3	a2	Conduct Daily Inspections	Inspection	365		
9.5.4		Operation and Maintenance of Impoundments	Day	365		
9.5.4	a	Perform Annual Cleaning	Cleaning	1		
9.5.4	c	Clean Water Knives	Cleaning	2		
9.6		Implement Lead Program	Day	365		
9.7		Asbestos Program	Day	365		
9.7	d	Provide HEPA Vacuum Decontamination & Sevicing	Cleaning	150		
9.8		Implement Petroleum Storage Tank Program	Day	365		
9.8	b	Perform Annual ImpoundmentTank Integrity Testing	Tests	5		
9.9		Implement Groundwater Protection Program	Day	365		
9.9.1	c	Collect Samples	Sample	16		
9.10	a	Emergency Response	Chemical Spill	60		
9.10	b	Asbestos Spill Cleanup	Asbestos Spill	60		
9.11		Pollution Prevention and Resource Conservation	Day	365		
9.11.1		Track and Evaluate Information	Month	12		
9.11.2	a	Pollution Prevention Opportunity Assessments (PPOA)	PPOAs	20		
9.11.2	c	Implement PPOAs	PPOA implementation	6		
9.11.3		Ozone Depleting Substance Tracking Program	Day	365		
9.11.4		EPCRA Compliance Program	Day	365		
9.12		Communication, Training and Participation in Work Groups	Day	365		
9.12.2		Participate in Committees and Work Groups	Week	52		
9.13		Environmental Management System (EMS)	Day	365		
9.13	a	EMS User Access support	User	150		
9.13	b	Impact Team Meetings	Meeting	26		
9.13	c	Develop/Revise EMS Procedures	Procedure	25		
9.13	d	Develop Presentations	Presentations	20		
9.13	e	EMS Webpage Updates	Weekly	52		
9.14		Implement Toxic Substances Control Act (TSCA) Program	Day	365		
9.15		Personnel Qualification Requirements	Day	365		
9.16		Records, Reports, and Submittals	Day	365		
9.16.1.1		Environmental Compliance Plan	Year	1		
9.16.1.2		Annual Building Inspection Report	Report	186		
9.16.1.3		Self Assessment Findings Report	Report	1		
9.16.1.4		Environmental Resource Documents	Year	4		
9.16.1.5		Develop Standard Operating Procedures	Procedure	10		
9.16.2.1		Annual Waste Summary	Report	3		
9.16.2.2		Annual Site Activity Report	Report	1		
9.16.2.3		Monthly Waste Shipment	Report	36		
9.16.2.4		Monthly Waste Receipt Summary	Report	12		
9.16.2.5		Monthly ISW Generator Report	Report	12		
9.16.2.6		ISW Contingency Plan	Plan	3		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
9.16.2.7		ISW Waste Analysis Plans	Plan	3		
9.16.2.8		TSDR and Transportation Facility Audit Reports	Report	10		
9.16.2.9		ISW Tank Inspection Reports	Report	1		
9.16.2.10	a	ISW Tank Cleaning Plan	Plan	1		
9.16.2.10	b	ISW Tank Cleaning Report	Report	1		
9.16.2.11		Manifest Exception Reports	Report	3		
9.16.2.12		Biennial Hazardous Waste Report	Report	2		
9.16.2.13		Review and Update Closure Plan	Plan	4		
9.16.2.14		Review and Update RCRA Training Plan	Plan	3		
9.16.3.1		Develop and Submit RATA Report	Report	1		
9.16.3.2		Develop and Submit CGA Report	Report	3		
9.16.3.3		Develop and Submit Semiannual Db Excess Emission Report	Report	2		
9.16.3.4		Develop and Submit Semiannual Dc Excess Emission Report	Report	2		
9.16.3.5		Develop and Submit Emissions Inventory Report	Report	3		
9.16.3.6		Develop and Submit IPG Report	Report	1		
9.16.3.7		EF	Report	5		
9.16.4.1		Sanitary Sewer Industrial Discharge Management Plan	Day	365		
9.16.4.2		Annual Storm Water Plan Compliance Report	Report	3		
9.16.4.3		Plans	Plan	2		
9.16.4.4		Sedimentation and Erosion Control (SEC) Plan Reports	Report	20		
9.16.4.5		Spill Prevention Control and Countermeasure (SPCC) Report	Review	4		
9.16.5.1		Site-wide Annual Asbestos Inspection and Assessment	Inspection/Assessment	1		
9.16.5.2		Submit Asbestos Notifications to OMOH / FM	Notification	1,200		
9.16.6.1		Annual Petroleum Storage Tank (PST) Integrity Report	Report	1		
9.16.6.2	a	General Land Office Applications and Certificates	Application	2		
9.16.6.2	b	Submit Response Certification	Certification	2		
9.16.6.3		Submit PST database	Report	1		
9.16.7.1		Report	Report	1		
9.16.8.1		Source Reduction and Waste Minimization Report	Report	3		
9.16.8.2		Pollution Prevention Plans	Plan	3		
9.16.8.3		NASA Recycling and Affirmative Procurement Report	Report	1		
9.16.8.4		Pollution Prevention Opportunity Assessment (PPOA) Reports	Report	20		
9.16.8.5		Annual ODS Usage Report	Report	1		
9.16.8.6		Develop Environmental Award Applications	Application	3		
9.16.8.7		Notifications to Agencies	Day	365		
9.16.8.8		Toxic Release Inventory	Report	4		
9.16.9.1		Environmental Study/Design Review	Study/Design Review	20		
9.16.10.1		Polychlorinated Biphenyl Annual Written Document Log	Report	2		
ANNEX 10		SUPPLY				
10.2.2	a	Ensure shelf life material	Line Item	840		
10.2.2	b	Document Tracking	Transaction	27,000		
10.2.2	c	Inventory Reconciliation	Day	365		
10.2.2	d	Document Control	Document	12,251		
10.2.2	e	JSC Form 1710	Form	3,000		
10.2.2	f	Cataloging	Day	365		
10.2.2	g	JSC Form 500	Form	10		
10.2.2	h	Prepare and Submit JSC Form 1303	Submission	10		
10.2.2	i	Assign Stock Numbers	Line Item	1,300		
10.2.2	j	Perform Add/User/Withdraw Actions	Action	12		
10.2.2	k	Form 1685	Form	12		
10.2.2	l	SFM Tapes	Tape	10		
10.2.2	m	Standardization Studies	Study	12		
10.2.2	n	Acquistion and Inventory Management	Day	365		
10.2.2	n1	Purchase Stock Items	Purchase	800		
10.2.2	n2	Suspended receipt & Issue Transactions	Day	365		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
10.2.2	n3	JSC Form 500/ 500a	Form	10		
10.2.2	n4	NSMS Complete Access Report	Report	4		
10.2.2	o	Cost Accounting System	Day	365		
10.2.2	p1	Issue Stock	Issue	8,000		
10.2.2	p2	Stock Returns	Return	156		
10.2.2	p3	Work Stoppages	Work stoppage	100		
10.2.2	q	DV Program	Day	365		
10.2.2	r	Program Stock Receipts	Receipt	3,000		
10.2.2	s	Program Stock Discrepancies	Line Item	25		
10.2.2	t	Program Stock Temporary Hold	Piece	60		
10.2.2	u	Program Stock Issues	Issue	8,000		
10.2.2	v	NASA Tagged Hardware	Day	365		
10.2.3		Sample Physical Inventory of Assets	Inventory	3		
10.2.4		Temporary Storage	Case File	125		
10.2.5	a	Gas Cylinder Purchases	Day	365		
10.2.5	b	Repaint/Refurbish Cylinders	Cylinder	120		
10.2.5	c	Scrub/scrap Cylinders	Cylinder	50		
10.2.5	d	Rejected Cylinders (contents)	Cylinder	130		
10.2.6.1		Master Case File Listing	Report	12		
10.2.6.2		Case File Listing	Report	125		
10.2.6.3		Physical Inventory Schedule	Schedule	1		
10.2.6.4		Store Stock and Critical Spares Catalogs	Catalog	3		
10.2.7		Personnel Requirements	Day	365		
10.3.2	a	New Furniture Receipts	Piece	3,200		
10.3.2	b	Used Furniture Receipts	Piece	13,000		
10.3.2	c	Prepare Furniture for Delivery	Piece	11,750		
10.3.2	d	Connect/Disconnect Furniture	Piece	11,000		
10.3.3		In-Field Furniture Repair	Piece	4,000		
10.3.4		Carpet Operations	Square Yard	2,000		
10.3.5		Conduct Carpet/Furniture Inventories	Inventory	12		
10.3.6		Furniture & Carpet Inventory Report	Report	12		
10.3.7		Personnel Expertise Requirements	Day	365		
10.4.2		Maintenance and Repair - Radio Communications Equipment	Day	365		
10.4.2	a	Priority 1	Request	15		
10.4.2	b	Priority 2	Request	15		
10.4.3		Maintenance and Repair - Portable Radios and Chargers	Request	30		
10.4.4		Installation and Removal	Operation	28		
10.4.5		Radio Equipment Preventive Maintenance	Day	365		
ANNEX 11		PROPERTY AND EQUIPMENT				
11.2.2	a	Requested NEMS Report	Report	5,100		
11.2.2	b	Quarterly/Monthly NEMS Reports	Report	65,000		
11.2.2	c	NEMS User List	List	10,000		
11.2.2.1		NEMS Documentation	Transaction	37,000		
11.2.2.2		CD-Rom Archival	Document	50,000		
11.2.2.3	a	Wall to Wall Equipment Inventory	Inventory Item	18,000		
11.2.2.3	b	Sensitive Inventory	Inventory Item	5,000		
11.2.2.4	a	In-place Equipment tagging	Equipment Item	500		
11.2.2.4	b	In-place Equipment de-tagging	Equipment Item	1,000		
11.2.2.4	c	Found on Station Form	Form	15		
11.2.2.4	d	Cannibalization/Modification Form	Form	50		
11.3.1	a	Process Shipping Document	Form	2,670		
11.3.1	b	Maintain & track logs & data	Day	365		
11.3.1	c	Create folders and log records	Day	365		
11.3.1	d	Annotate Records	Day	365		
11.3.1	e	Process Employee Clearances	Form	106		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
11.4.2.a		Reutilization and Disposal Operations	Line Item	20,500		
11.4.2.b		Pick up of Scrap Metals	Pickup	250		
11.4.3		Stevenson-Wydler Program and Computers for Learning Program	Requests	50 - 75		
11.4.4		Shuttle Orbiter Tile Program	Tiles Shipped	400		
11.4.6.a		Contractor Monthly Production Report	Report	12		
11.4.6.b		Property held by the Property Disposal Officer Report	Report	12		
11.4.6.c		Annual Report of Exchange/Sale Transactons	Report	1		
11.4.6.d		Personal Property	Report	1		
11.4.6.e		Report of Activities Generating Precious Metals	Report	1		
11.4.6.f		Organizations	Report	1		
11.4.6.g		Performance Measures Report	Report	2		
11.4.6.h		Semiannual Report of Personal Property Management Operations	Report	2		
ANNEX 12		TRANSPORTATION				
12.2.1		General Transporation Services	Work request	4,000		
12.2.2	a	Core Hour Personnel Moves	People	1,300		
12.2.2	b	Non-core Hour Personnel Moves	People	100		
12.2.3		Quick Dispatch	Request	3,000		
12.2.4		Nitrogen Delivery	Gallons	283,000		
12.2.5		Personnel Licensed	Day	365		
12.3.2	a	Packing & Shipping Routine Shipments	Shipment	4,500		
12.3.2	b	Packing & Shipping Priority Shipments	Shipment	6,500		
12.3.2	c	Hazardous Shipments	Shipment	225		
12.3.3		Vehicle Load Plans	Loads	25		
12.3.4		Delivery to/From Offsite Locations	Shipment	300		
12.3.5		Packaging Personnel Requirements	Day	365		
12.3.6.1		Monthly Production Report	Report	12		
12.4.1	a	Rigging Support for Priority 1 Work Order	Priority	5		
12.4.1	b	Rigging Support for Priority 2 Work Order	Priority	300		
12.4.1	c	Rigging Support for Priority 3 Work Order	General	400		
12.4.2	a	Priority 2 Load Test	Test	200		
12.4.2	b	Load Tests General Support	Test	400		
12.4.3		Lifting Equipment Listing	Day	365		
12.4.4		Personnel Requirements	Day	365		
12.5.3		Vehicle Administrative Operations	Day	365		
12.5.3.1		Maintain Extra Vehicle Keys	Key	150		
12.5.3.2		Maintain Vehicle Credit Cards	Card	107		
12.5.3.3		Report of Accidents	Report	10		
12.5.3.4		Vehicle Safety Recall Notifications	Notice	4		
12.5.3.5		Daily Vehicle Dispatch Sheets	Monthly	12		
12.5.3.6	a	Issue Government Pool Vehicles	Request	550		
12.5.3.6	b	Maintain/Update Reservations Calendar	Day	365		
12.5.3.7	a	Process Full Time Vehicle Assignments	Request	10		
12.5.3.7	b	**Process Vehicle Rejustifications	Request	275		
12.5.3.8		Maintain/Update Vehicle Fleet Database	Day	365		
12.5.3.9		Vehicle Preventive Maintenance	Notification	300		
12.5.3.10		Pool Vehicles, Preventive Maintenance, Servicing, and Replacement	Vehicle	120		
12.5.3.11		Vehicle Emissions Inspections	Notice	100		
12.5.4		Special Events Transportation	Request	8		
12.5.5.1		Provide Vehicle Mileage Reports	Report	12		
12.5.5.2		Federal Automotive Statistical Tool Report	Report	1		
12.5.5.3		Energy Information Agency Survey Report	Report	1		
12.5.5.4		Alternative Fuel Vehicle Acuisition Report	Report	1		
12.5.5.5		Report, Office of Management and Budget Report	Report	1		
12.5.5.6		General Purpose Vehicle Accident Report	Report	2		
12.5.5.7		Summary Report	Report	2		

Values for Option Period Three, Contract Year Five						
Item No.		Description of Services	Unit	No. Units	Unit Value	Total Value
12.5.5.8		Vehicle Cost Per Mile Metrics Report	Report	4		
12.5.5.9		Vehicle Fleet Mileage Express Report	Report	12		
12.5.5.10		OPAC Report	Report	12		
12.5.5.11		Vehicle Statistical Report	Report	12		
12.5.5.12		One-Time/New Reports	Report	5		
12.5.6.		Personnel Requirements	Day	365		
12.6.1		Receive/Deliver Inbound Freight	Shipment	27,000		

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

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PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

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Section J-Attachment I
List 1: Government-Furnished Property (Tagged Radios)

Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
RADIO	MOTOROLA INC	H44SVU7120C	649ARS1940	1992	1445905	529
RADIO	MOTOROLA INC	H44SVU7120C	649ARS2038	1992	1445906	528
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1048X	1997	1848059	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1049X	1997	1848058	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1050X	1997	1848052	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1051X	1997	1848057	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1054X	1997	1848054	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1055X	1997	1848056	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1058X	1997	1848055	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1059X	1997	1848050	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1061X	1997	1848051	580
RADIO HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01RDC9AA1DNNX	402AXS1062X	1997	1848053	580
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB716	1997	1847507	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB717	1997	1847505	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB729	1997	1847497	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB732	1997	1847500	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB761	1997	1847513	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB762	1997	1847509	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB763	1997	1847510	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB764	1997	1847512	681
RADIO MOBILE	MOTOROLA CHAMPION TECHNOLOGIES	M44GMC09C1AA	159TWYB773	1997	1847502	681
RADIO PORTABLE HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC669X	1995	1449688	582
RADIO PORTABLE HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC674X	1995	1449686	582
RADIO PORTABLE HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC676X	1995	1449689	582
RADIO PORTABLE HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC681X	1995	1449687	582
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	H01RDC9AA1DN NX	402AXS1056X	1997	1848101	580
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	H01RDC9AA1DN NX	402AXS1060X	1997	1848102	580
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000	402ATQ5877	1993	1240341	517
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000	402ATQ5878	1993	1240348	517
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000	402ATQ5880	1993	1240345	517
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000	402ATQ5886	1993	1240346	517
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000	402ATQ5887	1993	1914554	517
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01KDC9AA1DNNX	402AXGA222X	1997	1926795	546
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01KDC9AA1DNNX	402AXGA223X	1997	1926794	546
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01KDC9AA1DNNX	402AXGA224X	1997	1846876	546
RADIO, HAND HELD	MOTOROLA COMMUNICATIONS GROUP	HT1000H01KDC9AA1DNNX	402AXGA225X	1997	1846875	546
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160AN	651ANL0708	1988	76665	580
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160AN	651ANL1709	1988	76661	580
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160AN	651ANL1710	1988	1914759	580
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ANS4158	1988	G096305	580
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0705	1989	1299172	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0706	1989	1914519	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0707	1989	1299173	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0709	1989	1601873	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0710	1989	1353434	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0712	1989	1345847	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0713	1989	1353423	572

Section J-Attachment I
List 1: Government-Furnished Property (Tagged Radios)

Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0714	1989	1353463	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0715	1989	1446889	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0716	1989	1744250	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0717	1989	1353425	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0718	1989	1353426	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0719	1989	1353422	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651APQ0720	1989	1353424	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651AQC3880	1989	1446828	572
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1441	1991	1914517	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1442	1991	1118227	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1443	1991	1118243	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1444	1991	1601875	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1446	1991	1601870	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1447	1991	1118230	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1451	1991	1914561	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1452	1991	1926700	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1454	1991	1118232	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1455	1991	1118231	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1456	1991	1118233	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1458	1991	1118225	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1495	1991	1919759	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1497	1991	1118168	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1499	1991	1118166	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1501	1991	1118223	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1502	1991	1118163	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1505	1991	1601874	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1506	1991	1118165	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1507	1991	1601872	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1509	1991	1914545	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ARU1511	1991	1118170	528
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1653	1992	1240086	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1654	1992	1987587	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1655	1992	1345843	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1656	1992	1240081	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1657	1992	1345844	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1659	1992	1345796	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1660	1992	1914518	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1661	1992	1240070	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1663	1992	1240072	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1664	1992	1240071	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1665	1992	1240078	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1666	1992	1987116	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1667	1992	1240087	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1668	1992	1345846	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1670	1992	1240073	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1671	1992	1914516	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1673	1992	1353319	516

Section J-Attachment I
List 1: Government-Furnished Property (Tagged Radios)

Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1674	1992	1299070	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1675	1992	1914079	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1676	1992	1240085	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1677	1992	1240068	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1678	1992	1240064	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1679	1992	1987111	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1681	1992	1345845	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA INC	H43SVU7160BN	651ASS1682	1992	1914552	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1683	1992	1345848	516
RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H43SVU7160BN	651ASS1684	1992	1925803	516
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AA3BN	402AVLA012Z	1995	1987642	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA007Z	1995	1450264	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA008Z	1995	1450252	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA009Z	1995	1450278	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA010Z	1995	1450277	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA011Z	1995	1450268	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA014Z	1995	1450251	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA016Z	1995	1450257	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA017Z	1995	1914573	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA018Z	1995	1854575	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA019Z	1995	1450270	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA020Z	1995	1450272	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA021Z	1995	1450271	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA022Z	1995	1987643	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA023Z	1995	1450260	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA024Z	1995	1450256	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA025Z	1995	1450280	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA026Z	1995	1450262	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA027Z	1995	1450261	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA028Z	1995	1450263	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA029Z	1995	1987641	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA030Z	1995	1450269	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA031Z	1995	1450259	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA033Z	1995	1450254	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA034Z	1995	1450275	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA035Z	1995	1450255	582
RECEIVER-TRANSMITTER RADIO 2WA	MOTOROLA INC	H01KDC9AASN	402AVLA036Z	1995	1450266	582
						73405

Section J- Attachment I
List 2: Government-Furnished Property (Tagged Equipment)

Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
AERATOR TURF	JACOBSEN MFG CO	590	825913349	1985	725711	3236
AIR COMPRESSOR NA8513	SULLAIR CORP	185DPQ	103070	1990	1002759	10787
AIR CONDITIONER	CHRYSLER CP HAMTRAMCK ASSY	M14-2011	2J638586	1990	1116159	1200
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	10SFU	10850027	1987	158108	1554
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	10SFU	10850041	1987	158109	1554
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	15SFU	8840673	1987	158111	1914
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	10SFU	9910023	1992	1237477	2900
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	20HFU1	3920039	1992	1237475	3196
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	20HFU1	3920012	1992	1237476	3196
AIR CONDITIONER PORTABLE	NIPPONDENSO CO	20HFU1	10880090	1989	G020278	3452
AIR FLOW CALIBRATOR	GENERAL ELEC CO RE-ENTRY SYS	M30	M-4599	1989	G017899	1140
AIR PURIFICATION SYSTEM	PULLMAN/HOLT CP F-PULMAN VAC	MACH II	5978	1990	G095855	1150
AIR PURIFICATION SYSTEM	PULLMAN/HOLT CP F-PULMAN VAC	MACH II	5975	1990	G095856	1150
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	MACH 1	NONE	1987	74336	1335
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	MACH I	2084	1987	158976	1480
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	MACH I	2081	1987	158977	1480
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	MACH II	2379	1988	76851	1915
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	1541	500-4772	1988	78486	4032
AIR PURIFICATION SYSTEM	CRITICAL SYSTEM	16	NONE	1986	149975	7525
ALARM GAS AUTOMATIC	MINE SAFETY APPLIANCES CO DBA	260	18685	1991	1006473	1395
ALARM GAS AUTOMATIC	MINE SAFETY APPLIANCES CO DBA	260	11145	1985	225060	1483
AMMETER, CLAMP-ON, DIGITAL	FLUKE JOHN MFG CO INC	33	5770157	1993	1299170	220
AMMETER/VOLT RECORDING	ESTERLINE-ANGUS INSTRUMENT CP	S22906-1	85155032	1985	726629	3778
ANALYZER	DRANETZ TECHNOLOGIES F-DRANETZ	2/1/2000	8000LA164(362)	1992	1237438	8590
ANALYZER POWERLINE DISTURBANCE	DRANETZ TECHNOLOGIES F-DRANETZ	606-3	298403399	1980	563979	3980
ANALYZER POWERLINE DISTURBANCE	DRANETZ TECHNOLOGIES F-DRANETZ	606-3	686159381	1981	681069	5120
ANALYZER POWERLINE DISTURBANCE	DRANETZ TECHNOLOGIES F-DRANETZ	606-3	936217372	1982	681125	5830
ANALYZER POWERLINE DISTURBANCE	DRANETZ TECHNOLOGIES F-DRANETZ	606-3	936218372	1982	681341	5830
ANALYZER POWERLINE DISTURBANCE	DRANETZ TECHNOLOGIES F-DRANETZ	606-3	936219362	1982	681070	5830
ANALYZER TEST KIT	DRANETZ TECHNOLOGIES F-DRANETZ	K103	552148381	1981	681116	1010
ANALYZER, CAPACITOR	SENCORE INC	LC77	6036345M	1988	842709	1687
ANALYZER, COMBUSTION	BACHARACH INC F-BACHARACH INST	300	WH0501	1992	1237589	3096
ANALYZER, COMBUSTION	BACHARACH INC F-BACHARACH INST	300	WL0501	1992	1170471	3220
ANALYZER, NOX	HORIBA INSTRUMENTS INC	CF311A	569779081	1996	1606301	5208
ARC REFLECTION METHOD FILTER	HDW ELECTRONICS INC	M219SW	96F00S	1996	1446943	7140
ATTACHMENT, DRUM GRIP/TILT	VALLEY CRAFT INC	6149	589	1988	845852	2286
AUGER MACHINE, CABLE AND SEWER	SPARTAN TOOL DIV OF HEICO INC	100	C45640	1996	1553680	1480
AUGER MACHINE, PIPE AND SEWER	SPARTAN TOOL DIV OF HEICO INC	100RODOMATIC	C39463	1991	1170131	1025
AUGER MACHINE, SEWER ELECTRIC	SPARTAN TOOL DIV OF HEICO INC	1065	D01ABG	1996	1553681	2995
AUGER SET EARTH TRACTOR MTD	CONTINENTAL BELTON CO	QP44	19213	1983	1002777	1075
BALANCE ANALYTICAL	METTLER INSTRUMENT CORP	PC4400-S2	B59769	1983	1914585	1500
BANDSAW	WILTON CORP WILTON TOOL DIV	5Z412	11221	1993	1299190	1176
BAR FOLDER	ROPER WHITNEY INC F-PECK STOW&	55	Nov-93	1994	1353466	3775
BATH REFRIGERATED LIQUID	TECHNE INC	RB5	NONE	1988	83006	2299
BATTERY CHARGER	LA MARCHE MFG CO	A134045VAL	125974	1989	G017989	1650
BATTERY MODULE	BELHAM ENGINEERING CORP	602-20	1801	1984	682853	1200
BATTERY MODULE	BELHAM ENGINEERING CORP	602-20	1802	1984	682854	1200
BEADER/CRIMPER, DEEP THROAT	ROPER WHITNEY INC F-PECK STOW&	617	Apr-90	1991	1006649	2533
BENCH WORK	PACE INC	150	6068	1986	304489	1295

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
BENDER, CONDUIT	GREENLEE TOOL CO	855	ABL0057NH	1996	1553677	5988
BENDER, HYDRAULIC	GREENLEE TOOL CO	975	TZ3894-LJ	1994	1353420	3082
BENDER, TUBE	GREENLEE TOOL CO	884	HH23611NB	1996	1988729	4780
BENDING MACH PIPE-CONDUIT	GREENLEE TOOL CO	1818-G1	NONE	1983	715361	1631
BENDING MACHINE PIPE W/TABLE	GREENLEE TOOL CO	881CT	NONE	1990	G095850	9287
BIN SCRAP METAL SELF DUMP 4CYD	GALBREATH ESCOTT INC	H400	NONE	1992	1238459	1068
BIN SCRAP METAL SELF DUMP 4CYD	GALBREATH ESCOTT INC	H400	NONE	1992	1238460	1068
BIN SCRAP METAL SELF DUMP 4CYD	GALBREATH ESCOTT INC	H400	NONE	1992	1238461	1068
BIN SCRAP METAL SELF DUMP 4CYD	GALBREATH ESCOTT INC	H400	NONE	1992	1238462	1068
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1107	1983	G096238	1063
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1106	1983	G096240	1063
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1544	1990	G096237	1150
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1543	1990	G096239	1150
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1546	1990	G096241	1150
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1545	1990	1004981	1150
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1548	1990	1004983	1150
BIN SCRAP METAL STORAGE W/LID	MCCULLOUGH INDUSTRIES INC	4CU YD	1547	1990	1004986	1150
BLAST CLEANING MACHINE	PAULI AND GRIFFIN CO INC	VR3A	381	1981	681259	5250
BLASTING MACH LQ TRLMTD NA8885	ROCKFORD MACHINE TOOL CO	4-11256	682022	1986	149962	13604
BLASTING MACHINE SAND	SULLAIR CORP	185DPQ-JDD	41104061	1990	1006050	15745
BRAKE BOX PAN UNIVERSAL	CHICAGO PRECISION PRODUCTS	BP0612B	305553	1973	1446981	1100
BRAKE, HAND	CHICAGO DRIES	SB812	326147T	1994	1353430	4850
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	9840-40	KT6G0203	1988	16934	1403
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	9840-40	KT6G0092	1988	16936	1403
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	9840-40	KT6G0066	1988	16937	1403
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	9840-40	KT6G0135	1988	16938	1403
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	9840-40	KT6G0102	1988	16939	1403
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	MARK2SCBA	NONE	1986	224976	1486
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	MARK2SCBA	NONE	1986	224977	1486
BREATHING APPARATUS SELF-CONTD	SURVIVAIR DIV OF U S DIVERS	MARK2SCBA	NONE	1986	224978	1486
CABINET, ELECTRICAL EQUIPMENT	MASSCOMP	NONE	NONE	1983	299467	1700
CABINET, INSTRUMENT	MODULAR COMPUTER SYSTEMS INC	NONE	2R0132	1984	682862	13669
CALIBRATION DIGITAL	TRANSMATION INC	1040SP10	A58905SP	1986	236160	1095
CALIBRATION DIGITAL	TRANSMATION INC	1080	UA63508	1986	236159	1775
CALIBRATION, DRY BLOCK	TECHNE /CAMBRIDGE/ LTD	DB300AF	3808714	1994	1353241	2795
CALIBRATION, PRESSURE 0-200	AMTEK ELECTRONICS INC	T740	Mar-94	1994	1353240	1290
CALIBRATOR	PROMAC CONTROLS INC	DHT550REF	55LJ0411	1992	1299116	1099
CALIBRATOR MULTIMETER	SIMPSON ELECT F-AMER GAGE	2600	1150	1981	681043	1458
CALIBRATOR PNEUMATIC PROTABLE	WALLACE AND TIERNAN DIV	65-120	AM01391	1987	72199	1547
CALIBRATOR VOLTAGE	TRANSMATION INC	1040	A37071	1985	722243	1050
CALIBRATOR VOLTAGE	TRANSMATION INC	1040	A44745	1985	722244	1050
CALIBRATOR VOLTAGE	TRANSMATION INC	1040	B85855SP	1991	1008813	1510
CALIBRATOR, MULTI-FUNCTION	BIDDLE INSTR F-JAMES BIDDLE CO	720390	99563	1991	1008808	3300
CALIBRATOR, MULTI-FUNCTION	BIDDLE INSTR F-JAMES BIDDLE CO	720390	1904	1992	1237037	3650
CALIBRATOR, PNEUMATIC	AMETEK INC MANSFIELD&GREEN DV	CPS200	099206-200	1992	1237452	1165
CALIBRATOR, PNEUMATIC	WALLACE AND TIERNAN DIV	65-125	NONE	1991	1008839	2444
CALIBRATOR, PRESSURE	WALLACE AND TIERNAN DIV	SERIES65-125	BA56502	1996	1446910	2897
CAMERA, DIGITAL SCIENCE ZOOM	EASTMAN KODAK CO	DC40	EKD62201102	1996	1606221	540
CAMERA, INFARED	AMBER ENGINEERING INC	RADIANCE PM	1414	1996	1553682	54900

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
CAMERA, STILL VIDEO	CANON CAMERA CO INC	RC250	10082574	1992	1237073	600
CAMERA, VIDEO X14 DIGITAL ZOOM	PANASONIC	PV1Q3050	K5WA23115	1996	1446903	649
CARPET SPOTTING MACH PORT	RUG BUG SYTEMS	1015	6575	1986	1007824	1150
CART PNEUMATIC TEST	FOXBORO CO THE	SHOP	NONE	1981	681079	1038
CART PNEUMATIC TEST	FOXBORO CO THE	SHOP	NONE	1981	681078	3038
CHAMBER ENVIRONMENTAL HUMIDITY	CURTIN MATHESON SCIENTIFIC INC	986-943	NONE	1981	681327	1846
CHARGER BATTERY	DOUGLAS BATTERY MFG CO	K1-4962-18-24481	A1291	1984	682811	1200
CHARGER BATTERY	DOUGLAS BATTERY MFG CO	K1-7393	DB910	1982	665717	1312
CHARGER BATTERY	HOBART BROTHERS CO THE	7253C12	390CS06975	1990	1005262	1472
CHARGER BATTERY	HOBART BROTHERS CO THE	7253C12	390CS06973	1990	1005263	1472
CHARGER BATTERY	HOBART BROTHERS CO THE	7253C12	390CS05974	1990	1005264	1472
CHARGER BATTERY	HOBART BROTHERS CO THE	725C3-12	191CS02355	1991	1117339	1520
CHASSIS	ZENDEX CORP	ZX655	BF495	1988	844313	1285
CLAMP CARTON MATERIAL HANDLING	ANDERSON CLAYTON & CO INC	LCC25NS4848NRGAQ0	A768900	1991	1987112	6010
CLEANER	ALL CARE PRODUCTS	CFR3330	3832	1992	1237468	4033
CLEANER ULTRASONIC	BRANSON CLEANING EQUIPMENT CO	DHA1000	3-5084-95	1995	1345835	2499
CLEANER VACUUM ELECTRIC	NILFISK OF AMERICA INC	GS82	NONE	1983	665521	1063
CLEANER VACUUM ELECTRIC	NILFISK OF AMERICA INC	GS83	7810	1982	681275	1767
CLEANER, STEAM, PRESSURE JET	WHISPER STEAM EXTRACTORS	E102	12067439	1993	1291665	1257
CLEANING MACHINE TUBE	CONCO INC	200	2690	1990	1006057	5650
CLEANING TOOL, PIPE	VICTAULIC TOOL CO	NONE	2839	1992	1299213	2786
COLLECTOR DUST	AMERICAN AIR FILTER CO	D	D70510	1971	670090	3287
COMPRESSOR AIR	INGERSOLL-RAND CO	71T	223565	1981	681103	1073
COMPRESSOR AIR	DAYTON ELECTRIC MFG CO	5Z590	101691L419099	1992	1296626	1164
COMPRESSOR AIR	WHITE CONSOL IND BULLARD DIV	GAM-NRV11	285	1985	727231	1440
COMPRESSOR AIR	DAYTON ELECTRIC MFG CO	3Z967A	NONE	1991	1117804	1471
COMPRESSOR AIR PORTABLE	SULLAIR CORP	185DPQ2WPE	004-91253DHF	1986	269923	8826
COMPRESSOR AIR TRL MTD NA8519	INGERSOLL-RAND CO	P250W-D	164559U87367	1987	75151	11494
COMPRESSOR AIR TRL MTD NA8635	SULLAIR CORP	P185	156541	1986	275730	8927
COMPRESSOR AIR TRL MTD NA8640	INGERSOLL-RAND CO	130	163885U87173	1987	74742	8161
COMPRESSOR AIR TRL MTD NA8805	WORTHINGTON COMPRESSORS INC	1669	NONE	1981	681110	3285
COMPRESSOR AIR TRL MTD NA8847	SULLAIR CORP	185	NONE	1983	714668	8628
COMPRESSOR AIR TRL MTD NA8993	LEROI DIV DRESSER IND F-WAYNE	Q185DP-E	3119X129	1984	719222	9556
COMPRESSOR AIR TRLMTD NA8559	MACKENZIE LABORATORIES INC	350-0	21-293214	1985	726897	4672
COMPRESSOR PORTABLE GAS POWER	BINKS MFG CO	33-1258	7853E	1987	156162	5691
COMPRESSOR, HORIZONTAL	COLT INDUSTRIES INC QUINCY	QUINCY QT6-30K12	104-110123	1992	1237016	2258
CONCENTRATOR	CHIPCOM CORP	50060-2	538653	1992	40293	5252
CONTAINER SHIPPING STORAGE	HUGHES AIRCRAFT CO	DC110B	Y6798	1983	715318	1650
CONTAINER SHIPPING STORAGE	HUGHES AIRCRAFT CO	DC110B	N1CB6657	1983	715319	1650
CONTROLLER, PROGRAMMABLE LOGIC	BRADLEY TELCOM CORP	1785L11BC	STOIT1HH	1993	1297867	15478
COOLING UNIT	NIPPONDENSO CO	20HFU	5850199	1983	76076	2615
COUNTER PARTICLE AIRBORNE	MET ONE INC	206L1-115	891181036	1989	845800	4745
COUNTER UNIVERSAL PLUG-IN	TEKTRONIX INC F-PENTRIX CORP	DC503	B165050	1981	715336	1050
CRANE FLOOR HYDRAULIC 2000LB	RUGER EQUIP INC F-STRATTON EQ	HP18R	91G82582	1991	1117400	3376
CRANE FLOOR PORTABLE	RUGER EQUIP INC F-STRATTON EQ	HP3A	64E5800	1981	681316	1099
CRANE FLOOR PORTABLE 2000LB	OWATONNA TOOL CO DBA OTC SPX	1809	NONE	1981	681284	1150
CRIMPING OUTFIT, HYDRAULIC	THOMAS AND BETTS	13642M	NL788D	1992	807136	1208
CRIMPING SYSTEM W/PUMP HYD	THOMAS AND BETTS CORP	TBM12	NONE	1994	39059	1210
CRIMPING SYSTEM W/PUMP HYD	THOMAS AND BETTS CORP	TBM12	831246	1985	331462	2541

NOTE: The above items are being provided for contract use as they exist at time of contract start.

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
CUTTER, HYDRAULIC, CABLE	ENTERPAC	WHC2000	102017	1992	1236625	1230
CUTTER, PLASMA ARC	DAYTON	118-016-902	F243480	1994	1353373	1607
CUTTER, ROOF	REEVES ROOFING CO	SERIES190400	NONE	1990	1006026	1700
CUTTING MACHINE PORTABLE	UNION CARBIDE CORP LINDE DIV	CM79	X85K-15954	1985	224735	1130
DETECTOR HEAT INFRA RED	RAYTEK INC DIV OF OPTICAL	R2HR	NONE	1985	332951	2745
DETECTOR LEAK	HEATH CONSULTANTS INC	3768	2108	1988	842845	1300
DETECTOR LEAK TEST	VARIAN ASSOC PALO ALTO VAC DIV	938-41	62G233	1985	726638	12535
DIGIPHONE	HDW ELECTRONICS INC	T16/9	960104	1996	1446942	3100
DIGITAL READOUT ATTACHMENT	DYNAMICS RESEARCH CORP	DRC750	737056	1978	563429	4240
DIGITAL READOUT ATTACHMENT	DYNAMICS RESEARCH CORP	DRC750 1	830007	1978	563430	4240
DIRT TAMPER	WACKER CORP	VPA1750	679207981	1996	1744153	1530
DOCK MOBILE LOADING 70" W/30'L	MAGLINE INC	ME167030	9-89-5787	1989	G023420	8305
DOCK, MOBIL W/TOW BAR	MAGLINER	ME167030	3-93-6264	1992	1299130	6820
DRIER AIR	INGERSOLL-RAND CO	EPT	Y48628T03D	1981	681102	1182
DRILL PRESS MAGNETIC BASE	BLACK AND DECKER /US/ INC	1556	87220006	1988	840082	1280
DRILL ROUND COLUMN HD	LEBLOND MAKINO MACHINE TOOL CO	MDP14	19932	1963	563432	2998
DRILL, BREAKER, GAS	BERMA	PIONJAR120	460858	1994	1353393	4725
DRILL, ELECTRIC	HILTI INC	TE74	500062279	1994	1353384	1240
DRILL, ELECTRIC	HILTI INC	TE74	500094691	1995	1345797	1650
DRILLING MACHINE UPRIGHT	CLAUSING CORP F-ATLAS PRESS	8520	5707	1981	681301	1083
DRILLING MACHINE UPRIGHT	CINCINNATI MILACRON F-CINCINN-	3B	9266605986	1981	1002733	5900
DRIVE POWER W/ADAPTER HEAD	EMERSON ELEC CO RIDGE TOOL DIV	A	1085547	1985	332117	1052
ENGRAVING MACHINE PANTOGRAPH	NEW HERMES INC MACHINE DIV	IRX-KIV	8048576	1981	673802	1361
EXTRACTOR, CARPET	KENT CO THE DIV OF DOMETIC INC	KX19SC	942119598	1994	1353442	2044
EXTRACTOR, CARPET WET/DRY	WINSON OLSON & CO INC	EPB2	542732	1994	1353443	1481
FILING CABINET LEG 4DR LOCKED	DIEBOLD INC	40-63	2740	1965	670214	520
FILING CABINET LEG 5DR LOCKED	MOSLER SAFE CO	NONE	15569-2546	1962	672280	440
FILING CABINET MAP/PLAN LOCKED	MOSLER SAFE CORP	NONE	6120275	1982	714882	2156
FILTER DRYER	HILLIARD CORPORATION THE	04D016-5616-010	HF-48245	1986	270043	7606
FILTER SYSTEM, HEPA	INVENTIVE MACHINE CORP	NONE	1583	1993	1353201	1045
FILTER, LUBE/OIL	BC&T FILTRATION INC	FEC	7019302	1994	1353456	1738
FILTER, LUBE/OIL	BC&T FILTRATION INC	FEC	NONE	1994	1353474	1738
FILTRATION SYSTEM ASBESTOS	MICRO-TRAK INC	MT3	2644	1985	224979	2330
FILTRATION SYSTEM ASBESTOS	MICRO-TRAK INC	MT3	2648	1985	224980	2330
FOG GENERATOR INSECTICIDAL	CURTIS DYNA-PRODUCTS CORP	2742	1161	1987	72859	5325
FORKLIFT	RAYMOND CORP THE	201R40TT	020D-93-34794	1988	1926813	12938
FORKLIFT	CATERPILLAR INDUSTRIAL INC	DP30	7BM00860	1996	1446936	22686
FORMING MACHINE	LOCKFORMER CO	NONE	AG54691	1973	716239	1198
FREON RECYCLE/RECLAIMING SYSTE	ENER CRAFT	SGL2191/220	AD89000016	1990	1006056	17493
GAGE, WALL THICKNESS	J B ENGINEERING INC	621	3485	1991	1008838	1665
GENERATOR	AMETEK INC F-BLACK & DECKER	3650	M3513-020	1979	670092	1048
GENERATOR	HONDA MOTOR CO LTD	EB11000	EZCQ3000609	1996	1446928	3820
GENERATOR	HONDA MOTOR CO LTD	EB11000	EZCQ3000364	1996	1446929	3820
GENERATOR 5KW GAS PORT ON WHLS	ONAN CORP	ELITE140	1380234	1996	1446938	1573
GENERATOR 5KW GAS PORT ON WHLS	ONAN CORP	ELITE140	1380233	1996	1446937	1573
GENERATOR 5KW GAS PORT ON WHLS	ONAN CORP	ELITE140	1380231	1996	1446940	1573
GENERATOR 5KW GAS PORT ON WHLS	ONAN CORP	ELITE140	1380232	1996	1446939	1573
GENERATOR GAS ENGINE	KATO LIGHT CORP	62025	6000396	1986	228607	658
GENERATOR PORTABLE GAS	DAYTON ELECTRIC MFG CO	3W177	C03180	1985	727325	480

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
GENERATOR PORTABLE GAS	MASTER MECHANIC MFG CO	EMT	91K76	1993	1299207	541
GENERATOR PULSE	TEKTRONIX INC F-PENTRIX CORP	PG507	B011159	1988	18455	2826
GENERATOR SET	T & J MFG INC	PS5036DV	H843454	1984	719392	722
GENERATOR SET GASOLINE ENGINE	T & J MFG INC	CG5036DV	B820996	1982	682614	1129
GENERATOR SET, GASOLINE ENGINE	DAYTON	5W260	1110451	1992	806929	367
GENERATOR SET, GASOLINE ENGINE	DAYTON	3W740	1110379	1992	1007882	639
GENERATOR SET, GASOLINE ENGINE	DAYTON ELECTRIC MFG CO	3W735A	1795455	1993	1299193	652
GENERATOR SET, GASOLINE ENGINE	DAYTON ELECTRIC MFG CO	3W740	1162872	1993	1299192	654
GENERATOR TIME CODE/READER	DATUM INC F-PERIPHERAL	9300-100	2164	1984	806926	1350
GENERATOR, GASOLINE	ONAN CORP	6EGHEB38018A	1310059	1992	1299033	1829
GENERATOR, GASOLINE	ONAN CORP	3.0DJA-IE2236U	E860820112	1983	1351655	6000
GENERATOR, GASOLINE	ONAN CORP	3.0DJA-IE2236U	E860820111	1983	1351656	6000
GENERATOR, GASOLINE	ONAN CORP	3.0DJA-IE2236U	E860820107	1983	1351653	6000
GENERATOR, GASOLINE	ONAN CORP	3.0DJA-IE2236U	E860820108	1983	1351654	6000
GENERATOR, GASOLINE ENGINE	KAWASAKI FUJI SEIKI CO	EW2-03B1	3IL079	1997	1848793	1187
GENERATOR, GASOLINE ENGINE	KAWASAKI FUJI SEIKI CO	EW2-03B1	3IL066	1997	1848794	1187
GENERATOR, GASOLINE ENGINE	KAWASAKI FUJI SEIKI CO	EW2-03B1	3IL063	1997	1848795	1187
GENERATOR, PORTABLE	KOHLER CO ENGINE PLANT DIV	5MM65	266605	1992	1299014	1297
GENERATOR, PORTABLE	ONAN CORP	PR06000E	832972	1992	1237076	1829
GENERATOR, PORTABLE GAS	DAYTON RELIABLE TOOL AND MFG	3W232F	W30625	1990	1006045	1850
GENERATOR, TONE	U E SYSTEMS INC	UP2000	NONE	1992	1237448	1501
GRINDING ATTACHMENT STUMP	STUMPSTER CO	1001-3	3719	1984	553646	1995
GRINDING MACH FLOOR MOUNTED	BROWN AND SHARPE MFG CO	10N	52510463	1981	681304	5695
GRINDING MACHINE VALVE FACE	BLACK AND DECKER /US/ INC	6	3179785	1981	673813	1367
GRINDING MACHINE VALVE FACE	SNAP-ON TOOLS CORP	VR200CM	11721	1976	716013	1564
GROOVING TOOL, PIPE	VICTAULIC TOOL CO	VE260	8899	1992	1299214	3624
GROUTING MACHINE-MUD JACKING	AIR PLACEMENT EQUIPMENT CO INC	HJ15D	913810	1992	1237008	10285
GUN HAND ELECTROSTATIC	GRACO INC F-GRACO LUBER	AS4000	C1410	1985	332150	2845
HAMMER, PNEUMATIC	HILTI INC	TE22P	73741	1995	1446832	1074
HARNESS, SAFETY INDUSTRIAL	RESEARCH AND TRADING CORP	2706G50	1329	1992	1007888	1280
HEATER, PORTABLE ELEC BEARING	MORTON JAMES INC	SC	NONE	1996	1553604	1082
HOIST ASSEMBLY	SMITH HOIST MFG CO INC	190-N	6149974	1986	274855	3175
HOIST HYDRAULIC SET 5 TON	DEL MAR AVIONICS F-AVONICS	C	A5-493	1964	670302	1810
HOIST, 20 FT	SUMMER MFG INC	Z200	4768	1996	1446912	2280
HOOD FUME LABORATORY	LABCONCO CORP	59011	22509	1981	681037	1386
HOOD, WELDING FUME-PORTABLE		300SE	NONE	1992	1237068	1695
ICE MAKING MACHINE	SCOTSMAN INDUSTRIES INC SCOTS-	AC25SAE1A	80372702U	1986	79106	1431
INDICATOR DIGITAL DISPLAY	ANILAM ELECTRONICS INC	200AD/PIM	D706687	1977	557181	1418
INDICATOR TEMPERATURE DIGITAL	FLUKE JOHN MFG CO INC	2180A	4320010	1987	158102	1969
INFRARED SYSTEM	AGEMA INFRARED SYSTEMS	193260	72072	1992	1237072	38877
INTERFACE	ZENDEX CORP	RIU1.0	2	1988	844314	2527
INTERFACE	ZENDEX CORP	RIU1.0	1	1988	844316	2527
INTERFACE PERIPHERAL CONTROL	MODULAR COMPUTER SYSTEMS INC	4811-66	8982-015	1984	682856	5100
INTERFACE RTU/AIRHANDLER	GHG CORP	RAID1991	5	1991	1119151	8663
INTERFACE RTU/AIRHANDLER	GHG CORP	RAID1991	6	1991	1119152	8663
INTERFACE RTU/AIRHANDLER	GHG CORP	RAID1991	7	1991	1119153	8663
INTERFACE RTU/AIRHANDLER	GHG CORP	RAID1991	8	1991	1119154	8663
INTERFACE TROUBLESHOOTER SYST	FLUKE JOHN MFG CO INC	9000A-8088	3655038	1985	722169	1995
JOINTER COMBINATION STAND 6"	FURNAS ELECTRIC CO	50	NONE	1987	158815	1112

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
KETTLE HEATING BITUMEN 265 GAL	REEVES ROOFING CO	RK265	D13583	1983	681245	3414
KEYBOARD, DIAGNOSTIC	WHELEN ENGINEERING CO INC	MDK864	129	1996	40149	1047
KEYSEATING MACHINE	MORRISON D C CO THE	K	K783264	1981	681303	4443
LABELING SYSTEM	LABEL AND SIGN MAKER	EASY STEP1000	VM00-301302	1995	1449776	2936
LASER ROTATING W/SENSOR	TOPCON INSTRUMENT CP OF AMER	RL10	P10006	1987	76437	2850
LATHE BENCH JEWELERS	LEVIN LOUIS AND SON INC	ACAY	A01205	1981	715347	1110
LATHE ENGINE MANUAL	HARDINGE BROS INC	HLVH	1802	1964	558779	7438
LATHE ENGINE MANUAL	SOUTH BEND LATHE CO INC	CL170E	NONE	1981	681297	7989
LATHE ENGINE MANUAL LAB	WCI MACHINE TOOL F-BULLARD CO	EE	77358164	1964	559804	20957
LATHE TRACER 2-AXIS	TRUE-TRACE DV THIEM INDUS	MK50	325/2102	1966	558834	6695
LATHE, METAL	ROCKWELL INT'L INDUS PRODUCTS	25-070	1573038	1981	661981	3370
LAWN POWER AERATOR/DETACHER	TEXTRON INC JACOBSON DIV	512	1601	1979	716033	1311
LAWN POWER AERATOR/DETACHER	TEXTRON INC JACOBSON DIV	512	1606	1979	716034	1311
LEAD FILTRATION SYSTEM	ADVANCED CONTAINMENT SYS	LFS10	P5561265-10	1995	1345849	1725
LENS, INFRARED 20 DEGREES	AGEMA INFRARED SYSTEMS	IR-LENS	6370	1992	806939	7450
LETTERING MACHINE	VARITRONICS SYSTEM	XT-EXTRA	VX00-005666	1991	1299212	1196
LETTERING MACHINE MERLIN	VARITRONICS SYSTEM	XT-EXTRA	YX00-005833	1992	1238947	1495
LETTERING SYSTEM	VARITRONICS SYSTEM	STEP4000	VM00-003231	1993	1240810	2845
LEVEL, LASER	SPECTRA PHYSICS	1142XL	3446	1994	1353431	4365
LIFT HYDRAULIC	MORSE MFG CO INC	400A60	988	1988	843659	1095
LIFT HYDRAULIC	MORSE MFG CO INC	400A60	988	1988	843660	1095
LIFT HYDRAULIC	LEE ENGINEERING CO	C74	8401	1986	271497	2591
LIFT HYDRAULIC SCISSOR	LEE ENGINEERING CO	XS36-10	50230-01	1992	1234976	1395
LIFT HYDRAULIC SCISSOR	LEE ENGINEERING CO	XS36-10	50230-03	1992	1234978	1395
LIFT HYDRAULIC SCISSOR	LEE ENGINEERING CO	XS36-10	50230-02	1992	1234977	1395
LIFT, PERSONAL	GENIE INDUSTRIES	AWP30	3891-985S	1991	1170121	4987
LIFT, PERSONAL	GENIE INDUSTRIES	AWP30	3891-1182-S	1992	1237597	5609
LIFT, PERSONNEL	GENIE INDUSTRIES	PLI19	3190-2553-S	1994	1353298	3400
LIFT, PERSONNEL	GENIE INDUSTRIES	DPL30	1592-3544F	1992	1007869	8575
LOAD BANK, PORTABLE 250KW	AVTRON MANUFACTURING INC	K696	712	1996	1446913	8474
LOAD ELECTRONIC	KIKUSUI ELECTRONICS CORP	PLZ152W	27101128	1988	842890	1020
LOAD INDICATOR	GRIPHOIST INC	DYNAFOR	A2272	1992	1447092	2300
LOAD POSITIONER PRECISION	DEL MAR AVIONICS F-AVONICS	C	A5-843	1987	75227	12325
LOCATOR, PIPE AND CABLE	XTRON	940	2180	1995	1446838	2950
MACHINE LINE STRIPPING	BINKS MFG CO	33-9080-83-5402	G03135	1989	G021266	2431
MACHINE TIRE CHANGING	COATES MFG CO	40-40SA	2519445	1989	G021596	1595
MACHINE, KEY CODING	HPC SERVICES	HP1200MAX	1592	1998	1922175	4057
MAGNETIC INSPECTION UNIT	MAGNAFLUX CORP	P90	821541	1982	681281	1890
MAGNETIC TAPE DRIVE	VICTOR DATA SYS	DAM3050P-DITX	6500579	1989	1445900	550
MAINTENANCE PLATFORM	WERNER R D CO INC	3232	NONE	1988	74644	1722
MAKER, SIGN	GERBER SCIENTIFIC PRODUCTS	LC7	426,686	1994	1353275	3595
METER IMPEDANCE DIGITAL	ELECTRO SCIENTIFIC IND F-BROWN	253	H21612	1985	224946	1295
METER IMPEDANCE DIGITAL	ELECTRO SCIENTIFIC IND F-BROWN	253	2031284253	1984	722760	1295
METER WATTHOUR STANDARD	MULTI-AMP CP F-POW-R-SAFE TOOL	SSS-50	1324	1984	553543	1595
MICRO OHMMETER	AEMC CORP	5600	58834	1995	1345800	2495
MICRO OHMMETER	AEMC CORP	5600	62896	1995	1345799	2495
MILLING MACHINE KNEE TYPE	BRIDGEPORT MACHINES	12BR2J	108256	1982	558792	9340
MIXER CONCRETE PORTABLE	STONE CONSTRUCTION EQUIPMENT	9CM	287051	1987	157227	2195
MONITOR, MULTI-GAS SENSOR	INDUSTRIAL SCIENTIFIC CORP	TMX412	95-11023-147	1995	1446835	1450

NOTE: The above items are being provided for contract use as they exist at time of contract start.

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
MONITOR, MULTI-GAS SENSOR	INDUSTRIAL SCIENTIFIC CORP	TMX412	95-11023-108	1995	1446836	1450
MONITOR, TELEVISION	SONY CORP	PVM2030	2029216	1991	1161118	1500
MOTOR LAWN ROTARY	JACOBSEN MFG CO	HR15	NONE	1990	1006038	30052
MOTOR-GENERATOR TRLMTD NA8557	ONAN CORP	242-C/D	NONE	1981	715358	5038
MOWER LAWN ROTARY	TORO CO THE	30793	60506	1986	275728	7665
MOWER LAWN ROTARY	JACOBSON MACHINE WORKS INC	HR15	1648	1986	275718	28798
MOWER LAWN ROTARY 15' BATWING	RHINO PRODUCTS INC ATHENS DIV	FLX	7337	1986	1914563	7061
MOWER LAWN TRACTOR PROP	TERRAIN KING CORP DBA ALAMO	SM395	NONE	1976	716010	7600
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30788	30232	1992	1237465	8644
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30788	30233	1992	1237464	8644
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30782	20682	1982	716082	8786
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30782	30416	1983	716062	8924
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30788	1115	1991	1170137	10038
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30788	20177	1991	1170139	10038
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30788	20176	1991	1170138	10038
MOWER LAWN TRACTOR PROPELLED	TORO CO THE	30782	30422	1983	716115	11194
MOWER, LAWN TRACTOR PROPELLED	TORO CO THE	322D	10854	1991	1008728	9575
MOWER, LAWN TRACTOR PROPELLED	TORO CO THE	322D	10875	1991	1008729	9575
MOWER, ROTARY 15' BATWING	AUSTIN PRODUCTS INC	FLEX XV	4827	1979	1914565	5486
MULTIMETER	FLUKE JOHN MFG CO INC	97	DM5531093	1992	806938	1795
MULTIMETER	FLUKE JOHN MFG CO INC	97	DM5531016	1992	806937	1795
MULTIMETER	FLUKE JOHN MFG CO INC	8505A	5110008	1990	1006070	3495
MULTIMETER DIGITAL	FLUKE JOHN MFG CO INC	8842A-09	4192277	1987	156003	1245
MULTIPLEX UNIT 32	MONITORING TECHNOLOGY CORP	MS2000RMU32	62	1996	1739123	6475
MULTIPLEX UNIT 32	MONITORING TECHNOLOGY CORP	MS2000RMU32	63	1996	1739124	6475
MULTIPLEX UNIT 32	MONITORING TECHNOLOGY CORP	MX2000RMU32	64	1996	1739122	6475
MULTIPLEXER	ZENDEX CORP	CIM1.0	1	1988	844315	2865
MULTIPLEXER	MONITOR TECHNOLOGY CORP	MS2000RMU2	25	1996	1553685	3625
MULTIPLEXER	MONITOR TECHNOLOGY CORP	MS2000RMU2	24	1996	1553686	3625
OHMMETER	ASSOCIATED RESEARCH INC	2957A	351	1984	553645	1550
OHMMETER DIGITAL	VALHALLA SCIENTIFIC INC	4100	Aug-55	1985	726511	1195
OHMMETER DIGITAL	VALHALLA SCIENTIFIC INC	4150ATC	18-Aug	1986	225022	1595
OSCILLOSCOPE	TEKTRONIX INC F-PENTRIX CORP	125B	26044	1981	681042	1990
OSCILLOSCOPE	TEKTRONIX INC F-PENTRIX CORP	2232	B017326	1991	1008842	4695
OSCILLOSCOPE DUAL TRACE	TEKTRONIX INC F-PENTRIX CORP	475	B263727	1981	681344	2900
OSCILLOSCOPE DUAL TRACE	TEKTRONIX INC F-PENTRIX CORP	475	709963	1982	681085	4160
OSCILLOSCOPE DUAL TRACE	TEKTRONIX INC F-PENTRIX CORP	475	710377	1983	681086	4160
OSCILLOSCOPE W/OPTIONS	TEKTRONIX INC F-PENTRIX CORP	2246A	B012921	1988	18456	2655
OVEN MICROWAVE	THERMADOR WASTE KING	CP55	NONE	1987	1545862	1095
PHASE SHIFTER	MULTI-AMP CP F-POW-R-SAFE TOOL	PR33603	82-7933	1982	715308	3595
PHASEMETER	DRANETZ TECHNOLOGIES F-DRANETZ	314	6130322	1982	681071	1595
PIPE THREADING MACHINE	RIGID FLEX GREASING ADAPTER CO	535	394587	1985	722439	2412
PLATFORM SERVICING NA8981	SIMON AERIALS INC F-KRAUSE MFG	KL60SR	D110	1981	1007812	55990
PLATFORM SERVICING MBL NA8986	ECONOMY ENGINEERING CO	SPL2660	F052190N	1981	714624	18645
PLATFORM, PERSONNEL LIFT	LIFTING TECHNOLOGIES	PL2-700GS0	F0392682	1992	1007884	3945
PLOTTER THERMO	CALCOMP INC A LOCKHEED CO	52436	9132303013	1987	1445893	17246
POT, SAND	SCHMIDT MFG INC	6.5	K-1987	1987	156207	1565
POT, SAND	SCHMIDT MFG INC	6.5	K4062	1991	1008826	1580
POT, SAND	SCHMIDT MFG INC	6.5	K4066	1991	1008827	1580

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
POWER SOURCE	AMERICAN POWER CONVERSION CORP	1500	433900545	1992	1445901	1600
POWER SUPPLY	TEX-TRONIX	TM5006A	B012313	1992	1237018	1195
POWER SUPPLY	AGEMA INFRARED SYSTEMS	556-193-162	413008	1992	1299105	1495
POWER SUPPLY	MONITOR TECHNOLOGY CORP	R321PS	9E296-G1-006	1996	1553689	2000
POWER SUPPLY UNINTERRUPTIBLE	CLARY CORP	UPS-25-11	1800	1984	682852	2125
PRESS ARBOR HAND OPERATED	WILSON K R INC	37K	1095	1981	681294	1579
PRESSURE UNIT, DIFFERENTIAL	ITT BARTON INSTRUMENTS	247A	BC47318	1992	806942	1060
PRINTER, ADP	EPSON AMERICA INC	FX850	00C1037916	1989	G016860	362
PRINTER, ADP	EPSON AMERICA INC	FX850	00C0069693	1989	G024994	316
PRINTER, ADP	EPSON AMERICA INC	FX850	00C0069687	1989	G025052	316
PRINTER, ADP	EPSON AMERICA INC	FX850	ODN1019914	1989	G026569	313
PRINTER, ADP	EPSON AMERICA INC	FX850	ODN0029226	1989	G026617	313
PRINTER, ADP	EPSON AMERICA INC	FX850	00C1012422	1989	80497	358
PRINTER, ADP	EPSON AMERICA INC	FX286	11003010	1986	227785	485
PRINTER, ADP	EPSON AMERICA INC	FX286	6013211	1986	272846	482
PRINTER, ADP	HEWLETT-PACKARD CO	33440P	2826J06364	1988	843055	1739
PRINTER, ADP	HEWLETT-PACKARD CO	33449A	3033A34564	1990	1007220	1414
PRINTER, ADP	EPSON AMERICA INC	FX850	0DN0071471	1991	1007534	295
PRINTER, ADP	DATA PRODUCTS	9030-1	D1009906	1991	1008822	529
PRINTER, ADP	HEWLETT-PACKARD CO	33449A	3104JE7083	1991	1120300	1460
PRINTER, ADP	EPSON AMERICA INC	P82PA	00C0003550	1991	1009352	333
PRINTER, ADP	EPSON AMERICA INC	FX850	ODN0007720	1989	G025573	339
PRINTER, ADP	COMPAQ COMPUTER CORP	P12PB	OE11123567	1990	1114705	426
PRINTER, ADP	EPSON AMERICA INC	FX850	00C1009255	1988	80115	353
PRINTER, ADP	OKIDATA CORP	GE5256D	207A0072628	1993	40711	800
PRINTER, ADP	EPSON AMERICA INC	P12PA	2001321	1987	81293	600
PRINTER, ADP	EPSON AMERICA INC	FX850	0DN1128911	1991	1163497	317
PRINTER, ADP	EPSON AMERICA INC	FX850	0DN1132766	1991	1163491	317
PRINTER, ADP	HEWLETT-PACKARD CO	33449A	3107J77591	1990	1448084	2075
PRINTER, ADP	HEWLETT-PACKARD CO	33449A	3221A86200	1992	1168275	1385
PRINTER, ADP	HEWLETT-PACKARD CO	2225D	2743S12142	1988	842408	650
PRINTER, ADP	HEWLETT-PACKARD CO	33449A	3048A80466	1991	1162291	1397
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LJ250A6	SD04322673	1992	1007870	1681
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LA324A3	BU01808608	1991	1238730	2431
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LJ250A6	SD04322373	1991	1238733	1912
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LN05A2	CA02201206	1990	1238696	3045
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LJ250A6	SD04322382	1991	1238692	1912
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LA324A3	BU01808607	1991	1238701	2431
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LA324A3	BU01808578	1991	1238702	2431
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LJ250A6	SD23028286	1992	1237482	1250
PRINTER, ADP	DIGITAL EQUIPMENT CORP	LJ250A6	SD23028427	1993	1299197	1119
PRINTER, ADP	GENERAL PARAMETRICS	SPECTRA STAR GLX	LX001046	1994	1345804	3060
PULLER CABLE W/FORCE GAUGE	GREENLEE TOOL CO	6001-M2	VT350459	1985	332607	1514
PULLER POWER CABLE	GREENLEE TOOL CO	686	NZ3010060	1982	716249	2340
PUMP CENTRIFUGAL	GORMAN-RUPP CO THE	82H2	762508/6024310	1985	1002737	1700
PUMP CENTRIFUGAL	GORMAN-RUPP CO THE	8402/VH4D	5786044	1981	715364	2961

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Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
PUMP CENTRIFUGAL POWERED	GORMAN-RUPP INDUSTRIES	82H2AENLD	738810	1981	1002739	1645
PUMP CENTRIFUGAL POWERED	GORMAN-RUPP INDUSTRIES	82H2AENLD	766446	1982	715277	11645
PUMP CENTRIFUGAL TRLMT NA8757	GORMAN-RUPP CO THE	84B2/VH42	6036741	1982	681105	4100
PUMP CENTRIFUGAL TRLMTD NA8699	GORMAN-RUPP CO THE	84B2-VH4D	756657	1982	1914568	4100
PUMP GAS ENGINE	TEEL INDUSTRIAL	3P613A	82252-0337-01	1994	1353329	1190
PUMP HYDROSTATIC TEST	RICE HYDRO EQUIPMENT MFG CO	M6C17FB86A	114397	1994	1353338	1056
PUMP SUCTION-DISC-TRL MTD	C H AND E MFG CO	55A70-W	DM2182	1985	1007815	4479
PUMP SUCTION-DISC-TRL MTD	C H AND E MFG CO	55A70-W	DM2183	1985	1007814	4479
PUMP SUCTION-DISC-TRL MTD	ACME PUMPS AND WELLPOINTS INC	A4DD	3600355-LV1A003	1986	149961	6052
PUMP UNIT CENTRIFUGAL	ITT MARLOW	4C7	578245	1981	681191	2932
PUMP VACCUUM ROTARY	SARGENT-WELCH SCIENTIFIC CO	1375	297	1982	715481	1425
PUMP VACUUM	KINNEY VACUUM CO	KDH65	87-0446N5717-1	1987	150493	5995
PUMP VACUUM PORTABLE	SEALED POWER CORP ROBINAIR DIV	15030	08(2553)	1987	156267	2054
PUMP, 2-IN WHEELED	ACME PUMPS AND WELLPOINTS INC	ADX300	11579	1991	1008811	1932
PUMP, AIRLESS SPRAY	GRACO INC F-GRACO LUBER	ULTRA500	A7297	1991	1006648	2000
PUMP, HYDRAULIC	GREENLEE TOOL CO	960SAPS	50182927	1996	1553678	24070
PUMP, VACUUM	LEYBOLD-HERAEUS VACUUM PRODUCT	D2A	1290235004	1993	1299089	1022
PUMPING UNIT HYDRALIC	THOMAS AND BETTS CORP	13600	117500	1981	715524	2261
PUMPING UNIT HYDRAULIC	THOMAS AND BETTS CORP	13600	118236	1985	722167	1280
PUMPING UNIT HYDRAULIC	THOMAS AND BETTS CORP	13600	1909S00062	1994	1353415	1723
PUMPING UNIT HYDRAULIC	THOMAS AND BETTS CORP	13600	117069	1985	332159	2541
PUMPING UNIT, HYDRAULIC, ELECT	THOMAS AND BETTS	C	0604U00121	1994	1353436	1725
PUMPING UNIT, HYDRAULIC, ELECT	THOMAS AND BETTS	C	1410U00092	1992	1236624	1930
RADAR IMAGING SYSTEM	KAVOURAS INC	R2100	5199	1992	1161686	27735
READER LASER/Receiving	INTERMEC CORP	9440A010405	25133	1988	1297503	1442
READER LASER/Gas Cylinder	INTERMEC CORP	9440A010405	25134	1988	1297504	1442
RECEIVER, GROUND FAULT LOCATOR	HEATH CO OF ZENITH DATA SYSTEM	LS1000	1000E01991	1991	1008807	1475
RECEIVER, LASER LEVEL	SPECTRA-PHYSICS CORP LASER DIV	2075	7900	1991	805720	980
RECEIVING SET, TELEVISION	RCA CP GVMT & COMMERCIAL SYS	JKR985RR	526280210	1986	1446988	668
RECORDER INK WRITING	ESTERLINE-ANGUS INSTRUMENT CP	MS413B	NONE	1981	673763	3650
RECORDER INK WRITING	ESTERLINE-ANGUS INSTRUMENT CP	M413B	NONE	1983	673762	3995
RECORDER PRESSURE	BGI INC	BG15	NONE	1987	74335	1577
RECORDER, TEMPERATURE/HUMIDITY	METRUM INFORMATION STORAGE F-	DR450T2200-00-001-0	9.23E+12	1992	1237079	1441
RECOVERY	AMERICAN THERMAFLO CORP	1986	OZB15023	1992	1237019	1236
RECOVERY UNIT FREON	APPLIED ECOLOGICAL SYSTEMS	RR24	86241-61	1987	156231	1074
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9346455	1996	1446906	1290
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9346459	1996	1446905	1290
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9346462	1996	1446909	1295
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9349459	1996	1446931	1330
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9348740	1996	1446930	1330
RECOVERY UNIT, FREON	AMERICAN THERMAFLO CORP	4000	9310532	1994	1353352	1594
RECOVERY UNIT, FREON	HASKEL INC F-HASKEL ENGR &	AGT15/30	1292-67	1992	1299129	5241
RECOVERY UNIT, FREON RECYCLE	FLUORO TECH	3700	20759	1996	1553588	1378
REFRIGERATOR W/DEFROST 16.5	MAGIC CHEF INC ADMIRAL DIV	ENT17H4	AQ36085989	1988	76653	402
REFRIGERATOR, LABORATORY	TRUE MFG CO INC	T49	1-2527750	1999	1984802	1935
REMOVER, TILE, INFRARED	RITTAL CORP	1E1753	1417	1993	1299178	3406
RESISTOR, DECADE BOX	GENERAL RESISTANCE INC	RDS63A	417	1985	224867	1150
RESISTOR, DECADE BOX	GENERAL RESISTANCE INC	RDS63A	631	1991	1008823	1225
RESISTOR, DECADE BOX	GENERAL RESISTANCE INC	RDS63-A	668	1992	1237478	1225

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RODDER DUCT TRAILER MTD	CONDUX INTERNATIONAL INC	51000	85-79	1985	726758	4935
ROLLER, SEAM	THE FLAGLER CORP	20GA-STD	5020294	1994	1353429	4045
SAW BAND METAL CUTTING	DOALL CO	1612-U	146 641797	1964	561020	1461
SAW BAND METAL CUTTING	ARMSTRONG-BLUM MFG CO	81M3M	1079	1981	1002731	13361
SAW BAND METAL CUTTING W/BASE	FORREST MFG CO	230	NONE	1981	681018	2045
SAW BAND WOODWORKING	OLIVER MACHINERY CO	416D	90038	1968	670087	3976
SAW CIRCULAR TABLE TYPE	DELTA INT'L MACH'Y F-POWER	34-763	85051127	1986	224916	1599
SAW RADIAL OVERARM WOODWORKING	BLACK AND DECKER /US/ INC	3558	84030013	1984	558225	5325
SAW, 10" TILTING ARBOR	DELTA INT'L MACH'Y F-POWER	34-806	92B08341	1992	1237020	1789
SAW, 14" GAS POWERED	DIAMANT BOART AMERICA INC	SQ65/14	213602	1995	1446833	1249
SAW, BAND	WILTON CORP WILTON TOOL DIV	7000	4071111	1994	1353435	3598
SAW, CONCRETE	TARGET INDUSTRIES INC	PAC111-13H	128095	1992	1237592	1795
SAW, RADIAL ARM 18-INCH	DELTA	33-421	92155512	1992	1237453	4455
SAW/UNISAW 10" TILTING ARBOR	DELTA INT'L MACH'Y F-POWER	NONE	92196872	1992	1446033	1831
SCALE CRANE	MEASUREMENT SYS INTERNATIONAL	MSI6260C	21347/24809	1991	1117592	10670
SCALE DIGITAL	TERAOKA SEIKO CO	DS410	381326	1990	1004854	1028
SCALE DIGITAL COUNTING	CARDINAL SCALE MFG CO INC	2215A50	9009-9	1990	1114903	1004
SCALE PLATFORM	COLT IND FAIRBANKS MORSE DIV	330C	G502768	1962	670195	1195
SCALE, PLATFORM FLOOR BEAM	DETECTO SCALE CO OF CARDINAL	8950F	9602-75	1997	1550309	1593
SCALE, WEIGHING 5000 LB 4'X4'	FAIRBANKS SCALES	FNX445000M	H193035	1993	1299195	1937
SCALE, WEIGHING 5000 LB 4'X4'	FAIRBANKS SCALES	E2344F	H178132ER	1992	1290912	3026
SCANNER, LASER/RECEIVING	INTERMEC CORP.	1545	92013000694	1992	1119409	1350
SCOPEMETER	FLUKE JOHN MFG CO INC	97	DM5501432	1992	38712	1558
SCOPEMETER	FLUKE JOHN MFG CO INC	97	DM548679	1992	38711	1558
SCRUBBER WALK BEHIND NA8951	TENNANT CO	1480	1480-40242	1989	861137	10695
SCRUBBING MACHINE, PAVEMENT	TENNANT CO	1465	1465-30240	1991	1117919	7586
SEALESS DRUM W/DRUM PUMP	UNDERWRITERS LABORATORIES INC	8252K12/42675K27	AC241392	1995	1548654	1960
SEMITRAILER FLAT-BED NA8573	FRUEHAUF CORP HOBS DIV	PB52-40	FWC581701	1967	G096069	5450
SEMITRAILER LOW BED NA8627	TRAILMOBILE INC OF PULLMAN CO	NONE	42K571	1963	G096077	3657
SEMITRAILER LOW BED NA8755	FRUEHAUF CORP	C2	NONE	1964	G096068	3657
SEMITRAILER LOW-BED NA8822	INTERNATIONAL HARVESTER CO	NONE	NONE	1967	G096066	3657
SEMITRAILER LOW-BED NA8838	DEMCO INC	PFL10	78137	1978	665747	3867
SEMITRAILER TANK LN2 NA8555	SOUTHERN ORDANCE IND F-WESTERN	60XC106	NONE	1981	683918	57000
SEMITRAILER TANK LN2 NA8554	SOUTHERN ORDANCE IND F-WESTERN	60XC107	NONE	1981	681107	57000
SEMITRAILER TANK LOX NA8763	AIR PRODUCTS AND CHEMICALS INC	32A-4	133	1981	554887	44340
SEMITRAILER TANK LOX NA8771	AIR PRODUCTS AND CHEMICALS INC	32A-4	1025	1967	563591	41166
SEMITRAILER VAN NA8842	MILLER TRAILERS INC	SFV2-30SS	N-4729	1974	716619	3096
SENSOR, TEMPERATURE/HUMIDITY	ROTRONICS INSTRUMENT	HT205W	R27729	1992	1237078	1140
SHAFT, VERTICAL ALIGNMENT	DESIGN ASSISTANCE CORP	207	51	1994	1353379	1563
SHAKER TABLE, PORT CALIBRATION	DYNAMIC INSTRUMENTS INC	DI823	1053	1996	1446897	2500
SHEAR MACHINE	FORREST MFG CO	636	8698	1991	1170205	1260
SHEARING MACH PLATE SQUARING	WYSONG AND MILES CO	1096	P3-380	1973	716246	7899
SHEARING MACHINE	LODGE AND SHIPLEY CO	0608SL	45100	1962	563475	17748
SIGNAL CALIBRATOR	GENERAL RESISTANCE INC	E35	463	1989	G021648	1174
SOLDERING-DESOLDERING STATION	PACE INC	PPS85	415325	1995	1345803	1075
SPECTROPHOTOMETER	HACH CO	DR2010	9.61E+11	1996	1739121	1595
SPOT COOLING SYSTEM, PORTABLE	NIPPONDENSO OF LOS ANGELES	10SFU1	5940187	1994	1353396	2120
SPRAY ELECTROSTATIC UNIT W/ATT	RANSBURG CORP	2	19219	1986	153790	6930
SPRAYER INSECTICIDE TRAILER MT	FMC CORP F-BEAN JOHN DIV	D020E/500	NONE	1978	716028	5089

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SPRAYER MULTI-PRO	HAHN TURF PRODUCTS	3235	9409	1989	81621	12230
SPRAYER PAINT AIRLESS	GRACO INC F-GRACO LUBER	207-352	NONE	1991	1008848	1950
SPRAYER PAINT AIRLESS	GRACO INC F-GRACO LUBER	231002	A6403	1992	1007885	2364
SPRAYER PESTICIDE	FMC CORP F-BEAN JOHN DIV	1229FTM	A276034	1984	682967	4590
SPRAYER TRAILER MOUNTED	SMITH AND WESSON CHEMICAL CO	6912	H7529	1989	G021702	3074
SPRAYER TRAILER MOUNTED	FMC CORP F-BEAN JOHN DIV	D010P200S	A273895	1985	725301	3990
SPRAYER TRAILER MTD GRND MNTNC	SMITHCO INC	2C200R	NONE	1974	716006	1995
SPRAYER, AIRLESS BULLDOG	GRACO INC F-GRACO LUBER	217-234	J1A	1982	1170214	2565
SPRAYER, AIRLESS BULLDOG	GRACO INC F-GRACO LUBER	217-579	NONE	1992	1237007	2749
SPRAYER, HIGH PRESSURE WASHER	BAUMAC INTERNATIONAL	2620-55	910027	1992	1237009	3099
STEAM CLEANER, PORTABLE	DAYTON APPLIANCE PARTS CO	5Z170	C251330694	1995	1345801	1662
STENCIL CUTTING MACHINE	MARSH STENCIL MACHINE CO	3172	NONE	1994	1353437	2200
STENCIL CUTTING MACHINE	MARSH STENCIL MACHINE CO	1488	NONE	1984	661834	2660
STENCIL CUTTING MACHINE HAND	MARSH STENCIL MACHINE CO	H1/2"	36637	1991	1119199	1220
STEROSCOPE	CAMBRIDGE INSTR F-IMAGE ANALY-	31-35-28385B	NONE	1991	804438	1820
SWEEPER GASOLINE POWER NA8884	TENNANT CO	220	2959	1985	725587	9752
SWEEPER, ROOF	REEVES ROOFING CO	130200	NONE	1990	1006035	1700
SWEEPER/DETHATCHER	TORO CO THE	44020	30108	1992	1237466	14621
SWITCHING UNIT 900 TX	DIGITAL EQUIPMENT CORP	PN-DESBF-MB	AS50307532	1995	1446950	2824
TAMPER, ASPHALT/STABILIZER	WACKER CORP	VPA1350W	650501554	1991	1008804	1696
TAMPER, GROUND	M B W INC	R270	2712999	1994	1353407	2045
TAMPER, GROUND	M B W INC	R270	2713001	1994	1353408	2045
TAMPER, PORTABLE	M B W INC	R450	3500469	1992	1237077	1944
TAPE DRIVE UNIT	DIGITAL EQUIPMENT CORP	TZ88N-TA	1Q80701344	1998	1919655	3082
TAPE DRIVE, CARTRIDGE	GENOA SYSTEM CORP	3260	AR6B506609	1987	152475	900
TELESCOPE SURVEYING	TOPCON INSTRUMENT CP OF AMER	TL20DE	A33041	1986	806902	2166
TELEVISION/VIDEO RECORDER	MAGNAVOX ELECTRONIC SYSTEMS	CRL191AT03	80690061	1991	1445899	599
TEST KIT, DIGITAL	GENERAL ELECTRIC CORP	TVRMS2	NONE	1996	1446904	2020
TEST SET DATA TERMINAL	SCI SYSTEMS INC	7653850-1	21	1984	682803	7320
TEST SET OIL AND GLOVE DIELEC	E I L INSTRUMENTS INC	0G-100	750941	1983	681064	2295
TEST SET RELAY	MULTI-AMP CP F-POW-R-SAFE TOOL	SR75	22008	1981	715317	5530
TEST SET, MICROPROCESSOR	FLUKE JOHN MFG CO INC	9000A6809	5355003	1991	1008835	1850
TEST SET, PORTABLE	SIEMENS CORP	PTS4	92125004	1992	1299147	4300
TESTER PRESSURE DEAD WEIGHT	AMETEK INC MANSFIELD&GREEN DV	T-10	7542	1981	715307	1000
TESTER PRESSURE DEAD WEIGHT	AMETEK INC MANSFIELD&GREEN DV	HL10-1	HL-4901	1994	1353406	2395
TESTER, CIRCUIT BREAKER	AVO INTERNATIONAL	PS9160	121060-001/2	1996	1739120	44300
TESTER, GROUND RESISTANCE	AEMC CORP	3730	07F11244	1996	1446901	2195
TESTER, INTERGRATED CIRCUIT	AMERICAN RELIANCE	AR6000	86000140	1990	1006007	1295
TESTER, PORTACOUNT RESPIRATOR	TSI INC F-THERMO-SYSTEMS INC	8010	1590	1990	1006049	6000
TESTER, PRESSURE, PORTABLE DIG	AMETEK INC MANSFIELD&GREEN DV	NONE	069 347-200	1993	1299196	1260
THERMOMETER, INFRARED	RAYTEK INC DIV OF OPTICAL	RAYRPM3LS	21120K	1991	1170160	1145
THREADER, PIPE GEARED	RIGID TOOL CO	141	NONE	1994	1353405	1133
THREADING MACHINE	RIGID TOOL CO	535	EC10478I95	1996	1553676	3128
THREADING MACHINE	RIGID TOOL CO	1224	EB01373	1990	G095853	4914
THREADING MACHINE PIPE W/STAND	RIDGE TOOL CO (DISCONTINUED)	300	7606617	1987	156338	1760
THREADING MACHINE PIPE-BOLT	EMERSON ELEC CO RIDGE TOOL DIV	535	360554	1981	673800	2042
THREADING MACHINE PIPE-BOLT	TELEDYNE OSTER	729TK-176	702TK176	1981	681274	3836
THREADING MACHINE PIPE-BOLT	TELEDYNE OSTER	716SR	716SR108	1981	681273	5746
THREADING MACHINE, PIPE	RIGID TOOL CO	1224	EB11920B97	1996	1744154	4991

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TILE REMOVER, INFRARED	DELTA INT'L MACH'Y F-POWER	DELTA T/6	5511	1996	1446908	8500
TILLER GARDEN ROTARY 8HP	ARIENS CO	RT8020	246	1981	716091	1260
TRACKER ELECTRONIC	HUNTRON INSTRUMENTS INC	2000A	22A05385	1988	842788	1755
TRACTOR	FORD MOTOR CO TRACTOR AND IMPL	6610	BC14705	1989	G023083	17361
TRACTOR NA8893	FORD MOTOR CO TRACTOR AND IMPL	6600	C657108	1981	716114	13325
TRACTOR 1710	FORD MOTOR CO TRACTOR AND IMPL	AL312A	UL14413	1986	1119307	7412
TRACTOR CRAWLER DOZER NA8614	MADE IN JAPAN	D31P-16	28575	1982	714670	45411
TRACTOR DIESEL W/BLADE	KUBOTA LTD	B6000E	077200ENG	1978	716027	2900
TRACTOR INDUSTRIAL NA8765	FORD MOTOR CO TRACTOR AND IMPL	6600	49757035302	1976	716011	7943
TRACTOR MOWER DIESEL NA8508	FORD MOTOR CO TRACTOR AND IMPL	CA454C	C748063	1985	1914556	8990
TRACTOR MOWER DIESEL NA8509	FORD MOTOR CO TRACTOR AND IMPL	CA454C	C746424	1985	1002744	8990
TRACTOR TOW NA8642	CLARK EQUIPMENT CO	CT40	CT-311-656008	1987	74770	14559
TRACTOR W/FRONT LOADER NA8945	CATERPILLAR TRACTOR CO	916	2XB01407	1989	G023167	69861
TRACTOR W/FRONT LOADER NA8887	FORD MOTOR CO TRACTOR AND IMPL	340A	C706119/CL36	1983	405421	14839
TRACTOR W/LOADER/BACKHOENA8932	CATERPILLAR TRACTOR CO	416	U323963T	1989	G023172	37500
TRAILER CARGO	WELLS CARGO INC	TW101	IWC200C11P2021575	1993	1299153	1982
TRAILER CARGO NA8535	GEN TRUCK MFG CO OF HOUSTON	3500#	5012	1988	74619	3300
TRAILER CARGO NA8558	WELLS CARGO INC	EW2022	1WC200J26P2020550	1993	1914558	4630
TRAILER CARGO NA8588	WELLS CARGO INC	EW2024	IWC200J26N2019461	1993	1299157	5129
TRAILER CARGO NA8873	WELLS CARGO INC	EW1624	1WC200G24G2009797	1986	269881	3820
TRAILER CARGO NA8874	WELLS CARGO INC	EW1624	1WC200G24G2009781	1986	269880	3740
TRAILER DROP FRAME FLOATNA8897	LUFKIN INDUSTRIES INC	FL75DF	1L01B4822K1084378	1988	G023164	18000
TRAILER F/1/8 SCL MKUP NA8580	LYNDON B JOHNSON SPACE CENTER	NONE	NONE	1989	1170206	10900
TRAILER FLATBED NA8567	TEXAS BRAGG ENTERPRISES	NONE	67	1982	1914555	1225
TRAILER FOUR WHEEL NA-8919	INTERNATIONAL HARVESTER CO	41	NONE	1985	725239	1194
TRAILER LOW-BOY 22FT NA8909	KALYN INC	HRGP3-50T	K9E22327K10055449	1988	G023165	33610
TRAILER W/LOAD BANKS NA8536	AVTRON MANUFACTURING INC	NONE	3168940	1987	75216	16119
TRAILER, CARGO NA8900	WELLS CARGO INC	EW1622	1WC200G22N2018623	1991	1170204	3996
TRAILER, CONSTRUCTION NA8647	TRAILMATE	TC1264-80	17VP1222NB010733	1992	1237439	1740
TRAILER, PLATFORM UTILITY	CUSHMAN INDUSTRIES	898632-9110	91007470	1991	1008730	8802
TRAILER, UTILITY	FALCON TRAILERWORKS	NONE	NONE	1990	1006079	1465
TRAINER, ASSEMBLY DEVICE	DESIGN ASSISTANCE CORP	208	57	1994	1353378	1563
TRANSMITTER, GRD FAULT LOCATOR	HEATH CO OF ZENITH DATA SYSTEM	LS1000	1000E01991	1991	1008806	1475
TRANSMITTER, LASER LEVEL	SPECTRA-PHYSICS CORP LASER DIV	2044R	807	1991	1170110	980
TREADING MACHINE, PIPE	RIGID TOOL CO	535	EAM12995J96	1996	1446907	3498
TRENCHER W/BACKFILL BLADE	CHARLES MACHINE WORKS INC THE	1420	5B1996	1986	304482	7552
TROUBLESHOOTER MICRO SYSTEM	FLUKE JOHN MFG CO INC	9010A	3530012	1985	722168	3990
TRUCK FORK LIFT NA8568	LULL CORP F-LULL ENGINEERING	844T34	JD02091N	1988	843189	84070
TRUCK FORK LIFT NA8655	CLARK EQUIP CO INDUS TRUCK DIV	C500YS80D	Y685-0037-8450K0F	1991	1118864	24364
TRUCK FORK LIFT NA8954	CATERPILLAR INDUSTRIAL INC	V80E	37W8484	1989	G023169	31745
TRUCK FORK LIFT 15 TON NA8891	CATERPILLAR INDUSTRIAL INC	V300B	72Y1490	1989	G023168	72880
TRUCK FORK LIFT 3000 LB NA8556	YALE MATERIAL HANDLING CORP	NR035BBNS36SE136	N531231	1992	1234000	23642
TRUCK FORK LIFT DIESEL NA8541	KOMATSU MFG CO LTD	FD20T2-10	232684	1987	75277	14719
TRUCK FORK LIFT DIESEL NA8656	WIGGINS LIFT CO INC	WD306V	HWIGGINSWLC912255	1991	1118932	60628
TRUCK FORK LIFT DIESEL NA8694	YALE MATERIAL HANDLING CORP	GDP030ADNUAV085	N476291	1988	G021700	14321
TRUCK FORK LIFT DIESEL NA8918	YALE MATERIALS HANDLING CORP	GDP150HAJUBT093	N405421	1985	722081	38426
TRUCK FORK LIFT ELECT NA8678	YALE MATERIALS HANDLING CORP	NR035AANS24SE095	N502213	1990	1005045	17590
TRUCK FORK LIFT ELECT NA8686	YALE MATERIALS HANDLING CORP	NR035AANS24SE095	N502212	1990	1005044	17590
TRUCK FORK LIFT ELECT NA8883	YALE MATERIALS HANDLING CORP	ERC030ABN36SF083	N501846	1990	1005220	16230

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TRUCK FORK LIFT ELECT NA8966	CATERPILLAR TRACTOR CO	MC30	4HB1386	1986	224687	11963
TRUCK FORK LIFT ELECT NA8528	CATERPILLAR TRACTOR CO	M40D	4NC595	1987	158648	15665
TRUCK FORK LIFT ELECT NA8745	RAYMOND CORP THE	20R30TF	NONE	1975	665720	11728
TRUCK FORK LIFT ELECT NA8863	RAYMOND CORP THE	20R30TF	020-78-14523	1978	665730	14080
TRUCK FORK LIFT ELECT NA-8867	YALE MATERIALS HANDLING CORP	NE030MAN24SS097	N425397	1985	303247	15854
TRUCK FORK LIFT ELECT NA8911	YALE MATERIALS HANDLING CORP	ERC030AAN	390662	1983	665750	15057
TRUCK FORK LIFT ELECT NA8912	YALE MATERIALS HANDLING CORP	ERC030AAN	N389958	1983	665691	13811
TRUCK FORK LIFT ELECT NA8936	CLARK EQUIP CO INDUS TRUCK DIV	ST20	ST-20-42-206	1969	562999	3546
TRUCK FORK LIFT ELECT NA8978	RAYMOND CORP THE	140PC30TN	014-79-1060	1980	665725	15200
TRUCK FORK LIFT ELECT NA8979	RAYMOND CORP THE	140PC30TN	014-79-1059	1980	665727	15200
TRUCK FORK LIFT GAS NA8562	CATERPILLAR TRACTOR CO	V40S5A	5AC00558	1986	274854	16400
TRUCK FORK LIFT*********NA8955	CATERPILLAR INDUSTRIAL INC	V80E	37W7573	1989	G023170	31745
TRUCK FORKLIFT DIESEL NA8572	KOMATSU MFG CO LTD	FD20T10	236529A	1988	G021114	15647
TRUCK FORKLIFT ELECT NA8864	LEKTRO INC	20130-24A	3815-187SA	1987	149809	13098
TRUCK FORKLIFT ELECT NA8876	LEKTRO INC	20130-24A	3814-187SA	1987	149810	13098
TRUCK LIFT FORK REACH NA8620	YALE MATERIALS HANDLING CORP	NRO35AANM24SV095	N502831	1990	1115022	16739
TRUCK PALLET POWERED NA8646	YALE MATERIAL HANDLING CORP	MPB030ABN24C2736	452393	1987	75153	2847
TRUCK PALLET POWERED NA8990	YALE MATERIALS HANDLING CORP	MPB030A	400014	1984	661610	2966
TRUCK PALLET POWERED NA8991	YALE MATERIALS HANDLING CORP	MPB030A	400015	1984	661611	2966
TRUCK PLATFORM NA8868	OUTBOARD MARINE CP OMC LINCOLN	547	529070	1979	1002740	3187
TRUCK UTILITY NA8697	OUTBOARD MARINE CP OMC LINCOLN	45287	1CUNH2226JL011531	1987	74866	6090
TRUCK UTILITY NA8971	OUTBOARD MARINE CP OMC LINCOLN	898532-8810	1CUNH2228JL011126	1987	1002738	8316
TRUCK, AERIAL NA8654	GENERAL MOTORS CORP	CHEV KODIAK	1GBL7H1JXPJ103613	1993	1291619	65857
TRUCK, LIFT FORK REACH NA8584	YALE MATERIALS HANDLING CORP	NR035AANM24SE095	N507798	1991	1002887	18037
TRUCK, LIFT FORK REACH NA8712	RAYMOND CORP THE	201R30TT	020D-90-31442	1990	1005149	21569
TRUCK, PALLET LIFT NA8592	YALE MATERIALS HANDLING CORP	MPW060LBN24S2736	N501896	1990	1005026	5944
TRUCK, PLATFORM	CUSHMAN INDUSTRIES	898632-9110	91007621	1991	1170140	10083
ULTRASONIC UNIT, PORTABLE	U E SYSTEMS INC	UP2000	16745	1992	1237446	2905
VAC-U-RIG CO-UNITS	MILWAUKEE ELECTRIC TOOL CORP	4135	685	1986	269945	1094
VAC-U-RIG CO-UNITS	MILWAUKEE ELECTRIC TOOL CORP	4135	287	1987	158983	1288
VACUUM CLEANER ASBESTOS	CLAYTON ASSOCIATES INC	BCE1000/1500/2000	89203	1989	G022001	2973
VACUUM CLEANER ASBESTOS WET	PULLMAN/HOLT CP F-PULMAN VAC	503ASB	2044	1986	304493	1020
VACUUM PUMP DUO-SEAL	SARGENT-WELCH SCIENTIFIC CO	1397	27862	1983	715296	1092
VACUUM SYSTEM	KINNEY VACUUM CO	CB4027LP	91-1540D6820-2	1992	1236879	13938
VACUUM, QUAD TORNADO	BREUER ELECTRIC MFG CO	98450	8451BKW12438	1992	1237017	1988
VELOCICALC	TSI INC F-THERMO-SYSTEMS INC	8360	96060204	1996	40472	1595
VIEWFINDER	AGEMA INFRARED SYSTEMS	EIA	193226	1992	1237075	3200
VOLTMETER	H D ELECTRIC CO	MARK II	852	1994	1353353	1215
WASHER GUN DIAPHRAM PUMP POWER	GRACO INC F-GRACO LUBER	112-635	107429	1995	1550146	1260
WASHER TRLMTD GAS/ENG NA8871	BAUMAC INTERNATIONAL	7940	6111658	1985	727232	9604
WASHER W/HOSE	ALKOTA CLEANING SYSTEMS INC	535	112424	1986	275722	2838
WASHER, HIGH-PRESSURE	ALKOTA CLEANING SYSTEMS INC	C211T-P	155791	1992	1237471	1000
WASHER, PRESSURE 3000PSI	MI-T-M CORP	CW30040MGH	190624	1992	1237006	1900
WASHER, PRESSURE 4000PSI	MI-T-M CORP	CW40040MBO	190612	1992	1914587	2820
WASHER, WATER PRESSURE	HONDA TSUSHIN KOGYO CO LTD	CW2405OMGH	148142CW2405	1990	1002771	1875
WASHER/EXTRACTOR	UNIMAC	UC18MN2	8375	1991	1170177	4408
WELDER ARC TRL MTD NA8564	MILLER ELECTRIC MFG CO	44D	JG045572	1986	269949	10196
WELDER ARC TRL MTD NA8578	MILLER ELECTRIC MFG CO	20	JB476498	1981	681185	2000
WELDER ARC TRL MTD NA8818	MILLER ELECTRIC MFG CO	250D	JB508999	1982	681164	5804

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WELDER ARC TRL MTD NA8861	MILLER ELECTRIC MFG CO	902-536	JB578685	1982	716259	4200
WELDER ARC TRL MTD NA8988	LINCOLN ELECTRIC CO	SA200F163	A-988999	1982	716258	5190
WELDER ARC TRL MTD NA8898	MILLER ELECTRIC MFG CO	BIG20	JF890843	1985	726867	4024
WELDER ARC TRL MTD NA8937	MILLER ELECTRIC MFG CO	B1G20	HJ148003	1981	681187	2266
WELDER MACH ELECTRIC PORTABLE	MILLER ELECTRIC MFG CO	902-889	JH216330	1987	158839	2208
WELDER MACHINE ELECTRIC	MILLER ELECTRIC MFG CO	901788	JF938338	1986	224643	1253
WELDER, 200AMP	MILLER ELECTRIC MFG CO	MILLERMATIC250	KF809451	1995	1446807	1400
WELDER, SPOT	DURO DYNE CORP	PBFS14	53251	1991	1008810	1779
WELDER, SPOT/PEDESTAL MOUNTED	MILLER SPECIAL TOOLS DIV OF	SSW2020ATT	KA865712	1990	1006025	2664
WELDING MACHINE	MILLER WELDING	300	KF927124	1995	1446827	1797
WELDING MACHINE	MILLER WELDING	300	KF926219	1995	1446826	1797
WELDING MACHINE	LINCOLN ELECTRIC CO	WP225G7	A1177147	1991	1008809	2369
WELDING MACHINE	LINCOLN ELECTRIC CO	WP225G7	A1190224	1991	1170130	2369
WELDING MACHINE ARC	MILLER ELECTRIC MFG CO	MM200	JH246174	1987	156924	1322
WELDING MACHINE ARC ELECTRIC	MILLER ELECTRIC MFG CO	DIALARC-HF	JH235345	1987	158916	1320
WELDING MACHINE ARC ELECTRIC	MILLER ELECTRIC MFG CO	DIALARC HF-P	JE782800	1985	722062	1322
WELDING MACHINE HELIARC	MILLER ELECTRIC MFG CO	300	JG065288	1986	1002732	3357
WHEEL BARROW MOTORIZED	BRIGGS AND STRATTON CORP	30252	73061507	1987	1914559	1653
WINCH SYSTEM W/TRIPOD	B D IND	94121881	10156	1995	1345802	2258

NOTE: The above items are being provided for contract use as they exist at time of contract start.

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List 3: Government-Furnished Property (Expendables)

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Adapter, AC	Panasonic	PV-A16	K5WD10662	90	PA2466
Air hammer kit	Florida Pneumatic	FP-1010	261558	57	PA7096
Ammeter	Multi-Amp Corp.	MS-1	251-A	395	PA7607
Ammeter, AC, multi-amp	Multi-Amp Corp.	519A	7789	200	JSC4988
Ammeter, clamp-on	Amprobe	RS-3JP	9100503	48	PA2075
Ammeter, clamp-on	Unknown	4X221	None	66.8	PA1252
Ammeter, clamp-on	Amprobe	9ACD-7	922085	99	PA1324
Ammeter, clamp-on	Amprobe	None	None	100	JSC5468
Ammeter, clamp-on	Amprobe	None	None	100	PA2327
Ammeter, clamp-on	AW Sperry	DSA 2415	8635	100	PA2678
Ammeter, clamp-on	Amprobe	None	None	200	FD7009
Ammeter, Digital	Fluke	Fluke 33	5770161	100	JSC5470
Ammeter/clamp-on current meter	Sperry Products	SPR-300+	38916	75	NASA 9484
Amplifier, air	Unknown	None	None	175	PA1646
Amprobe	Unknown	None	None	50	PA2077
Amprobe	Fluke	PS-3	None	207	PA2012
Amprobe	Unknown	P23	046876	532	NASA 9486
Amprobe / rotation meter	Amprobe	RS-3	122484	80	FD6001
Amprobe / rotation meter	Amprobe	RS-3	1403312	80	FD6008
Amprobe / rotation meter	Amprobe	RS-3	400180	80	FD6009
Amprobe, clamp-on	Amprobe	RS-3JP	None	48	PA2088
Amprobe, clamp-on	Amprobe	RS-3JP	None	48	PA2085
Amprobe, clamp-on	Amprobe	RS-3SG	919919	50	PA1653
Amprobe, clamp-on	Unknown	RS-3SG	None	50	PA1652
Amprobe, clamp-on	Amprobe	9ACD-7	922093	99	PA1322
Amprobe, clamp-on type	Fluke	80i-kW	4927041	80	FD7001
Amprobe, clamp-on type	Fluke	80i-kW	4931016	80	FD7006
Amprobe, clamp-on type	Fluke	80i-kW	4931015	80	FD7007
Amprobe, clamp-on type	Fluke	80i-kW	4056019	80	FD7008
Amprobe, clamp-on type	Fluke	80i-kW	4910032	80	FD7009
Amprobe, Ohm Meter	Unknown	RS35G	204012	50	PA1585
Analyzer, branch circuit	None	None	None	250	PA2654
Analyzer, branch circuit	Suretest	ST-1D	None	265	PA2566
Analyzer, capacitor-inductor	Sencore	LC 53	3623081m	806	PA1040
Analyzer, capacitor-inductor	Sencore	LC 53	None	806	PA1074
Analyzer, ignition	Unknown	MT730	16853	250	JSC3935
Analyzer, photo flash	Photronics	UT-1	None	795	PA1584

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Analyzer, universal disturbance	Dranetz	626	023223482	375	JSC3221
Anemometer, Digital/flow gas, hot wire	Omega	HH-30	4000-90-031995	300	NASA 9487
Anemometer, Thermo/flow gas, hot wire	Alnor	634-493-300	2224	500	NASA 1212
Anvil, small hole	Unmarked	None	None	650	JSC4771
Apparatus, breathing, pressure demand	Unknown	7-477-1	MG 012990	754	PA1143
Apparatus, breathing, pressure demand	Unknown	7-477-1	MG 012461	754	PA1233
Assembly, pump motor	JABSCO	5600-0003	12061 0000	652	PA1492
Attachment, forklift, drum-handling	Unknown	None	None	275	JSC3406
Auger kit, sewer, 1/2"	Craftsman	90505	A0265	73	PA1494
Auger, drain cleaner	General Wire	V-RE-b-W6	59705	198	PA7979
Auger, sewer	Skil	None	HCV0470	125	PA1739
Auger, sewer	Skil	None	HCS1045	125	PA1740
Auger, sewer	Skil	None	HCA0634	125	PA1978
Auger, sewer	Black & Decker	81596	HC17319	158	PA7020
Autotransformer, VARIAC	General Radio	W5MT3	None	250	JSC3428
Balancer, volume air	T S I, Inc.	VA-105	None	300	PA2003
Balometer	Alnor	6463	BR11398	900	JSC3635
Balometer	Alnor	6463	BR9590	950	JSC3676
Bar, spreader, 50,000#	Unknown	None	None	325	JSC4509
Bar, spreader, 50,000#	Unknown	None	None	325	JSC4510
Base, drill, magnetic	Black & Decker	674	578-506	373	JSC3032
Basket, manlift, 1000#	Unknown	None	None	650	JSC4598
Basket, manlift, 1000#	Unknown	None	None	650	JSC4599
Basket, manlift, 1000#	Unknown	None	None	650	JSC4600
Basket, weight, 6900#	Unknown	None	None	700	JSC4578
Bath, parts cleaning	Graymills	PL36-A	F-96	350	PA2674
Beader, 24 gauge	Unknown	581	10/91	490	PA1611
Beader, sheet metal	Unknown	622-E	M2764	300	JSC4103
Beader, sheet metal	Unknown	None	None	300	JSC4104
Beam, compass, # 2	ERA	None	None	200	JSC3616
Bender, cable	Thomas & Betts	B50	None	700	JSC3387
Bender, cable	Thomas & Betts	350	None	700	FD1120
Bender, cable, 750 MCM	Ind. Prod. Div.-ITT	18-231	None	336	PA7182
Bender, hydraulic, 3/4" -- 2"	Greenlee	1818	None	600	JSC3721
Bender, manual, 1/2", 3/4", 1"	Greenlee	1800	SRB343147LB	350	FD1800
Bender, manual, 1-1/4" -- 1-1/2"	Greenlee	1801	RS9948KE	350	FD1801
Bender, rebar	Klein Tool	64304	None	150	FD32

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Bender, tubing, 1/2"	Imperial	None	None	156	JSC3126
Bender, tubing, 3/4"	Ridgid	None	None	156	JSC3675
Bicycle	Raleigh	Retroglide	None	217	JSC3201
Bicycle, 2-wheel, red/black	Unknown	None	None	200	JSC5249
Bin, parts cleaning, with motor	Unknown	None	None	350	PA1168
Binocular, 7 X 35	Titan	B130	61112	39	PA1056
Binoculars	Unknown	None	None	75	NASA 9401
Blade, scraper, 5'	Ford	716	4491	300	JSC3477
Blade, scraper, 6'	Rhino	LR	74952	549	JSC4077
Blower	Windsor	AM	57441	539	JSC5215
Blower, accoustical	Unknown	None	None	200	JSC3700
Blower, hand-held	Stihl	69DBA	37642395	200	JSC3944
Blower, hand-held	Toro	30935	None	305	JSC3945
Blower, hand-held	Toro	30935	None	305	JSC3947
Blower, heater	Allegro	9504	35596	645	PA2706
Blower, heater	Allegro	9504	35599	645	PA2704
Blower, heater	Allegro	9504	35629	645	PA2706
Blower, hot air	Dayton	2Z789	None	150	JSC3429
Blower, portable	Unknown	1000	6247	90	PA1732
Blower, portable	Unknown	1000	6249	90	PA1736
Blower, portable	Easco	None	None	470	JSC3744
Blower, portable	Easco	None	None	470	JSC3745
Blower, portable	Easco	None	None	470	JSC3746
Blower, portable	Pelsue	1000	2324	960	PA1733
Blower, vacuum	Greenlee	690	3594	420	PA2673
Blower, walk behind	Billy Goat	QB880	11421	471	#31
Blower, walk behind	Giant Vac	80KP	None	471	#32
Blower, walk behind	Giant Vac	80KP	None	471	#60
Blower, walk-behind	Billy Goat	QB880BL84	15534	471	#91
Blower, walk-behind	Billy Goat	QB880	11419	471	#94
Blower, walk-behind	Giant Vac	80KP	None	471	#88
Blower, walk-behind	Giant Vac	80KPBL84	15366	471	#89
Blower, walk-behind	Giant Vac	80KP	246114	471	#98
Board, walk, aluminum, 12'	Unknown	None	None	475	JSC3275
Board, walk, aluminum, 6'	Unknown	None	None	325	JSC3281
Board, walk, fiberglass, 14'	Unknown	None	None	385	JSC3276
Board, walk, fiberglass, 14'	Unknown	None	None	385	JSC3277

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Box, break out	Forurstate	T-702	None	149	PA1782
Box, decade	Decade Resistor	1433W	11763	225	PA6007
Box, decade	Dial-An-Ohm	DA74-3X	482	700	PA1225
Box, rod	Unknown	K200S	887751	125	JSC4105
Buffer	Bobcat	17SS	01109A-8	936	JSC5197
Buffer	Bobcat	17SS	01109A-8	936	JSC5203
Buffer	Clark	None	None	936	JSC5222
Buffer	Clark	None	None	936	JSC5223
Buffer	Clark	None	None	936	JSC5233
Buffer	Clark	None	None	936	JSC5313
Buffer	Clark	None	None	936	JSC5314
Buffer	Clark	None	None	936	JSC5321
Buffer	Clark	None	N10549	936	JSC5327
Buffer	Clark	None	NE0107	936	JSC5328
Buffer	Clark	None	None	936	JSC5329
Buffer	MasterCraft	MTS17E	19209	936	JSC4934
Buffer	MasterCraft	A-182202X9202A	G9200342	936	JSC4938
Buffer	MasterCraft	MTS17E	19201	936	JSC4939
Buffer	MasterCraft	A-182202X9202A	G9200339	936	JSC4977
Buffer	MasterCraft	MTS17E	19189	936	JSC4979
Buffer	MasterCraft	17SS Bobcat	SI3022	936	JSC4980
Buffer	MasterCraft	MTS17E	19183	936	JSC4981
Buffer	MasterCraft	A-182202X9202A	G9200336	936	JSC4985
Buffer	MasterCraft	MTS20E	19240	936	JSC5112
Buffer	MasterCraft	MTS20E	19216	936	JSC5117
Buffer	MasterCraft	MTS20M	M92J30159	936	JSC5123
Buffer	MasterCraft	None	19187	936	JSC5125
Buffer	MasterCraft	MTS20E	M92J30168	936	JSC5129
Buffer	MasterCraft	None	19182	936	JSC5131
Buffer	MasterCraft	MTS20E	M92J30160	936	JSC5138
Buffer	MasterCraft	MTS20E	192J3173	936	JSC5169
Buffer	MasterCraft	MTS20E	19233	936	JSC5175
Buffer	MasterCraft	MTS20E	19195	936	JSC5176
Buffer	MasterCraft	MTS20E	19223	936	JSC5177
Buffer	MasterCraft	MTS20E	19218	936	JSC5187
Buffer	MasterCraft	MBS2000E	18964	936	JSC5189
Buffer	MasterCraft	None	19198	936	JSC5200

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Buffer	MasterCraft	1822092028	69200355	936	JSC5206
Buffer	MasterCraft	MTS17E	19197	936	JSC5207
Buffer	MasterCraft	MTS20E	M92J30172	936	JSC5208
Buffer	MasterCraft	MTS20E	19236	936	JSC5213
Buffer	MasterCraft	None	19206	936	JSC5224
Buffer	MasterCraft	MTS20E	192030171	936	JSC5225
Buffer	MasterCraft	None	19232	936	JSC5226
Buffer	MasterCraft	MTS17E	19179	936	JSC5230
Buffer	MasterCraft	None	None	936	JSC5231
Buffer	MasterCraft	MTS20E	19246	936	JSC5232
Buffer	MasterCraft	None	19221	936	JSC5238
Buffer	MasterCraft	MTS17E	19188	936	JSC5240
Buffer	MasterCraft	MTS20E	19213	936	JSC5271
Buffer	MasterCraft	None	19220	936	JSC5276
Buffer	MasterCraft	MTS20E	19214	936	JSC5277
Buffer	MasterCraft	None	192000	936	JSC5279
Buffer	MasterCraft	None	19193	936	JSC5280
Buffer	MasterCraft	MTS17E	19192	936	JSC5281
Buffer	MasterCraft	MTS17E	19180	936	JSC5282
Buffer	MasterCraft	None	19177	936	JSC5285
Buffer	MasterCraft	MTS20E	19222	936	JSC5315
Buffer	MasterCraft	None	None	936	JSC5316
Buffer	MasterCraft	MTS17E	19191	936	JSC5317
Buffer	MasterCraft	MTS17E	19205	936	JSC5318
Buffer	MasterCraft	MTS20E	None	936	JSC5319
Buffer	MasterCraft	None	19224	936	JSC5320
Buffer	MasterCraft	MTS17E	19203	936	JSC5322
Buffer	MasterCraft	MTS20E	19243	936	JSC5323
Buffer	MasterCraft	MTS20E	19241	936	JSC5324
Buffer	MasterCraft	None	19207	936	JSC5325
Buffer	MasterCraft	MTS17E	19186	936	JSC5326
Buffer	MasterCraft	MTS20E	M92030166	936	JSC5335
Buffer	MasterCraft	MTS20E	M92H290SR	936	JSC5341
Buffer	MasterCraft	MTS17E	19199	936	JSC5343
Buffer	MasterCraft	MTS20E	19244	936	JSC5345
Buffer	MasterCraft	None	None	936	JSC5349
Buffer	Unknown	MDS-228	92J3J161	936	JSC5201

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Buffer	Unknown	DS-20	HE0106	936	JSC5284
Buffer	Unknown	DS-20	NI-0559	936	JSC5340
Buffer, floor	Clark	VP20DS	S10910	500	JSC3128
Buffer/grinder, 10"	Unknown	1215W	F184	300	JSC3948
Burner, electric	Unknown	14186 3	BH 3	75	PA6967
Burnisher	Clark	2000DCR	MG0440	1380	JSC4935
Burnisher	Clark	2000DCR	MK1156	1380	JSC4936
Burnisher	Clark	2000DCR	MB1787	1380	JSC4982
Burnisher	Clark	2000DCR	None	1380	JSC5126
Burnisher	Clark	2000	0438	1380	JSC5132
Burnisher	Clark	2000DCR	01049A-1	1380	JSC5269
Burnisher	Clark	2000DCR	MG0442	1380	JSC5274
Burnisher	Clark	2000DCR	MG0441	1380	JSC5292
Burnisher	Clark	2000DCR	MG0439	1380	JSC5293
Burnisher	Clark	2000DCR	MD0790	1380	JSC5342
Burnisher	Clark	2000DCR	HF3168	1380	JSC5348
Cabinet, blast cleaning	Dayton	3Z984	1899	894	PA1330
Cabinet, corrosive	Ruemelin Utility	40881	None	995	PA1095
Cabinet, corrosive, 5'	Unknown	None	None	668	JSC5152
Cabinet, explosive, mobile	Unknown	None	None	800	JSC3223
Cabinet, flammable	CAH Industries	25412	None	500	JSC3854
Cabinet, flammable	Justrite Manufacturing	None	None	725	JSC3838
Cabinet, flammable	Justrite Manufacturing	None	None	725	JSC3839
Cabinet, flammable	Unknown	None	None	725	JSC3862
Cabinet, flammable storage	Unknown	None	None	725	JSC3577
Cabinet, flammable, 2 cu. ft.	Just-Rite Mfg Co	None	None	266	JSC3430
Cabinet, flammable, 2 cu. ft.	Eagle	None	None	526	JSC4389
Cabinet, flammable, 3'	Justrite Manufacturing	None	None	200	JSC3923
Cabinet, flammable, 3'	Unknown	None	None	535	JSC5150
Cabinet, flammable, 3 foot	Unknown	None	None	450	JSC3777
Cabinet, flammable, 4'	Eagle	None	None	535	JSC3129
Cabinet, flammable, 4'	Eagle	None	None	535	JSC3167
Cabinet, flammable, 4'	Eagle	None	None	535	JSC3362
Cabinet, flammable, 5'	Unknown	None	None	266	JSC4272
Cabinet, flammable, 5'	Secur All	None	None	535	JSC3130
Cabinet, flammable, 5'	CAH Industries	None	None	668	JSC3787
Cabinet, flammable, 5'	Eagle	None	None	668	JSC3382

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3398
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3399
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3400
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3401
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3402
Cabinet, flammable, 5'	Eagle	25602	None	668	JSC3403
Cabinet, flammable, 5'	Eagle	None	None	668	JSC3679
Cabinet, flammable, 5'	Eagle	None	None	668	JSC3680
Cabinet, flammable, 5'	Eagle	None	None	668	JSC3681
Cabinet, flammable, 5'	Unknown	None	None	668	JSC3170
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5151
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5149
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5148
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5147
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5146
Cabinet, flammable, 5'	Unknown	None	None	668	JSC5145
Cabinet, flammable, 5'	Unknown	1932	None	668	JSC4106
Cabinet, flammable, 5'	Unknown	1932	None	668	JSC3949
Cabinet, flammable, 5'	Unknown	1932	None	668	JSC3950
Cabinet, flammable, 5'	Unknown	1947	None	668	JSC3951
Cabinet, flammable, 5'	Unknown	1947	None	668	JSC3952
Cabinet, flammable, 5'	Unknown	None	None	668	JSC3953
Cabinet, flammable, 5'	Unmarked	None	None	668	JSC5153
Cabinet, flammable, 6'	Unknown	None	None	725	JSC3014
Cabinet, flammable, 6'	Unknown	None	None	725	JSC3015
Cabinet, flammable, 6'	Unknown	None	None	725	JSC5108
Cabinet, flammable, 6'	Unknown	None	None	725	JSC3016
Cabinet, flammable, 6'	Unknown	None	None	725	JSC3017
Cabinet, flammable, paint	Justrite Manufacturing	None	None	400	JSC3788
Cabinet, flammable, small	Unknown	A145	None	668	JSC4251
Cabinet, Hazardous Material Storage	Unknown	None	None	500	JSC3222
Cabinet, parts washing	Red Kamas	A-300	5110813	350	JSC3404
Cabinet, storage	Unknown	None	None	200	JSC4394
Cabinet, storage	Unknown	None	None	400	JSC4255
Cabinet, storage, flammable	Eagle Manufacturing	1932	None	725	JSC3893
Cabinet, storage, flammable	Unknown	None	None	725	JSC3246
Cabinet, storage, flammable	Unknown	None	None	725	JSC5253

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cabinet, storage, flammable	Unknown	None	None	725	JSC5254
Cabinet, storage, flammable	Unknown	None	None	725	JSC5255
Cabinet, storage, flammable	Unknown	None	None	725	JSC5256
Cabinet, storage, flammable	Unknown	None	None	725	JSC4440
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3578
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3579
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3580
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3581
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3582
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3583
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3584
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3585
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3586
Cabinet, storage, steel, 2-door	Unknown	None	None	200	JSC3587
Cabinet, tool, 9-drawer	Unknown	None	None	400	JSC3778
Cable, 3/4", wire rope spool	Unknown	None	None	130.65	JSC4480
Cable, 3/8", wire rope spool	Unknown	None	None	115.35	JSC4481
Cable, 3/8", wire rope spool	Unknown	None	None	115.35	JSC4482
Cable, 5/16", wire rope spool	Unknown	None	None	119.65	JSC4483
Cable, 5/16", wire rope spool	Unknown	None	None	119.65	JSC4500
Cable, 5/8", wire rope spool	Unknown	None	None	120	JSC4499
Calibration kit, pneumatic	Honeywell	MQP800	None	200	JSC3042
Calibration kit, pneumatic	Robert Shaw	900002	9811	200	JSC4649
Calibration kit, pneumatic	Robert Shaw	900-002	None	200	JSC3363
Calibration kit, pneumatic	Robert Shaw	900-002	None	676	PA1024
Calibration, check, gas	Mine Safety Appliances	484674	5862	200	JSC3431
Calibrator, electro-pneumatic	Wallace & Tiernan	65-125	AS-01396	950	JSC5007
Calibrator, halogen leak	Varian	None	71L-162	200	JSC4737
Calibrator, humidity meter	Unknown	HMK-11	613485	325	PA1949
Calibrator, milliamp	Transmation	9286-1028	B27274	489	PA8096
Calibrator, mini-buck (w/ case)	A. P. Buck, Inc.	M5	M-7009	990	PA1072
Calibrator, minitemp	Transmation	1061	1061A32543JF	219	PA6981
Calibrator, mini-temp	Transmation	1061	1061-4213117	200	PA1504
Calibrator, mini-temp	Transmation	1061	B24881K/F	219	JSC3328
Calibrator, mini-temp	Transmation	1061	A30715T/F	219	PA7080
Calibrator, mini-temp	Transmation	1061	A30712T/F	219	PA7081
Calibrator, mini-temp	Transmation	1061	A30711TF	219	FOS

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Calibrator, mini-temp	Transmation	1061	A40593T/F	219	PA7217
Calibrator, pneumatic, portable	Wallace & Tiernan	FA235	JJ10976	560	PA1023
Calibrator, pneumatic, portable, Series 65-120	Wallace & Tiernan	FU4882	YY10367	775	PA1079
Calibrator, pneumatic, precision	Wallace & Tiernan	FA235	MM18906	150	PA1580
Calibrator, pneumatic, pressure	Wallace & Tiernan	FU4882	None	125	PA1019
Calibrator, temperature	Transmation	1064PSN	A83006	140	PA1188
Calibrator, universal, RTD	Transmation	1074	7578409	820	PA2469
Calibrator, voltage	Transmation	1040	10401201	690	PA1017
Caliper	NSK Japan	MAX-CAL	363909	184	PA2581
Caliper, dial	Starrett	120	None	99	PA7103
Caliper, dial	Fowler	None	None	122	JSC4808
Caliper, dial	NSK Japan	MAX CAL	363854	184	PA2582
Caliper, digimatic	Mitutoyo	CD-6P	7159540	193.75	PA1506
Calipers, dial	Starrett	1202-6	None	122	PA1725
Calipers, dial	Starrett	1202-6	None	122	PA1724
Camera	Polaroid	600	None	75	NASA 1191
Camera	Polaroid	600	None	75	NASA 9584
Canister, C02, w/ manifold hose	Thermoark	None	None	250	NEED
Cart	Brenman	None	None	100	PA1997
Cart, 2-shelf	Brennan Equip. Co.	None	None	100	JSC3849
Cart, 2-shelf	Brennan Equip. Co.	None	None	100	JSC3853
Cart, 2-shelf	Brennan Equip. Co.	None	None	100	JSC3863
Cart, 2-shelf	Little Giant	None	None	100	JSC4635
Cart, 2-shelf	Nuttington	None	None	100	JSC3840
Cart, 2-shelf	Rubbermaid	4520	None	100	JSC5144
Cart, 2-shelf	Rubbermaid	None	None	100	JSC4645
Cart, 2-shelf	Unknown	None	None	100	JSC3021
Cart, 2-shelf	Unknown	None	None	100	JSC3341
Cart, 2-shelf	Unknown	None	None	100	JSC4119
Cart, 2-shelf	Unknown	None	None	100	JSC4201
Cart, 2-shelf	Unknown	None	None	100	JSC4202
Cart, 2-shelf	Unknown	None	None	100	JSC3252
Cart, 2-shelf	Unknown	None	None	100	JSC3253
Cart, 2-shelf	Unknown	None	None	100	JSC3283
Cart, 2-shelf	Unknown	None	None	100	JSC3284
Cart, 2-shelf	Unknown	None	None	100	JSC3907
Cart, 2-shelf	Unknown	None	None	100	JSC3592

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart, 2-shelf	Unknown	None	None	100	JSC3593
Cart, 2-shelf	Unknown	None	None	200	JSC4395
Cart, 2-shelf, 2-wheel, grocery	Unknown	None	None	150	JSC3800
Cart, 2-shelf, 2-wheel, grocery	Unknown	None	None	150	JSC3901
Cart, 2-shelf, 2-wheel, grocery	Unknown	None	None	150	JSC3902
Cart, 2-shelf, 2-wheel, grocery	Unknown	None	None	150	JSC3903
Cart, 2-shelf, 2-wheel, grocery	Unknown	None	None	150	JSC3904
Cart, 2-shelf, 4-wheel	Unknown	None	None	100	JSC3005
Cart, 2-shelf, 4-wheel	Unknown	None	None	100	JSC3131
Cart, 2-shelf, 4-wheel	Rubbermaid	D70-4520	None	136.66	JSC3204
Cart, 2-shelf, 4-wheeled	Little Giant	None	None	100	PA1405
Cart, 2-shelf, steel, utility	Unknown	None	None	100	JSC3608
Cart, 2-shelf, steel, utility	Unknown	None	None	100	JSC3611
Cart, 2-shelf, steel, utility	Unknown	None	None	100	JSC3612
Cart, 2-shelf, stock type	Brennan Equip. Co.	None	None	100	JSC3920
Cart, 2-shelf, stock type	Brennan Equip. Co.	None	None	100	JSC3922
Cart, 2-shelf, stock type	Nuttington	43.008.022	None	100	JSC3921
Cart, 2-shelf, stock type	Unknown	None	None	100	JSC3913
Cart, 2-shelf, stock type	Unknown	None	None	250	JSC3848
Cart, 2-shelf, w/ 2 drawers	Unknown	None	None	100	JSC4396
Cart, 2-wheel, wire	Greenlee	911	None	100	JSC3718
Cart, 2-wheel, wire	Greenlee	911	None	100	JSC3719
Cart, 2-wheel, wire	Greenlee	911	None	100	JSC3730
Cart, 3-shelf	Unknown	None	None	100	JSC3254
Cart, 3-shelf	Rubbermaid	None	None	150	JSC3861
Cart, 3-shelf, black	Unknown	None	None	100	JSC3588
Cart, 3-shelf, black	Unknown	None	None	100	JSC3589
Cart, 3-shelf, black	Unknown	None	None	100	JSC3590
Cart, 3-shelf, stock type	Lakeside Mfg.	444	None	100	JSC3857
Cart, 3-shelf, stock type	Lakeside Mfg.	444	None	100	JSC3858
Cart, 3-shelf, stock type	Lakeside Mfg.	444	None	100	JSC3914
Cart, 3-shelf, stock type	Lakeside Mfg.	444	None	100	JSC3915
Cart, 3-shelf, stock type	Lakeside Mfg.	444	None	100	JSC3919
Cart, 3-shelf, stock type	Unknown	None	None	100	JSC3868
Cart, 3-shelf, wire	Metro	None	None	100	JSC3599
Cart, 4-shelf, steel, small	Unknown	None	None	100	JSC3591
Cart, 4-shelf, stock type	Research Equip. Co.	R15016	0234	100	JSC3820

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart, 4-wheel	Little Giant	None	None	110	JSC3361
Cart, 5-shelf	Global	None	None	210	JSC3916
Cart, 5-shelf	Global	None	None	210	JSC3918
Cart, carrying	Tri Cart	800	None	110	PA2472
Cart, carrying	Tri Cart	800	None	110	PA2473
Cart, carrying	Tri Cart	800	None	110	PA2474
Cart, CRT	Rubbermaid	None	None	100	JSC3682
Cart, CRT	Rubbermaid	None	None	100	JSC3685
Cart, CRT	Rubbermaid	None	None	100	JSC3686
Cart, CRT	Rubbermaid	None	None	100	JSC3687
Cart, CRT	Rubbermaid	None	None	100	JSC3688
Cart, CRT	Rubbermaid	None	None	100	JSC3689
Cart, CRT	Rubbermaid	None	None	100	JSC3690
Cart, CRT	Rubbermaid	None	None	100	JSC3691
Cart, CRT	Rubbermaid	None	None	100	JSC3693
Cart, CRT	Rubbermaid	None	None	100	JSC3724
Cart, CRT	Rubbermaid	None	None	100	JSC3725
Cart, CRT	Rubbermaid	None	None	100	JSC3727
Cart, CRT	Rubbermaid	None	None	100	JSC3729
Cart, CRT	Rubbermaid	None	None	100	JSC3763
Cart, CRT	Rubbermaid	None	None	100	JSC3767
Cart, CRT	Rubbermaid	None	None	100	JSC3779
Cart, CRT	Rubbermaid	None	None	100	JSC4085
Cart, CRT	Rubbermaid	None	None	100	JSC4830
Cart, CRT	Unknown	None	None	100	JSC3009
Cart, CRT	Unknown	None	None	100	JSC3010
Cart, cylinder	Harper	None	None	154.97	JSC3022
Cart, cylinder	Harper	None	None	154.97	JSC3169
Cart, Delivery, Chrome	Unknown	None	None	366	JSC3213
Cart, furniture, 4-wheel	Unknown	None	None	48.95	PA1414
Cart, hand, flat, metal, 4-wheel	Unknown	None	None	100	JSC3594
Cart, hand, flat, metal, 4-wheel	Unknown	None	None	100	JSC3595
Cart, light	Unknown	None	None	100	JSC4317
Cart, light	Unknown	3Z8078	None	284	PA1193
Cart, light, quartz, 2-lamp	Unknown	None	None	200	PA1552
Cart, mail, 2-shelf	Bonus Built Co	None	None	125	JSC3035
Cart, mail, 2-shelf	Unknown	None	None	125	JSC3792

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart, mail, 2-shelf	Unknown	None	None	125	JSC3867
Cart, mail, 2-shelf	Unknown	None	None	125	JSC3906
Cart, mail, 3-shelf	3M	None	None	140	JSC3790
Cart, mail, 3-shelf	Cannon	FFDLZ850636420	None	140	JSC3211
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3310
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3311
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3624
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3629
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3804
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3805
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3806
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3807
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3808
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3809
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3810
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3811
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3812
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3813
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3814
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3815
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3816
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3817
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3818
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3819
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3821
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3822
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3823
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3824
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3825
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3826
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3926
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3927
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3928
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3929
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3930
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3931
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3932

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3933
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC3934
Cart, mail, 3-shelf	Cannon Equipment	FFAL285-0636-420	None	140	JSC4421
Cart, mail, 3-shelf	Unknown	None	None	140	JSC3259
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3002
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3238
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3239
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3240
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3251
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3261
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3262
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3285
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3287
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3288
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3289
Cart, medium-duty, 4-wheel, delivery-type	Unknown	None	None	195	JSC3291
Cart, outdoor, large, 4-wheel	Hawthorne	None	None	200	JSC3908
Cart, outdoor, large, 4-wheel	Hawthorne	None	None	200	JSC3909
Cart, platform, 4 wheel	Unknown	None	None	112.5	JSC3847
Cart, platform, 6 wheel	Unknown	None	None	112.5	JSC3841
Cart, shelf	Unknown	None	None	150	JSC3008
Cart, utility, 2-shelf	Unknown	None	None	200	PA7134
Cart, utility, 2-shelf	Unknown	3Z8078	None	284	PA1382
Cart, utility, steel, 2-shelf	Rubbermaid	4520	None	120	JSC5154
Cart, utility, steel, 2-shelf	Rubbermaid	4520	None	120	JSC4154
Cart, utility, steel, 2-shelf	Rubbermaid	4520	None	120	JSC4155
Cart, utility, steel, 2-shelf	Unknown	4520	None	120	JSC3720
Cart, utility, steel, 2-shelf	Unknown	4520	None	120	JSC3723
Cart, utility, steel, 2-shelf	Unknown	4520	None	120	JSC4107
Cart, utility, steel, 2-shelf	Unknown	4520	None	120	JSC5159
Cart, w/handle, 4 wheel (Large)	Unknown	None	None	110	JSC3258
Cart, w/handle, 4 wheel (Small)	Unknown	None	None	110	JSC3257
Cart, w/handle, 4 wheel (Small)	Unknown	None	None	110	JSC3260
Cart, welding	Unknown	4520	None	120	JSC5160
Cart, welding	Unknown	None	None	200	JSC4338
Cart/dolly, equipment	Unknown	None	None	100	JSC4605
Cart/dolly, equipment	Unknown	None	None	100	JSC4606

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart/dolly, equipment	Unknown	None	None	100	JSC4607
Cart/dolly, equipment	Unknown	None	None	100	JSC4608
Cart/dolly, equipment	Unknown	None	None	100	JSC4609
Cart/dolly, equipment	Unknown	None	None	100	JSC4610
Cart/dolly, equipment	Unknown	None	None	100	JSC4611
Cart/dolly, equipment	Unknown	None	None	100	JSC4612
Cart/dolly, equipment	Unknown	None	None	100	JSC4613
Cart/dolly, equipment	Unknown	None	None	100	JSC4614
Cart/dolly, equipment	Unknown	None	None	100	JSC4615
Cart/dolly, equipment	Unknown	None	None	100	JSC4616
Cart/dolly, equipment	Unknown	None	None	100	JSC4617
Cart/dolly, equipment	Unknown	None	None	100	JSC4618
Cart/dolly, equipment	Unknown	None	None	100	JSC4619
Cart/dolly, equipment	Unknown	None	None	100	JSC4620
Cart/dolly, equipment	Unknown	None	None	100	JSC4621
Cart/dolly, equipment	Unknown	None	None	100	JSC4622
Cart/dolly, equipment	Unknown	None	None	100	JSC4623
Cart/dolly, equipment	Unknown	None	None	100	JSC4624
Cart/dolly, equipment	Unknown	None	None	100	JSC4625
Cart/dolly, equipment	Unknown	None	None	100	JSC4830
Cart/dolly, equipment	Unknown	None	None	100	JSC4831
Cart/dolly, equipment	Unknown	None	None	100	JSC4832
Cart/dolly, equipment	Unknown	None	None	100	JSC4835
Cart/dolly, equipment	Unknown	None	None	100	JSC4836
Cart/dolly, equipment	Unknown	None	None	100	JSC4840
Cart/dolly, equipment	Unknown	None	None	100	JSC4841
Cart/dolly, equipment	Unknown	None	None	100	JSC4843
Cart/dolly, equipment	Unknown	None	None	100	JSC4845
Cart/dolly, equipment	Unknown	None	None	100	JSC4847
Cart/dolly, equipment	Unknown	None	None	100	JSC4848
Cart/dolly, equipment	Unknown	None	None	100	JSC4849
Cart/dolly, equipment	Unknown	None	None	100	JSC4850
Cart/dolly, equipment	Unknown	None	None	100	JSC4851
Cart/dolly, equipment	Unknown	None	None	100	JSC4854
Cart/dolly, equipment	Unknown	None	None	100	JSC4855
Cart/dolly, equipment	Unknown	None	None	100	JSC4856
Cart/dolly, equipment	Unknown	None	None	100	JSC4857

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cart/dolly, equipment	Unknown	None	None	100	JSC4858
Cart/dolly, equipment	Unknown	None	None	100	JSC4859
Cart/dolly, equipment	Unknown	None	None	100	JSC4863
Cart/dolly, equipment	Unknown	None	None	100	JSC4864
Cart/dolly, equipment	Unknown	None	None	100	JSC4865
Cart/dolly, equipment	Unknown	None	None	100	JSC4866
Cart/dolly, equipment	Unknown	None	None	100	JSC4867
Cart/dolly, equipment	Unknown	None	None	100	JSC4870
Cart/dolly, equipment	Unknown	None	None	100	JSC4872
Cart/dolly, equipment	Unknown	None	None	100	JSC4873
Case (for dead weight tester)	Ametek	T-50	91098	130	PA1547
Case, circuit, BRD	Jensen Tools, Inc.	None	None	159	PA7187
Case, circuit, BRD	Jensen Tools, Inc.	None	None	159	PA7188
Chain fall, 1/2-ton	Columbus McKinnon	622	None	138	PA2315
Chain, measuring	Unknown	None	None	20	NASA 5585
Chainsaw	Poulan	375	None	170	JSC4002
Chainsaw	Poulan	375	None	170	JSC4003
Chainsaw	Stihl	9	234416019	175	JSC4046
Chainsaw	Unknown	None	None	200	JSC4339
Chainsaw, 16"	Unknown	PRO MAC 165	None	184.75	JSC4484
Chainsaw, 24"	McCulloch	None	None	395	JSC4485
Charger base, single station	Poulan	2000	A2654137	175	PA6970
Charger, battery	Unknown	98038	454594	65	PA1509
Charger, battery	Unknown	92038	454588	65	PA1510
Charger, battery	Unknown	48590160	589-408688	80	PA1191
Charger, battery	Univolt	97014	None	100	JSC4261
Charger, battery	DeWalt	2452	962351	155.5	JSC4262
Charger, battery	Intermec	40Z	None	190	JSC3793
Charger, battery	Intermec	40Z	None	190	JSC3831
Charger, battery	Intermec	40Z	None	190	JSC3875
Charger, battery	Intermec	40Z	None	190	JSC3876
Charger, battery	Load Ranger	None	None	191	JSC4503
Charger, battery	Load Ranger	None	None	191	JSC4543
Charger, battery	Unknown	6002	600220142	342	JSC3388
Charger, battery	Barrett	ASR-B18-450	30-311V5049	682	JSC3206
Charger, battery	Ferro Mac	Multi-12/24/36-48DCV	F10653	682	JSC3207
Charger, battery	Remak Industries	RK3949-18-24481D5	R-087	682	JSC3208

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Charger, battery, 12-volt	Hobart	75A1-6M36	489CS11587	175	JSC4322
Charger, battery, 12-volt	Interacter	1	33925	175	JSC3632
Charger, battery, 12-volt	Dayton	3Z633D	G031901	262	PA2680
Charger, battery, 36-volt	Hobart	725-C3-12	390CS06973	656.5	JSC4410
Charger, battery, 36-volt	Hobart	725-B1-12	285CS17252	656.5	JSC4411
Charger, battery, 36-volt	Hobart	450-BI-18	485CS21829	656.5	JSC4451
Charger, battery, 4-pack	Transmation	1004	863217	525	PA1029
Charger, battery, heavy-duty	Unknown	3Z633	C40797	200	JSC3960
Chest, 7-Drawer	Unknown	TAB	None	300	JSC4407
Chest, explosive, movable	Unknown	None	None	800	JSC3789
Chipper	Unknown	None	None	175	
Chipping, hammer, pneumatic	Ingersoll-Rand	None	ME-15210	18.75	PA2309
Cleaner, ultrasonic	Branson	B52H	None	800	PA1420
Cleaner, vacuum	Sanyo	SC2	22906487	200	FD1
Cleaner, vacuum, HD	Tornado	None	None	200	JSC3925
Cleaning system, ultrasonic, "Quantrex"	L & R	Q280H	97339-301160	250	JSC3132
Cleatfolder	Black & Decker	97015	None	175	JSC4336
Come-along	Mini-Might	None		100	PA8091
Come-along	Jet	Y-150	8181	241	PA8091
Come-along, chain, 1-1/2 ton	Coffing	MA 30	MA.3.713.RE	130.7	JSC4470
Come-along, chain, 1-1/2 ton	Coffing	MA 30	MA.3.690.RE	198	JSC4542
Come-along, chain, 1-1/2 ton	Coffing	MA 30	MA.3.679.RE	198	JSC4601
Come-along, chain, 1-1/2 ton	Columbus McKinnon	None	BB8158LU	198	JSC4471
Come-along, chain, 1-1/2 ton	Columbus McKinnon	series 637	C2LA	198	JSC4477
Come-along, chain, 1-1/2 ton	Columbus McKinnon	B	5701	198	JSC4602
Come-along, chain, 1-1/2 ton	Columbus McKinnon	None	BB990M8	198	JSC4603
Comparator, logic	Bugtrap	2000C	81193	399	PA1647
Comparator, logic	Bugtrap	2074-A	81187	425	JSC3432
Comparator, logic	Bugtrap	2074-A	A2676	425	PA7078
Compass set	Dietzgen	None	None	15	NASA 2852
Compass, surveyor's	Kueffel-Esser	800000	None	65	PA6213
Compressor, 1-1/2 HP	Dayton	3Z972-1	052186L-007112	498.75	JSC4424
Compressor, 2-HP	Dayton	3Z419J	63093L-761132	400	PA1931
Compressor, air	ITT Pneumatic	LCTGH	180205	200	PA6642
Compressor, air	Unknown	6K6520	C63YZFPN-4210	200	JSC3247
Compressor, Air, 1-1/2 HP	Dayton	3Z972A1	102187L-055247	498.75	JSC4441
Compressor, air, portable, 7.5 gal	Unknown	1836	707	225	JSC4110

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Computer, lap top, "Satellite"	Toshiba	PA-1176U-M6A	3525588	2000	JSC3575
Control, gage, thermocouple	Kinney	KTG-3	2924	200	JSC4713
Controller	Intermec	9512	None	500	JSC3885
Controller	Intermec	9570	9570-0020556	800	JSC3835
Controller, voltage	Co	2603	522386	200	JSC3433
Cooker, tar	Speedaire	5Z032C	L122194-01334	239	PA2332
Cooler, stainless steel, 5-gallon	Unknown	None	None	200	JSC4397
Cooler, stainless steel, 5-gallon	Reeves	None	None	1200	JSC4247
Cooler, water	Oasis	EBA11D	8534180120	354	JSC4986
Cooler, water	Oasis	EBA11D	8534179900	354	JSC4987
Cooler, water	Oasis	EBA11D	9025	354	JSC3917
Cooler, water	Oasis	EBA11D	None	354	JSC5250
Cooler, water	Oasis	EBA11D	None	354	JSC3842
Cooler, water	Oasis	EBA11D	None	354	
Cooler, water	Unknown	None	None	354	JSC3877
Counter, universal electric	Simpson Elec.	7026	5565	415	PA6474
Cover, full face, w/ breathing hose	Unknown	None	None	200	JSC4398
Cover, full face, w/ breathing hose	Unknown	None	None	247	JSC4203
Cover, full face, w/ breathing hose	Unknown	None	None	247	JSC4204
Cover, full face, w/ breathing hose	Unknown	None	None	247	JSC4205
Cover, full face, w/ breathing hose	Unknown	None	None	247	JSC4206
Cover, full face, w/ breathing hose	Unknown	None	None	247	JSC4207
Crack repair system, cast metal	Ironstitch	IS-0300	None	2879	PA1920
Crane, floor	Unknown	None	None	247	JSC4208
Crimp head, hydraulic	Thomas & Betts	13642M	None	487	PA7600
Crimper	Thomas & Betts	WT145A	None	177	FD3001
Crimper	Thomas & Betts	WT145A	None	177	FD3002
Crimper	Thomas & Betts	WT145A	None	177	FD3003
Crimper	Thomas & Betts	WT145A	None	177	FD3004
Crimper, 24 gauge	Hydro crane	101	None	575	PA1093
Crimper, sheet metal	Unknown	581	10/91	519	PA1612
Crossbar, controller	Intermec	9154A01	96071100954	950	JSC3834
Crossbar, controller	Intermec	9154	92071101953	950	JSC3882
Current tracer kit	Amprobe	T-10	None	200	JSC3384
Cutter, bolt, 4'	HKP	None	None	129	JSC3636
Cutter, bolt, 4'	HKP	None	None	129	JSC3637
Cutter, cable, ratchet	Greenlee	None	None	174	JSC3638

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Cutter, cable, ratchet	Porter	None	None	174	JSC3324
Cutter, cable, ratchet, medium	Greenlee	764	None	174	JSC3639
Cutter, cable, ratchet, medium	Greenlee	764	None	174	JSC3640
Cutter, cable, ratchet, small	Klein Tool	None	None	263.5	JSC3642
Cutter, cable, ratchet, small	Klein Tool	None	None	263.5	JSC3643
Cutter, cable, ratchet, small	Klein Tool	None	None	263.5	JSC3644
Cutter, cable, ratchet, small	Klein Tool	None	None	263.5	JSC3693
Cutter, ductile pipe	Unknown	None	None	125	JSC4604
Cutter, roof	Unknown	0601B	5165	40	JSC4109
Cutter, roof	Reeves Roofing	None	None	875	JSC5168
Cutter, tile	Reeves Roofing	1069	PC18188	875	PA1163
Cutting Deck, 72"	Toro	30201	None	2000	Installed
Cycle-Pac	Therma Flo	2090	9317913	580	PA2645
Decade Box Resistance	Gen'l. Resistance	1433-W	8084	360	PA5293
Decade Box Resistance	Gen'l. Resistance	1433-W	18067	360	PA5294
Degreaser bin	Tool	PL-50	17201	798	PA1100
Desolder iron	OK Industries	SA-5-115	None	100	PA6983
Desoldering Station, Vac Kit	Plato Products Inc	V-581	None	593	PA1597
Desoldering Unit	Ungar	4024	None	486	PA1070
Detecter, leak, halogen	Mars Co	H10B	None	229	PA1643
Detection system, leak, HVAC	Spectroline	BIB-150B	None	299	PA1741
Detector, leak	J.C.	RLD-H10G	None	1960	PA2515
Detector, leak, halogen	General Electric	H-10	None	200	PA7604
Detector, leak, halogen	TIF Instruments	5650A	None	200	JSC3133
Detector, leak, halogen	TIF Instruments	5650A	None	200	JSC3134
Detector, leak, halogen	General Electric	H-10B	None	295	PA1359
Detector, leak, halogen, automatic	TIF Instruments	5650	None	131	PA1708
Detector, leak, halogen, automatic	TIF Instruments	5650	None	143	PA1792
Detector, metal	Fisher	M-95	22337	606	JSC3646
Detector, metal	Fisher	FX-3	13035	616	JSC3645
Detector, standard leak, helium	Bell & Howell	25643	144GO	200	JSC3434
Detector, standard leak, helium	DuPont	P/N 25643	199G5	200	JSC4736
Dial indicator, 9 pc	Starrett	645	None	100	JSC3198
Die set, knockout	Greenlee	737	None	230	JSC3662
Die set, knockout	Greenlee	735	None	235	JSC3664
Die set, knockout, pneumatic	Greenlee	767	None	200	JSC3666
Dispenser, band	Unknown	H	681	18	PA1928

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Dispenser, band	Unknown	400	None	74	PA2037
Divider, proportional	Alvin	None	None	122	NASA 9493
Dock, comm	Intermec	40D	None	120	JSC3794
Dock, comm	Intermec	40D	None	120	JSC3832
Dock, comm	Intermec	40D	95051500333	120	JSC3833
Dock, comm	Intermec	40D	None	120	JSC3883
Dock, comm	Intermec	40D	None	120	JSC3884
Dolly, 2-wheel	Dayton	None	None	100	JSC4636
Dolly, 2-wheel	Dayton	None	None	100	JSC4652
Dolly, 2-wheel	Unknown	None	None	100	JSC5157
Dolly, 2-wheel	Unknown	None	None	100	JSC5158
Dolly, 4-wheel	Unknown	None	None	100	JSC3235
Dolly, 4-wheel	Unknown	None	None	100	JSC3237
Dolly, 4-wheel, flat, furniture, 2' x 4'	Unknown	None	None	100	JSC3869
Dolly, aluminum, panel	Fabricated	None	None	100	JSC3756
Dolly, appliance	Unknown	None	None	199	JSC3000
Dolly, appliance	Unknown	None	None	199	JSC3217
Dolly, appliance	Unknown	None	None	199	JSC3231
Dolly, appliance	Unknown	None	None	199	JSC3286
Dolly, barrel	Wesco	None	None	130	JSC3197
Dolly, barrel	Wesco	None	None	130	JSC3200
Dolly, cylinder	Unknown	400	None	74	PA2038
Dolly, cylinder	Anthony	None	None	115	JSC3199
Dolly, cylinder	Anthony	None	None	115	JSC4668
Dolly, cylinder	Harper	None	None	115	JSC3182
Dolly, cylinder	Harper Truck Co.	None	None	115	JSC3888
Dolly, cylinder	Harper Truck Co.	None	None	115	JSC3889
Dolly, cylinder	Husky	None	None	115	JSC3024
Dolly, cylinder	Unknown	None	None	115	JSC3461
Dolly, cylinder	Unknown	None	None	115	JSC3713
Dolly, cylinder	Unknown	None	None	115	JSC3973
Dolly, cylinder	Unknown	None	None	130	JSC3215
Dolly, Dewer	Harper Truck Co.	None	None	175	JSC3890
Dolly, Dewer	Harper Truck Co.	None	None	175	JSC3891
Dolly, Dewer	Unknown	None	None	175	JSC3236
Dolly, drum	Unknown	None	None	130	JSC3020
Dolly, drum	Unknown	None	None	130	JSC3405

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Dolly, drum	Unknown	None	None	130	JSC3232
Dolly, drum	Unknown	None	None	130	JSC3233
Dolly, drum	Unknown	None	None	130	JSC3234
Dolly, drum	Unknown	None	None	130	JSC3892
Dolly, drum	Wesco	None	None	130	JSC3023
Dolly, drum	Wesco	None	None	130	JSC3168
Dolly, drum	Wesco	None	None	130	JSC3180
Dolly, drum	Wesco	None	None	130	
Dolly, floor, 4-wheeled, small	Unknown	None	None	100	JSC4646
Dolly, furniture	Unknown	None	None	150	JSC3603
Dolly, furniture	Unknown	None	None	150	JSC3609
Dolly, large, 2-wheel	Unknown	None	None	100	JSC3004
Dolly, panel	Unknown	None	None	125	JSC3714
Dolly, panel	Unknown	None	None	125	JSC3768
Dolly, panel	Unknown	None	None	273.25	JSC3218
Dolly, panel	Unknown	None	None	273.25	JSC3224
Dolly, panel	Unknown	None	None	273.25	JSC3225
Dolly, panel	Unknown	None	None	273.25	JSC3226
Dolly, panel, 36" x 24"	White	None	None	200	JSC4459
Dolly, panel, 36" x 24"	White	None	None	200	JSC4463
Dolly, panel, 48" x 30"	White	None	None	275	JSC4406
Dolly, panel, 48" x 30"	White	None	None	275	JSC4417
Dolly, panel, 48" x 30"	White	None	None	275	JSC4422
Dolly, panel, 48" x 30"	White	None	None	275	JSC4427
Dolly, panel, 48" x 30"	White	None	None	275	JSC4431
Dolly, panel, 48" x 30"	White	None	None	275	JSC4433
Dolly, panel, 48" x 30"	White	None	None	275	JSC4442
Dolly, panel, 48" x 30"	White	None	None	275	JSC4445
Dolly, panel, 48" x 30"	White	None	None	275	JSC4447
Dolly, panel, 48" x 30"	White	None	None	275	JSC4461
Drill	Black & Decker	None	None	134	JSC3937
Drill	Black & Decker	None	None	134	JSC3938
Drill	Rockwell Int'l.	None	None	134	JSC3936
Drill	Hilti	TE-74	None	897	PA2091
Drill motor, 1/2"	Bosch	None	600112934	100	JSC4348
Drill motor, 3/8", reversing	Milwaukee	375	611-52764	125	PA1263
Drill Motor, 5/8"	Unknown	None	None	115	PA1992

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Drill motor, cordless, 1/2"	DeWalt	DW991	39932	129	PA2688
Drill press	Dayton	3Z235	1471	226	PA6201
Drill press	Sioux Tools	1560-R	LUMF	299	PA1259
Drill press	DAKE	25H	151065	350	JSC3939
Drill press	Unknown	20-400	1354157	350	JSC3940
Drill press	Dremel	210	None	350	JSC3435
Drill press	Delta	17600	1407142	363	PA6021
Drill press	Delta	17600	1407142	363	PA6021
Drill press	Delta	17600	1407142	363	PA6021
Drill press	Delta	17600	1329804	363	JSC4260
Drill press	Wilton Co	27958	12383	695	PA1108
Drill press , table	Delta	None	None	350	JSC3140
Drill press, 1/4"	Dayton	5Z146A	None	238	PA1714
Drill press, 1/4"	High Speed Hammer Co	None	None	425	PA6034
Drill press, magnetic	Unknown	L-2RP	JC11535	350	JSC3463
Drill press, radial	Rockwell Int'l.	15-120	1325539	929	PA1091
Drill, 1/2"	Rockwell Int'l.	516G4	29438	38	PA6199
Drill, 1/2"	Skil	6650	DJ465874	78	PA1805
Drill, 1/2"	Skil	6650	DJ465816	78	PA1810
Drill, 1/2"	Milwaukee	239-1	75613873	126	FD136
Drill, 1/2"	Milwaukee	239-1	75613874	126	FD137
Drill, 1/2"	Milwaukee	0238-1	723B494340114	150	FD143
Drill, 1/2"	Milwaukee	0238-1	723B494340095	150	FD145
Drill, 1/2"	Milwaukee	0238-1	723B494340091	153	FD144
Drill, 1/2"	Milwaukee	239-1	756B494200152	156	FD140
Drill, 1/2"	Rockwell Int'l.	768	42890	175	JSC3183
Drill, 1/2"	Milwaukee	1101-1	49116106	181	FD119
Drill, 1/2"	Milwaukee	1101-1	491121399	181	FD128
Drill, 1/2"	Unknown	20-A00	1353340	350	JSC3743
Drill, 1/4"	Unknown	S114-G	288-2764	75	JSC3301
Drill, 3/4"	Milwaukee	1854-1	31796	418	FD351
Drill, 3/8"	Unknown	315-10410	52135	33	PA7029
Drill, 3/8"	Black & Decker	1180-95	14381	65	PA1966
Drill, 3/8"	Milwaukee	222-1	4301122068	75	FD114
Drill, 3/8"	Skil	6650	DJ-890990	78	PA2025
Drill, 3/8"	Black & Decker	None	10699	98	FD111
Drill, 3/8"	Milwaukee	0394-1	765-108-419	100	PA1817

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Drill, 3/8"	Milwaukee	228-1	68941603	100	FD148
Drill, 3/8"	Milwaukee	0228-12	689287723	102	PA1392
Drill, 3/8"	Milwaukee	222-1	4301119107	127	FD110
Drill, 3/8"	Milwaukee	222-1	4301122108	127	FD149
Drill, 3/8"	Milwaukee	222-1	None	129	FD109
Drill, 3/8"	Milwaukee	222-1	430838689	129	FD125
Drill, 3/8"	Milwaukee	222-1	43052329	129	FD130
Drill, 3/8"	Milwaukee	222-1	None	129	FD131
Drill, 3/8"	Milwaukee	222-1	None	129	FD145
Drill, 3/8"	Milwaukee	222-1	None	129	FD146
Drill, 3/8"	Milwaukee	0228-1	689A494260379	135	FD153
Drill, 3/8"	Milwaukee	0228-1	689A94260423	135	FD154
Drill, 3/8"	Milwaukee	0288-1	689A494260378	135	FD156
Drill, 3/8"	Milwaukee	0228-1	689A494260418	135	FD157
Drill, 3/8"	Milwaukee	0228-1	689A494260381	135	FD158
Drill, 3/8"	Milwaukee	0228-1	689A494260368	135	FD159
Drill, 3/8"	Milwaukee	0228-1	689A494260370	135	FD160
Drill, 3/8"	Milwaukee	224-1	0574174555	139	FD141
Drill, 3/8"	Black & Decker	1317	4739	175	PA1265
Drill, 3/8"	Milwaukee	228-1	0689297142	179	FD129
Drill, 3/8"	Porter Cable	621HD	None	210	FD106
Drill, 3/8"	Porter Cable	None	None	210	FD113
Drill, 3/8"	Porter Cable	621HD	105602	210	FD132
Drill, 3/8"	Porter Cable	None	None	210	FD140
Drill, 3/8"	Milwaukee	0222-1	4301107351	225	FD108
Drill, 3/8" drive	Skil	6635	DK054505	52	PA2226
Drill, 3/8" drive	Black & Decker	1180-95	None	53	PA1975
Drill, 3/8" drive	Black & Decker	7190	None	80	FD332
Drill, 3/8" drive	Milwaukee	0228-12	689227256	102	PA1390
Drill, 3/8", 12-volt	Milwaukee	0398-1	784B494332992	225	PA2113
Drill, air	Skil	6635	DK054522	82	PA2026
Drill, angle, 1/2"	Black & Decker	1350-09	36150	95	FD333
Drill, angle, 1/2"	Ardtrol Electronics	None	None	225	JSC4210
Drill, angle, 1/2"	Milwaukee	1001-1	0491256404	245	FD331
Drill, angle, 1/4"	Milwaukee	1101-1	493A394490248	243	PA2232
Drill, angle, 3/8"	Milwaukee	181	3936794	90	FD143
Drill, angle, 3/8"	Makita	DA3000R	582A496400680	198	FD147

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Drill, angle, 90-degree, 1/4"	Unknown	0375-1	611A995181058	110	PA1775
Drill, cordless	Black & Decker	2874	3422	100	PA2068
Drill, cordless	Bosch	3001VSR	None	156	FD021
Drill, cordless	Bosch	3054VSR	06019209-5	156	FD35
Drill, cordless	Black & Decker	2642	None	253	PA1853
Drill, cordless	Makita	3611D	508022E	300	FD29
Drill, cordless, 1/2"	Unknown	1065	None	64	PA1446
Drill, cordless, 1/2"	Makita	6311D	018724E	250	JSC4412
Drill, cordless, 1/2"	Makita	6311D	None	250	JSC4450
Drill, cordless, 1/2", VSR	DeWalt	DW996	162351	239	JSC4413
Drill, cordless, 12-volt, 3/8"	Porter Cable	852	30845	169	PA2043
Drill, cordless, 3/8"	Skil	2735	DJ-659371	142	PA1846
Drill, cordless, 3/8"	Skil	2735	60955	142	PA1845
Drill, cordless, 3/8"	DeWalt	DW991	238049	219	PA2574
Drill, cordless, 3/8"	DeWalt	DW991	None	219	PA2547
Drill, cordless, 3/8"	DeWalt	DW991	39938	219	PA2685
Drill, cordless, 3/8"	DeWalt	DW991	39930	219	PA2686
Drill, cordless, 3/8"	DeWalt	DW996	84744	239	PA2576
Drill, cordless, 3/8"	DeWalt	DW994	14564	286	PA2622
Drill, cordless, 3/8" drive	DeWalt	DW991	95614	219	JSC4349
Drill, cordless, VSR, 3/8"	DeWalt	DW991	92933	208	PA2451
Drill, core	Hilti	DD250E	0000344	968	FD001
Drill, core	Milwaukee	4130	None	968	FD002
Drill, electric, 1/2"	Skil	6746	None	175	PA1299
Drill, electric, 1/2"	Black & Decker	2872	24729	225	JSC4323
Drill, electric, 3/8"	Black & Decker	None	None	100	PA7077
Drill, electric, 3/8"	Ryobi	756	35781	100	PA5182
Drill, Electric, Portable	Unknown	825	16L	75	JSC3303
Drill, impact, 1/4"	Makita	6911D	002633E	400	JSC4418
Drill, impact, 1/4"	Makita	6911D	002634E	400	JSC4426
Drill, magnetic, w/ base	Unknown	1551	80290097	500	JSC3963
Drill, magnetic, with base	Milwaukee	4297-1	505420520	900	FD340
Drill, magnetic, with base	Milwaukee	4297-1	60527427	900	FD342
Drill, pneumatic, tube expander	Airetool	1000	2434	780	PA1010
Drill, right angle, 1/2"	Milwaukee	234-1	5321616232	150	PA2399
Drill, right angle, 1/2"	Milwaukee	234-1	321616254	150	PA2402
Drill, right angle, 1/2"	Milwaukee	234-1	5321616239	150	PA2396

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Drill, right angle, 1/2"	Milwaukee	234-1	5321616253	150	PA2398
Drill, right angle, 1/2" drive	DeWalt	None	41461	100	PA2452
Drill, victraulic	Milwaukee	None	None	100	FD101
Driver set, knockout	Greenlee	7306	None	250	JSC3678
Driver set, knockout punch, hydraulic	Greenlee	767	None	270	PA1880
Drum grab	Wesco	None	13600	426	JSC3209
Drum grab	Wesco	None	15265	426	JSC3210
Drum, cable	Spartan	100	None	125	JSC4639
Drum, cable	Spartan	100	None	125	PA1941
Drum, cable	Spartan	100	None	125	PA1942
Drum, with casters	Unknown	None	None	125	JSC3279
Dynamometer	Dillon & Company	Type 10	AP 19740	515	PA1202
Edger	Briggs & Stratton	760-G	None	425	#29
Edger	Goodall	760-G	None	425	#102
Edger	Goodall	760-G	None	425	#103
Edger	Goodall	760-G	None	425	#119
Edger, rebuilt, Briggs & Stratton engine	Bunton	None	K14985	400	#44
Edger, rebuilt, Briggs & Stratton engine	Unknown	None	None	400	#54
Edger, rebuilt, Honda engine	Unknown	None	884289	400	#58
Edger, sheet metal	Milwaukee	CGJF	5321616237	150	PA2400
Edger, walk-behind	John Deere	E-35	M00E35X628541	471	#121
Edger, walk-behind	John Deere	E-35X	M00E35X628544	471	#122
Edger, walk-behind	John Deere	E-35	M00E35X626009	471	#54
Edger, walk-behind	John Deere	E-35	M00E35X625725	471	#56
Edger, walk-behind	John Deere	E-35	M00E35X626007	471	#57
Edger, walk-behind	John Deere	E-35	M00E35X625721	471	#58
Edger, walk-behind	John Deere	E-35	TY003EB109371	471	#64
End standard, 10"	Starrett	None	None	15	JSC3087
End standard, 11"	Starrett	None	None	18	JSC3088
End standard, 12"	Starrett	None	None	18	JSC3089
End standard, 14"	Starrett	None	None	20	JSC3094
End standard, 15"	Starrett	None	None	20	JSC3090
End standard, 16"	Starrett	None	None	25	JSC3091
End standard, 17"	Starrett	None	None	25	JSC3092
End standard, 18"	Starrett	None	None	30	JSC3093
End standard, 19"	Starrett	None	None	30	JSC3095
End standard, 2"	Starrett	None	None	5	JSC3081

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
End standard, 20"	Starrett	None	None	35	JSC3096
End standard, 21"	Starrett	None	None	35	JSC3097
End standard, 22"	Starrett	None	None	40	JSC3098
End standard, 23"	Starrett	None	None	40	JSC3099
End standard, 5"	Starrett	None	None	10	JSC3082
End standard, 6"	Starrett	None	None	10	JSC3083
End standard, 7"	Starrett	None	None	12	JSC3084
End standard, 8"	Starrett	None	None	12	JSC3085
End standard, 9"	Starrett	None	None	15	JSC3086
Eraser, EPROM	Bytek	BUV-3A	5471	160	JSC3331
Eraser, EPROM	Spectroline	PE-24T	60328	160	PA7059
Eyewash station, portable, safety, 5-gallon	Speakman	NSDA-VS-01	None	250	JSC5167
Eyewash, Portable: 10 gal	Encos	Challenber VI	None	500	PA2168
Fan	Patton	I-3070	None	314	JSC3212
Fan, circulating	Unknown	None	None	108	JSC4039
Fan, circulating, 30" (installed)	Unknown	None	None	108	JSC4277
Fan, circulating, 30" (installed)	Unknown	Lisle	69	350	JSC4111
Fan, circulating, 36"	Unknown	None	None	108	JSC4278
Fan, circulator, 48"	Dayton	3C673-A	None	891	JSC4429
Fan, circulator, 48"	Dayton	3C673-A	None	891	JSC4456
Fan, circulator, 48"	Dayton	3C673-A	None	891	JSC4462
Fan, pedestal, 24"	Dayton	4M196	F94-2	270	JSC3142
Fan, pedestal, 30"	Unknown	None	None	108	JSC4258
Fan, pedestal, 30"	Air Master	None	None	220	JSC4715
Fan, pedestal, 30"	Air Master	None	None	220	JSC4716
Fan, pedestal, 30"	Dayton	4M197	L94-2	220	JSC3141
Fan, pedestal, 30"	Dayton	4M197	None	220	PA2658
Fan, pedestal, 30"	Dayton	4M197	None	220	PA2660
Fan, pedestal, 30"	Dayton	4M197	None	220	PA2661
Fan, pedestal, 30"	Dayton	AC354C	None	220	
Fan, pedestal, 30"	Frigid	None	None	220	JSC4721
Fan, pedestal, 30"	Frigid	342G	None	220	JSC3366
Fan, pedestal, 30"	Patton	MB36580	91630009125	220	JSC3124
Fan, pedestal, 30"	Patton	None	None	220	JSC3178
Fan, pedestal, 30"	Patton	None	None	220	JSC3184
Fan, pedestal, 30"	Patton	None	None	220	JSC4669
Fan, pedestal, 30"	Patton	None	None	220	JSC4670

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Fan, pedestal, 30"	Patton		None	220	JSC3365
Fan, pedestal, 30"	Patton	G-3082	84G300001656	220	JSC3799
Fan, pedestal, 30"	Patton	G-3082	84G300001640	220	JSC3797
Fan, pedestal, 30"	Patton	I-3070	9228	220	JSC3798
Fan, pedestal, 30"	Patton	G-3082	84G300001658	220	JSC3886
Fan, pedestal, 30"	Patton	G3082	None	220	JSC4448
Fan, pedestal, 30"	Patton	G3082	None	220	JSC4449
Fan, pedestal, 30"	Patton	1010 MP	6804	220	JSC4455
Fan, pedestal, 30"	Unknown	None	None	220	JSC4181
Fan, pedestal, 30"	Unknown	None	None	220	JSC4211
Fan, pedestal, 30"	Unknown	G3091	1G30005256	220	JSC4259
Fan, pedestal, 30"	Unknown	None	None	220	JSC4301
Fan, pedestal, 30"	Unknown	None	None	220	JSC4302
Fan, pedestal, 30"	Unknown	None	None	220	JSC4303
Fan, pedestal, 30"	Unknown	None	None	220	JSC4304
Fan, pedestal, 30"	Unknown	None	None	220	JSC4305
Fan, pedestal, 30"	Unknown	None	None	220	JSC4306
Fan, pedestal, 30"	Unknown	None	None	220	PA7688
Fan, pedestal, 30"	Unknown	1010MP	None	220	JSC3954
Fan, pedestal, 30"	Unknown	None	None	220	JSC4022
Fan, pedestal, 30"	Unknown	None	None	220	JSC4023
Fan, pedestal, 30"	Unknown	GC3091	94-GC3000036	220	JSC4039
Fan, pedestal, 30"	Unknown	None	None	220	JSC3278
Fan, pedestal, 30"	Unknown	1010MP	None	220	JSC3605
Fan, pedestal, 30"	Unknown	GAC30P	None	220	JSC3606
Fan, pedestal, 30"	Unknown	I3070	S09541816	220	JSC3607
File set, needle, RHN	Unknown	None	None	220	JSC4350
Filtration system, negative airflow, portable	Unknown	None	None	119	JSC4318
Fish tape, nylon, 50'	GB	None	None	100	JSC3379
Fish tape, steel, 100'	Greenlee	None	None	100	JSC3380
Fish tape, steel, 100'	Greenlee	None	None	100	JSC3381
Flare set, tubing	Gould	None	None	212	JSC3394
Flare set, tubing	Unknown	None	None	212	JSC3078
Fogger, hand-held	Dyna-Fog	DH-90B	10184	50	#63
Folda-truk	Genie	L L 4.5	2592-10590	200	JSC3911
Foot press/shear	Unknown	W456	B/03	250	JSC4720
Forklift boom, 1-ton	Unknown	None	None	500	

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Function generator	Hewlett-Packard	3310A	947-01999	597	PA1260
Function generator	Tektronix	FG501	B091757	597	JSC3327
Gage Ionization Therm	Televac	7B21 TC 2R	1600	475	PA6056
Gage set, telescoping	Unknown	S579H	None	128	PA2269
Gage, 0-1000 psi	U.S. Gauge	33010	None	50	JSC3439
Gage, 0-15 psi	U.S. Gauge	508	None	50	JSC3440
Gage, compression tester	Snap-On	MT3509	None	173	PA1512
Gage, crankshaft, distortion	Starrett	696 - B	None	158	PA6165
Gage, depth	Craftsman	None	None	171	JSC4671
Gage, depth	Craftsman	None	None	171	JSC4672
Gage, depth	Starrett	None	None	171	JSC4673
Gage, pressure	3D Instrument	None	8600044N	50	
Gage, pressure	Unknown	FA234	NN10128	736	PA5489
Gage, pressure	Wallace & Tiernan	62A125WD	YY14127	985	PA1080
Gage, pressure, 0-160 psi	Marsh	PHC	None	100	JSC5248
Gage, pressure, 0-300 psi	3D Instrument	25542-26B11	8700433N	150	JSC3043
Gage, pressure, 0-60 psi	Unknown	80544	None	50	JSC3623
Gage, pressure, flowmeter	ITT Martin	300.5	None	130	PA1538
Gage, pressure, magnihelic, differential	Dwyer Instrument	2001C AV	None	43	PA1400
Gage, pressure, magnihelic, differential	Dwyer Instrument	51031PM35	None	60	PA2530
Gage, push/pull, dial	Chatillion	DPPH100	3458	752	PA1026
Gage, refrigerant, differential	Taco Inc.	775-1	None	55	FD3000
Gage, vacuum, thermistor	Robinair	None	None	251	PA1860
Gage, vacuum, thermistor	Unknown	Mach 2B-AL	1147	875	PA1544
Gasket cutter, Spearhead-type	Unknown	None	None	132.4	JSC4629
Gauge, nitrogen/oxygen, 0-43 gal	Air Products, Inc.	SCR 38418-10-43	227-167255	150	JSC5166
Gauge, pressure	Helicoid	C30-0-60	T-683	50	JSC4955
Gauge, pressure	Perma Cal.	None	13224-04-08	50	JSC4765
Gauge, pressure	Ashcroft	Duragauge	None	50	PA5474
Gauge, pressure 0-100 psi	Ashcroft	AMC 4291	None	244	JSC4755
Gauge, pressure 0-400 psig	U.S. Gauge	None	None	114	JSC4760
Gauge, pressure, 0-1,000 psi	US Gauge	None	None	148	JSC4960
Gauge, pressure, 0-100	Company	0-100	None	100	JSC4874
Gauge, pressure, 0-10000 psi	Unknown	101NTM17B21	14875-13-01	50	JSC4956
Gauge, pressure, 0-10000 psi	U.S. Gauge	C10KPG	19032	336	JSC4710
Gauge, pressure, 0-15 psi	H.O. Trerice	None	None	50	JSC4961
Gauge, pressure, 0-200 psi	Enerpac	None	None	78	JSC4739

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Gauge, pressure, 0-200 psi	Ashcroft	Duragauge	None	202	JSC4738
Gauge, pressure, 0-200 psi	US Gauge	None	None	238	JSC5003
Gauge, pressure, 0-30 psi	Unknown	None	None	165	JSC4958
Gauge, pressure, 0-30 psi	Ashcroft	0-30	Q-8643	190	JSC3475
Gauge, pressure, 0-30 psi	Ashcroft	Duragauge	None	190	JSC4741
Gauge, pressure, 0-30 psi	Ashcroft	Duragauge	None	190	JSC4756
Gauge, pressure, 0-300 psi	Marsh Instrument	16599	None	50	JSC4751
Gauge, pressure, 0-300 psi	Acco Products	0-300	None	100	JSC4964
Gauge, pressure, 0-300 psi	H.O. Trerice	C300PG	None	238	JSC4707
Gauge, pressure, 0-300 psi	U.S. Gauge	None	None	238	JSC4745
Gauge, pressure, 0-3000 psi	Star-Martin	None	None	148	JSC4962
Gauge, pressure, 0-3000 psi	U.S. Gauge	None	29531-1	148	JSC4749
Gauge, pressure, 0-400	Ashcroft	None	Q-4901	50	JSC3473
Gauge, pressure, 0-400	Company	H211PC/A	None	50	JSC4967
Gauge, pressure, 0-500 psi	Ashcroft	1850	None	75	JSC5002
Gauge, pressure, 0-5000 psi	Unknown	None	None	175	JSC5005
Gauge, pressure, 0-600	3D Instruments	25502-24B11	860075-N	50	JSC4969
Gauge, pressure, 0-600	Company	None	None	50	JSC3472
Gauge, pressure, 0-600	Unknown	0-100	None	50	JSC5008
Gauge, pressure, 0-600	Company	0-600	None	100	JSC3476
Gauge, pressure, 0-6000 psi	Unknown	None	None	175	JSC4959
Gauge, pressure, Absolute	Wallace & Tiernan	233-300APA	JJ14275	50	JSC4702
Gauge, pressure, ammonia	U.S. Gauge	D30-0-300	None	190	JSC4701
Gauge, Pressure: 0-300 PSI	US Gauge	None	None	100	JSC5450
Gauge, vacuum	Teledyne-Hastings	VT6S2	861	50	PA8130
Generator, 2200 watt	Dayton	3W735B	2545460	400	FD2005
Generator, 2200 watt	Dayton	3W735B	3409453	400	FD2006
Grinder	Robinair	PN14010	None	260	PA1271
Grinder, 12"	Ingersoll-Rand	B12	64CA17097	200	JSC4777
Grinder, 4"	Dewalt	DW402	326211	100	JSC5472
Grinder, 4"	Unknown	12-A	6708	250	JSC4311
Grinder, 6"	Dayton	4Z672B	None	92	PA1523
Grinder, 6"	Unknown	None	None	98	JSC4717
Grinder, 6"	Black & Decker	2750G	17795	104	PA2703
Grinder, angle	Unknown	9930	64CA17074	98	JSC4312
Grinder, angle	Black & Decker	4049	18174	125	PA1770
Grinder, angle	Black & Decker	2750	627779	125	PA1704

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Grinder, angle, 2-6"	Black & Decker	6112-90	5096	195	PA8097
Grinder, angle, 4-1/2"	Black & Decker	2750	297396	95	FD501
Grinder, angle, 4-1/2"	Black & Decker	2750G	10664	104	PA2624
Grinder, angle, 4-1/2"	Black & Decker	2750G	10661	104	PA2627
Grinder, angle, 4-1/2"	Milwaukee	6145	627B494400035	104	PA2345
Grinder, angle, 4-1/2"	Snap-On	101	11564	111	PA1870
Grinder, angle, 4-1/2"	Milwaukee	6145	627-358999	137	FD515
Grinder, angle, 4-1/2"	Black & Decker	4049	4380781	154	PA6065
Grinder, angle, 4-1/2"	Black & Decker	2750	95003	260	PA2363
Grinder, angle, 9"	Milwaukee	6072	70335531	153	FD506
Grinder, angle, 9"	Milwaukee	6072	70350072	153	FD516
Grinder, angle, 9"	Milwaukee	6072	70350706	153	FD517
Grinder, angle, 9"	Milwaukee	6096	00071711682	202	FD507
Grinder, bench	Black & Decker	2750G	16257	104	PA2626
Grinder, bench	Ingersoll-Rand	None	None	140	JSC3143
Grinder, bench	Dayton	4Z1230	None	155	PA1556
Grinder, die	Dayton	12706-A	M40000-ACY	55	JSC4340
Grinder, die	Black & Decker	4292	19407	97	FD525
Grinder, die	Black & Decker	4292	17999	97	PA2089
Grinder, die	Black & Decker	4292	None	97	PA2090
Grinder, die, 1/4"	Makita	GE0600	205928E	97	PA2420
Grinder, die, 2"	Milwaukee	5102	669B495230423	178	FD531
Grinder, die, 2"	Milwaukee	5192	669A493520266	201	PA2009
Grinder, die, 2"	Milwaukee	None	669-18253	243	PA7130
Grinder, die, 6 mm	Makita	GE0600	310210	243	PA2426
Grinder, end	Black & Decker	4847	129634	144	FD510
Grinder, end	Rockwell Int'l.	760	20030	210	FD518
Grinder, Grind-Air-Rester	Makita	2A	207032E	97	PA2424
Grinder, hand	Micro	None	None	205	JSC4698
Grinder, heavy-duty, 10"	Unknown	SPL	62810	864	PA1096
Grinder, knife	Mott	WZ1T035	11051	100	JSC3943
Grinder, portable, 6"	Black & Decker	4277	2380037	180	JSC3941
Grinder, valve seat	Blue Point	VG16B	3480762	100	JSC3942
Grinder/buffer	Baldor	8100W	1266	100	JSC3717
Grinder/sander, angle, 4-1/2"	Milwaukee	6072	70335548	153	FD504
Grinder/sander, disk, 7"	Porter Cable	662	039707	135	FD526
Grinder/sander, disk, 7"	Porter Cable	662	039672	135	FD528

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Grinder/sander, disk, 7"	Porter Cable	662	039734	135	FD529
Grinder/sander, disk, 7"	Unknown	None	64A	175	JSC4112
Grinder/sander, straight, 3"	Milwaukee	5211	6763959	202	FD513
Grinder/sander, straight, 3"	Milwaukee	5211	6763957	202	FD515
Grip, power/suction cup	Woods	N-4950	211115	40	FD100
Grip, power/suction cup	Woods	N-4950	217739	40	FD101
Groover, in-place	Ridgid	914	59847	400	FD1001
Gun, airless	Porter Cable	662	36813	135	PA1964
Gun, airless	Unknown	None	None	140	JSC4212
Gun, airless	Unknown	None	None	140	JSC4213
Gun, airless	Unknown	None	None	140	JSC4214
Gun, anchor	Hilti	DX-350	628971	500	FD111
Gun, anchor	Hilti	DX-350	330134	500	FD112
Gun, anchor	Hilti	DX-36M	50436/87	625	FD102
Gun, anchor	Hilti	DX-36M	50428/87	625	FD103
Gun, anchor	Hilti	DXA41	2323940100139795	625	FD113
Gun, anchor	Hilti	DX-600	None	900	FD104
Gun, anchor	Hilti	DX-600N	140020	900	FD109
Gun, anchor	Hilti	DX-600N	146671	900	FD110
Gun, caulk, pneumatic	Wagner Industries	740	None	100	PA2577
Gun, caulk, pneumatic	Unknown	None	None	140	JSC4215
Gun, caulk, pneumatic	Wagner Industries	740	None	183	JSC4249
Gun, caulk, pneumatic	Wagner Industries	740	None	265	PA2565
Gun, dispenser, poly foam	Hilti	CB-120	None	144	FD107
Gun, dispenser, poly foam	Hilti	CB-120	None	144	FD108
Gun, grease, pneumatic	Wagner Industries	740	None	183	JSC4250
Gun, heat	Master Appliance	HG751B	None	45	FD202
Gun, heat	Master Appliance	HG751B	None	45	FD204
Gun, heat	Master Appliance	HG751B	None	45	FD206
Gun, heat	Master Appliance	HG751B	None	45	FD207
Gun, heat	Master Appliance	HG-301A	None	56	PA1815
Gun, heat	Master Appliance	HG-301A	None	56	PA1816
Gun, heat	Master Appliance	HG-301A	M1088	70	PA8151
Gun, heat	Milwaukee	8975	731-189023	117	PA2483
Gun, heat	Unknown	None	None	309	JSC4325
Gun, pop rivet	Master Appliance	HG-301A	None	90	PA2537
Gun, pop rivet	Parker	MR88	None	200	JSC3125

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Gun, pop rivet	Unmarked	None	None	200	JSC4794
Gun, pop rivet	Unmarked	None	None	200	JSC4795
Gun, screw	Milwaukee	6751-1	46846823	111	FD1010
Gun, screw	Bosch	1404VSR	3690570	160	FD1019
Gun, screw	Bosch	1404VSR	1690388	160	FD1020
Gun, screw	Bosch	1404VSR	3690546	160	FD1021
Gun, screw	Bosch	1404VSR	1690683	160	FD1022
Gun, screw	Bosch	1404VSR	1690423	160	FD1023
Gun, screw	Bosch	1404VSR	3690534	160	FD1024
Gun, screw	Hilti	TKD5000	1385877N4	160	FD1006
Gun, screw	Hilti	TKD5000	1387427N4	160	FD1007
Gun, screw	Hilti	TKD5000	1934807P4	160	FD1014
Gun, screw	Hilti	TKD5000	1934517P4	160	FD1015
Gun, screw	Hilti	TKD5000	1935467P4	160	FD1016
Gun, screw	Hilti	TKD5000	1664837P2	160	FD1018
Gun, screw	Porter Cable	659HD	35752	180	FD1001
Gun, screw	Makita	6801DBV	None	210	FD1002
Gun, screw	Makita	6801DBV	600052E	210	FD1004
Gun, screw	Makita	6801DBV	151135E	210	FD1009
Gun, screw	Makita	6801DBV	600051E	210	FD1011
Gun, screw	Makita	6801DBV	None	210	FD1012
Gun, slag (set)	Cronatron Weld.	1217	1206	95	PA2536
Gun, staple, foot pedal-operated	International Stapler	ISM	None	175	JSC3267
Gun, thermal	Raytek	Q51-439	2443800101-0015	199	PA2692
Hammer, air	Unknown	None	None	200	JSC4286
Hammer, chipping	Chicago Pneum.	CP4123P4SA	1340V369	450	FD314
Hammer, jack	Chicago Pneum.	90	1295802	950	FD302
Hammer, jack, 2"	Doran	None	None	545	PA2236
Hammer, jack, 60#	Unknown	None	None	1500	PA2237
Hammer, rotary	Hilti	TE-10	750388	266	FD217
Hammer, rotary	Hilti	TE-5	530994	339	PA2675
Hammer, rotary	Hilti	TE-10	4645722	355	FD202
Hammer, rotary	Hilti	TE-5A	201615040020427	453	PA2418
Hammer, rotary	Hilti	TE-5A	201615	453	PA2419
Hammer, rotary	Hilti	TE-17	703614	474	FD193
Hammer, rotary	Hilti	TE-17	805022B3	474	FD204
Hammer, rotary	Hilti	TE-52	13660D2	648	FD196

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Hammer, rotary	Hilti	TE-52	233103P2	648	FD198
Hammer, rotary	Hilti	TE-24	73121	660	FD218
Hammer, rotary	Hilti	TE-24	72706	660	FD219
Hammer, rotary	Hilti	TE-24	09-00163831	660	FD225
Hammer, rotary	Hilti	TE-24	11-00256244	660	FD227
Hammer, rotary	Skil	736	None	700	FD216
Hammer, rotary	Hilti	TE-22	523830	765	FD194
Hammer, rotary	Hilti	TE-22	711983	765	FD195
Hammer, rotary	Hilti	TE-22	6786213	765	FD199
Hammer, rotary	Hilti	TE-22	93262D2	765	FD203
Hammer, rotary	Hilti	TE-22	402539H3	765	FD205
Hammer, rotary	Hilti	TE-22	7833861	765	FD213
Hammer, rotary	Hilti	TE-22	523827	765	FD214
Hammer, rotary	Ingersoll-Rand	PB60AS	S0991454	836	PA2237
Hammer, rotary	Hilti	TE-74	None	897	PA2098
Hammer, rotary	Hilti	TE-72	6579378	900	FD200
Hammer, rotary	Hilti	TE-92	103444	900	FD221
Hammer, rotary, 1-1/2"	Bosch	11203	None	558	PA1153
Hammer, rotary, 3/4"	Milwaukee	5351	48856451	473	PA7208
Hammer, rotary, cordless	Hilti	TE-10A	154409	502	FD220
Hammer, rotary, cordless	Hilti	TE-10A	215460	720	FD222
Hammer, rotary, cordless	Hilti	TE-10A	215455	720	FD223
Hand truck, platform, 750#	Wesco	WPL542222	54618	536	PA1638
Harness, safety	DBI	L2010	None	132.7	JSC4790
Harness, safety	DBI	L2010	None	132.7	JSC4791
Harness, safety	DBI	L2010	None	132.7	JSC4792
Harness, safety	Hilti	TE-15	156582	372	PA2676
Harness, self-retracting	Sinco	64	None	260	PA2539
Head, installing	Thomas & Betts	13642	8107068	167	PA6515
Heater, 2-wheel	Reddy	None	None	150	JSC3144
Heater, electric, portable	Dayton	3E217A	None	567	PA1200
Heater, pipe, plaster	Unknown	None	None	365	PA1464
Heater, portable, electric	Dayton	3E217A	None	567	PA1199
Heater, portable, oil-fired	Dayton	None	None	159	JSC3415
Heater, portable, oil-fired	Koehring	3E219	DG10221	383	PA6857
Heater, portable, Salamander-type	Dayton	3E216A	None	746.5	JSC4425
Heater, PVC	Greenlee	None	None	365	JSC3371

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Heater, rod	Chrom-Aloy	HSJ	None	125	JSC3359
Heater, rod	Chrom-Aloy	HSJ	None	125	JSC3360
Heater, single burner	Unknown	None	None	75	PA6550
Heater, water, 10-gal	DBI	L2010	94109940	132.7	SH 130
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4032
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4033
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4034
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4035
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4036
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4037
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4038
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4056
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4057
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4058
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4059
Hedgetrimmers, electric	Little Wonder	D-2000	None	200	JSC4064
Hexdriver set	Proto Co	None	None	18	PA1717
Hog Head	Ridgid	141	78333	125	JSC3667
Hoist, 1-1/2 ton	Jet	L-90	8132	241	PA8092
Hoist, 1-1/2 ton	Jet	L-90	8132	241	PA8093
Hoist, 2-ton	Cyclone	646 Series	A691HR	615	PA1340
Hoist, 2-ton	Cyclone	646 Series	A664HR	615	PA1344
Hoist, 2-ton	Unknown	H4481-A	89	615	PA5387
Hoist, 5-ton	Yale	None	None	333.75	JSC4674
Hoist, cable, 3/4-ton	Lincoln Precision	1500-25	None	104	PA1802
Hoist, cable, 3/4-ton	Lincoln Precision	1500-25	None	104	PA1803
Hoist, chain, 1/2-ton	Columbus-McKinnon Co	Series 622	1D	138	PA2316
Hoist, chain, 1/2-ton	Lincoln Precision	None	None	138	JSC3375
Hoist, chain, 1-1/2 to 3-ton	TUGIT	None	None	198	JSC3370
Hoist, chain, 1-ton	Columbus McKinnon	Cyclone	SA829MA	154	JSC4473
Hoist, chain, 1-ton	Columbus McKinnon	Cyclone	SA674MD	154	JSC4474
Hoist, chain, 2-ton	Coffing	None	2.139.H.UE	238	JSC4466
Hoist, chain, 2-ton	Coffing	None	2.146.H.UE	238	JSC4467
Hoist, chain, 2-ton	Coffing	None	2.137.H.UE	238	JSC4468
Hoist, chain, 2-ton	Jet Equipment	L-90	3130	238	JSC4469
Hoist, chain, 2-ton	Jet Equipment	L-90	8139	238	JSC4544
Hoist, chain, 3/4on	Coffing Co	LSB-1500A	None	138	PA2586

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Hoist, chain, 3-ton	Columbus McKinnon	Cyclone	SA669JD	443	JSC4472
Hoist, chain, 3-ton	Columbus McKinnon	Cyclone	SA683JD	443	JSC4475
Hoist, chain, 3-ton	Yale & Towne	None	None	443	JSC4476
Hoist, grip	Vanguard	6E730	394307839	161	JSC4153
Hoist, man, 3/4" x 50'	Unknown	None	None	218.5	PA1239
Hoist, roust-about, 1-ton	DBI	L4520	None	515	PA2649
Hole-hawg	Milwaukee	1675-1	362675	125	FD322
Hone, brake/hydraulic	Unknown	None	None	150	JSC4732
Hone, brake/hydraulic	Unknown	None	None	150	JSC4733
Hone, cylinder	AMMCO	5003950	None	168	JSC3966
Hone, cylinder	AMMCO	5003950	None	168	JSC3967
Hopper, self-dumping, forklift	McCulloch Industries	None	None	500	JSC3782
Hopper, self-dumping, forklift	Unknown	None	None	500	JSC4432
Hose, fire, 2-1/2"	Unknown	None	None	176	JSC3467
Hose, fire, 2-1/2"	Unknown	None	None	176	JSC3468
Hot-hoist	Lug-All	510	None	250	JSC3322
Hot-hoist	Lug-All	510	None	250	JSC3323
Hydra Cart	CAPA	None	None	265	PA1696
Hydrometer, battery	Nomad	None	None	125	JSC3466
Hygrometer, precision	Beckman	HUMI-CHEK 4	050-10782566	425	PA6958
Impact-O-Graph	Unknown	M4	7031	800	JSC3269
Impact-O-Graph	Unknown	M4	7030	800	JSC3270
Impact-O-Graph	Unknown	M4	7858	800	JSC3271
Index, drill	Unknown	DBC229	None	173	JSC4051
Index, drill	Unknown	DBC229	None	173	JSC4052
Indicator set, dial, 5-pc	Gem	None	None	169.99	JSC4726
Indicator set, dial, 5-pc	Gem	None	None	169.99	JSC4766
Indicator set, dial, 5-pc	Starrett	None	None	169.99	JSC3029
Indicator set, dial, 8-pc	Central tools	None	None	179.99	JSC3038
Indicator, dial	Unknown	CID-AA-2348	None	91	PA1473
Indicator, dial	Unknown	None	None	91	PA1476
Indicator, dial	Unknown	None	None	91	PA1722
Indicator, hot line, "Hot stick"	Hastings Fiberglass	S208	None	170	JSC3668
Indicator, hot line, "Hot stick"	Hastings Fiberglass	HLS-5	None	545	JSC3669
Indicator, temperature	Doric	450	684106	150	PA2722
Indicator, temperature	Doric	450	2914	150	PA6872
Indicator, temperature & humidity	Vaisala	HM34	457150	495	PA1557

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Indicator, temperature & humidity	Vaisala	HM34	450566	495	PA1591
Indicator, temperature/relative humidity	Omega	RH20F	200-90-052451	269	NASA 9485
Indicator, temperature/relative humidity	Vaisalla, Inc.	HMI-31	241827	400	NASA 5083
Inflator, glove	W. H. Salisbury	G-99	None	170	PA2502
Instrument, humidity graph	Dickson	THDX	7200164	200	JSC3136
Instrument, humidity/temperature	Testo	610	None	200	JSC3135
Interface device, micro handheld	Modicon	520VPU19200	1250	300	JSC3576
Interrupter, ground fault circuit	Hubbell	GFP-15	None	484	PA2123
Interrupter, ground fault, portable	Pass/Seymour	PS 200S	None	82	PA1567
Interrupter, ground fault, portable	Pass/Seymour	PS 200S	None	82	PA1565
Interrupter, ground fault, portable	Pass/Seymour	PS 200S	None	82	PA1570
Interrupter, ground fault, portable	Pass/Seymour	PS150-S	None	82.51	PA1561
Interrupter, ground fault, portable	Unknown	None	None	94	PA1288
Interrupter, ground fault, portable	Ericson	1062	None	125	PA2583
Interrupter, ground fault, portable	Unknown	E-75387	None	125	JSC4100
Interrupter, ground fault, portable	Ericson	B-74,980	None	140	PA2619
Interrupter, ground fault, portable	Unknown	Z 200	CS2000-4768	154	JSC4355
Interrupter, ground fault, portable	Ericson	None	None	167	PA2596
Interrupter, ground fault, portable	Ericson	None	None	167	PA2599
Interrupter, ground fault, portable	Ericson	None	None	167	PA2601
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2668
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2662
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2665
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2666
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2667
Interrupter, ground fault, portable	Hubbell	GFP15	None	197	PA2671
Interrupter, ground fault, portable	Arrow/Hart	GFP20	None	225	JSC4308
Interrupter, ground fault, portable	Hubbell	None	None	225	JSC4659
Interrupter, ground fault, portable	Hubbell	GFP20	None	225	JSC3356
Interrupter, ground fault, portable	Hubbell	GFP20	None	225	JSC3357
Interrupter, ground fault, portable	Hubbell	GFP20	None	225	JSC3358
Interrupter, ground fault, portable	Hubbell	GFP4C15A	B-172539	225	JSC3633
Interrupter, ground fault, portable	Hubbell	GFP20	None	225	JSC4368
Interrupter, ground fault, portable	Pass&Seymore	PS-Port-20	None	225	PA1564
Interrupter, ground fault, portable	Unknown	None	None	225	PA2125
Iron, desolder	OK Industries	SA-5-115	None	600	PA6983
Jack Hammer, 90 lb.	Pass/Seymour	PS150-S	None	129	PA2689

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Jack, flange	Williams	FJ 20	None	320	JSC3039
Jack, flange	Williams	FJ 20	None	320	JSC3185
Jack, high lift	Vermette Machine	512	None	455	PA6480
Jack, HW, 4-ton	Unknown	YA667	None	1352	JSC4015
Jack, hydraulic	Ingersoll-Rand	None	None	110	JSC3698
Jack, hydraulic	Ingersoll-Rand	None	None	165	JSC3699
Jack, hydraulic, 100-ton	Unknown	None	None	2479	JSC4548
Jack, hydraulic, 50-ton	Unknown	None	None	1435	JSC4549
Jack, hydraulic, low lift, 10-ton (in wood box)	Arbor International	Mark II	HJA96458	394	PA1275
Jack, jumping, pneumatic	Unknown	None	None	800	JSC3715
Jack, jumping, pneumatic	Unknown	None	None	800	JSC3716
Jack, pallet	Unknown	None	126387	325	JSC3203
Jack, pallet	Unknown	None	None	325	PA7017
Jack, pallet, hydraulic	Lift Rite	L5027X36 mini	MPD3646	325	JSC3613
Jack, pallet, hydraulic, 10-ton	Unknown	PB85AL2	None	900	PA2236
Jack, pallet, manual, 5000#	LiftRite	L50	212181	325	JSC3025
Jack, roller	Unknown	None	None	200	JSC3227
Jack, roller	Unknown	None	None	200	JSC3228
Jack, roller	Unknown	None	None	200	JSC3229
Jack, roller	Unknown	None	None	200	JSC3230
Jointer/spliner, biscuit	Black & Decker	3380	09734	201.75	FD410
Kit, calibration, gas	Industrial Scientific	1810-1261	None	200	FD3002
Kit, flow test	Southwest Instrument	831	None	200	FD3001
Kit, humidity calculating	Stortz	None	None	200	JSC3147
Kit, humidity calculating	Unknown	None	None	200	JSC4662
Kit, punch, Whitney, 1/2" x 1/2"	Whitney	20-L	None	100	PA2019
Kit, tubing, shut-off, 3/4 x 1-1/4", Cu-only, incomplete	Unknown	65-I	None	40	PA1986
Knockout punch, set	Unknown	35-775	None	85	PA1693
Knockout, hydraulic	Greenlee	78065B	None	400	FD8007
Knockout, hydraulic	Greenlee	78065B	None	400	FD8008
Knockout, hydraulic	Greenlee	78065B	None	400	FD8009
Ladder, 16'	Unknown	None	None	150	JSC4025
Ladder, 16'	Unknown	None	None	150	JSC4031
Ladder, aluminum, 10'	Louisville Ladder	None	None	121.7	JSC3179
Ladder, aluminum, 12'	Louisville Ladder	None	None	303.25	JSC3165
Ladder, aluminum, 14'	Louisville Ladder	None	None	325	JSC3050
Ladder, aluminum, 6'	Louisville Ladder	None	None	111.7	JSC3027

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Ladder, aluminum, 6'	Louisville Ladder	None	None	111.7	JSC3161
Ladder, aluminum, 6'	Louisville Ladder	None	None	111.7	JSC3175
Ladder, aluminum, 6'	Unknown	None	None	111.7	JSC4661
Ladder, aluminum, 6'	Werner	T7206	None	111.7	JSC3162
Ladder, aluminum, 6'	Unknown	None	None	124.7	JSC3622
Ladder, aluminum, 8'	Unknown	None	None	125	JSC4945
Ladder, aluminum, 8'	Unknown	None	None	125	JSC4946
Ladder, aluminum, 8'	Unknown	None	None	125	JSC4947
Ladder, aluminum, 8'	Unknown	None	None	125	JSC4948
Ladder, aluminum, 8'	Unknown	None	None	125	JSC4949
Ladder, aluminum, 8'	Louisville Ladder	FS100	None	151	JSC3196
Ladder, aluminum, 8'	Unknown	None	None	151	JSC4660
Ladder, aluminum, 8'	Unknown	None	None	151	JSC3282
Ladder, aluminum, 8'	Hein	X-10	474043	593	PA1107
Ladder, extension, 12'	Warner	None	None	151	JSC4392
Ladder, extension, 12'	Unknown	None	None	341.25	JSC4248
Ladder, extension, 14'	Unknown	None	None	341.25	JSC4367
Ladder, extension, 16'	Unknown	None	None	388	JSC4342
Ladder, extension, 16'	Unknown	None	None	400	JSC4256
Ladder, extension, 18'	Unknown	7124-2	None	450	JSC3076
Ladder, extension, 20'	Unknown	None	None	400	JSC4343
Ladder, extension, 20'	Unknown	None	None	450	JSC4257
Ladder, extension, 8'	Unknown	FS1005	None	233.5	JSC3075
Ladder, extension, aluminum, 24'	Unknown	None	None	150	JSC4024
Ladder, extension, aluminum, 32'	Unknown	None	None	210	JSC4001
Ladder, extension, aluminum, 32'	Unknown	None	None	210	JSC4511
Ladder, extension, fiberglass, 20'	Green Bull	None	None	450	JSC3762
Ladder, extension, fiberglass, 20'	Louisville Ladder	None	None	450	JSC3712
Ladder, fiberglass, 10'	Green Bull	None	None	247	JSC3769
Ladder, fiberglass, 10'	Green Bull	None	None	247	JSC3775
Ladder, fiberglass, 10'	Werner	7210	None	247	JSC3765
Ladder, fiberglass, 10'	Louisville Ladder	FS1010	None	303.25	JSC3145
Ladder, fiberglass, 12'	Louisville Ladder	650675	None	303	JSC3772
Ladder, fiberglass, 12'	Green Bull	202212	None	303.25	JSC3759
Ladder, fiberglass, 12'	Louisville Ladder	None	None	303.25	JSC3711
Ladder, fiberglass, 12'	Louisville Ladder	650675	None	303.25	JSC3757
Ladder, fiberglass, 12'	Louisville Ladder	202212	None	303.25	JSC3758

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Ladder, fiberglass, 14'	Werner Mfg Co	Type 1A	None	303.25	JSC5439
Ladder, fiberglass, 6'	Louisville Ladder	FS1006	None	130	JSC3764
Ladder, fiberglass, 6'	Werner	6206	None	161	JSC3773
Ladder, fiberglass, 6'	Werner	6206	None	161	JSC3774
Ladder, fiberglass, 6'	Werner	6206	None	161	JSC3776
Ladder, fiberglass, 6'	Werner	6206	None	161	JSC4083
Ladder, fiberglass, 6'	Werner	6206	None	161	JSC4826
Ladder, fiberglass, 8'	Louisville Ladder	FS2008	None	119	JSC4829
Ladder, fiberglass, 8'	Louisville Ladder	None	None	151	JSC3710
Ladder, fiberglass, 8'	Werner	6208	None	151	JSC3766
Ladder, fiberglass, 8'	Werner	6208	None	151	JSC3771
Ladder, fiberglass, 8'	Werner	6208	None	151	JSC3780
Ladder, fiberglass, 8'	Louisville Ladder	FS1008	None	177	JSC4828
Ladder, platform safety, 12-step	Ballymore	None	None	859.75	JSC4675
Ladder, platform safety, 12-step	NSPI Corp.	None	None	859.75	JSC3924
Ladder, platform safety, 15-step	Johnson	None	None	925	JSC3171
Ladder, platform safety, 4-step	Unknown	None	None	450	JSC4366
Ladder, platform safety, 7-step	Unknown	None	None	254.25	JSC4309
Ladder, safety platform, 4-step	Unknown	None	None	197.25	JSC3610
Ladder, safety platform, 6-step	Unknown	None	M291	254.25	JSC3614
Ladder, safety platform, 6-step	Unknown	None	M1190	535.75	JSC3602
Ladder, safety, 2-step	Unknown	None	None	254.25	JSC3846
Ladder, safety, 3-step	NSPI Corp.	None	None	254.25	JSC3843
Ladder, safety, 4-step	EGA Products, Inc.	None	None	231	JSC3859
Ladder, safety, 4-step	EGA Products, Inc.	None	None	254.25	JSC3851
Ladder, safety, 4-step	NSPI Corp.	None	None	254.25	JSC3844
Ladder, safety, 4-step	EGA Products, Inc.	None	None	535.75	JSC3856
Ladder, safety, 5-step	NSPI Corp.	None	None	254.25	JSC3864
Ladder, safety, 5-step	NSPI Corp.	None	None	254.25	JSC3865
Ladder, safety, aluminum	Unknown	None	None	1000	JSC4415
Ladder, safety, aluminum	Unknown	None	None	1000	JSC4428
Ladder, safety, aluminum	Unknown	None	None	1000	JSC4436
Ladder, safety, aluminum	Unknown	None	None	1000	JSC4465
Ladder, safety, fiberglass	Unknown	None	None	200	JSC4419
Ladder, safety, fiberglass	Unknown	None	None	200	JSC4453
Ladder, safety, fiberglass	Unknown	None	None	200	JSC4454
Ladder, safety, fiberglass	Unknown	None	None	200	JSC4464

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Ladder, wood, 10'	Unknown	None	None	121.7	JSC4252
Ladder, wood, 10'	Unknown	None	None	121.7	JSC4253
Ladder, wood, 10'	Unknown	None	None	315.15	JSC4310
Ladder, wood, 12'	Johnson	None	None	130	JSC3163
Ladder, wood, 12'	Oklahoma League/Blind	None	None	130	JSC3176
Ladder, wood, 14'	Oklahoma League/Blind	None	None	150	JSC3164
Ladder, wood, 14'	Werner	None	None	150	JSC3708
Ladder, wood, 14'	Werner	None	None	150	JSC3709
Ladder, wood, 4'	Blue Ribbon	4W073	None	44.1	JSC4081
Ladder, wood, 4'	Unknown	W374	None	44.1	JSC4082
Ladder, wood, 4'	Werner	None	None	124.7	JSC3760
Ladder, wood, 4'	Werner	None	None	124.7	JSC3761
Ladder, wood, 6'	Unknown	None	None	75	JSC4943
Ladder, wood, 6'	Unknown	None	None	75	JSC4944
Ladder, wood, 6'	Unknown	None	None	75	JSC4950
Ladder, wood, 6'	Unknown	None	None	100	JSC5235
Ladder, wood, 8'	Unknown	None	None	111.7	NASA 9590
Ladder, wood, 8'	Unknown	None	None	121.7	JSC4345
Ladder, wood, 8'	Unknown	None	None	124.7	JSC4246
Ladder, wood, 8'	Unknown	None	None	124.7	JSC4254
Ladder, wood, 8'	Unknown	None	None	124.7	
Ladder, wood, 8'	Unknown	None	None	124.7	JSC4356
Ladder, wood, 8'	Unknown	None	None	124.7	JSC4357
Ladder, wood, 8'	Unknown	None	None	124.7	JSC4358
Ladder, wood, 8'	Werner	None	None	124.7	JSC3701
Ladder, wood, 8'	Werner	None	None	124.7	JSC3702
Ladder, wood, 8'	Werner	None	None	124.7	JSC3703
Ladder, wood, 8'	Werner	None	None	124.7	JSC3704
Ladder, wood, 8'	Werner	None	None	124.7	JSC3705
Ladder, wood, 8'	Werner	None	None	124.7	JSC3706
Ladder, wood, 8'	Werner	None	None	124.7	JSC3707
Ladder, wood, 8'	OK League/Blind	AC-6136	None	125	JSC4080
Ladder, wood, fiberglass, 10'	Oklahoma League/Blind	None	None	124.7	JSC5447
Ladder, wood, fiberglass, 8'	Oklahoma League/Blind	None	None	124.7	JSC5448
Level	Unknown	TL20DE	A33041	69	FD7002
Level	Unknown	RL10	110006	69	FD7003
Level	Unknown	None	32543	69	NASA 9101

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Level	Wild Leica	NA24	665104	2500	FD7006
Level, auto	Topcon	ATF3	E17290	69	FD7001
Level, sight	Wild Heerburg	NA28	607623	300	FD7005
Level, tripod-mounted	Bogen	3047	None	400	JSC3627
Level/sight, handheld	Lietz	8043-70	None	67	NASA 9476
Lifeline, self-retracting	Unknown	None	None	124.7	JSC4359
Lifeline, self-retracting	DBI	L3020D	None	318	PA2384
Lifeline, self-retracting	DBI	L3020D	None	318	PA2385
Lifeline, self-retracting	RES. & TRADING	RTC 2700	None	550	PA1463
Lift boom, carpet roll	Unknown	None	None	250	JSC4691
Lift, 1000#	Big Joe	None	57748	250	JSC4512
Lift, drum	Global Mfg. Co.	None	None	250	JSC3872
Lift, drum	Lift-O-Matic Materials	PWSOM	11927	600	JSC3871
Lift, hydraulic, 1000#	Kwik-Stak	None	383025	400	JSC4513
Lift, hydraulic, 1-ton	Economy	721	4284	452	PA6222
Lift, hydraulic, 1-ton	Economy	721	4284	452	JSC5155
Lift, hydraulic, hand truck	Wesco	DPL-54-2222-3W220	33000	554	PA1206
Lift, magnetic, 5000#	Power Grip	None	389860	235	JSC4581
Lift, manual, 2000#	Metro	None	None	387	PA6113
Lift, manual, 4-wheel	Unknown	None	None	230	JSC3160
Lift, material, manually operated	Company	512A Lift	None	1184	JSC4965
Lift, overhead, portable, 1-ton capacity	Spanco	1AW10098	701130	250	JSC3159
Light cart, halogen, 2-bulb	Fostoria	PUL-1000Q-CA	None	123	PA2005
Light cart, halogen, 2-bulb	Dayton	2V2707B	None	390	PA1553
Light, test, strobe	Unknown	None	None	720	PA8082
Light, timing	MercTronic Industries	712	6353	179	JSC3961
Light, timing	Snap-On	MT-215	116684	179	JSC3962
Light, timing, digital	Unknown	OTC3375	84-9518-4079	140	JSC4327
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	200	JSC3374
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	276	PA2005
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	PA1349
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	PA1376
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	PA2004
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	JSC4821
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	JSC4822
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	JSC4827
Lightcart, quartz	Fostoria	PUL-1000 QCA	None	294	JSC4875

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Lightcart, quartz	Dayton	2V807B	None	312	PA1383
Lightcart, quartz	Dayton	2V807B	None	390	JSC3726
Lightcart, quartz	Dayton	2V807B	None	390	JSC4823
Load lifter	Genie	None	None	770	JSC3313
Locator, magnetic	Schonstedt	GA52B	None	630	NASA 9299
Locator, pipe & cable	Detetron	505	7154	300	FD3003
Logic Tester Kit	Hewlett-Packard	546A	None	910	PA1642
Logo head printer tester	Fabricated item	None	None	400	PA1924
Machine, banding	Unknown	None	None	227	JSC3600
Machine, banding	Unknown	None	E46A0	227	JSC4416
Machine, banding, metal	Unknown	None	None	227	JSC3249
Machine, banding, metal	Unknown	None	None	227	JSC3250
Machine, banding, plastic	Unknown	D100	None	227	JSC3248
Machine, banding, plastic	Unknown	None	None	227	JSC3264
Machine, banding, plastic	Unknown	None	None	227	JSC3292
Machine, break, 2'	Dreis & Krump	24	1-1328	400	JSC4101
Machine, break, 4'	Dreis & Krump	416	109176	600	JSC4102
Machine, grinding	Unknown	SPL	62809	864	PA1090
Machine, key cutting	HPC	9160MC	7159	510	JSC4458
Machine, stencil	Unknown	S 3/4	19604	1290	JSC3266
Machine, tape	Unknown	CET-22	72927/1289	343	JSC3272
Machine, tape	Unknown	CET-201	76865/A9	343	JSC3273
Machine, tape	Unknown	CET-222	86197A94	343	JSC3274
Machine, tire	Unknown	None	None	3000	JSC4307
Machine, welding, AC/DC	Miller	902781	KF810583	295	PA2341
Manometer, digital	Dwyer Instrument	475-1	1-D3911448	352	PA1533
Mat, crane, wood, laminated, 8' x 8'	Unknown	None	None	250	JSC4585
Mat, crane, wood, laminated, 8' x 8'	Unknown	None	None	250	JSC4586
Mat, crane, wood, laminated, 8' x 8'	Unknown	None	None	250	JSC4587
Mat, crane, wood, laminated, 8' x 8'	Unknown	None	None	250	JSC4588
Measuring tool, fuel rod	EMD	None	8339610	200	JSC3031
Megger	Biddle Company	Mark III	None	155	PA6305
Megger	Biddle Company	250241	C8308	200	FD5106
Megger	Biddle Company	212159	None	$$530.00	PA1953
Megger	Biddle Company	212159	834210121193	726	PA1998
Megger	Biddle Company	212359	1006	840	FD5100
Megger	Biddle Company	212359	1034	840	FD5103

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Megger / Ohm meter	Biddle Company	210359	6199	530	PA1219
Megger, midget	AEMC Instruments	1210	62134	551	PA2240
Megger, Ohm meter	Biddle Company	212159	None	730	PA2211
Megger/insulation tester/ Ohm meter	Biddle Company	212159	None	731	PA2239
Meter box	Milwaukee	None	AFIF	100	JSC3647
Meter box	Milwaukee	4851-0100	AFJD	100	JSC3648
Meter set	Unknown	98	39847	200	JSC3964
Meter, air	Dwyer Instrument	460	None	200	JSC3350
Meter, air	Dwyer Instrument	460	None	200	JSC3351
Meter, air	Dwyer Instrument	460	None	200	JSC3352
Meter, air	Dwyer Instrument	460	None	200	JSC3353
Meter, air	Dwyer Instrument	460	None	200	JSC3354
Meter, air	Dwyer Instrument	460	None	200	JSC3355
Meter, air flow	Datametrics	100VT	8064310	803	JSC4810
Meter, air velocity	TSI, Inc.	400	400719	500	JSC3649
Meter, air velocity	Uniflow	11801	None	575	PA2542
Meter, air velocity	Alnor	6006AP	None	895	PA1912
Meter, clamp, A/C current, true RMS	Fluke	33	6240231	269	PA2334
Meter, clamp-on	Amprobe	RS-3JP	None	48	PA2073
Meter, clamp-on	Amprobe	RS-3JP	None	48	PA2078
Meter, clamp-on	Amprobe	RS-3JP	None	48	PA2079
Meter, clamp-on	Amprobe	RS-3	20000785	48	JSC5471
Meter, clamp-on	Amprobe	RS-3JP	None	48	PA2080
Meter, clamp-on	Fluke	Y8101	None	50	NASA 9581
Meter, conductivity	Hach	C0150	None	540	PA2681
Meter, dewpoint, automatic	Shaw	None	None	4650	PA1983
Meter, digital	Fluke	73	43150376	90	NASA 9312
Meter, digital capacitance	Beckman	CM20A	90905177	140	PA1916
Meter, digital, humidity	Extech	44457F	K30931	150	PA8078
Meter, digital, temperature	Fluke	52 KJ	5570808	189	PA1697
Meter, humidity	Omega Engineering	RH-21F	201-95-092466	395	PA2458
Meter, kilo-volt	Unknown	None	None	70	PA1467
Meter, Kilowatt Hour	TIF Inst	KW110-3AV	None	100	PA1938
Meter, Kilowatt Hour	TIF Inst	KW110-3AV	None	100	PA1939
Meter, light	Sylvania	DS2000	L086254	205	PA1609
Meter, light	Sylvania	DS2000	None	205	PA2374
Meter, light	Sylvania	DS2000	None	205	PA2379

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Meter, light	Sylvania	DS2000	None	205	PA2635
Meter, light	Sylvania	DS2000	None	205	PA2377
Meter, light	Sylvania	DS2000	None	205	PA2640
Meter, pH	Hach	EC 30	None	450	PA2481
Meter, phase	Knopp	None	None	100	JSC3339
Meter, phase indicator	Sperry Products	PS1-8031	9403B	76	PA2258
Meter, phase indicator	Sperry Products	PS1-8031	9403	76	PA2255
Meter, phase rotation	Knopp	K-3	None	173	JSC5141
Meter, phase rotation	Knopp	K-3	None	173	PA2302
Meter, phase sequence	Knopp	K-3	None	90	FD7100
Meter, phase sequence	Knopp	K-3	None	90	FD7103
Meter, phase sequence	Knopp	K-3	None	90	FD7104
Meter, phase sequence	Knopp	K-6	None	90	FD7105
Meter, phase sequence	Knopp	K-3	None	173	PA2301
Meter, phase sequence	Knopp	K-3	None	173	PA2295
Meter, phase sequence	Knopp	K-3	None	173	PA2296
Meter, phase sequence	Knopp	K-3	None	173	PA2299
Meter, phase sequence	Knopp	K-3	None	173	PA2297
Meter, phase sequence	Knopp	K-3	None	173	PA2303
Meter, phase sequence	Knopp	K-3	None	173	PA2294
Meter, phase sequence	Knopp	K-3	None	173	PA2308
Meter, pressure, universal	Biotek	DPM 2 plus	126964	200	JSC3158
Meter, rev	Unknown	None	7894TM	125	JSC3965
Meter, temperature, digital KJ	Fluke	52	5570806	189	PA1699
Meter, volt/Ohm	Fluke	79	64681282	100	PA2477
Meter, wire length	Olympic Co.	1410-8	4469	150	JSC3850
Meter, wire length	Olympic Co.	1410-8	21998	150	JSC3855
Meter, wire length	Olympic Co.	1410-8	19308	150	JSC3860
Meter, wire length	ETCON Corp.	WL140	None	802	JSC3870
Micromanometer	Alnor	530	LM7484	495	JSC3046
Micromanometer	Alnor	530	LM3670	495	PA1537
Micrometer set, 0 – 6 inch	Craftsman	9HT38609	None	233	PA5214
Micrometer set, 9-pc	Starrett	224 set A	None	157.5	JSC4676
Micrometer set, inside	Scherr-Tumico	None	None	157.5	JSC3187
Micrometer set, inside	Starrett	823D	None	157.5	JSC3186
Micrometer set, inside 3-4 thru 11-12	Unknown	None	None	157.5	JSC4769
Micrometer, 10"	Starrett	TSD-EMB type 436	None	200	JSC3102

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Micrometer, 11"	Starrett	TSD-EMB type 436	None	230	JSC3103
Micrometer, 12"	Starrett	TSD-EMB type 436	None	240	JSC3104
Micrometer, 13"	Starrett	TSD-EMB type 436	None	250	JSC3105
Micrometer, 14"	Starrett	TSD-EMB type 436	None	260	JSC3106
Micrometer, 15"	Starrett	TSD-EMB type 436	None	270	JSC3107
Micrometer, 16"	Starrett	TSD-EMB type 436	None	280	JSC3108
Micrometer, 17"	Starrett	TSD-EMB type 436	None	290	JSC3109
Micrometer, 18"	Starrett	TSD-EMB type 436	None	295	JSC3110
Micrometer, 19"	Starrett	TSD-EMB type 436	None	300	JSC3111
Micrometer, 20"	Starrett	TSD-EMB type 436	None	320	JSC3112
Micrometer, 21"	Starrett	TSD-EMB type 436	None	330	JSC3113
Micrometer, 2-12"	Brown & Sharpe	None	None	120	PA6116
Micrometer, 22"	Starrett	TSD-EMB type 436	None	340	JSC3114
Micrometer, 23"	Starrett	TSD-EMB type 436	None	350	JSC3115
Micrometer, 24"	Starrett	TSD-EMB type 436	None	360	JSC3116
Micrometer, 8"	Starrett	TSD-EMB type 436	None	170	JSC3100
Micrometer, 9"	Starrett	TSD-EMB type 436	None	190	JSC3101
Micrometer, inside	Lufkin Rule Co	680A	None	157.5	JSC4678
Micrometer, inside	Scherr-Tumico	None	None	157.5	JSC4677
Micrometer, outside, 1"	Starrett	None	None	107	JSC3157
Micrometer, outside, 3-4"	Scherr-Tumico	None	None	113.6	JSC4730
Micrometer, outside, 3-4"	Starrett	None	None	113.6	JSC4679
Micrometer, outside, 3-4"	Unknown	None	6692	113.6	JSC4053
Micrometer, outside, 4-5"	Scherr-Tumico	None	None	122.4	JSC4731
Minitemp Calibrator	Transmation	1064P	7586507	820	PA2471
Monitor, alarm	MetaSys	AS-ZTU100-0	9246	300	JSC3348
Monitor, carbon monoxide	Unknown	ISA-44RAL	5180	300	JSC4226
Monitor, color, LCD	Sony	FDL-X40	5001025	280	JSC3626
Monitor, combustible gas, oxygen	Industrial	MX251	9102069-062	935	FD8002
Monitor, conflict	PDC	None	2792	300	JSC3332
Mortiser, lock	Unknown	513	28095	702	PA1889
Motor, 5 h.p.	Unknown	MC022308	2135	200	JSC3255
Motor, blower	3M	W3266	None	150	JSC4122
Motor, blower	3M	W3266	None	150	JSC4123
Motor, blower	3M	W3266	None	150	JSC4124
Motor, blower	3M	W3266	None	150	JSC4125
Motor, blower	3M	W3266	None	150	JSC4126

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Motor, blower	3M	W3266	None	150	JSC4128
Motor, blower	3M	W3266	None	150	JSC4129
Motor, blower	3M	W3266	None	150	JSC4130
Motor, blower	3M	W3266	None	150	JSC4131
Motor, blower	3M	W3266	None	150	JSC4137
Motor, blower	3M	W3266	None	150	JSC4399
Motor, blower	3M	W3266	None	150	JSC4400
Motor, blower	Mine Safety	487884	None	150	JSC4132
Motor, blower	Mine Safety	487884	None	150	JSC4133
Motor, blower	Mine Safety	487884	None	150	JSC4134
Motor, blower	Mine Safety	487884	None	150	JSC4135
Motor, blower	Mine Safety	487884	None	150	JSC4136
Motor, blower	Mine Safety	487884	None	150	JSC4138
Motor, blower	Mine Safety	487884	None	150	JSC4139
Motor, blower	Mine Safety	487884	None	150	JSC4140
Motor, blower	Mine Safety	487884	None	150	JSC4142
Motor, blower	Mine Safety	487884	None	150	JSC4143
Motor, blower	Mine Safety	487884	None	150	JSC4144
Motor, blower	Mine Safety	487884	None	150	JSC4145
Motor, blower	Mine Safety	487884	None	150	JSC4146
Motor, blower	Mine Safety	487884	None	150	JSC4148
Motor, blower	Mine Safety	487884	None	150	JSC4149
Motor, blower	Mine Safety	487884	None	150	JSC4150
Mule, pry	Unknown	None	None	108.6	JSC3001
Multimeter	Fluke	79	None	100	PA2476
Multimeter	TES	2360	90450303	130	PA2179
Multimeter, digital	Fluke	77	68761447	108	JSC5467
Multimeter, digital	Fluke	77	42610060	108	PA2180
Multimeter, digital	Fluke	77	None	108	PA2134
Multimeter, digital	Fluke	77	34663937	108	JSC3470
Multimeter, digital	Fluke	77	None	108	PA2155
Multimeter, digital	Fluke	77	61091316	114	JSC5466
Multimeter, digital	Fluke	77	42610068	114	PA2274
Multimeter, digital	Fluke	77	45280632	114	PA2175
Multimeter, digital	Fluke	77	68761446	114	JSC5469
Multimeter, digital	Fluke	77	44430989	116	PA2167
Multimeter, digital	Fluke	77	45080626	116	PA2181

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Multimeter, digital	OTC	OTC700	40905666	125	JSC4321
Multimeter, digital	Fluke	23	None	128	PA2138
Multimeter, digital	Fluke	77	42890827	129	PA2158
Multimeter, digital	Fluke	77	45560586	129	PA2156
Multimeter, digital	Fluke	77	44690791	129	PA2187
Multimeter, digital	Fluke	77	45280630	129	PA2322
Multimeter, digital	Fluke	77	None	129	PA2102
Multimeter, digital	Fluke	23	47931020	130	PA2143
Multimeter, digital	Fluke	23	47931097	130	PA2177
Multimeter, digital	Fluke	23	45170176	130	PA2273
Multimeter, digital	TES	2360	90236174	130	PA2133
Multimeter, digital	Fluke	77	None	139	PA2285
Multimeter, digital	Fluke	23	None	144	PA2280
Multimeter, digital	Fluke	23	45170138	169	PA2101
Multimeter, digital	Fluke	23	None	169	PA2186
Multimeter, digital	Fluke	23	45970740	178	PA2208
Multimeter, digital	Simpson	260	None	200	PA1253
Multimeter, digital	Fluke	27	5005044	252	FD7001
Multimeter, digital	Fluke	27	5355020	252	FD7002
Multimeter, digital	Fluke	27	5345025	252	FD7003
Multimeter, digital	Fluke	27	5355024	252	FD7004
Multimeter, digital	Fluke	27	5345023	252	FD7005
Multimeter, digital	Fluke	27	4960096	252	FD7006
Multimeter, digital	Fluke	27	4960091	252	FD7007
Multimeter, digital	Fluke	27	4960094	252	FD7008
Multimeter, digital	Fluke	27	5330009	252	FD7010
Multimeter, digital	Fluke	27	5335042	252	FD7012
Multimeter, digital	Fluke	27	5335043	252	FD7013
Multimeter, digital	Fluke	27	5335041	252	FD7015
Multimeter, digital	Fluke	27	4960098	252	FD7016
Multimeter, digital	Fluke	27	496099	252	FD7017
Multimeter, digital	Fluke	87	68570167	300	JSC3469
Multimeter, digital	Fluke	8050A	None	399	PA2191
Multimeter, digital	Fluke	8842A	4572254	1485	PA2337
Multimeter, digital, true RMS	Fluke	77	57851048	123	PA2171
Multimeter, digital, true RMS	Fluke	87	56130124R	129	PA2173
Multimeter, digital, true RMS	Fluke	87	64410243	300	PA2460

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Multimeter, digital, true RMS	Fluke	87	None	300	JSC3387
Multimeter, digital, true RMS	Fluke	87	56130137	321	FD7020
Multimeter, digital, true RMS	Fluke	87	56130138	321	FD7021
Multimeter, digital, true RMS	Fluke	87	53720643	321	NASA 9581
Multimeter, digital, true RMS	Fluke	87	56200549R	325	PA2185
Multimeter, digital, true RMS	Fluke	87	65960849	334	PA2568
Multimeter, digital, true RMS	Fluke	87	65010590	334	PA2485
Multimeter, digital, true RMS	Fluke	87	None	349	PA2033
Multimeter, volt/Ohm	Vickers	3240	None	70	PA1016
Multimeter, volt/ohm	Simpson	270-4	None	97	PA1057
Multimeter, volt/Ohm	Simpson	270	None	97	PA1071
Multimeter, volt/Ohm	Simpson	260	None	250	FD5202
Multimeter, volt/Ohm	Simpson	260	None	250	FD5203
Multimeter, volt/Ohm	Fluke	23	None	261	PA2172
Nailer, Pneumatic	Unknown	None	None	200	JSC3304
Nailer, Pneumatic	Unknown	5350/90SPM	404910	200	JSC3306
Nailer, Pneumatic	Paslode	None	49515	300	JSC3305
Nailer, Pneumatic	Unknown	SK-312	92950	300	JSC3302
Nibbler, 16-gauge	Black & Decker	3253	1895	165	FD408
Nibbler, 16-gauge	Milwaukee	6805	709A494270041	165	FD409
Nibbler, 16-gauge	Milwaukee	6890	734-10647	358	PA1633
Nibbler, 16-gauge	Milwaukee	6890	734-09716	397	FD402
Nibbler, 16-gauge	Milwaukee	6890	None	421	PA1126
NT unit	Metasys	10-NTU102-01	124774	1000	JSC3349
Oven, dry rod	Phoenix	300	16A	318	PA6636
Oven, dry rod	Unknown	PP7	None	350	PA6781
Oven, rod	Dryrod	PP10	None	175	JSC3154
Oven, rod	Henkel	K200S	887751	393	JSC4105
Oven, rod, portable	Phoenix	None	None	190	FD002
Oven, welding rod	Thelco Precision	16	14X3	175	JSC4640
Pad, elevator, set	Unknown	None	None	345	JSC3243
Pager	Unknown	281/434-5059	E1048140	85	NASA leased
Pager	Unknown	281/434-4932	E1048013	85	NASA leased
Pager	Unknown	281/434-4931	E1048012	85	NASA leased
Pager	Unknown	281/434-5128	E1048209	85	NASA leased
Pager	Unknown	281/434-5038	E1048119	85	NASA leased
Pallet jack, manual, 4500#	Equip. Co. of America	Black Jack	54372	900	JSC3781

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Pallet jack, manual, 5000#	Lift Rite, Inc.	L50-27X36	MP03838	900	JSC3905
Pallet jack, manual, 5500#	Unknown	None	97847	900	
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5010
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5011
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5012
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5013
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5014
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5015
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5016
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5017
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5018
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5019
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5020
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5021
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5022
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5023
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5024
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5025
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5026
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5027
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5028
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5029
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5030
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5031
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5032
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5033
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5034
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5035
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5036
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5037
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5038
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5039
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5040
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5041
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5042
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5043
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5044

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5045
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5046
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5047
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5048
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5049
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5050
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5051
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5052
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5053
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5054
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5055
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5056
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5057
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5058
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5059
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5060
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5061
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5062
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5063
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5064
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5065
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5066
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5067
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5068
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5069
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5070
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5071
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5072
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5073
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5074
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5075
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5076
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5077
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5078
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5079
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5080
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5081

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5082
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5083
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5084
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5085
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5086
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5087
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5088
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5089
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5090
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5091
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5093
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5094
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5092
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5095
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5096
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5097
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5098
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5099
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5100
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5101
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5102
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5103
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5104
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5105
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5106
Pallet, drum, HAZMAT, gray	Unknown	None	None	150	JSC5107
Parallel set	Ultra	86615	None	100	JSC3123
Pedometer	Unknown	None	None	20	NASA 9186
Pedometer	Unknown	None	None	20	NASA 9187
Pedometer	Unknown	None	None	20	NASA 9188
Pedometer	Unknown	None	None	20	NASA 9321
Phototachometer	TIF Instruments	780	6882	250	FD9001
Pipe, Die Set	Specialty Tools	None	None	250	PA2555
Plane, portable	Porter Cable	126	029123	217	FD101
Plane, portable	Porter Cable	126	37048	243	FD102
Planer	Unknown	37-315	1345851	250	JSC4269
Planer, electric	Rockwell Int'l.	126	123925	95	PA6229

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Planimeter	Ott	A6	95676	54	NASA 2836
Plate, dock	Unknown	None	None	100	JSC4360
Pole, story, 6'	Lenker Manufacturing	None	None	125	JSC3621
Pole, story, 7'	K & E	None	81016	125	JSC3619
Pole, story, 7'	K & E	None	81016	125	JSC3620
Pole, story, 7'	Dietzgen	6500	None	125	JSC3747
Pole, story, 7'	Dietzgen	6500	None	125	JSC3748
Pole, story, 7'	Dietzgen	K&E	81-0091	125	NASA 5580
Polesaw	Unknown	None	None	103	JSC3992
Polesaw	Unknown	None	None	103	JSC3993
Polesaw	Unknown	None	None	103	JSC3994
Polesaw	Unknown	None	None	103	JSC3995
Polesaw	Unknown	None	None	103	JSC3996
Polesaw	Unknown	None	None	103	JSC3997
Polesaw	Unknown	None	None	103	JSC3998
Polesaw	Unknown	None	None	103	JSC3999
Polesaw	Unknown	None	None	103	JSC4000
Polesaw	Unknown	None	None	103	JSC4004
Polesaw	Unknown	None	None	103	JSC4067
Polesaw	Unknown	None	None	103	JSC5242
Port a power head 1"	Power Tram	None	None	200	JSC3033
Porta Power	Enerpac	PH-39	None	200	PA6742
Port-a-power, 50-ton	Enerpac	P-80	AG4W851	381	JSC4545
Port-a-power, 50-ton	Enerpac	P-80	AG4W853	381	JSC4546
Port-a-power, 50-ton	Enerpac	P-80	AH4W472	381	JSC4547
Porta-Power, Klein header	Unknown	None	None	200	JSC4361
Potentiometer Transistor	Bailey	1030	14-1235	456	PA7807
Power Drive	Ridgid	700	EE 31402	275	PA2052
Power Drive	Toledo	None	6610448S	275	JSC4655
Power supply	Sola	20-13-060	B0112	100	JSC3443
Power supply	Sola	20-13-125	J289	100	JSC3444
Power supply	Triplett	None	None	100	JSC3445
Power supply	Tektronix	PS501-2	B020194	400	JSC3325
Power supply	Tektronix	PS503	B030902	400	JSC3326
Power Supply	Kepco	PR 38-15	52085	560	PA1075
Power supply, dual regulated	Lambda	LPD 421A FM	A05408	100	NASA 0138
Power supply, regulated, DC	Kenwood	PR363	4020100	880	JSC3338

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Power supply, regulated, DC	Kikusui Electronics Corp	PAD 55-6L	28061279	880	PA1220
Power unit, hydraulic	Greenlee	633	3558242	430	PA7675
Press, cable, hydraulic	Nicopress Tool	None	1397	200	JSC4502
Press, crimping	Burndy	29-3	None	200	JSC3321
Press, drill	Clausing	16VC-1	508225	1200	JSC4457
Pressure washer	Unknown	None	None	350	JSC3391
Pressure washer	Clark	1021	LF3598	936	JSC5294
Pressure washer	Clark	1021	LF3597	936	JSC5295
Probe, current, AC/DC	Fluke	80i-400	None	69	PA1310
Probe, current, AC/DC	Fluke	80i-410	None	144	PA1508
Probe, current, AC/DC	Fluke	Y8100	6273000	271	PA2493
Probe, current, AC/DC	Fluke	Y8100	6273019	271	PA2496
Probe, current, clamp-on	Fluke	Y8101	None	69	PA1718
Pruner, Power	Unknown	4654971	None	300	JSC4065
Pruner, Power	Unknown	4654971	013815	300	JSC4066
Psychrometer, battery operated	Environmental Tectonics	CP-147	None	79	PA6453
Psychrometer, battery operated	Environmental Tectonics	CP-147	None	79	PA6454
Psychrometer, battery operated	Environmental Tectonics	CP-147	None	79	PA7629
Puller kit, hydraulic	SKF	TMHP8	None	220	PA2230
Puller set	Proto	None	None	260	JSC3040
Puller set	Proto	None	None	260	JSC3049
Puller set	Snap-On	None	None	260	JSC3409
Puller Set	Snap-On	CJ20005B	None	260	PA2403
Puller set, bearing	Proto	None	None	260	PA1671
Puller set, gear coupling	OTC	None	None	260	JSC3153
Puller, bearing, 11"	Omatonna	1003	None	108	JSC3368
Puller, bearing, 8"	OTC	None	None	108	JSC4633
Puller, bearing, large	Local	None	None	108	JSC4680
Puller, bearing/gear	Posilock	204	None	108	JSC4734
Puller, hoist	Unknown	TU-17	None	530	PA1222
Puller, hoist	Unknown	TU-17	None	530	PA1223
Puller, hoist	Unknown	TU-17	None	530	PA1224
Pullers	Unknown	VE-1002B-S	None	1300	JSC4020
Pump kit, bellows, hand-operated	Drager	ARHL-FU08	None	360	PA2336
Pump, 1/3-HP	Goulds	USP03	F9752077	200	JSC4641
Pump, barrel, electric	Serfilco	B/40	V390136	578	PA1215
Pump, barrel, manual	Tokheim	None	1197-02412	54	PA6456

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Pump, brass, set	Unknown	None	None	125	JSC4941
Pump, centrifugal, magnetic	Little Giant	TE-3-MD-HC	2061479	145	PA1127
Pump, centrifugal, self-priming	Unknown	7P986A	None	125	JSC4347
Pump, diaphragm, portable	Unknown	32613A	None	125	JSC3753
Pump, drum, with shutoff spigot	Tuthill	31/25343	P2601	196	JSC4993
Pump, drum, with shutoff spigot	Tuthill	31/25343	P2601	196	JSC4995
Pump, drum, with shutoff spigot	Tuthill	31/25343	P2601	196	JSC4997
Pump, drum, with shutoff spigot	Tuthill	31/25343	P2601	196	JSC4998
Pump, foot	Greenlee	767	None	175	JSC3751
Pump, grease	Unknown	None	None	100	JSC3414
Pump, hand	Transmation	1099PNP	7583904	200	JSC3044
Pump, hydraulic, Porta-power	Enerpac	P-141	None	152	PA2508
Pump, hydraulic, Porta-power	Enerpac	P-141	None	152	PA2510
Pump, hydraulic, Porta-power	Enerpac	P-39	None	172	PA2129
Pump, hydrostatic, portable	Unknown	None	None	1050	JSC3733
Pump, infuser, mist	Spectroline	MI-1600P	None	329	PA1778
Pump, oil	Viking	None	None	103	JSC3172
Pump, oil, refrigeration	Unmarked	None	None	103	JSC4647
Pump, purging	Unknown	None	None	200	PA2356
Pump, sump, 1/2-HP	ABS	CD5W	D20708	180	FD05
Pump, sump, 1/2-HP	ABS	16794	421953	180	FD604
Pump, sump, 1/2-HP	Teel	2P35476688	376337191	180	FD002
Pump, sump, 1/2-HP	Teel	None	None	180	JSC4174
Pump, sump, 1/2-HP	Teel	None	None	180	JSC4175
Pump, sump, 1/2-HP	Unknown	611313F97B	3972	180	PA2669
Pump, sump, 1/3-HP	Teel	3P511S	611311F94B	187	FD003
Pump, sump, 1/6-HP	Teel	1P914B	None	180	JSC4093
Pump, sump, 1/6-HP	Teel	1P914B	None	180	JSC4176
Pump, sump, 1/6-HP	Teel	1P914B	None	180	JSC4177
Pump, sump, 1/6-HP	Teel	1P914B	None	180	JSC4362
Pump, sump, 1/6-HP	Teel	1P914B	None	180	
Pump, sump, 1/6-HP	Unknown	None	None	180	JSC4182
Pump, sump, 1/6-HP	Unknown	None	None	180	JSC4183
Pump, sump, 1/6-HP	Unknown	None	None	180	JSC4184
Pump, sump, 1/6-HP	Unknown	None	None	180	
Pump, tube, tygon	Unknown	575392	AB5751695	250	JSC3006
Pump, Tygon	Little Giant	LG 302	AC 7800061	344	PA1669

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Pump, vacuum	Dayton	1403	11099	200	JSC3121
Pump, vacuum	Thermal	1850Z	None	315	PA2513
Pump, vacuum	Welch Duo Seal	1402	56923	390	JSC4772
Pump, vacuum, 1/6-HP	GAST	1VBF25M100X	0193	225	JSC3755
Pump, vacuum, 6 cfm	Robinair	15600	82667	359	PA2333
Pump, vacuum, 6 cfm	Robinair	15600	1440	380	JSC4648
Pump, vacuum, 6 cfm	Robinair	15600	255	380	PA1631
Pump, vacuum, 6 cfm	Robinair	15600	75348	380	PA2616
Pump, vacuum, 6 cfm	Robinair	15600	75353	380	PA2617
Pump, vacuum, 6 cfm	Robinair	15600	07884	380	FD604
Pump, vacuum, hand	Nalgene	6130-0010	None	225	JSC3446
Pump, water	Dayton	1017	Miniwater	200	JSC4172
Pump, water	Dayton	1017	Miniwater	200	JSC4173
Punch set, hydraulic, knock-out	Greenlee	7506	BG313381NB	788	FD8010
Punch set, knockout	Greenlee	None	None	104	JSC4328
Punch set, knockout, w/ hydraulic driver	Unknown	7310 SB	None	110	PA2227
Punch, hole	Unknown	None	None	2	JSC3120
Punch, stud	Greenlee	710	None	135	JSC3673
Punch, stud	Greenlee	710	None	135	JSC3674
Pushmower, 2-cycle	Jacobsen	32017	14541	575	#108
Pushmower, 2-cycle	Jacobsen	32017	14284	575	#110
Pushmower, 2-cycle	Jacobsen	32017	14548	575	#111
Pushmower, 2-cycle	Jacobsen	32017	14545	575	#26
Pushmower, 2-cycle	Jacobsen	32017	14542	575	#28
Pushmower, 2-cycle	Jacobsen	32017	14543	575	#48
Pushmower, 2-cycle	Jacobsen	32017	14283	575	#49
Pushmower, 2-cycle	Jacobsen	32017	14533	575	#50
Pushmower, 2-cycle	Jacobsen	32017	14544	575	#51
Pushmower, 2-cycle	Jacobsen	32017	14547	575	#52
Rack, 1-barrel	Unknown	None	None	118	JSC3976
Rack, 2-cylinder	Unknown	None	None	125	JSC3974
Rack, 3-barrel	Unknown	None	None	118	JSC3975
Rack, 3-barrel	Unknown	None	None	118	JSC3984
Rack, 3-barrel	Unknown	None	None	118	JSC3985
Rack, 3-barrel	Unknown	None	None	118	JSC3986
Rack, 3-barrel	Unknown	None	None	118	JSC3987
Rack, 3-barrel	Unknown	None	None	118	JSC3988

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Rack, 3-barrel	Unknown	None	None	118	JSC4030
Rack, barrel	Unknown	None	None	118	JSC3977
Rack, barrel	Unknown	None	None	118	JSC4026
Rack, barrel	Unknown	None	None	118	JSC4027
Rack, barrel	Unknown	None	None	118	JSC4028
Rack, barrel	Unknown	None	None	118	JSC4029
Rack, chain fall/come-along	Unknown	None	None	250	JSC4491
Rack, stackable	Unicor	None	None	108.97	Not required
Rack, wall, 30'	Unknown	None	None	250	JSC4501
Raintrain	Nelson	400	None	1275	JSC3978
Raintrain	Nelson	400	None	1275	JSC3979
Raintrain	Nelson	400	None	1275	JSC3980
Raintrain	Nelson	400	None	1275	JSC3981
Raintrain	Nelson	400	None	1275	JSC3982
Raintrain	Nelson	400	None	1275	JSC3983
Ram, 10-ton, 10"	Unknown	None	None	315	
Ram, 10-ton, 12"	Unknown	None	None	315	
Ram, 30-ton, 4-1/2"	Unknown	None	None	500	
Ram, 5-ton, 10-1/2"	Unknown	None	None	210	
Ram, 5-ton, 1-1/2"	Unknown	None	None	210	
Ram, 5-ton, 4"	Unknown	None	None	210	JSC4996
Ram, 5-ton, 6"	Unknown	None	None	210	
Ram, 5-ton, 8"	Unknown	None	None	210	
Ramp, aluminum truck	Unknown	None	None	275	JSC3241
Ramp, aluminum truck	Unknown	None	None	275	JSC3242
Ramp, aluminum truck	Unknown	None	None	275	JSC3245
Ramp, dock plate	Equip. Co. of America	None	None	300	JSC3784
Ramp, dock plate	Equip. Co. of America	TD-20-8448	9091429	880.5	JSC3785
Ramp, dock plate	Equip. Co. of America	TD-20-8448	7030434	880.5	JSC3786
Ratchet, knockout, punch driver	Interpac	1804	None	90	PA2018
Ratchet, knockout, punch driver	Interpac	1804	None	90	FD8004
Ratchet, pneumatic, 3/8"	Snap-On	FAP7012C	None	192	PA1346
Reader, barcode	Intermec	9440E	95021301398	900	JSC3795
Reader, barcode	Intermec	9440E	95012400145	900	JSC3796
Reader, barcode	Intermec	9440C	91040900341	900	JSC3830
Reader, barcode	Intermec	9440C02	91040900358	900	JSC3881
Rebar	Unknown	None	None	75	FD032

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Recorder	Dickson	THA8-24F	306820	100	JSC3335
Recorder, A/C volt, ammeter	Amprobe	LAV21	610378	240	PA7729
Recorder, A/C volt, ammeter	Mitchell Instr. Co.	LAV21	20138	310	PA6633
Recorder, temperature	Amprobe	T8200R	33004	500	PA1111
Recorder, temperature/humidity	Foxborough	12R	None	325	PA6511
Recorder, temperature/humidity	Foxborough	12R	None	325	PA6512
Recorder, temperature/humidity	Dickson	THP7F	6320004	418	PA2720
Recorder, temperature/humidity	Bacharach Industries	122-7005	None	425	JSC5009
Recorder, temperature/humidity	Bacharach Industries	122-7005	None	425	JSC5009
Recorder, temperature/humidity	Dickson	THP7F	6320031	425	PA2721
Recorder, temperature/humidity	Dickson	23508	28994	425	PA7247
Recorder, temperature/humidity	Brown	6120X21-KL-II-III-87	5003694010	540	JSC3336
Recorder, temperature/humidity	Foxborough	12R	None	540	PA7621
Recorder, temperature/humidity	Unknown	4069TH	76A-15422	540	JSC5142
Recorder, temperature/humidity	Brown	6120X21-KL-II-III-87	4003576022	700	PA1579
Recorder, thermo-humidograph	Bristol Babcock	5691265A-153	84A-902	540	PA6908
Recorder, thermo-humidograph	Bristol Babcock	5691265A-153	85A-14244	540	PA1043
Recorder, thermo-humidograph	Bristol Babcock	5691265A-153	84A-901	540	PA6907
Recorder, thermo-humidograph	Bristol Babcock	5691265A-153	85A-15924	540	PA1148
Recorder, thermo-humidograph	Bristol Babcock	5691265A-153	85A-15924	540	PA1148
Recorder, volt/amp, AC	Amprobe	Lav 21	20296	310	PA6599
Recovery system, refrigerant	Therma Flo	4000	9317947	480	PA2652
Recovery system, refrigerant	Therma Flo	4000	9303232	480	PA2653
Reel Stand	Greenlee	683	None	266	JSC3731
Reel Stand	Greenlee	683	None	266	JSC3732
Reel, cable, steel	Unknown	None	None	20	JSC4364
Reel, pneumatic	Dayton	2Z862	930719498	161.25	JSC4409
Reel, pneumatic	Dayton	2Z862	930119753	161.25	JSC4438
Refrigerator, 16.5 cu ft	Admiral	ENT17F+C9674L	35173784	392	JSC5251
Regulator, watts	Watts	1516-E1003	12173-1	480	PA1624
Remover, ball joint	Unknown	OTC7315	None	50	JSC4329
Remover, stud	Unknown	None	None	40	JSC4330
Repair kit, master thread	Heli-coil	5621	None	180	JSC4735
Repair kit, thread, spark plug	Helicoil	5523-14	None	150	JSC4014
Reseating set	Chicago Spec.	None	None	200	JSC4634
Resistance Substitution	Phipps Bird	236A	0892758-884	100	JSC3045
Resistance Substitution	Phipps Bird	236A	0892761-884	100	JSC3151

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Resistor Decade	General Radio	1433	11766	225	PA6008
Resistor, Decade, Box	Gen'l. Resistance	1433W	110	160	PA6019
Respirator, full face	Unknown	None	None	150	JSC4228
Respirator, full face	Unknown	None	None	150	JSC4229
Respirator, full face	Unknown	None	None	150	JSC4230
Respirator, full face	Unknown	None	None	150	JSC4231
Respirator, full face	Unknown	None	None	150	JSC4232
Respirator, full face	Unknown	None	None	150	JSC4233
Respirator, ISI	Unknown	None	None	300	JSC3216
Respirator, ISI	Unknown	None	None	300	JSC3293
Rig, oxygen/acetylene, size B	Unknown	None	None	200	JSC3077
Ring compressor	Detroit	None	None	150	JSC3410
Ring compressor	Detroit	None	None	150	JSC3411
Ring compressor, large	Unknown	None	None	150	JSC3413
Ring compressor, small	Unknown	None	None	150	JSC3412
Ring, degaussing	Walsco	2592	None	100	JSC3447
Roll-a-lift, 1-ton, set of two	Skarnes, Inc.	M-4	19384 (on both)	1033	JSC4478/4479
Roll-a-lift, 1-ton, set of two	Skarnes, Inc.	M-4	34144 (on both)	1033	JSC4579/4580
Roller, sheet metal, 4', heavy duty	Unknown	418-E	5/64	50	JSC4113
Router	Bosch	90099M	None	154	PA7047
Router	Porter Cable	6902	041213	168	FD202
Router	Porter Cable	6902	182981	168	FD203
Router	Porter Cable	6902	253135	168	FD207
Router	Porter Cable	7301	231029	175	FD209
Router	Porter Cable	6902	353327	250	FD208
Router, mortise	Porter Cable	513	026206	920	FD204
Router, mortise	Stanley	LM1-K	484984	920	FD205
Router, offset	Porter Cable	7301	81162	112	FD201
Router/die grinder, 7/8" drive	Black & Decker	4280	79470643	105	JSC4010
Sander, angle, 7"	Unknown	4052	14024	170	JSC4009
Sander, belt	Porter Cable	503	115671	175	FD306
Sander, belt	Porter Cable	503	115646	175	FD307
Sander, belt	Porter Cable	504	054485	178	FD301
Sander, belt	Porter Cable	504	054448	178	FD305
Sander, belt	Porter Cable	360	115894	196	PA1876
Sander, belt	Delta Power Tool	31501	DC-2494	285	PA6077
Sander, belt	Milwaukee	5920	648-3764	293	FD302

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Sander, belt, dustless, HD	Porter Cable	360	55084	154	PA7048
Sander, disc, 20"	State	213C	4158954A7CN	170	JSC3737
Sander, disc, 7"	Unknown	7951	None	170	JSC4042
Sander, dustless	Black & Decker	2750	51176	560	FD523
Sander, dustless	Black & Decker	2750	51122	560	FD524
Sander, finish	Makita	B04550	973480	100	JSC4860
Sander, flush plate	Desco, Inc.	M225EDC	561	100	JSC4853
Sander, orbital	Porter Cable	505	051435	147	FD303
Sander, orbital	Porter Cable	505	182952	147	FD309
Sander, orbital	Rockwell Int'l.	505	A172119	147	FD304
Sander, oscillating pad	Porter Cable	330	451859	29	PA1431
Sander, upright, 4"	State Electric	D-20	None	768	PA1097
Saw, band	Wilton	3Z990	445113	495	FD822
Saw, band, 7" - 9"	Delta	28-245	94F88306	989	FD821
Saw, band, portable	Porter Cable	725	540303	93	PA2416
Saw, band, portable	Porter Cable	7721	41655	206	PA1276
Saw, band, portable	Porter Cable	725	None	227	PA1499
Saw, band, portable	Milwaukee	6225	457191096	255	PA8014
Saw, band, portable	Milwaukee	6225	457A496370159	255	FD805
Saw, band, portable	Milwaukee	6225	457148026	255	FD813
Saw, band, portable	Milwaukee	6225	457300210	255	FD819
Saw, band, portable	Milwaukee	6230	678A494330236	301	FD825
Saw, band, portable	Milwaukee	6230	678A494160575	301	FD828
Saw, band, portable	Milwaukee	6230	457A496370168	301	FD830
Saw, band, portable	Porter Cable	725	398560	365	PA1550
Saw, band, portable	Porter Cable	725	531009	365	PA2117
Saw, brick	Unknown	None	None	100	JSC4281
Saw, circular	Black & Decker	3027-09	1278	129	FD607
Saw, circular	Skil	77	HC622641	148	FD602
Saw, circular	Skil	77	HC622496	148	FD606
Saw, circular	Bosch	1654	640320	175	FD604
Saw, circular	Bosch	1654	640327	175	FD608
Saw, circular	Bosch	1654	9501389	175	FD609
Saw, circular	Bosch	1654	9500416	175	FD611
Saw, circular	Bosch	1654	2670316	175	FD612
Saw, circular	Bosch	1654	2670320	175	FD613
Saw, circular	Bosch	1654	2670321	175	FD614

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Saw, circular	Bosch	1654	2670323	175	FD615
Saw, circular, 7-1/4"	Black & Decker	3028	89105	60	PA1525
Saw, circular, 8-1/4"	Skil	5660	HE-023288	144	PA2365
Saw, circular, 8-1/4"	Skil	CRIJ	552-99178	162	PA1396
Saw, cut-off	Jepson	9115	1041	250	FD101
Saw, cut-off	Wacker Corp.	BTS-11	575935088	713	PA1154
Saw, cut-off, 14"	Ryobi	C-355C	210568719	239	PA8064
Saw, jig	Porter Cable	7349	15329	93	PA1850
Saw, jig	Porter Cable	7349	15152	93	PA2414
Saw, jig	Porter Cable	7349	None	93	PA2415
Saw, jig	Porter Cable	7349	None	94	PA1695
Saw, jig	Bosch	1582VS	0601582734	98	FD401
Saw, jig	Bosch	1582VS	0601582534	98	FD410
Saw, jig	Skil	4580	DI290322	113	FD412
Saw, jig	Bosch	1582VS	0601582534VS	162	FD413
Saw, jig	Milwaukee	6256	52835	174	FD407
Saw, jig	Milwaukee	6256	749-57179	174	FD409
Saw, jig	Bosch	1582VS	0601582534VS	199	FD414
Saw, jig	Porter Cable	548	071265	221	FD402
Saw, jig	Porter Cable	548	None	221	FD403
Saw, jig, 2-speed	Black & Decker	7514-99	None	95	JSC4990
Saw, miter	Makita	LS1020	295126E	219	FD610
Saw, miter	Unknown	None	None	350	
Saw, miter, 10"	Unknown	None	None	350	JSC4263
Saw, miter, compound, 10"	Unknown	36-220	9145	245	PA1716
Saw, panel	Kett	KS-226	1294	80	FD406
Saw, panel	DeWalt	S3A86TY4	8120045	1000	JSC3474
Saw, porta-band	Black & Decker	3122	None	150	JSC4005
Saw, porta-band	Porter Cable	725	041420-KM	150	JSC4443
Saw, Reciprocating	Black & Decker	310-S	2013	100	PA2650
Saw, reciprocating	Black & Decker	3103	43454	120	PA1421
Saw, reciprocating	Milwaukee	6507	6311019222	135	FD711
Saw, reciprocating	Milwaukee	6507	876066	139	FD704
Saw, reciprocating	Milwaukee	6507	460A395380084	139	FD705
Saw, reciprocating	Milwaukee	6507	631876061	139	FD706
Saw, reciprocating	Milwaukee	6511	4601076967	139	FD707
Saw, reciprocating	Milwaukee	6507	631990648	139	FD709

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Saw, reciprocating	Milwaukee	6507	631A394040871	139	FD718
Saw, reciprocating	Milwaukee	6507	631A394201708	139	FD719
Saw, reciprocating	Milwaukee	6507	631A394122434	139	FD721
Saw, reciprocating	Unknown	1631	None	140	PA1603
Saw, reciprocating	Skil	477	None	200	PA5071
Saw, rip	Unknown	None	None	150	JSC4267
Saw, rip	Unknown	None	None	150	JSC4268
Saw, scroll	Unknown	None	None	176.5	JSC3057
Saw, trim, cordless, 5-3/8"	Black & Decker	2834	6553	180	PA2354
Saw, trim, cordless, 5-3/8"	DeWalt	DW935	24936	359	PA2544
Sawzall	Porter Cable	635	129806	179	FD713
Sawzall	Porter Cable	635	129807	179	FD714
Sawzall	Porter Cable	635	125964	179	FD715
Sawzall	Porter Cable	635	117864	179	FD717
Sawzall	Porter Cable	737	89562	179	FD723
Sawzall	Porter Cable	737	124568	179	FD724
Sawzall	Porter Cable	737	078615	179	FD725
Scale, 2500#	Dillon & Company	None	AN 36045	500	JSC4504
Scale, 5-ton	Chatillion	TD-5-10000	210	600	JSC4505
Scale, floor	Unknown	None	None	150	JSC4714
Scale, HD 250#	Pelouze	None	None	190	JSC4651
Scale, Individual Weight, 350 lbs	Healthometer	None	400 DHI	511	JSC3598
Scale, one-ton	Fairbanks	1124D	G968970NE	895	JSC3263
Scale, platform, 1-ton	DES	954F100P	9504000	980	JSC3018
Scale, platform, 1-ton	DES	None	None	980	PA1179
Scale, portable, one-ton	Triner	None	None	895	JSC3268
Scale, refrigerant	CPS	CC-800	C593918	389	PA2514
Scale, refrigerant	TIF Instruments	TIF 950	None	390	PA1811
Scale, utility, HD	Pelouze	P250S	None	68	PA2437
Scale, utility, HD	Pelouze	P2505	None	190	JSC4657
Scale, utility, HD	Pelouze	P250S	None	190	JSC4658
Scale, utility, HD	Pelouze	P250S	G3	190	PA2726
Scanner, infrared	Exergen	II	None	555	PA1086
Scanner, laser	Intermec	1545E	95061500304	180	JSC3829
Scanner, laser	Intermec	1545A	91040501104	180	JSC3878
Scanner, laser	Intermec	1545A	91040501133	180	JSC3879
Scarifier/scraper, 48"	International Harvester	360-LR	74952	500	JSC4043

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Screw gun, drywall	Milwaukee	6750-1	464263942	126	JSC4265
Screw gun, drywall	Milwaukee	6750-1	464274159	126	PA1308
Screw shooter	Milwaukee	6798	45093429	134	PA6810
Screwdriver, cordless	Unknown	None	None	27	NASA 9604
Sealer, thermal heat, impulse	Vertrod	2AC	V21427	200	JSC3265
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4589
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4590
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4591
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4592
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4593
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4594
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4595
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4596
Section, conveyor, gravity roller	Unknown	BLUE	None	200	JSC4597
Sentry, ground fault	Daniel Woodhead Co	1670	02-2403	350	PA1145
Service set, 3-in-1	OTC	OTC7249	None	100	JSC4331
Sharpener, chainsaw chain	Windsor	Type F66	LR36941	125	JSC4940
Sharpener, drill bit, heavy-duty	Black & Decker	4300	09577	195	JSC4942
Shear, bevel	Unknown	2B1A	None	180	
Shear, metal	Bosch	601500134	36700078	125	FD407
Shearing machine	Beverly	82A	None	250	JSC4114
Shears, metal, double cut, 18-gauge	Milwaukee	6850	55071031	172	PA1331
Shears, metal, double cut, 18-gauge	Milwaukee	6850	550C596520047	182	PA2684
Simulator, T-Stat	Honeywell	W973	None	150	JSC3347
Sling, nylon, 2" single ply, 2" x 12'	Unknown	None	None	200	JSC4550
Sling, nylon, 2" single ply, 2" x 20'	Unknown	None	None	200	JSC4551
Sling, nylon, 2" single ply, 2" x 20'	Unknown	None	None	200	JSC4552
Sling, nylon, 2" single ply, 2" x 20'	Unknown	None	None	200	JSC4553
Sling, nylon, 2" single ply, 2" x 20'	Unknown	None	None	200	JSC4554
Sling, nylon, 2" single ply, 2" x 20'	Unknown	None	None	200	JSC4555
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4556
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4557
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4558
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4559
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4560
Sling, nylon, 2" single ply, 2" x 4'	Unknown	None	None	175	JSC4561
Sling, nylon, 3" endless, 3" x 12'	Unknown	None	None	200	JSC3416

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Sling, nylon, 3" endless, 3" x 12'	Unknown	None	None	200	JSC3417
Sling, nylon, 3" endless, 3" x 12'	Unknown	None	None	200	JSC3418
Sling, nylon, 3" endless, 3" x 12'	Unknown	None	None	200	JSC3419
Sling, nylon, 3" endless, 3" x 2'	Unknown	None	None	200	JSC4839
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC3420
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC3421
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC3422
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC3423
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC3424
Sling, nylon, 3" endless, 3" x 20'	Unknown	None	None	200	JSC4972
Sling, wire rope, 1" x 10'	Unknown	None	None	140	JSC4518
Sling, wire rope, 1" x 10'	Unknown	None	None	140	JSC4519
Sling, wire rope, 1" x 10'	Unknown	None	None	140	JSC4520
Sling, wire rope, 1" x 10'	Unknown	None	None	140	JSC4521
Sling, wire rope, 1" x 16'	Unknown	None	None	150	JSC4522
Sling, wire rope, 1" x 16'	Unknown	None	None	150	JSC4523
Sling, wire rope, 1" x 16'	Unknown	None	None	150	JSC4524
Sling, wire rope, 1" x 16'	Unknown	None	None	150	JSC4525
Sling, wire rope, 1-1/2" x 10'	Unknown	None	None	175	JSC4514
Sling, wire rope, 1-1/2" x 10'	Unknown	None	None	175	JSC4515
Sling, wire rope, 1-1/2" x 10'	Unknown	None	None	175	JSC4516
Sling, wire rope, 1-1/2" x 10'	Unknown	None	None	175	JSC4517
Sling, wire rope, 1-1/4" x 10'	Unknown	None	None	175	JSC4534
Sling, wire rope, 1-1/4" x 10'	Unknown	None	None	175	JSC4535
Sling, wire rope, 1-1/4" x 10'	Unknown	None	None	175	JSC4536
Sling, wire rope, 1-1/4" x 10'	Unknown	None	None	175	JSC4537
Sling, wire rope, 1-1/4" x 16'	Unknown	None	None	175	JSC4530
Sling, wire rope, 1-1/4" x 16'	Unknown	None	None	175	JSC4531
Sling, wire rope, 1-1/4" x 16'	Unknown	None	None	175	JSC4532
Sling, wire rope, 1-1/4" x 16'	Unknown	None	None	175	JSC4533
Sling, wire rope, 3/4" x 10'	Unknown	None	None	120	JSC4526
Sling, wire rope, 3/4" x 10'	Unknown	None	None	120	JSC4527
Sling, wire rope, 3/4" x 10'	Unknown	None	None	120	JSC4528
Sling, wire rope, 3/4" x 10'	Unknown	None	None	120	JSC4529
Sling, wire rope, 3/4" x 16'	Unknown	None	None	175	JSC4538
Sling, wire rope, 3/4" x 16'	Unknown	None	None	175	JSC4539
Sling, wire rope, 3/4" x 16'	Unknown	None	None	175	JSC4540

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Sling, wire rope, 3/4" x 16'	Unknown	None	None	175	JSC4541
Snake, plumbing	Unknown	200 ER	9211888	64	PA1831
Socket set, 1" drive, 10-pc	Unknown	None	None	200	JSC4807
Socket set, 1/2" drive, 13-pc	Craftsman	None	None	105.3	JSC4319
Socket set, 1/2" drive, 16-pc	Craftsman	34790	None	197.75	JSC4797
Socket set, 1/2" drive, 16-pc	Craftsman	34790	None	197.75	JSC4806
Socket set, 1/2" drive, 18-pc	Proto	54120	None	180.25	JSC4656
Socket set, 1/2" drive, 30 pc	J S	None	None	315.75	JSC4681
Socket set, 1/2" drive, 30-pc	Unknown	None	None	315.75	JSC3058
Socket set, 1/2", 19-pc	Unknown	None	None	180.25	JSC4663
Socket set, 1/2", standard, 25 pc.	Unknown	None	None	260	JSC3080
Socket set, 1/4", 21-pc	Challenger	None	None	148.95	JSC4664
Socket set, 1/4", 21-pc	Proto	None	None	148.95	JSC3118
Socket set, 24-pc	Proto	None	None	159.75	JSC4665
Socket set, 3/4" drive	Unknown	None	None	278.25	JSC4314
Socket set, 3/4" drive, 8-pc	Unknown	None	None	278.25	JSC3059
Socket set, 3/8" drive	Unknown	34775	None	47.55	PA5130
Socket set, 3/8" drive, 18-pc	Snap-On	None	None	159.75	JSC4697
Socket set, 3/8" drive, 21-pc	Unknown	None	None	159.75	JSC3337
Socket set, 3/8" drive, 21-pc	Unknown	None	None	159.75	JSC3055
Socket set, 3/8" drive, 22-pc	Craftsman	None	None	159.75	JSC4320
Socket set, 3/8" drive, 23-pc	Unknown	None	None	159.75	JSC3041
Socket set, 3/8" drive, standard, 19 pc	Craftsman	None	None	159.75	JSC3117
Socket set, 3/8" standard 25 pc.	Craftsman	None	None	159.75	JSC3079
Socket set, 3/8", 15-pc	Unknown	None	None	143	JSC3628
Socket set, brass, 1" drive	Unknown	None	None	125	JSC3464
Socket set, crowfoot	Granco Ind. Co	GIT-3673	None	788	PA1524
Socket set, crowfoot	Granco Ind. Co	None	None	1000	PA2538
Socket set, impact	Snap-On	None	None	125	JSC4654
Socket set, impact	Unknown	None	None	125	JSC4809
Socket set, impact	Snap-On	PIT 22030B	None	156	PA1952
Socket set, impact, 1", 12-pc	Ingersoll-Rand	None	None	734	JSC3189
Socket set, impact, 1", 7-pc	Ingersoll-Rand	None	None	175	JSC3190
Socket set, impact, 1", 7-pc	Unknown	None	None	175	JSC3053
Socket set, impact, 1", 7-pc	Unknown	None	None	175	JSC3056
Socket set, impact, 1/2" drive, deep	Unknown	None	None	111.35	JSC3395
Socket set, impact, 1/2", deep, 12-pc	Proto	None	None	111.35	JSC4787

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Socket set, impact, 25-pc	Snap-On	None	None	125	JSC4682
Socket set, impact, 3/4" drive, 18-pc	Unknown	None	None	159.99	JSC3034
Socket set, impact, 3/4" drive, 26-pc	Unknown	None	None	159.99	JSC4789
Socket set, impact, 3/4" drive, 4-pc	Snap-On	None	None	139.99	JSC3177
Socket set, impact, 3/4" drive, 5-pc	Unknown	None	None	139.99	JSC4798
Socket set, impact, 3/8"	Unknown	FAR7012C	None	177	PA1314
Socket set, impact, 3/8" drive, 31 pc.	Snap-On	None	None	125	JSC4683
Socket set, metric, 16-pc	Craftsman	None	None	101.65	JSC4728
Socket set, metric, 17-pc	Craftsman	None	None	101.65	JSC4729
Socket set, standard, 16-pc	Craftsman	None	None	143	JSC4727
Socket set, standard, 17-pc	Craftsman	None	None	143	JSC3054
Socket set, standard, 3/8" drive, 12-pc	Craftsman	None	None	143	JSC4722
Software, "Bar tender for Windows", network version	Seagull Scientific	BTWP-PR010	19102	2500	JSC3836
Software, "IRL Companion"	CremSol Technologies	ver 5.0c	277-1104	650	JSC3837
Spill Scooter	Enpac	5205	None	109.9	JSC3173
Spill Scooter	Enpac	5205	None	109.9	JSC3174
Spill Skid	Lab Safety	8B-39790	None	310.4	JSC4999
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4234
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4235
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4236
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4237
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4238
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4239
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4240
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4241
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4242
Spray Gun, Conventional	DeVilBiss	None	None	220	JSC4243
Spray Gun, HVLP w/1 qt. Pot	Unknown	None	None	682	JSC4244
Sprayer, water spray snake	Flojet	2100	93132096	250	PA1754
Sprayer, water spray snake	Flojet	2100	92535507	250	PA1755
Spreader	Unknown	None	None	125	JSC4045
Spreader, fertilizer	Cyclone	CB4000	None	108	JSC4040
Spreader, fertilizer	Unknown	24-22	None	132	JSC4041
Spreader, fertilizer	Lely	HR	9071325	1800	JSC3989
Stand, jack, 7-ton	Unknown	None	None	105	JSC3425
Stand, jack, 7-ton	Unknown	None	None	105	JSC3426
Stapler, pneumatic, fiberboard	Unknown	3200S16P	402781	343	JSC3308

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Stapler, pneumatic, T-nailer	Unknown	150	24018	343	JSC3297
Stapler, pneumatic, wood	Unknown	91285	56214	343	JSC3298
Stapler, pneumatic, wood	Unknown	91294	41246	343	JSC3300
Stapler, pneumatic, wood	Unknown	3200S16P	402701	343	JSC3307
Stapler, pneumatic, wood	Unknown	AB100	1A0030	343	JSC3309
Station, emergency eye wash	Unknown	None	None	125	JSC3383
Station, eye wash, portable	Unknown	None	None	47	JSC3390
Station, eye wash, portable	Unknown	None	None	47	JSC4264
Station, eye wash, portable	Sprauman Co.	NSVA-6	None	650	JSC3783
Station, eye wash, portable	Sprauman Co.	NSVA-6	None	650	JSC3912
Station, solder	Weller Mfg.	WTCPT	None	61	PA2682
Station, solder	Weller Mfg.	WTCPT	None	61	PA2683
Station, solder	OK Industries	SA-10-115	6271	109	PA8072
Station, solder	Pace	PRC-150	8197	374	PA8045
Stilt, drywall	I A M	None	None	125	JSC3650
Stilt, drywall	I A M	None	None	125	JSC3651
Stilt, drywall	I A M	None	None	125	JSC3652
Stilt, drywall	I A M	None	None	125	JSC3653
Straight edge, 18"	Unknown	None	None	100	JSC4768
Stretcher, carpet	Roberts	None	None	120	PA2551
Stroboscope, digital	Shimpo	DT-301	50400122	395	PA7137
Stroboscope, digital	Shimpo	DT-315EB	22169405	625	PA2105
Stroboscope, digital	Shimpo	DT-315EB	22169404	625	PA2106
Stroboscope, digital	Shimpo	DT-315EB	22069403	695	PA2055
Stroboscope, digital	Shimpo	DT-315EB	22069403	695	PA2056
Stroboscope, digital: ac-115	Shimpo	DT-301	50200161	495	PA8115
Stroboscope, digital: ac-115	Shimpo	DT-301	50500035	495	PA8115
Supply, power, DC	Micronta	22-121	75202439-A	70	PA8052
Supply, power, DC	B K Precision	1601	24-31745	262	PA8020
Supply, power, DC	B K Precision	1601	24-31823	373	PA8021
Switch, starter, remote	Unknown	None	None	150	JSC3397
Switcher	Huntron	HSR-410	None	721	PA1073
Switcher	Huntron	HSR-410	310-05855	721	PA1077
System, tank wrap	Driltec, Inc.	None	None	300	JSC3900
System, tank wrap	Driltec, Inc.	None	None	300	JSC3312
System, tank wrap	Driltec, Inc.	None	None	300	JSC3895
System, tank wrap	Driltec, Inc.	None	None	300	JSC3896

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
System, tank wrap	Driltec, Inc.	None	None	300	JSC3897
System, tank wrap	Driltec, Inc.	None	None	300	JSC3898
System, tank wrap	Driltec, Inc.	None	None	300	JSC3899
Table, metal, w/ drawers	Unknown	None	None	175	JSC4507
Tachometer	Unknown	MT715	64950	300	JSC4007
Tachometer, photo, digital	Pioneer	DT-36M	5751	300	PA7176
Tamper, w/ 5' handle	Unknown	None	None	125	JSC4178
Tank, air	Unknown	None	None	100	JSC3972
Tank, air	Unknown	None	None	100	JSC4016
Tank, air	Unknown	22635	None	123	PA1488
Tank, fuel, 100-gallon (w/ pump)	Unknown	None	None	150	JSC3407
Tank, fuel, 100-gallon (w/ pump)	Unknown	None	None	150	JSC3408
Tap & die set, 1-1/2"	Widell	32013	370681	200	JSC4776
Tap & die set, 1-1/4"	Widell	32005	381144	200	JSC4786
Tap & die set, metric	The Irwin Co.	6312	None	64	PA1901
Tap & die set, metric	Craftsman	9-52001	None	256	PA1657
Tap & die set, metric	Blue Point	TDM-117	None	300	JSC3448
Tap & die set, metric	Blue Point	TDM-117	None	300	JSC4018
Tap & die set, metric and standard	ACE	601	None	200	JSC4050
Tap & die set, metric, large	The Irwin Co.	697312	None	95	PA1902
Tap & die set, standard	Unknown	TD-2425	None	200	JSC4047
Tap & die set, standard	Craftsman	9-52311	None	249	PA1656
Tap & die set, standard	Blue Point	TD9902A	None	300	JSC4049
Tape-Pak, 100' fiberglass	Greenlee	538-10	None	142	JSC4833
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3654
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3655
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3656
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3692
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3694
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3695
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3696
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3697
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3741
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC3742
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC4846
Tape-Pak, 100' fiberglass	Ideal	31-153	None	142	JSC4868
Taper Shank drills & reamer set	for ECN558792	for ECN681297	None	100	JSC4764

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Tapper, KWIK	Hilti	TKT 2000	3575531T3	200	FD1025
Tapper, KWIK	Hilti	TKT 2000	3575861T3	200	FD1026
Temp-bath	Yamato Scientific Co	BO-11	135023	200	JSC3450
Template kit, lettering	K & E	None	None	366	NASA 3517
Template kit, lettering	K & E	None	None	366	NASA 9480
Template kit, lettering (incomplete)	Lutz	None	None	366	JSC3617
Tensioner, band, pistol-grip	Gerrard & Co.	1902-D	None	145	PA2035
Terminal, brain	Yokogawa	BT200S1	F492EB998U648	300	JSC3150
Terminal, brain	Yokogawa	BT-100	F490HA264-928	300	JSC3451
Terminal, hand held	Foxborough	HHT-AAEFNB	97061389	300	JSC3345
Terminal, service	Liebert Service	1A16702G1	None	977	PA1936
Terminal, service	Liebert Service	020-0247	None	977	PA1796
Terminal, SMART transmitter	Bailey	STT02	9810265	670	PA1578
Terminal, transmitter	Bailey	None	25109	500	JSC3346
Test board, Metasys (a composite item comprised of following model #'s: NCM300, DX9100, UNT140-1, EP-8000-2, XT9100, XP9102, XP9104, modem, and misc. parts)	Metasys	None	None	5000	JSC3574
Test box, field	Acu-Rite	38-75-62	None	380	PA2278
Test set, semiconductor device	Huntron	HTR 1005B-1S	21403782	936	PA1049
Tester, anti-freeze	E. Edelmann	461-A	None	100	JSC4724
Tester, anti-freeze	E. Edelmann	461-A	None	100	JSC4725
Tester, back flow preventer	Midwest	890	None	435	PA7252
Tester, battery	Dayton	4Z581B	7412195	60	PA1372
Tester, battery	Robertshaw	903	None	75	PA6004
Tester, battery load	Dayton	4Z581C	None	45	PA1937
Tester, battery load	Dayton	4Z581C	None	73	PA2218
Tester, Clamp	Unknown	ME-489/U	None	100	PA1616
Tester, dead weight	Ametek, Inc.	T-740	12/34	820	PA2310
Tester, dead weight	Ametek, Inc.	T-15	12954	2800	JSC3149
Tester, dead weight	Ametek, Inc.	T-50	91098	2800	PA1549
Tester, IC	Huntron	HSR-210	300-02109	495	PA7066
Tester, Insulation	Megger	Series 3, Mark III	None	100	PA7624
Tester, insulation	Sticht	823	9831133	725	FD5101
Tester, phase	Chance	T403-2311	None	12	PA2519
Tester, pressure, cooling system	Stant	ST270	None	200	JSC4332
Tester, proof	HD Electric	PT-5000	1195003	200	JSC3320

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Tester, tristate/vom, clear signal	Inmac	8363-2	8806	150	JSC3618
Tester, tube, electron	Hickok	539C	153-00108	895	PA1085
Tester, voltage	Square D	VT-16610	None	61	PA2339
Tester, voltage, "Wiggy"	Square D	VT-16610	None	61	PA2340
Thermometer	Fluke	52	None	125	
Thermometer	M & W USA	None	None	125	JSC3191
Thermometer	Fluke	52	None	188	PA1503
Thermometer	Fluke	52	88 or 5520177	188	PA1688
Thermometer	Fluke	52 KJ	5520174	188	PA1689
Thermometer	Fluke	52	5425311	188	PA1690
Thermometer	Fluke	52	5645204	189	PA1540
Thermometer, 250-degree Celsius	Unknown	B011	None	175	JSC3453
Thermometer, digital	Omega	450-ATH	52059	90	FD001
Thermometer, digital	Fluke	52	4475633	150	PA8105
Thermometer, digital	Fluke	51 K/J	6324042	150	PA2391
Thermometer, digital	Fluke	52	4595286	150	PA8107
Thermometer, digital	Fluke	52	4595289	150	PA8111
Thermometer, digital	Universal Enterprises	DT130	None	175	JSC3148
Thermometer, digital	Fluke	52	5345201	189	PA1543
Thermometer, digital	Fluke	52	5345200	189	PA1542
Thermometer, digital	Fluke	52	5820181	195	PA1962
Thermometer, digital	Instrulab	47014400	1166	215	PA7843
Thermometer, digital	Fluke	52	None	279	PA1907
Thermometer, digital	Tegam	871 A	T-68335	287	PA1535
Thermometer, Digital	Electro-Therm	Type K	None		PA1666
Thermometer, infrared	Exergen Corp.	D500F	1055	695	PA1087
Thermometer, infrared laser	Raytek	RPM30L2U	56525	270	PA2382
Thermometer, K/J	Fluke	52	4875666	175	PA1910
Thermometer, mercury	M & W USA	None	None	200	JSC3146
Thermometer, mercury	M & W USA	None	None	200	JSC4690
Thermometer, thermocouple	Omega	450-AET	459758	296	PA7116
Thermometer, thermocouple, digital	Fluke	51	6324174	126	PA2390
Threader, pipe	Ridgid	700	1085547	815	FD801
Threader, pipe	Ridgid	700	1069691	815	FD802
Threading set, pipe, external	Reed	None	None	212	PA1753
Tiller, 4-tine	Unknown	9171299440	611W32137	250	GP #6735
Tool Cabinet, 9 drawer, locking	Unknown	None	None	200	JSC3299

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Tool case, electronic	Xcelite	GC382	None	471	PA2111
Tool kit, electronic	Jensen Tools, Inc.	JTK-87	None	445	PA8067
Tool kit, electronic	Jensen Tools, Inc.	JTK-87	None	449	PA7249
Tool kit, electronic	Jensen Tools, Inc.	U-87LDXP/JTX-87	None	480	PA7005
Tool kit, electronic	Jensen Tools, Inc.	U-87LDXP/JTX-87	None	480	PA7006
Tool set	Briggs & Stratton	None	None	400	JSC4006
Tool set, alignment, horizontal, 14-pc	Unknown	AT-1104	291194	26	JSC4818
Tool set, transaxel	Jacobsen	Peerless	None	500	JSC4008
Tool, compressing	Nicopress Tool	51-B4-887	None	109	PA1935
Tool, compressing	Unknown	TBM-6	None	109	PA1279
Tool, compressing	Nicopress Tool	None	None	419	PA2210
Tool, compression, hydraulic	Nicopress Tool	EP 410	None	996	PA2672
Tool, crimping	Unknown	M22520/1-01	B29742	70	PA7658
Tool, drafting, proportional	Charvoz	11/22/1987	None	104	NASA 9491
Tool, piston drive	Hilti	DX 400	None	375	JSC4390
Tool, scaling & chipping	Porter Cable	727G1	73569	420	PA1481
Tool, scaling/chipping	Chicago Pneumatic	CP4123	None	450	PA8122
Toolbox, large, blue (in rm 112)	Unknown	None	None	100	JSC4506
Toolbox, vehicle	Unknown	952970	None	175	JSC4120
Toolbox/chest	Rem/Pro	None	None	170	PA1548
Toolchest, 15-drawer	Snap-On	None	None	300	JSC4439
Toolchest, 19-drawer	Craftsman	None	None	300	JSC4793
Toolchest, 6-drawer	Snap-On	None	None	139.99	JSC4423
Toolchest, 6-drawer	Snap-On	None	None	139.99	JSC4437
Toolchest, 6-drawer	Snap-On	None	None	139.99	JSC4444
Toolchest, 6-drawer	Stack-On Products	None	None	167	PA1926
Torch, metal spray	Cronatron	CW-1600	None	449	PA6904
Tracer, circuit, hot	3M	TK-3B	None	120	FD5009
Tracer, circuit, hot	Pasar	P23	017547	420	FD5003
Tracer, circuit, hot	Pasar	P23	051855	420	FD5005
Tracer, circuit, hot	Pasar	P23	051840	420	FD5007
Tracer, current	Pasar	P23	049489	341	NASA 9298
Tracer, current	Amprobe	P-26	None	567	PA1963
Tracer, current (two components)	Amprobe	P-26	16232	567	PA1577
Tracer, open	Pasar	0T1000	23666	165	FD5001
Tracer, open	Pasar	0T1000-A	28831	165	FD5002
Trailer, utility	Unknown	SP 64-10	17YBP0610SB013265	550	JSC4044

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Trailer, utility	Unknown	SP 64-10	17YBP0619SB013264	550	JSC4055
Transformer, voltage, Freq: 60 Hz	Sola	CVN	None	125	JSC3454
Transit	K & E	740110	190646	573	NASA 9102
Tree, poinsettia	Unknown	None	None	400	JSC3990
Trendicator	Unknown	411A	None	345	JSC3455
Trendicator, digital	Doric	400A	369293	345	JSC3456
Trendicator, digital	Doric	400A	43321	345	PA7653
Trimmer, line	Toro	TC-3510	None	300	JSC4076
Trimmer, line	Shindaiwa	S250	None	316	JSC4070
Trimmer, line	Shindaiwa	S250	None	316	JSC4073
Trimmer, line	Shindaiwa	S250	None	316	JSC4078
Trimmer, line	Toro	TC-4000	None	318	JSC4952
Trimmer, line	Shindaiwa	S250 LE	None	330	JSC4075
Tripod, accessory, aluminum	Unknown	4602	None	41	NASA 5482
Tripod, camera	Bogen	3236	None	110	PA1943
Trolley, beam, adjustable width	DBI	RM-3140	None	207	PA2709
Trolley, beam, adjustable width	DBI	RM-3254	None	257	PA2710
Trolley, beam, adjustable width	DBI	RM-3254	None	257	PA2711
Truck, aluminum, appliance	Unknown	W91-010 1604	None	204	PA2324
Truck, cylinder, single	Unknown	MG-370-38	None	147	PA1994
Truck, cylinder, single	Unknown	MG-370-38	None	147	PA1995
Truck, hand, 2 wheel	R B Mfg. Co.	None	None	100	JSC3910
Truck, hand, 2 wheel	Harper Mfg.	None	None	200	JSC3791
Truck, hand, 2 wheel	R B Mfg. Co.	None	None	200	JSC3887
Truck, hand, 2-wheel	Unknown	3W153A	None	95	PA1710
Truck, hand, 2-wheel	Dayton	4W325	None	198	JSC3205
Truck, hand, collapsible	Handcrest	None	None	85	JSC3845
Truck, hand, collapsible	Handcrest	None	None	85	JSC3866
Truck, hand, collapsible	Unknown	None	None	85	JSC3852
Truck, hand, heavy duty, 2-wheel	Unknown	None	None	285	JSC3214
Truck, hand, heavy duty, 2-wheel	Unknown	None	None	285	JSC3290
Truck, hand, heavy duty, 2-wheel	Unknown	None	None	285	JSC3294
Truck, hand, heavy duty, 2-wheel	Unknown	None	None	285	JSC3295
Truck, hand, heavy duty, 2-wheel	Unknown	None	None	285	JSC3296
Truck, hand, heavy-duty, 10", 600# cap.	Wesco	210201	None	100	JSC3597
Truck, hand, platform	Dayton Equip. Co.	None	None	400	JSC3874
Truck, hand, platform	Orangeville Mfg. Co.	72W-3060-RC	None	700	JSC3873

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Truck, pallet, manual	BT	L2000U	None	530	PA2262
Truck, platform	Brouman	2506T41	None	282	PA1951
Tub, HAZMAT, black	Unknown	None	None	281.25	JSC3011
Tub, HAZMAT, black	Unknown	None	None	281.25	JSC3012
Tub, HAZMAT, black	Unknown	None	None	281.25	JSC3013
Tub, HAZMAT, black	Lab Safety	None	None	281.25	Not required
Tub, HAZMAT, black	Lab Safety	None	None	281.25	Not required
Unishear	Bosch	1506	84700177	366	PA8154
Unishear	Bosch	1507	601-507-034	469	PA7194
Unishear, 16-gauge	Unknown	3225	None	382	PA1375
Unit, hydraulic power	Dayton	None	None	150	JSC4460
Vacuum	Sensor	None	D026392	539	JSC5309
Vacuum	Windsor	None	026391	674.5	JSC5124
Vacuum cleaner	Eureka	1432	None	114	PA1254
Vacuum cleaner	Minuteman	C82906-04	42600054	165.25	JSC4245
Vacuum cleaner	Hako	C80106	28442	200	JSC4159
Vacuum cleaner	Nilfisk	GSD115	2220111	200	JSC4163
Vacuum cleaner	Nilfisk	GSD115	1901266	200	JSC4165
Vacuum cleaner	Nilfisk	GSD115	2200588	200	JSC4166
Vacuum cleaner	Nilfisk	GSD115	7728395	200	JSC4171
Vacuum cleaner	Nilfisk	GSD115	2232815	200	JSC4266
Vacuum cleaner	Nilfisk	type GSJ	10531	200	
Vacuum cleaner	Nilfisk	GSD115	2073529	200	
Vacuum cleaner	Nilfisk	GSD115	2169962	200	
Vacuum cleaner	Nilfisk	GSD115	2232896	200	
Vacuum cleaner	Nilfisk	GS80	2232900	419	JSC4094
Vacuum cleaner	Nilfisk	GS80	None	419	JSC4151
Vacuum cleaner	Nilfisk	GS80	None	419	JSC4152
Vacuum cleaner	Nilfisk	GS80	1901299	419	JSC4164
Vacuum cleaner	Nilfisk	GS80	10527	419	
Vacuum cleaner	Nilfisk	GS80	20661	419	
Vacuum cleaner	Quick Kleen	SC899	890460283	465	PA1018
Vacuum cleaner (motor only)	Nilfisk	GSD115	14557	200	JSC4160
Vacuum cleaner, 1/3-HP	Maxi Vac	2000-A	None	269	PA7058
Vacuum cleaner, 12.5 amp	Unknown	102	R-052909	167.75	JSC4170
Vacuum cleaner, 12.5 amp	Unknown	86A5B	R-072224	167.75	JSC4167
Vacuum cleaner, 6.6 amp, "Lead-use only"	UltiVac	OV1000	OVO4179348	325	PA2095

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Vacuum cleaner, 6.6 amp, "Lead-use only"	UltiVac	OV1000	OV04180927	325	JSC4161
Vacuum cleaner, 6.6 amp, "Lead-use only"	UltiVac	OV1000	OV04180930	325	JSC4162
Vacuum cleaner, 6.6 amp, "Lead-use only"	UltiVac	OV1000	OV04179344	325	PA2094
Vacuum cleaner, 7 amp	Minuteman	C82904-00	82040054	165.25	JSC4169
Vacuum cleaner, 7.8 amp	Nilfisk	GS80	None	419	JSC4285
Vacuum cleaner, 8 amp	Unknown	HD688	162566	165.25	JSC4168
Vacuum cleaner, asbestos-type	Unknown	None	None	200	JSC4266
Vacuum cleaner, dust recovery	Unknown	None	None	200	
Vacuum cleaner, Hepa-type	Nilfisk	GSJ115	12682	200	JSC3625
Vacuum cleaner, industrial, 8 amp	Unknown	C80380	80738366	165.25	JSC4156
Vacuum cleaner, industrial, 8 amp	Unknown	C80380	80738365	165.25	JSC4157
Vacuum cleaner, industrial, 8 amp	Unknown	C80380	80738364	165.25	JSC4158
Vacuum cleaner, portable, 5.8 amp	Dayton	2Z437F	None	126	PA1854
Vacuum cleaner, shop vac	Dayton	2Z97-26	None	167.75	JSC4700
Vacuum cleaner, shop vac	Unknown	500X	None	167.75	JSC4699
Vacuum, "Data Vac"	Metro	VM	1192	200	JSC3457
Vacuum, hand-portable	Hoover	U7065070	00050515	475	JSC5275
Vacuum, hand-portable	Hoover	07071-070	00001492	475	JSC5312
Vacuum, hand-portable	Hoover	S7065-070	00047501	750	JSC5179
Vacuum, heavy-duty	Hoover	07065-070	00051488	400	JSC5212
Vacuum, heavy-duty, hand-portable	Hoover	U7065-070	51483	137.95	JSC4978
Vacuum, heavy-duty, hand-portable	Hoover	07065	07000051500	137.95	JSC5121
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010960	475	JSC4974
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010957	475	JSC5110
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010883	475	JSC5111
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-11186	475	JSC5113
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-06966	475	JSC5114
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010965	475	JSC5115
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010953	475	JSC5116
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010958	475	JSC5118
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010956	475	JSC5122
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010969	475	JSC5135
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010955	475	JSC5140
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010971	475	JSC5196
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010964	475	JSC5211
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010968	475	JSC5234
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010961	475	JSC5270

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-10959	475	JSC5286
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-11107	475	JSC5287
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010967	475	JSC5330
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010954	475	JSC5331
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-11105	475	JSC5332
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-010970	475	JSC5333
Vacuum, HEPA-type, body harness	Pro-Team, Inc.	LV-100	LV06-11104	475	JSC5334
Vacuum, industrial	Unknown	None	None	200	PA1423
Vacuum, industrial, 20 gallon	Dayton	3Z283J	None	177	JSC4825
Vacuum, industrial, two-stage, 10-gallon	Dayton	2Z973D	None	151	JSC4095
Vacuum, industrial, two-stage, 15-gallon tank	Dayton	6Z095	None	615	JSC4096
Vacuum, industrial, two-stage, 15-gallon tank	Dayton	6Z095	None	615	JSC4187
Vacuum, industrial, two-stage, 20-gallon	Dayton	3Z707G	None	454.25	JSC4097
Vacuum, industrial, two-stage, 20-gallon tank	Dayton	6Z094	None	513	JSC4098
Vacuum, industrial, two-stage, 20-gallon tank	Dayton	6Z094	None	513	JSC4186
Vacuum, industrial, two-stage, 3-HP	Dayton	3Z709C	None	454.25	JSC4685
Vacuum, industrial, wet/dry, asbestos	Unknown	DT110	277560	903	PA1450
Vacuum, shop vac, 20 gallon, 7.5 amp	Dayton	3Z579	None	225	JSC5257
Vacuum, shop, 7.5 amp, 28-gallon	Dayton	3Z579	None	173	JSC4811
Vacuum, shop, wet/dry, 2-HP	Hoover	C2079	1814	200	JSC3969
Vacuum, space	Clark	590	5497	575	JSC5220
Vacuum, upright	Clark	614	614-017896	539	JSC4937
Vacuum, upright	Clark	614	614-024537	539	JSC4970
Vacuum, upright	Clark	614	614-024474	539	JSC4973
Vacuum, upright	Clark	614	614-024530	539	JSC4975
Vacuum, upright	Clark	614	614-024520	539	JSC4976
Vacuum, upright	Clark	614	614-024532	539	JSC4984
Vacuum, upright	Clark	614	614	539	JSC5119
Vacuum, upright	Clark	614	614-024541	539	JSC5127
Vacuum, upright	Clark	614	614-024505	539	JSC5128
Vacuum, upright	Clark	614	614-024529	539	JSC5130
Vacuum, upright	Clark	614	614-031644	539	JSC5133
Vacuum, upright	Clark	614	614-017869	539	JSC5134
Vacuum, upright	Clark	614	614-017897	539	JSC5139
Vacuum, upright	Clark	614	614-023815	539	JSC5143
Vacuum, upright	Clark	614	614-024507	539	JSC5170
Vacuum, upright	Clark	614	614-017885	539	JSC5171

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Vacuum, upright	Clark	614	614-024494	539	JSC5172
Vacuum, upright	Clark	614	614-024531	539	JSC5173
Vacuum, upright	Clark	614	614-024526	539	JSC5180
Vacuum, upright	Clark	614	614-024504	539	JSC5181
Vacuum, upright	Clark	614	614-024502	539	JSC5182
Vacuum, upright	Clark	614	614-017898	539	JSC5183
Vacuum, upright	Clark	614	614-024500	539	JSC5184
Vacuum, upright	Clark	614	614-017873	539	JSC5185
Vacuum, upright	Clark	614	614-024517	539	JSC5186
Vacuum, upright	Clark	614	614-024506	539	JSC5188
Vacuum, upright	Clark	614	614-024525	539	JSC5190
Vacuum, upright	Clark	514	514-010710	539	JSC5191
Vacuum, upright	Clark	614	614-017893	539	JSC5192
Vacuum, upright	Clark	614	614-023819	539	JSC5193
Vacuum, upright	Clark	514	514-010877	539	JSC5195
Vacuum, upright	Clark	514	514-010704	539	JSC5199
Vacuum, upright	Clark	None	None	539	JSC5202
Vacuum, upright	Clark	514	514-003511	539	JSC5204
Vacuum, upright	Clark	614	614-024482	539	JSC5205
Vacuum, upright	Clark	614	614-017889	539	JSC5209
Vacuum, upright	Clark	514	514-011336	539	JSC5210
Vacuum, upright	Clark	614	614-031762	539	JSC5214
Vacuum, upright	Clark	614	614-024514	539	JSC5216
Vacuum, upright	Clark	None	None	539	JSC5217
Vacuum, upright	Clark	614	614-024524	539	JSC5218
Vacuum, upright	Clark	614	614-023831	539	JSC5219
Vacuum, upright	Clark	614	614-024508	539	JSC5221
Vacuum, upright	Clark	614	614-024538	539	JSC5227
Vacuum, upright	Clark	614	614-024497	539	JSC5228
Vacuum, upright	Clark	614	614-024501	539	JSC5229
Vacuum, upright	Clark	614	614-017887	539	JSC5236
Vacuum, upright	Clark	514	514-010861	539	JSC5237
Vacuum, upright	Clark	614	614-024519	539	JSC5239
Vacuum, upright	Clark	None	None	539	JSC5241
Vacuum, upright	Clark	614	614-024516	539	JSC5272
Vacuum, upright	Clark	None	None	539	JSC5273
Vacuum, upright	Clark	614	614-031625	539	JSC5278

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Vacuum, upright	Clark	514	514-011333	539	JSC5289
Vacuum, upright	Clark	614	614-0275012	539	JSC5290
Vacuum, upright	Clark	614	614-024503	539	JSC5291
Vacuum, upright	Clark	614	614-017888	539	JSC5296
Vacuum, upright	Clark	614	614-006773	539	JSC5297
Vacuum, upright	Clark	614	614-024488	539	JSC5298
Vacuum, upright	Clark	None	614-010716	539	JSC5299
Vacuum, upright	Clark	614	None	539	JSC5300
Vacuum, upright	Clark	614	614-031647	539	JSC5301
Vacuum, upright	Clark	614	614-010869	539	JSC5302
Vacuum, upright	Clark	614	614-141010	539	JSC5303
Vacuum, upright	Clark	614	614-010692	539	JSC5304
Vacuum, upright	Clark	614	614-017880	539	JSC5305
Vacuum, upright	Clark	614	614-024518	539	JSC5306
Vacuum, upright	Clark	614	614-011340	539	JSC5307
Vacuum, upright	Clark	614	614-024542	539	JSC5308
Vacuum, upright	Clark	614	614-024484	539	JSC5310
Vacuum, upright	Clark	614	614-024493	539	JSC5311
Vacuum, upright	Clark	614	614-024513	539	JSC5336
Vacuum, upright	Clark	None	010870	539	JSC5337
Vacuum, upright	Clark	514	514-010691	539	JSC5338
Vacuum, upright	Clark	614	614-024499	539	JSC5339
Vacuum, upright	Clark	614	614-024523	539	JSC5344
Vacuum, upright	Clark	614	614-017890	539	JSC5346
Vacuum, upright	Clark	614	614-024510	539	JSC5347
Vacuum, upright	Clark	614	614-024539	539	JSC5350
Vacuum, upright	Windsor	SR12	D026401	539	JSC4954
Vacuum, upright	Windsor	SR12	D026400	539	JSC4971
Vacuum, upright	Windsor	None	026390	539	JSC5283
Vacuum, walk behind	Clark	LV-30	4902N	1220	JSC3971
Vacuum, wet/dry, 12-gallon	Hoover	C2071	1565	475	JSC5288
Vacuum, wet/dry, 12-gallon	Hoover	02071	1571	674.5	JSC5178
Vacuum, wet/dry, 16 gallon	Dayton	627710B	None	177	JSC4824
Vacuum, wet/dry, 20-gallon	Clark	TMI-65	640	674.5	JSC4983
Vacuum, wet/dry, 20-gallon	Clark	None	480	674.5	JSC5136
Vacuum, wet/dry, 20-gallon	Windsor	EPB2	542732	674.5	JSC5120
Vacuum, wet/dry, 25 gallon	Dayton	6Z769B	None	177	JSC3770

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Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Vacuum, wet/dry, 55 gallon, 9 amp	Dayton	3Z709A	None	200	JSC5258
Vacuum, wet/dry, 6-gallon tank	Dayton	1D456B	None	115.75	JSC4626
Vacuum, wet/dry, 6-gallon tank	Dayton	1D456B	None	115.75	JSC4627
Vacuum, wet/dry, 6-gallon tank	Dayton	1D456B	None	115.75	JSC4630
Vise support, pipe, tripod	Ridgid	None	None	275	JSC3738
Vise, 5" jaw	Wilton	None	None	199.99	JSC3343
Vise, 5" jaw	Wilton	None	None	199.99	JSC3344
Vise, 6"	Unknown	101059	None	119.99	JSC5163
Vise, 6"	Unknown	101059	None	119.99	JSC5164
Vise, 6"	Unknown	101059	None	119.99	JSC5165
Vise, 6"	Unknown	None	None	119.99	JSC4313
Vise, chain, tripod	Unknown	None	None	275	JSC4642
Vise, pipe	Unknown	None	None	320	JSC4337
Vise, pipe, plaster core,tripod-mount	Ridgid	None	None	320	JSC3739
Vise, pipe, plaster core,tripod-mount	Ridgid	None	None	320	JSC3740
Voltage regulator, automatic	Stabiline	SVRS88104CU	None	100	JSC3342
VU-meter	Unknown	None	1889	100	JSC3458
Water system	Miniwater	1019	None	200	JSC4099
Weight, test, 5000#	Unknown	None	None	200	JSC4562
Weight, test, 5000#	Unknown	None	None	200	JSC4563
Weight, test, 5000#	Unknown	None	None	200	JSC4564
Weight, test, 5000#	Unknown	None	None	200	JSC4565
Weight, test, 5100#	Unknown	None	None	250	JSC4566
Weight, test, 5100#	Unknown	None	None	250	JSC4567
Weight, test, 5600#	Unknown	None	None	260	JSC4568
Weight, test, 5800#	Unknown	None	None	270	JSC4569
Weight, test, 5800#	Unknown	None	None	270	JSC4570
Weight, test, 6800#	Unknown	None	None	290	JSC4571
Weight, test, 6900#	Unknown	None	None	295	JSC4572
Weight, test, 6900#	Unknown	None	None	295	JSC4573
Weight, test, 7000#	Unknown	None	None	300	JSC4574
Weight, test, 7000#	Unknown	None	None	300	JSC4575
Weight, test, 7000#	Unknown	None	None	300	JSC4576
Weight, test, 7000#	Unknown	None	None	300	JSC4577
Welder, arc	Unknown	3DDM24A	40166H9	300	JSC3991
Welder, arc	Pro Arc	1150B	None	300	PA1162
Welder, arc, 12K	Unknown	2.5ADDR24PA	None	300	JSC4115

Section J, Attachment I
List 3: Government-Furnished Property (Expendables)

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Welder, pin	Unknown	PBFS 14	53250	200	JSC4116
Welder, PVC	Unknown	R113-02C215	None	240	PA2040
Welder, Ready	Kamweld	905CA23-664	288	195	JSC3659
Welder, spot	Dayton	2Z543	848009	360	JSC4117
Welder, spot	Dayton	2Z543	None	360	PA2535
Welder, spot	Miller	MSW-41	KA-740700	360	FD1201
Welding machine	Miller	None	JE78800	200	JSC4118
Welding Machine	Miller	Thunderbolt AC/DC	KF815012	275	PA2358
Wheel, measuring	Unknown	MM34	None	100	JSC3970
Workbench, mobile	Stack-On Products	MB-1-2542	None	300	PA1857
Workbench, mobile	Stack-On Products	MB-1-2542	None	300	PA1858
Workstation	Quick-fill	None	None	400	JSC5198
Wrench kit, torque	Klein Tool	HDR-200I	None	96	FD8011
Wrench kit, torque	Klein Tool	HDR-200I	058762	96	FD8012
Wrench kit, torque	Klein Tool	HDR-200I	355786	96	FD8017
Wrench kit, torque	Klein Tool	HDR-200I	355769	96	FD8018
Wrench set, 12-pc (open/box)	Craftsman	None	None	285	JSC3364
Wrench set, combo, 14-pc	Craftsman	None	None	285	JSC4632
Wrench set, combo, metric, 17-pc	Unknown	None	None	262.75	JSC3119
Wrench set, metric	Unknown	760M	None	260	JSC3459
Wrench set, metric (sz 11, 12, 14, 17, 19)	Unknown	OEXSM708	None	195	JSC4054
Wrench set, open, metric	K & D	None	None	116.35	JSC3393
Wrench, air	Unknown	FAR 70B	None	100	JSC4021
Wrench, chain, 36"	Ridgid	None	None	169	JSC3672
Wrench, combo, 2-1/4"	Unknown	None	None	151	JSC4780
Wrench, combo, 2-1/4"	Unknown	None	None	151	JSC4781
Wrench, combo, 2-1/8"	Williams	None	None	135.75	JSC4686
Wrench, combo, 2-3/8"	Proto	None	None	140	JSC3670
Wrench, combo, 2-3/8"	Proto	None	None	140	JSC3671
Wrench, crescent, 24"	Crescent	None	None	106	JSC3192
Wrench, crescent, 24"	Unknown	None	None	106	JSC4316
Wrench, crescent, 24"	Unknown	D724	None	106	JSC4017
Wrench, impact	Black & Decker	6513-09 Type 01	94277	162	PA6997
Wrench, impact	Black & Decker	2670	37848	175	FD904
Wrench, impact	Ingersoll-Rand	1710A1	6097	210	FD901
Wrench, impact	Ingersoll-Rand	1710A1	3689	210	FD902
Wrench, impact	Ingersoll-Rand	712A4	680	210	FD906

Section J, Attachment I
List 3: Government-Furnished Property (Expendables)

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Wrench, impact	Black & Decker	2670	42313	250	FD903
Wrench, impact	Milwaukee	9051	46548928	429	FD905
Wrench, impact (w/ socket set)	Unknown	IM5B	110106	302	JSC4019
Wrench, impact (w/ socket set)	Unknown	IM5B	111782	302	JSC4048
Wrench, impact, 1"	CLECO	W1030	99266	64	PA1248
Wrench, impact, 1/2"	Ingersoll-Rand	2705A1	10848	64	PA1284
Wrench, impact, 1/2"	Ingersoll-Rand	2705A1	2103	64	PA1302
Wrench, impact, 1/2"	Stanley	IW08	3708	100	PA1062
Wrench, impact, 1/2"	Black & Decker	2214	16723	117	PA1370
Wrench, impact, 1/2"	Airetool	831	None	180	JSC3048
Wrench, impact, 1/2"	Ingersoll-Rand	None	A97089316	180	JSC4334
Wrench, impact, 1/2"	Millers Falls	None	None	180	JSC4011
Wrench, impact, 1/2"	Unknown	PH50D	293539	180	JSC4012
Wrench, impact, 1/2"	Unknown	232199	1460376	180	JSC4013
Wrench, impact, 1/2"	Unknown	None	None	180	JSC4508
Wrench, impact, 1/2"	Black & Decker	6513	76881	190	PA2044
Wrench, impact, 1/2"	Snap-On	IM51AP	None	239	PA1960
Wrench, impact, 3/4"	Master Power	2321/99	69251	218	PA1285
Wrench, impact, 3/4"	Master Power	2321/99	None	218	PA1286
Wrench, impact, 3/4"	Black & Decker	None	None	306.6	JSC4687
Wrench, impact, 3/4"	Chicago Pneum.	772	6199A129	306.6	JSC4688
Wrench, impact, 3/4"	Ingersoll-Rand	2920P	A97C27901	306.6	JSC3139
Wrench, impact, 3/4"	Sioux	None	None	306.6	JSC3193
Wrench, impact, 3/4"	Unknown	None	None	306.6	JSC3195
Wrench, impact, 3/4"	Unknown	2225	85060069	306.6	PA1368
Wrench, impact, 3/4", pneumatic	Ingersoll-Rand	261	AVC22060	190	PA2494
Wrench, impact, 3/8"	Ingersoll-Rand	205	105	80	PA1377
Wrench, impact, 3/8"	Ingersoll-Rand	8005-A	None	137	PA1388
Wrench, impact, 3/8"	Ingersoll-Rand	8005	None	137	PA1389
Wrench, impact, pneumatic	Milwaukee	None	None	225	PA6752
Wrench, impact, pneumatic	ARO Corporation	7652L3S	958072	490	PA6155
Wrench, impact, pneumatic, 1"	Ingersoll-Rand	1712B2	B4HJ	896	PA1242
Wrench, open, 2-3/8"	Proto	None	None	125	JSC3396
Wrench, pipe, 36"	Unknown	PW36B	None	124	JSC4018
Wrench, pipe, 48"	Ridgid	None	None	125	JSC4628
Wrench, pipe, 48"	Unknown	None	None	125	JSC3465
Wrench, pipe, internal	Unknown	None	None	75	PA3572

Section J, Attachment I
List 3: Government-Furnished Property (Expendables)

Description	Manufacturer	Model/Part #	Serial #	Acq. Price	Prop. ID #
Wrench, torque	Consolidated Device	1753DF	None	36	PA6969
Wrench, torque	Consolidated Device	6004DF	None	60	PA7125
Wrench, torque	Gray Instrument	MFR-100	None	85	FD8015
Wrench, torque	Snap-On	QJR217C	None	85	JSC3460
Wrench, torque	Unknown	HDR-1200i	225930	85	FD8017
Wrench, torque	Unknown	None	None	85	PA5260
Wrench, torque	Klein Tool	57035	226598	96	FD8017
Wrench, torque	Klein Tool	57035	None	96	JSC4991
Wrench, torque	Unknown	PB60	013430	120	JSC4006
Wrench, torque, 1/2"	Consolidated Device	2503DF	None	39	PA6968
Wrench, torque, 1/2"	Snap-On	TE6FUA	None	70	PA2429
Wrench, torque, 1/2"	Consolidated Device	2503DF	None	96	FD8016
Wrench, torque, 1/2"	Consolidated Device	2503DF	None	125	JSC3181
Wrench, torque, 1/4"	Consolidated Device	3015M	PZ1679	78	PA1679
Wrench, torque, 1/4"	Consolidated Device	361SM	None	78	PA2404
Wrench, torque, 10" - 254MM	Snap-On	QJR217C	850026827	100	JSC3457
Wrench, torque, 3/4"	Consolidated Device	2503 DF	None	106	PA5084
Wrench, torque, 3/8"	K & D	None	None	45	PA1675
Wrench, torque, 3/8"	Snap-On	None	6866	50	PA7055
Wrench, torque, 3/8"	Torque Control Inc	None	None	106	JSC4723
Wrench, torque, 3/8"	Jo Line Tools	750	None	150	JSC5194
Wrench, torque, 3/8"	K. D. Tools	2954	None	150	PA2249
Wrench, torque, 3/8"	Unknown	2RA	None	150	PA1351
Wrench, torque, 3/8" flex-head	Consolidated Device	2001MR	None	37	PA6703
Wrench, torque, 3/8", flex-head	K. D. Tools	2954	None	150	PA2252
Wrench, torque, 3/8", flex-head	K. D. Tools	2954	None	150	PA2253
Wrench, torque, gauge: 2-40 oz/in	Unknown	651C3	11513	110	JSC4770

Section J
Attachment I
List 3 - Government Furnished Property Summary (Expendables)

EXPENDABLES	Piece count	Acq. Value
Environmental	119	$23,008.75
PM&O -- Mechanical	510	$119,770.98
PM&O -- Plant Operations	6	$8,479.00
PM&O -- Electrical	378	$114,447.83
PM&O -- Project Engineering	8	$2,337.00
Construction	473	$124,041.00
PM&O -- Structural	405	$102,191.20
PM&O -- Vibration Data Collection	45	$11,238.00
Grounds Maintenance -- Tolman	186	$60,659.60
Logistics -- Transportation	95	$26,719.60
Logistics -- Material Operations	199	$57,690.00
Engineering	40	$7,114.40
Rigging -- RWS	188	$42,671.10
Logistics -- R & U	37	$7,474.25
Logistics -- Furniture	90	$26,935.13
Logistics -- Material Control	15	$5,590.66
Building Maintenance -- Tolman	206	$147,468.40
	3,000	$887,836.90

NOTE: The above items are low value expendable items and may not be available in these quantities due to their short life expectancy

NOTE: These items are being provided for contract use as they exist at time of contract start and are not required to be used in the departments that currently use them.

List 4: Installation- Accountable Government Property (IAGP)

Description	Mfgr	Mfg Model No	Serial No	Yr Mfd	ECN	Acq Cost
Air Conditioner TRLMTD NA8779	Pelsue TA Co	PELAIRE-M		1981		9976
Arc Reflection Method Filter	HDW Electronics, Inc.	M219SW		1996		7140
Compressor, Breathing Air	Ingersol-Rand Small Compressor	BAP20TH3		1991		7043
Digiphone	HDW Electronics, Inc.	T16/9		1996		3100
Generator Diesel TRLMT NA8795	ILI Corp	60D347		1983		14429
Generator Set	General Motors, Delco Prod Div	4-GD-50		1969		11845
Generator Set Diesel 200KW	Cummins Engine Co	NT855G2		1984		37288
Generator Set Diesel TRL MTD	Multiquip Inc	10KW		1986		6145
Generator Set Gas Engine	Multiquip Inc	25KW		1986		9896
Generator, Diesel TR-MTD NA8648	T&J Mfg Inc	TS130		1992		30004
Generator, Diesel TR-MTD NA8649	T&J Mfg Inc	TS50		1992		17860
Generator, Diesel TR-MTD NA8652	T&J Mfg Inc	TS75		1992		20555
Generator-Port Tri Mtd NA8856	Onan Corp	400.ODFN/4XR/20626C		1986		55771
Meter, Digital	Electrical Testing Instr'mts	DXR2000		1996		7200
Module Interface	Allen-Bradley Co Electr Div	1770KF2		1994		1997
Module, Interface	Allen-Bradley Co Electr Div	1785KE		1991		1124
Module, Processor	Allen-Bradley Co Electr Div	1785LTB		1991		1538
Monitor, x-ray	EG&G Astrophysics	DE570BA	B1J838C03127	1998	1922383	2500
Monitor, x-ray	EG&G Astrophysics	DE570BA	B1J838C03113	1998	1922384	2500
Printer, Video Color	Mitsubishi Electric Corp	CP710U	3981	1998	1922385	5000
Pumping Unit, Centrifugal	Baker Huges Inc	5HR03200		1992		20678
Reflectometer, Digital Time	HDW Electronics, Inc.	T3000		1996		11000
Scale, Truck	Spinks	9536J			Real Property	60000
Scope, Power 4-Channel	BMI	4800		1991		11950
Test Kit	Siemens Energy and Automation	TS31		1991		1350
Test Kit Portable	Westinghousoe Air Brake Co	SPBTK		1985		1365
Test Set Circuit Breaker	Multi-Amp CP F-Pow-R-Safe Tool	CB225		1981		5406
Test Set Circuit Breaker	Multi-Amp CP F-Pow-R-Safe Tool	CB7150		1974		15200
Test Set Insulation Breakdown	Associated Research Inc	5321A		1984		4445
Test Set, Circuit Breaker	Multi-Amp CP F-Pow-R-Safe Tool	CB8160		1991		32975
Test Set, Circuit Load	Multi-Amp CP F-Pow-R-Safe Tool	PA2505K		1991		3075
Tester Hipot DC Proof	Hipotronics Inc	8GP75		1981		2210
Tester Insulation	Biddle Instr F-James Biddle Co	MEGGER		1986		5300
Tester Insulation Break Down	Hipotronics	FCFL2		1981		1295
Tester, Battery Impedance	Biddle Instr F-James Biddle Co	246001		1992		5295
Tester, Ground Resistance	Biddle Instr F-James Biddle Co	250302		1994		1597
Tester, Insulation	Biddle Instr F-James Biddle Co	218800		1994		9750
Tester, Pressure Portable	Ametek Inc Mansfield & Green Dv	PK2-854WC-SS		1992		4200
Transport, Magnetic Tape	Apple Computer Inc	M2640		1989		925
X-Ray Inspection System	EG&G Astrophysics	SYS107	58936	1998	1922382	36502

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT J – RESERVED

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PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

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ATTACHMENT K - IT SYSTEMS
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LIST NO.	SYSTEM	PAGE NO.
1	IT SYSTEMS	J-K, List 1, 1
2	IT SYSTEMS DESCRIPTION	J-K, List 2, 1

Section J
Attachment K - List 1 - IT Systems

DESCRIPTION	Provides Hardware	Provides Application	Major Application Upgrades	Application Repairs *	Local Hardware Repair	Application Users	Manages	Provide NASA Access	Host	Operating System	Language	Accessed from Work Station via	Notes:
IBM Mainframe Applications - Agency Wide / Local Code Applications													
NASA Property Disposal Mgt. System (NDPMS)	NASA	NASA	NASA	NASA	N/A	COSS/NASA	NASA	NASA	MF @ MSFC	MVS	ADA Natural	3270 Emul	
NASA Supply Mgt. System (NSMS)	NASA	NASA	NASA	NASA	N/A	COSS/NASA	NASA	NASA	MF @ MSFC	MVS	ADA Natural	3270 Emul	
NASA Equipment Management System (NEMS)	NASA	NASA	NASA	NASA	N/A - COSS*	COSS/NASA	NASA	NASA	MF @ MSFC	MVS	ADA Natural	3270 Emul	
Database Server Based Applications - Larger Database Applications - Local Code													
Local Stock Number LOG LSNL)	NASA	NASA	NASA	NASA	N/A	COSS/NASA	COSS	NASA	SQL Server	NT	Powerbuilder	ICON	
Transportation Inbound Freight Log (w Bar Code Readers (TIFL)	NASA *	NASA *	NASA	NASA	N/A	COSS/NASA	COSS	NASA	SQL Server	NT	Powerbuilder	ICON	
Server Based Applications (Access, PFS File, etc.) - Smaller Database Applications - Local Code													
Misc. Access, Tracking Files	NASA	NASA	COSS	COSS	N/A	COSS/NASA	COSS	NASA	NT	Windows	Misc	ICON	
Special Systems (Larger)													
Energy Management Control Systems (EMCS)	NASA	NASA	NASA	COSS	COSS**	COSS/NASA	COSS	NASA	NT	NT		ICON	
Computerized Maintenance Management System (CMMS)	COSS **	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	NT	SQL Server	ICON	
Special Systems (Medium)													
Facility Cad System	NASA	BOSS ***	COSS	COSS	N/A	COSS/NASA	COSS	COSS	NT	Windows	MicroStation/Autocad	ICON	
Space Utilization System (linked to Facility Housing Plans)	NASA	NASA	NASA	NASA	N/A	COSS/NASA	COSS	COSS	NT	Windows		ICON	
SPECSNTACT	NASA	NASA	NASA	COSS	NASA	COSS/NASA	COSS	COSS	NT	Windows		ICON	
RPAS	NASA	NASA	NASA	COSS	NASA	COSS/NASA	COSS	COSS	Local		Dbase 3	N/A	
Server Based Applications - (Smaller Applications - Commercial Off the Shelf (COTS) Apps)													
Thermography Analysis	NASA	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	Windows		ICON	
Vibration Analysis	NASA	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	Windows		ICON	
Gas Cylinder Tracking System	NASA	BOSS ***	COSS	COSS	COSS*	COSS/NASA	COSS	COSS	NT	DOS	Adv. Rev	ICON	
Facility Drawing System	NASA	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	Windows	Access	ICON	
WinEst / Means	NASA	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	Windows		ICON	
NEMS Scanning System	COSS		COSS	COSS	COSS		COSS						
Special Facility/Utility Apps													
CEMS	NASA	BOSS ***	COSS	COSS	COSS	COSS	COSS	COSS	Local	DOS		ICON	
SCADA	NASA	BOSS ***	COSS	COSS	COSS	COSS	COSS	COSS	Local	DOS		ICON	
METASYS	NASA	BOSS ***	COSS	COSS	COSS	COSS	COSS	COSS	HVAC	DOS		ICON	
AMS	NASA	BOSS ***	NASA	NASA	COSS	COSS	COSS	COSS	Local	DOS		ICON	
Webbased Applications													
DAMES	NASA	NASA	NASA	NASA	N/A	COSS/NASA	NASA	NASA	Web	Windows	N/A	ICON	
MUFFIN	NASA	NASA	NASA	NASA	N/A	COSS	NASA	NASA	Web	Windows	N/A	ICON	
FEDLOG	NASA	NASA	NASA	NASA	N/A	COSS	NASA	NASA	Web	Windows	N/A	ICON	
NETS	NASA	NASA	NASA	NASA	N/A	COSS	NASA	NASA	Web	Windows	N/A	ICON	
STEERS	NASA	NASA	NASA	NASA	N/A	COSS	NASA	NASA	NT	Windows	N/A	ICON	
WAD	NASA	NASA	NASA	NASA	N/A	COSS	NASA	NASA	NT	Windows	SQLServer/Cold Fusion	ICON	
Panel Schedules	NASA	BOSS ***	COSS	COSS	COSS	COSS/NASA	COSS	COSS	NT	Windows	Access	ICON	
NOTES													
* COSS responsible for Bar Code Readers													
** COSS responsible for field systems. Another contractor or NASA is responsible for Workstations and servers													
*** Application from Existing BOSS contractor													

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS
SECTION J - LIST OF ATTACHMENTS
ATTACHMENT K - LIST 2, IT SYSTEM DESCRIPTIONS

GENERAL DESCRIPTION

The IT applications are described in various levels of detail. In general, they are described in more detail where the Contractor will be totally responsible for the system (operations, programming, system administration, etc.) and in far less detail where the Contractor is a user of the system. Where the Contractor is a user of the system, the effort is described in more detail in other parts of the contract with the associated activity. See Table 1 for details. Note: The format chosen is intended to be informative as relates to the use of the application. Specific details such as "lines of code" or equivalent metrics have not been included, since they have little relevance to the work that is to be performed.

IBM MAINFRAME APPLICATIONS

SYSTEMS DESCRIBED

NASA Supply Mgt. System (NSMS)
NASA Equipment Management System (NEMS)
NASA Property Disposal Mgt. System (NPDMS)

NASA Supply Mgt. System (NSMS)

This is an Agency Wide Supply system used by all NASA Centers for supply activities. This system is hosted on Mainframe Computers at the Marshall Space Flight Center. Contractor interface is via a Government provided 3270 Terminal Emulation application using PC's connected to the Center network.

NASA Equipment Management System (NEMS)
NASA Property Disposal Mgt. System (NPDMS)

These are Agency Wide Equipment Management/Disposal Systems used by all NASA Centers to track NASA owned on-site equipment and on-site disposal of equipment. This system is hosted on Mainframe Computers at the Marshall Space Flight Center. Contractor interface is via Government provided 3270 Terminal Emulation using PC's connected to the Center network.

DATABASE SERVER BASED APPLICATIONS (SQL SERVER OR EQUIVALENT) - LARGER DATABASE APPLICATIONS - LOCAL CODE

SYSTEMS DESCRIPTIONS

Local Stock Number LOG
Transportation Inbound Freight Log

These are two local JSC systems that are in SQLServer. They are managed by the Center and will be maintained with minor changes by NASA as long as the Contractor uses them. Included is the capability to barcode incoming freight, inspection, and track through delivery. The Contractor may abandon these applications and replace them by equivalent Contractor designed, managed, operated systems.

Server Based Applications - Smaller Database Applications - Local Code – Miscellaneous Applications

These applications are a mixture of small applications in database (Access), or spreadsheets (Excel). These are the files that are used locally by the user groups performing day-to-day contract activities now. These applications will be provided to the Contractor for use as the Contractor sees fit. The usefulness of these generic type applications will depend on how the Contractor chooses to perform the contract tasks. The applications are not listed or described further.

SPECIAL SYSTEMS (Larger)

SYSTEMS DESCRIPTIONS

Energy Management Control System (EMCS)

This JSC managed EMCS provides the control, acquisition of the site energy systems, primarily the two main chiller plants, substation, the power generation building supporting mission controls complex (Building 30), the mall building systems (Air Handling Units, Hot and Chilled Water pumps, etc.). The application design and major system upgrades are provided by JSC. The Contractor is responsible for day-to-day operations, determining alarm and control set points, application repair, all field maintenance including RTU, METATSYS, PLC's, etc.

COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

The Contractor is responsible for all day-to-day management and control of this system, including all installation, setup, macros, and reports in support of the computerized maintenance management system that is run on NASA provided MP2 COTS software and located on a Contractor provided server.

SPECIAL SYSTEMS (Smaller)

SYSTEMS DESCRIPTIONS

Facility Cad System
Space Utilization System (linked to Facility Housing Plans)

The Contractor is responsible for all day-to-day management and control of this system including all installations, setup, macros, and symbols, in support of the facility drawing system (all asbuilts and drawings prepared by the Contractor). The system includes thousands of facility drawings that were produced or have been converted to MicroStation/Autocad. This system results in permanent records being produced. Hard copy/electronic files are provided to NASA for permanent record management. The Contractor provides the electronic files in two formats. One is provided with all references as a permanent record, and the second is a single file format with designated layers turned on to support a site wide access facility drawings (managed by others).

Included in this system is a set of drawings referred to as the Facility Housing Plans (FHP). These are drawings of each of the floors of the onsite or directorate managed offsite facilities. Each of these drawings in linked to database used by NASA in support of the space utilization system managed by JSC. All application

programming, support, reports, and the like are provided by the Contractor. The Contractor provides the support to produce additional files to support site Internet access of a single file that has only defined layering turned on. The Contractor provides the support to produce additional files to support a single file that has only defined layering turned on to support the site Central Telecommunications System (phone box layouts).

Note: The Government is in the process of upgrading the Space Utilization database to Facility Center. Facility Center is a NASA supported – Contractor Operated Application.

SPECSNTACT

This is an Agency wide PC based system that is used for the preparation of facility specifications. The Contractor is responsible for day to day operations in support of the typing, administrative, and clerical support for the preparation of these facility construction contract specifications.

Winest / Means

This is a COTS application that the contractor maintains for use by the contractor and NASA for making construction estimates of work to be performed.

NEMS Scanning System

This is a COTS application, scanning hardware and software, plus a server that documents NEMS activities.

SERVER BASED APPLICATIONS - (SMALLER APPLICATIONS - COMMERCIAL OFF THE SHELF (COTS) APPS)

SYSTEMS DESCRIPTIONS

Thermography Analysis
Vibration Analysis

These are two Contractor managed systems that document/analyze thermography and vibration data in support of facility maintenance/operations

Cylinder Tracking System

This is a bar code Cylinder Tracking System that is Contractor operated to manage and track all of the onsite gas cylinders.

Special Facility/Utility Apps

CEMS

This is a continuous emissions monitoring system on the boiler at Building 222. The Contractor extracts the data for environmental management reporting.

SCADA B48

This is SCADA system that supports the monitoring/control of the Woodward equipment on the diesels in Building 48. Data from this

system is interfaced with the ECMS for remote monitoring. This is an integral part of the diesel controls and the Building 48 systems that are described elsewhere in the documentation.

AMS

This is a Contractor operated Atmospheric Management System that tracks the data necessary for local management of emissions and reporting.

Winest / Means

This is a COTS application that the contractor maintains for use by the contractor and NASA for making construction estimates of work to be performed.

WEB ACCESS TO OFF SITE APPS

SYSTEMS DESCRIPTIONS

DAMES
MUFFIN
FEDLOG

These are three systems that access remote Government Computer Systems via the web for the purpose of either to query the system for information or to upload data. The utilities exist to access the systems.

NETS
Steers

These are two data input environmental systems. STEERS is used for data input to the State of Texas and NETS is used for input for NASA Headquarters.

Work Authorization Document (WAD)

The WAD is a WEB Government managed web based application that is used to track all Facility Work Requests. The Contractor is responsible for inputting status and summary cost for Design and Construction into the CMMS system. NASA will mine the data from CMMS into the WAD.

Panel Schedules

The panel schedule application is an Access database with Cold Fusion Web access.

PART III-LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J-LIST OF ATTACHMENTS

ATTACHMENT L-RADIO MAINTENANCE AND REPAIR

TABLE OF CONTENTS

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2	GOVERNMENT OWNED – JOINT USE RADIO EQUIPMENT	J-L, L-2, 1
3	GOVERNMENT OWNED – GOVERNMENT PERSONNEL OR NON-BOSS CONTRACTOR USE RADIO EQUIOPMENT	J-L, L-3, 1

Section J, Attachment L
Exhibit L-1
Radio Communications Service Work Orders

Furnish a service repair ticket on all types of repairs, which must be initiated at the time of request and closed and signed off by CO upon completion of the service. An original must be provided to the CO and a copy must retained by the Contractor for evaluation or reference purposes. The Contractor may add additional data as desired. The following information will be required on the service repair ticket:

(1) work order claim number or job control number
(2) date the call was received from the customer requesting service
(3) point of contact (name, telephone number, building, and room number)
(4) contract number
(5) complete and thorough description of the work being requested
(6) brand of equipment
(7) model of equipment
(8) NASA equipment control number (if applicable)
(9) serial number of equipment
(10) government vehicle license plate number (if applicable)
(11) transmitter operating frequency
(12) receiver operating frequency
(13) transmit power output across a 50-ohm load
(14) transmit power output across a normal load
(15) transmitter modulation deviation
(16) transmitter modulation coded mode (if applicable)
(17) duplexer/transmitter to antenna insertion loss (if applicable)
(18) duplexer/receiver to antenna insertion loss (if applicable)
(19) receiver sensitivity (usable) at the receiver
(20) trouble found; full description of problem
(21) technical measurements after repair/adjustment/recalibration to include:
- receive sensitivity reading
- transmit sensitivity reading
- receive PL code/transmit PL code
- +/-KHZ
- readings on F1, F2, F3, F4, etc., to include power forward and power reflected

(22) corrective action performed/resolution
(23) identification of parts replaced and their related manufacturer's part number
(24) printed/typed name of technician assigned to the service call
(25) clock in time; upon arrival at the call location
(26) clock out time; upon leaving the call location
(27) date of completion of repair
(28) customer signature/date of when the call was completed
(29) signature of certified technician completing the service

Section J, Attachment L
Exhibit L-2
GOVERNMENT OWNED -JOINT USE RADIO EQUIPMENT

ECN	ITEM NAME	MANUFACTURER	MODEL	ACQUIRE DATE	COST	SERIAL NUM
1546542	BASE STATION	MOTOROLA INC	L1926A	5/10/1996	2075	322CXE4704
1546541	BASE STATION	MOTOROLA INC	L1926A	5/10/1996	2075	322CXE4705
1543775	CONSOLE, DUAL CHANNEL	MOTOROLA INC	L1927A	7/9/1996	3525	322CWL2580
1455021	DIGITAL REMOTE CONTROL	MOTOROLA INC	L1651A	7/25/1996	813	740CXE4924
1455020	DIGITAL REMOTE CONTROL	MOTOROLA INC	L1651A	7/25/1996	813	740CXE4926
0861229	INTERCONNECT TERMINAL	MOTOROLA INC	CNPST	12/8/1989	3029	FCP10U
1008703	REPEATER RADIO	MOTOROLA INC	C73GSB3105BT	6/29/1988	5023	482CMY0130
1239343	REPEATER RADIO	MOTOROLA INC	C74CXB7106BT	7/30/1992	3685	388CSQ0268
1239344	REPEATER RADIO	MOTOROLA INC	C74CXB7106BT	7/30/1992	3685	388CSQ0269
1449638	REPEATER RADIO	MOTOROLA INC	C73CXB7106BT	3/6/1995	8145	388CVE0141
1550461	SPECTRA DESKTOP	MOTOROLA INC	L44KXM7174AM	6/6/1996	2293	276AWL0006
1455019	SPECTRA DESKTOP	MOTOROLA INC	L53KXM7174AM	7/25/1996	2224	276AWL0005
1847932	STATION, QUANTAR	MOTOROLA INC	T5365A	8/22/1997	11180	448CXP0027
1846422	STATION, QUANTAR FAMILY	MOTOROLA INC	T5365A	2/28/1997	6160	448CXD0004
1238224	CONTROLLER, REMOTE	MOTOROLA INC	T5601A	4/30/1992	1263	177SSH0126
1238225	CONTROLLER, REMOTE	MOTOROLA INC	T5601A	4/30/1992	1263	177SSH0127
1546542	BASE STATION	MOTOROLA INC	L1926A	5/10/1996	2075	322CXE4704
Decalled	REPEATER RADIO	MOTOROLA INC	C73RCB3105BT	6/29/1988	5023	201CEE0858
Decalled	REPEATER RADIO	MOTOROLA INC	C64RXB3106A	6/30/1992	3685	525CJW0020
Decalled	REPEATER RADIO	MOTOROLA INC	C73RCB3103	6/29/1988	5023	201CEE0842

NET	PRIORITY	CATEGORY	ITEM_NAME	MANUFACTURER	MODEL	SERIAL_NUM
1	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC663X
1	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDH9PA3AN	402AWJ9297Z
1	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01RDH9PA3AN	402AVSU095Z
1	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC668X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AYN1511X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1671
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2367
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2370
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1663
1	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB718
1	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2171
1	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2184
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1669
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1670
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1674
1	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	HT1000H01KDC9AA1DNNX	402AXGA220A
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1955X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1956X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1957X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1958X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1959X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1960X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1961X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1962X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1963X
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1681
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1682
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1684
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1687
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1688
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1689
1	1	3 - NON-COSS	REMOTE CONTROL UNIT	MOTOROLA INC	T1607CM	222CPN0181
1	1	3 - NON-COSS	REMOTE CONTROL UNIT	MOTOROLA INC	T1607CM	222CPN080
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1694
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1695
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1696
1	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1697
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB719
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB766
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB776
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2185
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2186
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2178
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2586
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2179
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2173
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2169
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2183
2	1	3 - NON-COSS	RADIO, HANDHELD	MOTOROLA INC	VISAR/H05RDH9AA7DN	720TAL2687Z
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1641

NET	PRIORITY	CATEGORY	ITEM_NAME	MANUFACTURER	MODEL	SERIAL_NUM
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1646
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1647
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1648
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1650
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1654
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1658
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1659
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1660
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB778X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB779X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB780X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB781X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB782X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB783X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB784X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB785X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB786X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB787X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB788X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB789X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB790X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AWE2434X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AWE2435X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2366
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVN0064X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1642
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1643
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1644
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1645
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB720
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB765
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2172
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2175
2	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	D44MJA77A3CK	428ASN2587
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H445SVU7160	649TDW4596
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1651
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1652
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1653
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1655
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1656
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1657
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1662
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1665
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1672
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1673
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1675
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1676
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1677
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1678
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1683

NET	PRIORITY	CATEGORY	ITEM_NAME	MANUFACTURER	MODEL	SERIAL_NUM
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1685
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1686
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1691
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1693
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1698
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1699
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1700
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1701
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1702
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1703
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1704
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1705
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1706
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1707
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVMWB791X
2	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVWB777X
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3N	402AXG1964X
3	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	H01RDC9AA1DN NX	402AXS1053X
3	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB777
3	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	H01RDC9AA3DN	402AXNA564
3	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	H01RDC9AA3DN	402AXNA565X
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AYN1510X
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33HMU3124AN	476AMU0556
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1649
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	MX330	2599
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1661
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1667
3	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1510
4	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HT600	649ATG2011
4	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HT600	649ATG2012
4	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HT600	649ATG2013
4	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HT600	649ATG2014
4	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HT600	649ATG2015
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5611
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5612
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5613
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5615
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5617
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5618
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5619
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5620
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5622
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5623
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5624
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5625
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5626
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5627
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5628
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5629
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5631

NET	PRIORITY	CATEGORY	ITEM NAME	MANUFACTURER	MODEL	SERIAL NUM
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5632
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649APW5633
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	649BPA1450
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	BPX1452
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	CL78692051899
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	MT500	411ALA1068
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2699
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2700
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2701
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2702
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2703
4	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7120CN	649ASQ2704
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XVJ2BQQ
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XVS263P
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WJ
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WU
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	646XWS273J
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WM
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WS
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	646XWS273G
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WR
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XVS263N
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	646XWS273H
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WQ
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	646XWS273L
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WK
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WP
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	646XWS273K
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WT
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WN
4	1	3 - NON-COSS	PAGER, ERT	MOTOROLA INC	MINITORII/H04UMC1222AC	MD5XUY22WL
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD482
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1519Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1535Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1539Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1572Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1574Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05SDD9AA4DN	720TAG1577Z
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD492
5	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE257
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H44SVU7160CN	649ASN1666
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01KDC9AA3DN	355AAQ2372
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01KDC9AA3DN	355AAQ2373
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01KDC9AA3DN	355AAQ2374
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01KDC9AA3DN	355AAQ2375
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3BN	402AVN0063X
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD486
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD487
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD500
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE0259

NET	PRIORITY	CATEGORY	ITEM_NAME	MANUFACTURER	MODEL	SERIAL_NUM
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE124
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE148
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE155
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE162
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE185
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE230
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE237
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE238
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE239
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE241
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE243
8	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	HOLUCC6DB3ANNX	511AVQP166Z
8	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC658X
8	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC665X
8	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC666X
8	1	3 - NON-COSS	RADIO HAND HELD	MOTOROLA INC	H01RDC9AA1DN NX	402AXS1052X
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD474
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD477
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD478
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD480
8	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	H01RDC9AA1DN NX	402AXS1057X
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1113	ADY2582
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1113	ADY2583
8	1	3 - NON-COSS	RADIO, HAND HELD	MOTOROLA INC	HT1000	402ATQ5881
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQD488
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE261
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE282
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE285
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE286
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE287
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE289
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWQE291
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2368
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2369
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	355AAQ2371
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1445
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1448
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1449
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01KDC9AASN	402AVLA032Z
8	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M44GMC09C1AA	159TWYB715
8	1	3 - NON-COSS	RADIO MOBILE	MOTOROLA INC	M01HX627W	623AXJ0067
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H05RDH9AA7DN	720TZE2597Z
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3DN	402TYE7169Z
8	1	3 - NON-COSS	RADIO HAND-HELD	MOTOROLA INC	H01KDC9AA3BN	402AVEC671X
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H01RDC9AA3CN	402AWND371 Z
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	VISARH05RDH9AA7	720AWQ5609Z
8	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	VISARH05RDH9AA7	720AWQ5616Z
9	1	3 - NON-COSS	MOBILE RADIO	MOTOROLA INC	MAXTRAX	475FMU182
9	1	3 - NON-COSS	MOBILE RADIO	MOTOROLA INC	MAXTRAX	475FMU183
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0549

NET	PRIORITY	CATEGORY	ITEM NAME	MANUFACTURER	MODEL	SERIAL NUM
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0550
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0551
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0552
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0554
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	475AMU0556
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H33HMU3124AN	651APL3394
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H43SVU7160BN	651APL3395
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H43SVU7160BN	651APL3396
9	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT600/H43SVU7160BN	651APL3397
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160AN	651ANL1706
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651APQ0708
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160AN	651ANA3369
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160AN	651ANA3370
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS1672
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1440
10	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ARU1504
14	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	I370XL/H07UBH6NR7BN	089AYE1X52
14	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	I370XL/H07UBH6NR7BN	089AYE2V81
14	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	i500PLUS	831AAA8G5Z
14	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	i500PLUS	831AAC1FJH
14	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	I370XL/H07UBH6NR7BN	089AYE2R10
15	2	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT1000/HO1KDC9AA1AN	402ATQ5883
15	2	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT1000/HO1KDC9AA1AN	402ATQ5888
15	2	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	HT1000/HO1KDC9AA1AN	428FPL5078
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN1100E	231ACW0711
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN1100E	231ACW0712
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN1100E	231ACW0713
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN1100E	231ACW0714
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SV7160BN	651APL3398
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651APL3399
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651APL3400
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651APL3401
17	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160AN	651ANL1707
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123	230ADS2093
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123	ADS2087
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123	ADS2088
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123	ADS2089
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123A	230ADS2090
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123A	230ADS2092
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBB1123A	230ADS2094
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1906
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1907
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1908
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1909
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1910
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33BBU1123A	230AJE1911
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN313	S01F09
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN313	S01F29
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33FFN313	S01F49
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2430

NET	PRIORITY	CATEGORY	ITEM NAME	MANUFACTURER	MODEL	SERIAL NUM
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2431
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2432
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2433
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2434
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2436
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2437
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H43SVU7160BN	651ASS2439
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33LCU1124AN	402AMU0623
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33LCU1124AN	402AMU0626
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33LCU1124AN	402AMUO624
18	1	3 - NON-COSS	RADIO, PORTABLE	MOTOROLA INC	H33LCU1124AN	402AMUO625

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

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1.1.01	CLC	Chilled Water	M	1
1.1.02	HAC	HVAC	M	2
1.1.03	CLT	Cooling Towers	M	3
1.1.04	CAR	Compressed Air	M	4
1.1.05	SCR	Steam & Condensate	M	5
1.1.06	EXH	Exhaust & Ventilation	M	6
1.1.07	REF	Refrigeration	M	7
1.1.08	HWH	Hot Water Heating	M	7
1.1.09	DFS	Diesel Fuel	M	8
1.1.10	UHR	Space Heating	M	8
1.1.11	PSW	Process Water	M	8
1.1.12	STE	Cafeteria	M	9
1.1.13	HBC	Hyberbaric Chamber	M	9
		M Count	**13**	
1.2.01	HVT	Site Electrical 138kV Transmission	E	10
1.2.02	MVD	Site Electrical 15kV Distribution	E	10
1.2.03	8DG	B48 D&BX Power	E	12
1.2.04	8BG	B48 B Power	E	12
1.2.05	8AG	B48 A&AX Power	E	13
1.2.06	ELT	Exterior Lighting	E	13
1.2.07	STC	Site Traffic Control	E	13
1.2.08	EMC	Energy Management and Control	E	14
1.2.09	SDE	Secondary Distribution Equipment	E	16
1.2.10	LTG	Lighting (General Area)	E	18
1.2.11	ELS	Emergency Lighting	E	18
1.2.12	OWL	Obstruction and Warning Lighting	E	18
1.2.13	LPS	Lightning Protection	E	19
1.2.14	GND	Grounding	E	19
1.2.15	CTS	Central Telecommunications Systems (CTS)	E	19
1.2.16	EPB	Emergency Power Backup	E	20
1.2.17	EWS	Emergency Warning	E	20
1.2.18	SIS	Site Intercom	E	20
1.2.19	RTM	Radio Tape Monitoring	E	21
1.2.20	FPS	Fire Protection and Security	E	21
		E Count	**20**	
1.4.01	PWR	Potable Water	C	21
1.4.02	SNS	Sanitary Sewer	C	23
1.4.03	SWS	Storm Sewer	C	24
1.4.04	NGS	Natural Gas	C	25
1.4.05	FFP	Fire Protection	C	25
1.4.06	DHW	Potable Hot Water	C	26
1.4.07	TIS	Turf Irrigation	C	27
1.4.08	SIT	Facility Interior	C	27
1.4.09	SET	Facility Exterior	C	28
1.4.10	RUD	Doors & Barriers	C	28
1.4.11	FGT	Fences & Gates	C	29
1.4.12	RPD	Public Displays	C	29
		C Count	**12**	
1.5.01	WTC	Waste Tank Collection	X	30

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1.5.03	CSA	Container Storage Areas	X	31
1.5.04	CTB	Containment Berms	X	31
1.5.05	WWI	Wastewater Impoundments	X	31
1.5.06	GTS	Groundwater Treatment	X	32
1.5.07	PLW	Plating Waste Pretreatment	X	32
1.5.08	CEM	Continuous Emissions Monitor	X	32
		X Count	**8**	
1.6.01	ELE	Elevators	O	33
1.6.02	LDV	Lifting Devices	O	34
		O Count	**2**	
1.7.01	UEE	User Equipment	UE	35
		SP Count	**1**	

Total Systems **56**

Section J, Attachment N
Exhibit N-1 – Table 1
System Definitions

1.1.0 Mechanical

#	System Type	System	
1.1.01	Mech.	**Chilled Water**	
1.1.01.A		A. Description	Production – Water chillers at ***JSC** consist of large central plant systems (up to 2000 tons) and individual packaged systems serving specific selected facilities. The central plants, buildings 24 and 28, provide chilled water internally and through the utility tunnel or direct buried to the mall buildings for use as HVAC or process cooling. The emergency power building, building 48 provides chilled water internally and through the utility tunnel to the Mission Control Center (MCC) buildings (30L, 30M and 30S) to be used in HVAC cooling. The chiller auxiliary support equipment in buildings 24, 28, and 48, is the equipment/components required to support the operation of a plant chilled water system or a backup to provide chilled water when the plant chilled water systems not available. Distribution/Use – The chilled water piping system contains approximately eight miles of primary supply and return piping that connects the central/auxiliary plants to the mall facilities and building 48. This system includes the direct buried chilled water supply and return feeds from both building 24 and 28 that connects in the tunnel. The Building 48 chilled water distribution system provides chilled water supply and return to the MCC and helps feed the tunnel system when necessary. The building 48 system can either produce chilled water or redirect building 24 and 28 chilled water as required. Closed loop cooling systems are those systems that use a chilled water heat exchanger to provide a secondary cooling water loop to provide cleaner cooling water for sensitive/critical equipment.
1.1.01.B		B. Output	Production – The contractor shall operate chilled water systems as necessary to ensure chilled water is continuously supplied to facilities to satisfy the load. The central/auxiliary plant chilled water systems must be maintained in such a manner as to ensure that there are always two spare chilled water systems available to be placed in service at all times. During mission support periods the building 24 and 28 systems must be available to immediately support the additional load from the MCC if necessary. The roof mounted backup water chiller at the central plant shall be available at all times to support critical air handler 24-6 operation in the event of a plant chilled water outage. The building 48 chilled water system shall continuously satisfy the MCC load and shall provide chilled water at 44°F +/-1°F or as directed by NASA. The building 48 system shall maintain at least one chiller in a standby condition available to be placed into immediate service

			with one chiller down for maintenance/repair and with a two chiller load. All chilled water systems shall be maintained such that freon leaks are repaired within 30 days of discovery. The contractor shall operate the chilled water systems that are the most energy efficient based on lowest $/ton operational cost per chiller unit except during outages, equipment training, or weekend equipment rotation operation to maintain equipment reliability. All systems shall be free of water leaks. Distribution/Use – All chilled water distribution systems shall deliver a continuous chilled water supply from the point of production to the facility and shall be maintained free of leaks. All chilled water systems shall be controlled at each HVAC system to meet the requirements for cold deck temperatures as specified in the JSC Spring/Summer and Fall/Winter Seasonal Adjustment Plan and to meet building temperature and humidity requirements. Closed loop cooling systems shall meet the equipment requirements for flow, temperature, and capacity and be free of leaks.
1.1.01.C		C. Components	Production – The chilled water system components include but are not limited to, chilled water pump, filter, evaporator, condenser and economizer section, electric motor or steam turbine driver, gear box, compressor, oil return units, control panels and the field control systems, heat exchangers, pumps, surface condensers, hot well pumps, piping, refrigerant piping, refrigerant valves, instrumentation including PLC's, flow devices, probes, delta-Pressure switches, pneumatic controls, etc., makeup water tanks, side stream filters, compression tanks, freon recovery units, and freon boil off vessels. Distribution/Use – The tunnel chilled water system may include but are not limited to the following: piping, cathodic protection system, insulation and aluminum jacketing, air vents, valves and associated brass tags, instrumentation including flow devices, probes, delta-Pressure switches, etc. All chilled water systems include the chilled water system inside the facilities. The components of the chilled water system may include, but not be limited to, pumps, strainers, instrumentation including flow devices, probes, delta-Pressure switches, etc., gauges, controls, orifice plates and other flow elements, compression tanks, control valves and associated controls, valves, fittings, pipe, labels and insulation. Closed loop cooling systems may contain, but not be limited to, any combination of heat exchangers, pumps, piping, fittings, labels, valves, flow indicators, compression tanks, strainers, filters, auto air eliminators, insulation, instrumentation, and controls.
1.1.02	Mech.	**HVAC**	
1.1.02.A		A. Description	That system which supplies conditioned air to a space or facility, to maintain required temperature humidity conditions.
1.1.02.B		B. Output	The space to be conditioned shall be maintained at temperatures specified in JMI 8836.1 for personnel comfort and/or equipment requirements. Air exchanges and indoor air quality shall be provided to meet current ASHRAE recommendations. Discharge air temperatures from HVAC units shall be as directed in Spring/Summer and Fall/Winter Seasonal Adjustment plans. Provide indoor air quality such that visual inspection of the supply air ducts, diffusers and cooling coil

			section (including coil, pan, piping, insulation and walls), of the air handler shall reveal no biological growth, algae, fungus, mildew, etc. Spot Coolers shall be installed and operated, including condensate removal, for short term (less than 6 months) facility configuration changes.
1.1.02.C		C. Components	These systems are defined to include chilled water, direct expansion systems, and PTOA's (Pre-Treated Outside Air), interior and exterior locations including but not limited to, mechanical rooms, computer rooms, general office areas, laboratories, vaults, and overhead installations. This may also include but not be limited to central station units, portable spot coolers, window units, D/X split systems, fan coil units, condenser units, package units, and floor mounted computer room type units. Components shall be defined as, but not limited to, coil (CW and refrigerant), fan, constant and variable frequency drive units, motor drive, belt, filters, control valves, reboiler, condensate collection pans and piping, hot water coils, steam coils, refrigerant coils, gas fired furnace section, overflow protection devices, humidity control heaters (hot water and electric) and instrumentation, humidifiers, accelerometers, compressor and associated instrumentation and controls, gauges and other instrumentation and controls specific to the air handler systems including flow devices, probes, delta-Pressure switches, etc., air distribution systems such as mixing boxes, variable air terminals, fans, heaters, ducting, dampers ,and insulation.
1.1.03	Mech.	**Cooling Towers**	
1.1.03.A		A. Description	Cooling towers/condenser/cooling water systems are heat rejection systems that provide cooling water for condensing refrigerants in HVAC/Chillers or other cooling applications.
1.1.03.B		B. Output	All condenser/cooling water systems shall continuously satisfy the plant and/or facility loads and shall provide condenser water to the plants at 86 °F to 90 °F on design days at 80 °F wet bulb temperature while utilizing an optimum number of cooling tower cells. The contractor shall provide a water treatment program to maintain mild steel corrosion rates less than 2.0 mils per year and copper corrosion rates less than .2 mils per year and the program shall treat the water and tower areas for algae and biological growth. When any bacterial growth is detected that poses potential harm to personnel or equipment, as determined by the JSC Occupational Health Office, an aggressive treatment program must be maintained until the algae/bacteria growth is destroyed. The system shall be free of leaks. The building 24 plant condenser water system shall be maintained to be able to support the two additional backup chilled water systems as required in section 1.1.01.B. Condenser water quality shall be maintained within the chemical limits as specified on JSC Form 1426, Water Analysis Log for Cooling Towers in Buildings 28 or 48.
1.1.03.C		C. Components	Cooling tower/condenser/cooling water systems are defined as containing, but not limited to, all or any combination of cooling towers, heat exchangers, piping, filters, fittings, labels, fans, gear boxes, flow elements, basins, pumps, valves, fire detection and protection equipment, chemical feed pumps, chlorine supply system, chemical treatment systems, side stream filtration, controls, accelerometers, and instrumentation including flow devices, probes, delta-Pressure switches, etc.

1.1.04	Mech.	**Compressed Air**	
1.1.04.A		A. Description	Production – Buildings 24 and 28 shall provide dry, oil-free compressed air internally and through the tunnel or direct buried to the site buildings to be used as instrument or shop air. Building 48 shall provide dry compressed air internally through the tunnel for building 30M if the central plant cannot provide sufficient quantity or pressure. Included are systems that supply and distribute dry, compressed breathing air to the building for use as breathing air. Also included are starting air systems that supply and deliver starting air to starting air motors on diesel engines. Distribution/Use – The compressed air distribution system is a piping network approximately four miles in length, both tunnel and direct buried, that connects the central/auxiliary plant outputs to the JSC facilities and the building 48 output to the Mission Control Center. The compressed air systems are defined to include the compressed air system inside the facility described as instrument, shop, plant, and breathing air. All ***JSC** facilities are equipped with either an independent control/shop or breathing air compressor or have a backup control air compressor when supplied with plant air.
1.1.04.B		B. Output	Production – The building 24 plant air system shall continuously satisfy the site load and shall provide oil free compressed air to the site buildings at a nominal 125-psig +/- 3 psig with a maximum dew point of – 40 °F +/- 5 °F or as directed by NASA. The building 28 plant air system shall operate at 140 PSIG +/-3 PSIG with a maximum dew point of –40 °F +/- 5 °F or as directed by NASA. The plant compressed air system shall have one additional utility air compressor available to be placed in service at all times as a standby compressor. The dew point air output from the desiccant dryer system shall be maintained and the desiccant shall be replaced, heater elements replaced, or other repairs made as required to ensure the dew point requirement. The plant air system shall be operated at 150-psig +/- 3 psig. The starting air system for the power engines shall provide compressed air whenever needed at 150-psig +0/-5 psig or as directed by NASA. Distribution/Use - The compressed air distribution system shall deliver a continuous supply of compressed air from the point of production to point of use at the required quantity and pressure. The instrument air pressure shall be regulated to a nominal 20-PSI +/- 1 PSI. The breathing air system shall deliver dry, compressed breathing air to the building at 150 PSI +/- 3 PSI (or as directed by NASA), certified for breathing and conforming to sampling per American National Standard Commodity Specification for Air, Compressed Gas Association, Inc. (ANSI/CGA G-7.1-1989 or latest version.) All ***JSC** compressed air systems shall maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance. All ***JSC** compressed air systems shall be free of leaks.
1.1.04.C		C. Components	The ***JSC** compressed air systems may include but are not limited to, air compressors of all types

			(both Central plant and facility), air receiver tanks, air dryers of any type, filters, piping, cooling systems, pumps, instrumentation, including flow devices, probes, delta-Pressure switches, etc., controls, relief valves, check valves, associated gauges, pressure regulating stations, oilers, condensate traps; pressure protective devices; valves; fittings; and labels, cathodic protection systems, pressure regulating stations, filter stations.
1.1.05	Mech.	**Steam & Condensate**	
1.1.05.A		A. Description	Production – The building 24 steam system shall provide steam through the utility tunnel and provide for condensate return to and from the site buildings. This steam is utilized for at the facilities for domestic hot water, space heating, humidification and process uses. Some ***JSC** buildings have low-pressure steam boilers for heating and high-pressure steam boilers for test applications. Distribution/Use - The utility tunnel steam supply/condensate return system is a piping system approximately three and one half miles in total length that connects the building 24 output to the JSC mall facilities. In the facility the steam is reduced in pressure as required and distributed to the point of use. The system includes that portion that collects and returns condensate produced from the steam system. The condensate is collected in condensate return units or through tunnel steam traps and returned to the plant from the mall facilities through the tunnel return condensate piping system.
1.1.05.B		B. Output	Production – The steam system shall continuously supply and satisfy the site load with 400 psig superheated steam to the plant header system and shall reduce this high-pressure steam to 100 psig plus or minus 10 psig in the summer. The output pressure shall be adjusted as required in the heating season to maintain 100 psig at building 35 to meet the building load requirements and may be adjusted as directed by NASA. The output steam shall be desuperheated to approximately 300 °F at the plant pressure reducing/desuperheating stations. The plant steam system shall have one additional boiler available to be placed in service at all times as a warm standby boiler. The condensate return shall be deaerated at building 24 and shall be chemically treated with phosphate to be within 15-25 mg/liter and sulfite to be within 20-40 mg/liter prior to use in any of the plant boilers. The supply steam to the site shall be treated with amines for a condensate water pH of 8-9 to ensure condensate pipe integrity. The contractor shall ensure condensate return, to be at least 85% of supply, from the site buildings by verifying condensate return units and all steam traps are operating properly. The contractor shall ensure that the return condensate to the plant is pure by checking condensate return water quality for hardness with a laboratory color change test each shift. Potable water that shall be used as a makeup in the condensate system shall be softened to less that 2 mg/liter, maximum hardness. Steam production systems in ***JSC** buildings not served by the JSC central plant shall be capable of supplying continuous steam as required to satisfy the Fall and Summer Energy Guidelines.

			Distribution/Use - The tunnel steam supply/condensate return system shall continuously supply steam from the plant production system to the facilities and return condensate from the facilities to the plant. All zones of the tunnel steam/condensate system shall be maintained in service at all times to ensure a continuous supply of steam and return of condensate from mall buildings. Only brief exceptions of this requirement will be permitted in an effort to locate potable water hardness leaks, repair failed condensate return units, or as required by a utility procedure. Distribution systems other than the tunnel shall provide the quantity and quality of steam required for the end use. All steam/condensate valves shall be in an operable state with no actuators missing and all valves, traps, etc. shall be labeled with brass tags containing the valve station number and pressure systems inventory information. The steam system shall deliver adequate quantity and quality of steam to the building from the tunnel to meet facility requirements. All ***JSC** steam systems shall maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance. All ***JSC** steam systems shall be free of leaks.
1.1.05.C		C. Components	Steam/condensate production distribution and return system and support components of the steam system may include but are not limited to, storage tanks, deaerator vessels, condensate pumps, boiler feedwater pumps, hot well pumps, plant boilers, pressure reducing/desuperating stations, chemical storage tanks, chemical feed pumps, water softener, water dealkalizer vessel, steam traps, condensate return units, natural gas scrubber, fuel oil supply pumps fuel oil storage tank, feedwater economizers, boiler oxygen trim controls, other boiler controls and instrumentation, plant master pressure controllers that control the boiler master loop, steam/condensate/chemical/, and fuel piping, gas meters for the boilers, condensate flow meters, make-up water meters, piping, insulation including aluminum jacketing, supports, expansion joints, instrumentation, flow devices, probes, delta-Pressure switches, etc., pressure reducing/regulating stations, gauges, hot water converter vessels; boilers; steam coils in outside air units; reboilers; relief valves and pressure protective devices; valves; fittings, pumps, condensate traps, valves; fittings, flash tanks, and labels.
1.1.06	Mech.	**Exhaust & Ventilation**	
1.1.06.A		A. Description	Those facility systems that: (1) exhaust heat, fumes, odors or other contaminants from within the facility, (2) provide air flow to remove paint fumes from the painting booth facilities (3) exhaust smoke from a facility to provide personnel protection from combustion products, (4) supply fresh air make-up to meet indoor air quality requirements and (5) maintain required pressure in the facility.
1.1.06.B		B. Output	The systems shall supply/exhaust the required quantity and balance of air as required by current design parameters as well as comply with all applicable codes and standards. Paint booth

			ventilation systems air mass flow shall be provided per OSHA requirements as sampled per OSHA 190.107, Spray Finishing using Flammable and Combustible Materials as amended. Smoke exhaust systems shall function as designed whenever preset conditions are met. All required fans and dampers shall function and be in correct field position based on location of smoke/fire alarm. All components of a facility ventilation system shall function as designed and maintain indoor air quality in accordance with ASHRAE standards. All systems shall be properly labeled to include but not be limited to, power sources and hazard conditions.
1.1.06.C		C. Components	Supply/Exhaust ventilation systems may include, but not be limited to, exhaust fans, ducts, dampers, stacks, fume hoods, flow benches, kitchen hoods, fire dampers, fire extinguishing equipment, shop hoods, perchloric acid hoods, wash down systems, paint booths, controls, instrumentation, inlet blowers and all associated components, filters and filter banks and associated parts, exhaust blowers and all associated components, associated controls, instrumentation and gauges, control air system and related components, heaters, smoke exhaust fans, fresh air fans, insulation, water scrubbers, dust/sawdust collection systems, flow measurement devices and labels.
1.1.07	Mech.	**Refrigeration**	
1.1.07.A		A. Description	Those systems and components that provide low temperature environments for the preservation of food, photographic products, medical specimens, and other items as required. Included in this are the ice machines, central water coolers, and refrigerated drinking fountains and water coolers, at ***JSC**.
1.1.07.B		B. Output	The temperatures for these systems shall be controlled to set points defined by the government. The system shall be free of leaks. Systems shall function continually to provide required condition. All ***JSC** refrigeration systems shall be free of leaks. All ***JSC** drinking fountains shall be free of lead.
1.1.07.C		C. Components	Refrigeration systems include but not limited to, Walk-in/Reach-in Coolers, Walk-in/Reach-in Freezers, Refrigerators, Freezers, Film Vaults, Thermal Chambers, ice machines, central water coolers, and refrigerated drinking fountains and bottled water coolers, refrigerant piping and components, dryers, mufflers, compressors, condensers, control systems, fans, and filters.
1.1.08	Mech.	**Hot Water Heating**	
1.1.08.A		A. Description	Those systems that produce, supply, and distribute hot water within the building for use in the HVAC systems. These include steam, electric and gas fired boilers.
1.1.08.B		B. Output	The hot water system shall deliver hot water to the facility from the hot water converter or hot water boiler and shall be provided at 80 -180 °F as required by the Spring/Summer and Fall /Winter Seasonal Adjustment Plans. The hot water shall be distributed throughout the building as required to meet the above requirement and shall be free of leaks. It shall be controlled at each HVAC system adequately to meet the requirements for hot deck temperature as specified in the

			JSC Fall/Winter Seasonal Adjustment Plan and to meet building loads. All ***JSC** hot water heating systems shall maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance. All ***JSC** hot water heating systems shall be free of leaks.
1.1.08.C		C. Components	The components of the hot water system may include, but not be limited to, boilers, hot water converters, pumps, compression tanks, strainers, instrumentation including flow devices, probes, delta-Pressure switches, etc., gauges, controls, orifice plates and other flow elements, valves, control valves, relief valves, fittings, pipe, labels and insulation.
1.1.09	Mech.	**Diesel Fuel**	
1.1.09.A		A. Description	That system which stores and supplies diesel fuel for use in engines and in steam boilers. The diesel fuel storage at JSC consists of above ground tanks at building 24, 42, 48, 207, 300 area, and E245.
1.1.09.B		B. Output	Diesel fuel for building 48 shall be high sulfur, high BTU content per EPA definition for use in diesel engines to prevent engine sags when load is added suddenly. Storage systems shall be fully labeled and contain appropriate quantities and quality of fuel. Diesel fuel shall be distributed with the proper quantity and pressure required by the point of use. Maintain tank levels as required and properly monitor the delivery of fuel onsite. Fuel shall be properly tested before use. All ***JSC** diesel fuel systems shall be free of fuel leaks.
1.1.09.C		C. Components	The diesel fuel system includes but is not limited to, fuel storage tanks, pumps, piping, fill pumps, recirculating pumps, supply pumps, valves, environmental controls, containments, level measurement devices, flow indicators, flow elements, pressure regulators, gauges, fittings, and pipe.
1.1.10	Mech.	**Space Heating**	
1.1.10.A		A. Description	That system which provides space heat for personnel and equipment.
1.1.10.B		B. Output	Provide space heating for personnel and equipment per JMI 8835.1 for occupied space temperatures. System shall be continuously available to operate as required per the Spring/Summer and Fall/Winter Seasonal Adjustment Plan and meet all codes , regulations and standards. All ***JSC** space heating systems shall maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance. All ***JSC** space heater fluid systems shall be free of leaks.
1.1.10.C		C. Components	The space heaters system includes but is not limited to, hot water heaters, catalytic heaters, gas fired heaters, steam heaters, electric heaters, piping, valves, controls, conduit, electrical system, thermostats, fans, motors, belts, insulation and aluminum jacket, vents, relief valves, and blowers.
1.1.11	Mech.	**Process Water**	

1.1.11.A		A. Description	Process water systems are those ***JSC** systems that provide water at closely controlled conditions for consumption in designated processes. These systems may include, but are not limited to, deionized water system, process hot water, and process chilled water. The JSC deionized water system is that system that produces and distributes deionized, generated water at the reverse osmosis system in building 9, and distributed through a PVC piping system in the tunnel to and through several laboratory facilities at JSC. The deionized water system provides water that is 90 per cent pure of salts and the process hot and chilled water systems provide filtered water that is heated or cooled for specific purposes.
1.1.11.B		B. Output	These systems shall provide the selected operating parameters for pressure, quantity and quality of water at designated locations and shall be free of leaks.
1.1.11.C		C. Components	Process water systems may contain, but not be limited to, a reverse osmosis unit, polishing bottles, heat exchangers, boilers, pumps, piping, compression tanks, fittings, labels, valves, chillers, flow elements, strainers, filters, instrumentation, controls, gauges, labels, holding tanks, and insulation.
1.1.12	Mech.	**Cafeteria**	
1.1.12.A		A. Description	That kitchen or cafeteria equipment used in food preparation.
1.1.12.B		B. Output	This equipment shall be maintained in proper working order and be capable of performing the function for which it was intended.
1.1.12.C		C. Components	This equipment is defined as including, but not limited to, all or any combination of the following: (1) Steam tables, (2) Ovens, (3) Griddles and cook tops, (4) Ranges, (5) Ice Makers, (6) Steamers, (7) Kettles, (8) Dishwashers, (9) Conveyors, (10) Toasters, and other built-in equipment normally associated with food preparation.
1.1.13	Mech.	**Hyperbaric Chamber**	
1.1.13.A		A. Description	The hyperbaric chamber system is utilized for human testing at elevated pressures, as well as for emergency repressurization of divers and/or suited test subjects from the NBL, should the need arise. Subsequently, its proper operation and functional reliability are of paramount importance as a life safety issue.
1.1.13.B		B. Output	Each individual component within this system shall provide its designed function and manufacturer's specified output. Availability of system output shall be 100% during those periods defined by the user as critical to its operational requirements. Any component outage shall be coordinated with the user, and shall be of brief enough duration as to not impact scheduled testing.
1.1.13.C		C. Components	The equipment items comprising this particular system shall consist of, but shall not be limited to, the physical hyperbaric chamber and it attachments, breathing air compressor, reserve breathing air storage, the communication system/intercom, as well as the chamber's ancillary valves and

			piping.

1.2 Electrical

1.2.01	Elect	**Site Electrical 138 kV Transmission**	
1.2.01.A		A. Description	Two Houston Lighting & Power Company 138 kV transmission lines serve a closed ring bus feeding the four site power step/down transformers. The tubular aluminum ring bus has six 2000 ampere SF6 gas circuit breakers. Each Circuit breaker and transformer can be isolated by an array of sixteen air break switches. There are three 138 kv/15 kV step down transformers (with auto load tap changers), which provide the primary power to the site. There is one 138 kv/15kv step-down transformer with auto load tap changer, which services large test loads. The control panel and protective relay panel are located in an adjacent building. The system starts at the HL&P transmission line connections to the wavetraps and ends at the substation transformers secondary bushings. It encompasses all control, measurement and protection circuits associated with the system. Enclosed in a fenced in area including five space condition buildings with three gates. Control and monitoring cables between buildings are direct buried and in duct walk cable trays.
1.2.01.B		B. Output	The site electrical 138 kV transmission system is an integral part of the HL&P 138 kV transmission system. This NASA owned and operated substation provides a means of tying the site step down transformers to the HL&P grid. The ring bus is configured to provide a method of isolating sections with either manual switching or through coordinated protective relaying circuits. The outputs of the system are four separate 12.47kV, 3 phase, 60 Hz, sources to the inputs of the site electrical 15 kV distribution system. Each output is limited to the nameplate data of the associated step-down transformer. The output of the four primary transformers is regulated. Substation yard provides step potential protection.
1.2.01.C		C. Components	Components including ring bus, circuit breakers, air break switches, transformers, transformer grounding resistors, auto load tap changers, protective relaying circuits, control wiring, switches, control panels, metering and instrumentation that is remotely recorded by the EMCS or manually recorded to provide energy management or ECM data, connecting and structural bus supports Pt's, CT's, CT & PT supports, batteries, battery chargers, UPS's, manual transfer switches, automatic transfer switches, grounding mat, lightning masts, fence and gates. Substation yard comprised of washed river rock, concrete duct walk cable trays with French drains.
1.2.02	Elect	**Site Electrical 15 kV Distribution**	
1.2.02.A		A. Description	15KV Distribution: The five 138 kv/15kv transformers provide input to the 15 kV distribution system. Each transformer feeds a 15 kV switchgear line up. The five line-ups are 500 MVA indoor metalclad switchgear located in individual climate controlled buildings. The five switchgear

			assemblies contain four main breakers, four tie breakers, and forty one feeder breakers. The tie breakers allow for the isolation of the four primary power transformers. The switchgear assemblies have automatic rollover between the station AC service. Additionally the DC services are configured so that they have multiple feeds. Two of the switchgear assemblies and the tie breakers are provided with remote control panel switching and status. All are provided with SCADA control and monitoring. There are four 4,800 kvar capacitor banks for power factor correction, one attached to each of the primary power switchgear line up. The feeders are divided between overhead on wooden poles, cable in duct banks and armored cable in the utility tunnel. Some of the feeders have distribution switches that provide alternate feeder selection for downstream distribution. The distribution system starts at the 138kV/15kV step down transformer and extends to the input of the 15 kV facility switches. 15kv Switching Facilities: Air, gas or oil 15 kV switch assemblies. System begins at the input of the 15kV facility switch and extends to the input of the medium voltage transformer. 15kv Medium Voltage Transformers: 15 kV transformers begin with the primary bushings of the transformer and extend to the secondary bushings.
1.2.02.B		B. Output	15kv Distribution: Provides 12.47kV, 3 phase, 60 Hz voltage to the facility 15kV switches. Most of the facilities are served by two feeders and have provisions for isolating faulted components. System switching is accomplished through phased closed transition of loads between feeders. The output of the system is 12.47kV 3 phase, 60 Hz. 15kv Switching Facilities: Provide open and closed transition 15kV switching for single -phase and 3-phase sectionalizing; isolation of equipment such as buses or other live apparatus; and load management. 15kv Medium Voltage Transformers: Provide step down from site electrical 15 kV distribution to the secondary distribution level voltages [Voltage phase to phase ranging from 6900, 690, 480, 208].
1.2.02.C		C. Components	15kv Distribution: Components include switchgear, circuit breakers, bus, meters, control wiring, batteries, battery chargers, transfer switches, control panels, capacitors/switches, cable, cable splices, demountable cable terminations, duct banks, cabletrays, manholes, sump pumps, poles, cross arms, insulators fuses, distribution switches, service/control power/instrument transformers, grounding system relays, SCADA, transducers, fences, reactors, fused disconnects, lightning arrestors, static cables, ground rods, power monitors, splice shields, strip heaters automatic transfer switches and manual transfer switches. Metering and instrumentation that is remotely recorded by the EMCS or manually recorded to provide energy management or ECM data. 15kv Switching Facilities: Air, gas or oil 15 kV switches. Fuse enclosures, fuses, fuse holders, heater strips, secondary breakers, thermostat controls, and control circuits. Fault indicators with associated equipment. 15kv Medium Voltage Transformers: 15 kV transformers - dry type, mineral oil filled, silicon oil filled and other less flammable fluid filled. Associated hardware - gauges, fans, fan motors, heater strips,

			meters, current transformers, potential transformers, nitrogen tanks and regulators, secondary breakers, control circuits, thermostat controls, drain/fill valves, relief valves and ground resistors.
1.2.03	Elect	**B48 D&BX Power**	
1.2.03.A		A. Description	Electric power generation/distribution system that provides normal and standby power for B48 ancillary electrical loads and provides standby power for B30S. The system starts at the D2 metal clad switchgear and extends to the B48 loads and the line side of the generator breakers in B30S switchgear. It also includes the engine/generators and associated controls, all protective systems, and measurement systems.
1.2.03.B		B. Output	6.9 kv/60 hz/3 pH, two bus, nominal 2800 kW per bus, sourced from either utility transformers or diesel driven generators with uninterrupted transfer between transformers and generators. Output limited to source nameplate data.
1.2.03.C		C. Components	Power circuits including medium and low voltage current carrying and switching components, by which electrical power is generated, delivered and used. Includes generators, transformers, disconnect switches, circuit breakers, power fuses, cables, bus ducts, switchgear, MCC's, and loadbanks. Metering circuits including instrument transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, elapsed time meters, which measure or compute operating parameters. Protective relaying circuits including instrument transformers, and protective devices that operate for abnormal operating parameters. Control circuits including DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, governors, regulators, rheostats, potentiometers, transducers, synchronizers, control panels, batteries, chargers panels and SCADA.
1.2.04	Elect	**B48 B Power**	
1.2.04.A		A. Description	Electric power generation/distribution system that provides normal and standby source for B 48 A Power, B30M Tech loads, and B30M select facility loads. The system starts at the metal enclosed switchgear and extends to the loads for B30M it finds at the line side of the secondary distribution device in the facility. The system also includes engine/generators and associated controls, protective systems and measurement systems.
1.2.04.B		B. Output	480v/60 hz/3 pH, one triple generator bus, two nominal 1300 kW source busses, two load busses. Source bus fed from either utility transformers or diesel driven generators with uninterrupted transfer between transformers and generators. Output limited to source nameplate data.
1.2.04.C		C. Components	Power circuits include all low voltage current carrying and switching components by which electrical power is generated, delivered, and used. Includes generators, disconnect switches, circuit breakers, power fuses, contactors, cable, bus ducts, switchgear, MCC's, heaters and loadbanks. Metering circuits include instrumentation transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, elapsed time meters, which measure or compute operating parameters.

			Protective Relaying circuits include instrument transformers, and protective devices which operate for abnormal operating parameters. Control circuits include DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, governors, regulators, rheostats, potentiometers, transducers, synchronizers, control panels, batteries, chargers, and SCADA.
1.2.05	Elect	**B48 A&AX Power**	
1.2.05.A		A. Description	System that provides continuous power for the B30M critical loads. The system starts at the input to the "A" power UPS's and extends to the secondary distribution devices.
1.2.05.B		B. Output	480/60 hz/3 pH, two bus, nominal 500 kW per bus, output from either UPS or directly from B power if UPS fails
1.2.05.C		C. Components	Power circuits including low voltage current carrying and switching components by which electrical power is generated , delivered and used. Includes ,dual redundant UPS's , batteries, disconnect switches, bypass switches, circuit breakers, power fuses, cables , bus ducts, switchgear, Metering circuits including instrument transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, lapsed time meters, which measure or compute operating parameters. Protective relaying circuits including instrument transformers, and protective devices, which operate for abnormal operating parameters. Control circuits including DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, transducers, control panels, batteries, chargers panels and SCADA.
1.2.06	Elect	**Exterior Lighting**	
1.2.06.A		A. Description	That system which comprises the exterior lighting for roadways, parking area's, flood lighting in parking and ramp areas. (See General Site Plan Exterior Lighting Drawings and Master Utility Plans in TRL.) System starts at secondary circuit breaker serving street lighting circuit up to and including lighting standards.
1.2.06.B		B. Output	Provide perimeter lighting to reduce risk of injury, theft, or property damage and safeguard and facilitate vehicular and pedestrian traffic. The minimum in-service luminance values shall be as listed in ANSI/IESRP-8 for Roadway Lighting, Tables 2, 3, and 4.
1.2.06.C		C. Components	This system is defined to include, but is not limited to: lamps, reflectors, ballasts, lens, light poles, conductors, conduit, associated hardware (hardware associated with lamps, reflectors, ballasts, lens, light poles, conductors, and conduit for exterior lighting), and low voltage power circuits and switching components, control circuits and control devices (photo-cells, time-clocks, hand-off-automatic switches.).
1.2.07	Elect	**Site Traffic Control**	
1.2.07.A		A. Description	That system which comprises the site traffic control and Site pedestrian crosswalk warning devices as detailed.

1.2.07.B		B. Output	Monitors traffic flow control based on the parameters programmed in the traffic controller hardware. Notifies vehicular traffic of possible pedestrians in crosswalks.
1.2.07.C		C. Components	This system is defined to include, but is not limited to: lamps, reflectors, lens, batteries, signs, conduit, conductors, and associated fittings and hardware to traffic signal heads, controllers, sensor loop detectors, and pedestrian crosswalk warning devices.
1.2.08	Elect	**Energy Management and Control**	
1.2.08.A		A. Description	The Energy Management Control System (EMCS) monitors and controls the electrical power , steam, chilled water, utility air, and building HVAC systems at JSC. The EMCS is, in addition, an energy management and control system designed to monitor and control various parameters of utility systems and equipment in buildings and facilities. By monitoring the equipment controlled by EMCS field devices, the EMCS acts as an effective management tool for monitoring and controlling energy consumption, utility operations, operational and maintenance activities. The EMCS integrates the databases and operation of numerous control systems into EBI. The EMCS is also required to monitor and control in building 24 the offsite SCTF facilities utilities and HVAC via a separate PC interface called System 20/20 marketed by Automatic Logic Corporation and currently supported by UES Corporation a sub to existing site COSS contractor. Honeywell's Enterprise Buildings Integrator, EBi is the site Energy Management Control System (EMCS) that monitors and controls all equipment at NASA, Johnson Space Center. This system runs on a Windows NT Platform using Dell Power edge 2300 Domain Servers. These servers communicate with Honeywell XL5000 Series Controllers and other third party Programmable Logic Controllers (PLC's) and devices. The following is a list of systems connected to EBI: 1. The Honeywell Building Control System is a microprocessor based unit (Excel 5000 controllers) that provides the interface to monitor and control Building HVAC and site utilities and provides data to the Man-Machine Host Honeywell System known as Enterprise Buildings Integrator (EBI) for energy management, maintenance and operations support. The controllers are daisy chained from building to building using Honeywell C-Bus and integrated to EBI with Domain Controller Workstation. The Excel controllers uses DDC programmable software to maintain and regulate buildings /utilities environment by using algorithms to determine what the conditions are and what points must do to achieve the desired conditions. Computer aided Regulation Engineering (CARE) software is used to program the controller for points, databases, processes, algorithms etc. 2. The Metasys Building Control System is an building energy management and control system. The Metasys is a distributed system accomplishing Standalone control, Supervisory Control and Information Management. These systems hardware architecture links integrated electronic modules and controllers over three types of networks and provides access to users through a

			variety of interface devices. The Metasys systems currently provides the interface to monitor control, and supervise HVAC and building functions and provides data to the host computers (EBI). The Metasys system uses propriety software to maintain processes. 3. Programmable Logic Controllers (PLC's) systems are microprocessor based units that provide the interface to monitor and control standalone HVAC units and dedicated site utilities in the facilities and provides data to the Host EMCS computers (EBI). These third party PLC controllers PLC's are implemented on a variety of platforms, which include Allen-Bradley PLC, Modicon PLC, Woodward PLC. 4. Automated 20/20 Building Control System - The automatic logic system - 20/20, is a building energy management and control system. The system provides for distributed architecture accomplishing stand-alone control, supervisory control, and information management. The 20/20 system provides the capability to monitor, control, and maintain buildings total HVAC, plant and lighting environment at the Sonny Carter Training Facility. The system begins at the 20/20 system located in Building 24 and extends to all controllers and instrumentation located in Sonny Carter. 5. Miscellaneous Power Monitoring Systems – These include Mint IMPACC Westinghouse System, Power Demand and Acquisition System (PDDAC), and Exide Uninterruptible System (UPS). The IMPACC and PDDAC Systems are used to read electrical subsystem data. 6. CTS Interface System- Monitors Central Telephone HVAC and power for Ellington and Building 420. Honeywell System begins at XPC cards in Dell Domain Workstation to Excel 5000 controllers and extends to field Subsystems/ devices and extends to all field instrumentation or devices. The 20/20 System begins at the 20/20 system located in Building 24 and extends to all controllers and instrumentation located in Sonny Carter. For all other systems or devices system begins at the Rs232 Terminal Servers to field Subsystems/ devices and extends to all field sensor/control instrumentation or devices.
1.2.08.B		B. Output	The EMCS shall function as an overall network/system coordinator, perform energy management functions, control and monitor devices, perform calculations/functions associated with operator interactions, operate within the limits specified for EMCS points, alarm reporting and logging of events, continuous reliable and accurate operational state shall be maintained to survey all data, devices, and subsystems monitored and controlled via EMCS operator workstations. ALL Building Controllers, PLC's, Subsystems and Devices listed in 1.2.8 A shall continuously perform their intended functions of monitoring and controlling facilities and provide reliable operation and data within the accuracy of the Controllers and subsystems, data field equipment and associated instrumentation and controls. These systems shall perform to ensure all software/hardware design functionality is maintained within designed performance specifications/requirements but not limited to: scanning field data acquisition and control points periodically, perform algorithms to achieve desired conditions; convert the data and tests it for an

			out-of -limits condition (analog sensors) or improper state (discrete sensors), report any out-of limits conditions to the EMCS EBI Control System, process messages transmitted by the host systems, perform commanded data acquisition and control functions to field devices, monitor the communications lines failures and perform power failover sequences. For instrumentation and associated sensor, each output is limited to nameplate data.
1.2.08.C		C. Components	The EMCS system is comprised of all equipment connected to the EBI or Automated 20/20 Systems. For all Building Controllers, PLC's , Subsystems or Devices listed in 1.2.8A, the components are defined to include but not limited to chassis, LED Status lights, power supplies , terminal blocks, microprocessor, memory, disk drives, analog /digital interface boards, communication boards, sx XPC communication cards installed in three Dell Domain Workstations, repeaters, terminal servers/modems, batteries, connectors , wiring , software/firmware residing on field systems to perform control and monitoring of field points and configurations, operator interface devices and software for maintenance management, RS 232 interfaces, Honeywell C-BUS, application specific controllers (AHU, VAV,UNT), Metasys LAN's (N1,N2,L2) , Network control units, Metasys network terminal, and Metasys Maintenance Stations and software. The controls and instrumentation components are, but not limited to, the following: electrical, electronic, electro-pneumatic, and mechanical equipment: thermocouples, RTD's, pressure, flow and temperature (transmitters/switches/ indicators/controllers), position indicators, RCPA's, level controllers, transducers, signal conditioners, watts and phase angle transmitters, voltage transmitters, control and acquisition relays, flow meters, pH meters and analyzers, conductivity meters, thermostats and humidistats, alarm systems, control valves, freeze stats and controls, humidifiers , mixing boxes, control wiring, terminal strips, transformers, transducers, pneumatic solenoids, modems, data transmission lines , power supplies, field status panels, water detection sensor s, and associated equipment.
1.2.09	Elect	**Secondary Distribution Equipment**	
1.2.09.A		A. Description	Secondary Distribution System: That system which comprises the secondary distribution equipment, other than service entrance equipment, defined to include motor control centers, load centers, meter panels or centers, and molded-case circuit breaker distribution panels (PP, MDP, DP, LP and RP classified panels). System extends from the line side of the secondary distribution equipment to the end load. Step transformers within facilities, manholes and electrical enclosures. Secondary Bussing Systems: That system which provides all medium and low voltage bussing systems between the building transformer secondary bushings or subfed from another source or building via a secondary service and the building main disconnecting means including but not limited to: air or sandwich busduct, busway, cablebus, overhead secondary drops, and conduit/wire systems. Secondary service to electrical manholes.

			Secondary Main Disconnecting Means: That system, comprised of the 480 Volt or 120/208 Volt main disconnecting means, protection and switching, which includes but is not limited to: Switchboards, Switchgears of the indoor, outdoor, drip-proof, protected aisle and common aisle variety of metal-clad switchgear; motor control centers, and load-centers, meter panels or centers, and molded-case circuit breaker distribution panels (PP, MDP, DP classified panels) and their components for voltage transformation, metering, circuit switching, and system protection in the Secondary Electrical Distribution Systems. System begins at line side of main disconnecting means and extends to the line side of the secondary distribution equipment.
1.2.09.B		B. Output	Secondary Distribution System: Operate to 80% name plate ratings on continuous loads without exceeding the maximum hot-spot temperature rise of 55 degrees Centigrade on 60 cycle equipment, providing for the given indoor and outdoor environmental conditions. The ratio of load current to the ampere rating of the overcurrent protective device determines it operating temperature and shall be used for panelboards and other distribution equipment. Manual and automatic transfer for configuration changes as conditions warrant. Secondary Bussing Systems: Operate to name plate data to carry energy reliably without exceeding the maximum hot-spot temperature rise of 55 degrees Centigrade for 60 cycle systems, providing for the given indoor and outdoor environmental conditions. Buses must maintain the ability to dissipate heat losses. Secondary Main Disconnecting Means: Operate, control and protect low voltage distribution equipment, and provide service entrance, power, and lighting distribution. Where protection is afforded, the overcurrent protective device closest to the fault must isolate faults.
1.2.09.C		C. Components	Secondary Distribution System: This system is defined to include, but is not limited to: main protective devices, enclosures, busbar and terminal connections, disconnects, fuses, contactors, motor overload relays, pilot and miscellaneous control devices, and interlocks, conductors, electric interconnections and accessories. Manual and automatic transfer switches with associated monitoring and control equipment. Secondary Bussing Systems: These systems are defined to include, but are not limited to: busbar, straight lengths, elbows, tees, tap boxes, power take offs, plugs, housings or raceways, insulation, heater strips, hangers and other mounting hardware and fittings. Secondary Main Disconnecting Means: This system is defined to include, but is not limited to: assembled indoor or outdoor equipment, switching, interrupting, control, metering including kWh metering and instrumentation that is remotely recorded by the EMCS or manually recorded to provide energy management or ECM data protective, and regulating devices, together with their supporting structure(s), enclosure(s), conductors, electric interconnections and accessories; grounding, bus, bus supports, and heaters. Examples of these systems are switches (automatic and manual), motor control centers, load-centers, meter panels or centers, and molded-case circuit breaker distribution panels (PP, MDP, DP classified panels) in the Secondary Electrical Distribution

			System.
1.2.10	Elect	**Lighting (General Area)**	
1.2.10A		A. Description	That system which comprises the facility or structure interior general area lighting and exterior perimeter lighting from the panelboard to the end-user. Also included are the lighting contactors with reset pushbuttons installed in various Mechanical and Electrical closets and hallways for control of office lighting.
1.2.10B		B. Output	Operate at recommended building illumination levels in accordance with JMI 8836.1, and IES Lighting Handbook (HB-99, ISBN Number 0-87995-150-8), 9th Edition (1999). Maximum Tolerance duration of power is indefinite; depends on analysis and evaluation.
1.2.10C		C. Components	This system is defined to include, but is not limited to: fixtures, lamps, reflectors, ballasts, lens, diffusers, guards, lighting contactors, push buttons, fuses, switches, mounting hangers and hardware, conductors, conduit, and controls. It also includes circadian lighting systems, ballpark lighting, and roadway signs, including crosswalk signs. This includes systems in general office, hi-bays, laboratories, cafeteria's, etc... Lamp types vary and include but are not limited to Halogen, incandescent, fluorescent, HI Intensity Discharge lighting fixtures (mercury, metal-halide, high-pressure sodium, and low-pressure sodium).
1.2.11	Elect	**Emergency Lighting**	
1.2.11A		A. Description	That system which comprises the life safety lighting including, but not limited to emergency lighting units (i.e. wall-mounted), emergency lighting systems, exit lighting, stairwell and egress lighting.
1.2.11B		B. Output	Emergency lighting for evacuation purposes must energize automatically upon loss of normal lighting. Emergency lighting must be maintained for at least 1-1/2 hour for battery-powered units. Maximum toleration duration of power failure is up to 10 seconds, preferably not more than 3 seconds, in accordance with ANSI/IEEE Std 446-1995 (ISBN Number 1-5593-7598-1). Light levels must be maintained to provide enough illumination per NFPA 101 Life Safety Code 2000 Edition to allow easy and safe egress from the area involved. Comply with ANSI/NFPA 70-1999, Article 700 for the operation and maintenance requirements and ANSI/NFPA 101-2000 for emergency lighting specific to life safety lighting.
1.2.11C		C. Components	This system is defined to include, but is not limited to: lamps, reflectors, ballasts, lens, batteries, cords, conduit, fuses, conductors, circuit cards, receptacles, and light poles, controls and LED's.
1.2.12	Elect	**Obstruction and Warning Lighting**	
1.2.12.A		A. Description	That system which comprises the obstruction lighting systems (aircraft warning lights on water towers, office buildings roofs, laboratory buildings roofs, shop buildings roofs, antenna towers, and

			aircraft hangar roofs). System extends from source circuit breaker through lighting fixture.
1.2.12.B		B. Output	Operate at recommended building illumination levels in accordance with JMI 8836.1, and IES Lighting Handbook, 9th Edition (1999) ISBN Number 0-87995-150-8.
1.2.12.C		C. Components	This system is defined to include, but is not limited to: lamps, reflectors, ballasts, lens, and light poles, fixtures, fixture hardware, conduit, fuses, conductors, cords, and controls.
1.2.13	Elect	**Lightning Protection**	
1.2.13.A		A. Description	That system which comprises the lightning protection and detection systems for all facilities and structures including substations, technical equipment buildings, towers, antennas, masts, fuel storage tanks, metal buildings, metal sheds, and stacks. System extends from the connection point to the earth electrode subsystem to the highest masted point of the aerial lightning protection subsystem.
1.2.13.B		B. Output	Maintain the systems per NFPA 780 1997 Edition. Lightning protection subsystem is to direct high currents or limit the voltage gradients developed by high currents to safe levels and protect structures, facilities, personnel, and equipment from lightning damage.
1.2.13.C		C. Components	The components which comprise this requirement include but are not limited to: air terminals, roof conductors, own conductors, ground rods, exothermically welded connections, mechanical fastener connections, surge arrestors and suppressors, all separately mounted shielding systems, and overhead ground wires.
1.2.14	Elect	**Grounding**	
1.2.14.A		A. Description	That system which comprises the facility ground system.
1.2.14.B		B. Output	Assure continuous means to limit voltages due to lightning, line surges, or unintentional contact with higher voltage lines, and to stabilize the voltage to ground during normal operation. Reference ANSI/IEEE 142-1991, and for ground-fault protection reference ANSI/IEEE std 242-1986.
1.2.14.C		C. Components	The components that comprise this requirement include but are not limited to: ground rods, grounding conductors, counterpoise, bonds, connections, and test wells. Integrity of grounding systems maintained for continuous operation.
1.2.15	Elect	**Central Tele-communications System (CTS)**	
1.2.15.A		A. Description	That system which provides electrical power for the Central Telecommunications System (CTS) and the Program Support Communications Network (PSCN).
1.2.15.B		B. Output	Provide continuous power to the Center Telecommunications System (CTS) and the Program Support Communications Network (PSCN). In the event of commercial power failure or system malfunction provide emergency backup power that, upon failure or outage of the normal source, automatically provides power to critical devices and equipment whose failure to operate

			satisfactorily would jeopardize health and safety of personnel or cause equipment damage. The emergency lighting system will be activated at the time of failure. Electrical schematics (one-line diagrams) and equipment layout for facility included in the TRL.
1.2.15.C		C. Components	The components which comprise this requirement include but are not limited to: motor control centers, automatic transfer switches, manual transfer switches, disconnect switches, circuit breakers, panelboards, transformer, battery banks, battery chargers, generator, voltage regulators and exciters, motors, uninterruptible power supplies, and inverters.
1.2.16	Elect	**Emergency Power Backup**	
1.2.16.A		A. Description	That system which serves as an emergency source for supplying power to critical loads in the event of loss of a service interruption or loss of power.
1.2.16.B		B. Output	Provide emergency backup power that, upon failure or outage of the normal source, automatically provides power to critical devices and equipment whose failure to operate satisfactorily would jeopardize health and safety of personnel or cause equipment damage.
1.2.16.C		C. Components	The components which comprise this requirement include but are not limited to: storage batteries, generator sets, UPS's (energy storage batteries, rectifiers, inverters, and associated controls), transfer switching devices, relay synchronizing, protective and auxiliary devices, alarms and controls, conductors, wiring components, and grounds.
1.2.17	Elect	**Emergency Warning**	
1.2.17.A		A. Description	Emergency Warning Systems are stand-alone pole mounted systems strategically located at JSC that are programmed to generate loud warning sounds to alert JSC personnel that a particular hazard is about to occur or has occurred. The system is also used as a public address system.
1.2.17.B		B. Output	Provide for a reliable and continuous operation of various audible sounds generated by Emergency Warning System in the event a hazardous condition occurs or is about to occur at JSC.
1.2.17.C		C. Components	Components include not limited to: Poles, strobe lights, speakers, solar panels, control cabinet (electronics), antennas, batteries, ground rods, lightning rods, lightning protection down conductors, lightning protection connectors and fasteners, portable computer, portable computer transmitter/receive antenna, portable hand held control panel, and field and communication wiring and PC Computer interface.
1.2.18	Elect	**Site Intercom**	
1.2.18.A		A. Description	Site Intercom Systems are used by Operation Control Center and the Emergency Operations Center (EOC) to communicate to field tunnel and mechanical rooms' locations.
1.2.18.B		B. Output	Provide continuous and reliable communication between Operations Control Center and all tunnel and mechanical stations, and the station in the Emergency Operations Center (EOC).
1.2.18.C		C. Components	These systems are defined to include but not limited to: amplifiers, impedance transformers,

			speakers, switches relays, conductors, cords, conduits, lamps, and wire.
1.2.19	Elect	**Radio Tape Monitoring**	
1.2.19.A		A. Description	Radio Tape Monitoring System is used to record all radio transmissions used in field for O&M activities.
1.2.19.B		B. Output	Provide continuous recording of radio communication/transmission on tape.
1.2.19.C		C. Components	Radio Tape Interface Scanner and Recorder hardware.
1.2.20	Elect	**Fire Protection and Security**	
1.2.20A		A. Description	The cable system for fire protection and security both above ground on poles, and underground in duct bank.
1.2.20B		B. Output	Provide reliable operation of JSC fire protection and security system. Provide bucket truck and personnel support to install, remove, repair or rearrange alarm/security cables on overhead distribution system as needed.
1.2.20C		C. Components	This system is defined to include, but is not limited to cable, cable clamps, messengers, tie-off insulators, tie-wraps, pole hardware, and cable identifiers.

1.4.0 Civil

#	System Type	System	
1.4.01	Civil	**Potable Water**	
1.4.01.A		A. Description	Production – This is the system that provides production, pressurization, treatment, and distribution of the JSC site potable water system. This system begins at the property line and continues through to the point of use. The JSC site normally operates on surface water provided by contract through Clear Lake City Water Authority (CLCWA). Two water wells provide backup supply to the site in the event that surface water is unavailable due to poor quality or low quantity. This utility system includes ground and elevated storage of JSC site potable water. Exhaust fans are on top of the 1,000,000-gallon ground storage tank to remove methane gas when well water is used. The elevated storage tank and each of the ground storage tanks have their own impressed current cathodic protection systems in place and a separate cathodic protection system protects the bases of both ground storage tanks. Distribution/Use - This utility system provides for the distribution of potable and fire water to all facilities at JSC. This system supplies water not considered potable water to systems that are not considered facilities such as turf irrigation or fire protection devices. The system provides potable water to restrooms, sinks, showers, drinking fountains, etc. and includes supply piping to domestic hot water systems, fire water systems, and make up supplies to mechanical equipment.

			The system provides for the distribution of potable water at EF and SCTF. This system begins at the point of the backflow preventers at the property line and continues through to the point of use. This system also includes appurtenances that the water system supplies that are not considered facilities such as turf irrigation and fire protection.
1.4.01.B		B. Output	The water quality in all portions of the water systems at ***JSC** must meet TNRCC requirements. The JSC system shall be free of leaks and shall provide each facility with a continuous supply of potable water / fire water at 68 psi pressure from a reference point of the elevated storage tank. The booster pump system shall be used to maintain this pressure except during operation of the emergency supply line when the site is provided with pressure from CLCWA. All potable water systems shall provide the quantity needed to operate facility fixtures and associated appurtenances per the International Building Code 2000 Standard. All valves shall be operational. The storage system shall be inspected annually and disinfected to provide potable water per AWWA and TNRCC standards. The cathodic protection systems shall prevent deterioration of the metal structures and shall be tested to verify the functionality of the system. The potable water storage tank paint coatings shall protect the structures from corrosion. The exhaust fans on the top of the 1,000,000-gallon ground storage tank shall remove 100% of methane gas from the tank. The system shall be free of leaks and shall provide the sufficient quantity and pressure of potable water to all equipment to meet the International Building Code 2000 Standard. Repairs shall maintain water quality as set in Annex 4 and after repairs equipment shall be disinfected per TNRCC Chapter 290 and AWWA regulations. A tester accredited by the TNRCC or its designated agents must perform backflow preventer testing and repairs. Testing of the backflow preventers located at the EF property lines shall also be coordinated with the City of Houston. Repairs shall be accomplished within AWWA and TNRCC standards. Backflow preventer testing shall be done and recorded in accordance with TNRCC regulations by certified testers. Backflow test reports must be maintained per the TNRCC Chapter 290 regulations. Maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance. At JSC, water well #4 shall provide 1500 gallons per minute and water well #2 shall provide 1000 gallons per minute flow rate, as measured at the meters located at the well heads. The booster pump system shall be maintained in such a manner to ensure compliance with operational requirements in Annex 4. The pumps shall be capable of pumping 2500 gallons per minute flow on electric drive and 2000 gallons per minute flow on natural gas drive. The chemical treatment system located in buildings 322, 319 and bulk storage tank shall be free of leaks and shall provide the quality of water which meets Annex 4 and TNRCC Chapter 290 standards for chemical dosages and quality control of bacteria. System alarms shall operate to properly signal low level or leaks of chemicals. The building ventilation system shall remove all chemical fumes from the building on a continuous basis. The system consists of the injection of sodium hypochlorite,

			ammonia, and a corrosion inhibitor and monitoring devices for those chemicals.
1.4.01.C		C. Components	The potable water system is defined to include, but is not limited to, the following facility components, appurtenances and equipment which it supplies: generation systems include wells with associated pumps, motors, natural gas engines with associated battery charger, casing and it includes piping, cathodic protection, valves, vents and vent screens, air lines, gages and drip oilers. Also, the piping, fittings, meters and instrumentation flush valves between the wells and the ground storage tanks. Tank components include structural framing, gages, drainpipes, site level gages, cathodic protection including it's power source, anodes, support cables, screens, vents and paint systems. The tank controls include pressure sensing lines, a Clayton control valve, and tank high and low level alarms. Piping inside the elevated storage tank is also included. Cathodic protection components include anodes, rectifiers, flotation buoys, collector cables and other associated components. The booster pump system includes electric and natural gas booster pumps, piping, Clayton control valves, gate valves, fittings, strainers, gages, insulation, freeze protection devices, hose bibbs, sampling taps, flush valves, labels and meters including the digital readout panel and meter totalizer inside building 322 and the paper circle chart recorder for logging the booster pump operations and surface water flow times. The control system includes a PLC at building 322 for booster pump controls, alarms, tank level controls, and gages. The chemical treatment system components include, but are not limited to: chemical feed pumps, chemical analyzers, a PLC for controls, leak detection devices, chemical storage tanks and drum containments, building ventilation system, associated piping, valves, fittings, freeze protection devices, labels, insulation, scales, alarm devices for leaks, a bulk storage tank and drums. The water analysis panel components includes pen recorders to monitor chlorine levels, low level alarms on the drums (ammonia and corrosion inhibitor) and bulk tank (sodium hypochlorite), leak detectors for the ammonia and sodium hypochlorite, and flow meters with associated pen recorders. Facility components include pneumatic tanks, surge tanks, pressure boosting pumps, level controls and alarms, piping and piping insulation (up to and including backflow preventers), labels, fittings and valves. Facility appurtenances including backflow preventers, strainers, relief valves, surge arresters, pressure reducing valves, water hammer arresters, air eliminators, water filters, timers and control valves, and pressure gages. Facility equipment includes water chillers, drinking fountains, safety showers, eyewashes, Jacuzzi's, showers, restroom sinks, janitorial sinks, and other sinks, hose bibbs and associated hardware for listed equipment. Portable eyewashes are also included in this definition. The piping system includes all piping, valves, fittings, valve boxes, valve markers, insulation and labeled marker posts. Associated appurtenances include backflow preventers, eyewashes, safety showers, hose reels, wash racks, truck fill lines, gages, and meters.
1.4.02	Civil	**Sanitary Sewer**	
1.4.02.A		A. Description	The system that provides for the removal of wastewater from the point of origination through the

			interconnected system of gravity lines and manholes to the lift stations where it is routed through an interconnected system of force mains, gravity lines and manholes to the JSC property line. The Space Center Houston Visitor Center also sends JSC wastewater through their own pumping station, which is maintained by their personnel. Lift stations are equipped with dual pumps for redundancy and the JSC piping system also has some versatility for outages by changing valve configurations.
1.4.02.B		B. Output	The entire JSC Sanitary Sewer system shall be free of leaks (infiltration and exfiltration) and shall provide for the continuous removal of wastewater at designed flow rates from all components of the building, which tie into this system. The ***JSC** gravity flow portion of the system must provide for the continuous flow of wastewater through the pipes in accordance with the existing field conditions such as slope and size of pipe without impact to the facilities. The unplanned repairs of blockages are covered under this system definition. Any failure of surrounding soil around appurtenances or along the piping route shall be repaired. The ***JSC** forced main portion of the system must provide for continuous service required to accomplish the removal of wastewater without impact to the system and facilities. A minimum of one pump shall be available at each lift station. Pumps shall meet capacities specified in O&M manuals. At building 223, two electric pumps shall be available to pump at O&M manual stated capacity for a combined flow of 350 gpm. The natural gas engine shall provide 600 gpm at suction lift from the bottom of the wet well.
1.4.02.C		C. Components	The facility waste water system is defined to include, but is not limited to, the following facility components, appurtenances, and equipment which is connected to it. Facility components include grinder pumps, all drain, sewer and vent piping connected to the sanitary sewer system from sinks, drinking fountains, floor drains, and misc. equipment. Facility appurtenances include alarms, grease traps at cafeterias, and oil-water separators. Facility equipment includes restroom water closets, urinals, and associated flush valves and hardware. The sanitary sewer pumping system is defined to include, but is not limited to wet wells, dry wells, pumps and associated grease lines and appurtenances, pump motors, sump pumps, controls, PLC's, alarms piping with in the lift station, valves, check valves, vents, air relief valves, comminutors, blowers, air compressors, and natural gas engine. The components include meters, wastewater manholes, process water manholes, force mains, cleanouts and gravity lines.
1.4.03	Civil	**Storm Sewer**	
1.4.03.A		A. Description	This system is defined as the storm water collection system that collects onsite surface drainage and facility roof drainage and conveys it to the appropriate drainage ditch system that further conveys the storm water offsite. Also included as contributing to the overall system are the building 29 dewatering wells, and sump pumps located at building 14, the weigh station north of building 420, elevator pits, tunnel, and electrical manholes.
1.4.03.B		B. Output	The entire Storm Sewer system shall be free of leaks (infiltration and exfiltration) and shall provide for the continuous conveyance of storm water onsite from all points of entry into the system to the

			***JSC** property line. Clear passages shall be maintained throughout the storm water collection system to allow for continuous conveyance of the maximum amount of storm water to the property line in the most expedient manner limited only by the system's designed capacity. Any failure of surrounding soil around appurtenances or along the piping route shall be repaired. Ditch linings, headwalls and other storm sewer appurtenances shall not have any undercutting or displacement of slabs. Dewatering pumps and sump pumps shall be available when needed.
1.4.03.C		C. Components	The components of this system include drainage inlets and grates, manholes and covers, concrete and metal collection piping, swales, ditches, concrete aprons and associated energy dissipating structures, headwalls, corrugated metal culverts including inserts and concrete box culverts. Special attention shall be given to depressed loading dock area storm water removal systems (especially at building 14 which has the potential to flood a portion of the building if not adequately operating during a heavy rain event) to assure timely removal of storm water in the case of heavy rains. The facility storm water removal system is defined to include, but is not limited to, the following facility components: Roof drains, drain lead flashing, pipes, insulation, labels, fittings, loggia ledge drains and associated piping, fittings and insulation, and all other miscellaneous drains and associated components which are connected to this system. It also includes associated pumps and piping which are designed to remove storm water from facilities. In this case, "associated pumps" refers to sump pumps that are located in the driveway depressions at the loading docks of some of the 400 area (logistics/warehousing) buildings. Also included in this system is the gutter and building downspout system.
1.4.04	Civil	**Natural Gas**	
1.4.04.A		A. Description	This facility system provides for the distribution of natural gas from the point of entry to the sites at the metering station to equipment such as space heaters, hot water heaters, boilers, gas engines, cafeteria equipment, test equipment and laboratory equipment. The point of entry for JSC is right after the gas metering station (building 340) and the point of entry for EF and SCTF is the user's side of the meter.
1.4.04.B		B. Output	The system shall be free of leaks and provide for natural gas to and through the regulator to the facilities at the designed rate and pressure based on the designated regulator settings and individual building usage. Maintain current certification and repairs of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance.
1.4.04.C		C. Components	The natural gas system is defined to include, but is not limited to: piping, pipe wrapping, associated fittings, building regulator stations, gages, valves, identification markers and labels, blow offs, regulators, valve stations, relief valves, cathodic protection system, isolation unions and anodes, meters, instrumentation and gas scrubbers (building 24).
1.4.05	Civil	**Fire Protection**	

1.4.05.A		A. Description	The facility firewater protection system is the system that provides water for fire protection in the ***JSC** facilities. The water supply system for fire protection at JSC and SCTF is part of the potable water distribution system. The ***JSC** fire protection contractor does a major part of the fire protection system tests, operations and planned maintenance. Also, fire protection is the utility system that provides for storage, pumping and distribution of firewater at Ellington Field, which is a deluge system for most of the site, and a concentrated foam system at EF Hangar 990. There is also a deluge system on the building 48 cooling tower.
1.4.05.B		B. Output	The entire system shall be free of leaks and shall provide for the continuous supply of firewater protection per NFPA including annual exercising of fire hydrants, lubricating per manufacturer's recommendations and annual greasing of fire hydrant caps. The JSC system shall provide for the continuous supply of firewater protection to the facilities as designed based on a supply pressure of 68 PSI. The EF deluge system shall maintain continuous service for the storage, pumping and distribution of firewater for most of the site along with a concentrated foam system at EF Hangar 990. Support brackets for fire extinguishers at all locations shall be maintained in a structurally sound condition.
1.4.05.C		C. Components	The components of the utility fire water distribution system include post indicator valves, fire hydrants, deluge system piping and associated valves, piping, wet pipe sprinkler systems, and pipes on dry sprinkler systems, valves outside cabinets and booster pumps on standpipe systems, insulation, freeze protection devices, labels, and meters. The components of the EF deluge firewater storage system include, but are not limited to the following: two 150,000 gallon ground storage tanks with associated vents, paint coatings, alarms, screens, piping, controls and control valves, motors and diesel engines, pumps and pump controllers, foam generation system, piping, gate valves and post indicator valves, fittings, backflow preventers, insulation and labels, underground valve pits, and associated freeze protection devices.
1.4.06	Civil	**Potable Hot Water**	
1.4.06.A		A. Description	The ***JSC** facility system that provides for the generation and distribution of domestic hot water to restrooms, sinks, cafeteria equipment, shower facilities, eyewashes, EF washrack and tempered water to safety showers.
1.4.06.B		B. Output	The system shall be free of leaks and shall provide domestic hot water temperature per Federal Regulations Ref. NHB 8831.2 latest version. The system shall provide pressure and quantity to the fixtures to meet International Building Code 2000 Standard. Maintain current certification of all pressure systems and components per JHB 1710B, and current ****Pressure Systems Inventory Recall** such that no component or system inspection date can be found to be out of compliance.
1.4.06.C		C. Components	The domestic hot water system is defined to include, but is not limited to, steam, natural gas, instantaneous and electric hot water generators, electric or gas hot water heaters, insulation, instrumentation, thermostats, controls, filters, relief valves and pressure protective devices, trace heat strips (B30S), in line recirculating pumps, hot water distribution piping, labels, valves and

			fittings associated with such piping.
1.4.07	Civil	**Turf Irrigation**	
1.4.07.A		A. Description	This system provides for the irrigation of turf areas at ***JSC**.
1.4.07.B		B. Output	The system shall be free of leaks and shall provide for the irrigation of ***JSC** grounds per the system design. Backflow preventers shall be tested and documented per TNRCC Chapter 290 regulations. The mall fish ponds shall be provided with sufficient quantity of make-up water to keep the fish alive through water change out, overcome evaporation quantities and to maintain the water level to allow free water flow through pond interconnecting canal at all times.
1.4.07.C		C. Components	The utility turf irrigation system is defined to include, but is not limited to backflow preventers and valve boxes, solenoid valves, gate valves, quick couplers, quick connects, pop-up heads, and automatic timers.
1.4.08	Civil	**Facility Interior**	
1.4.08.A		A. Description	The facility interior system provides an architectural environment that allows ***JSC** occupants to fully function in the performance of their duties. Facility interior systems are the numerous components comprising the building interior that includes but is not limited to the following items: floors, walls, ceilings, doors, stairs, handrails, interior glass windows and doors, projection screens, auditorium chairs, and the curtain and associated mounting and operating system located in the Teague Auditorium, building 2.
1.4.08.B		B. Output	A continuous condition of safe, clean and reliable interior systems shall be maintained to provide safe working conditions for facility occupants. This includes but is not limited to the following items: operational door locks, securely hung projection screens, no broken, damaged, loose, cracked, or missing floor tiles including uneven or loose computer flooring, electrical tombstones and underfloor utility cover plates securely fastened, no loose or deteriorated non-skid matting on ramps, no holes or damage to walls due to maintenance efforts, proper operation of all doors including door stops, door locks, door closers and associated hardware, panic door hardware, and no holes in walls due to missing or malfunctioning door stops, no cracked or damaged glass, properly aligned trench cover plates and carpet tiles to preclude a tripping hazard, ceiling tiles must not be water damaged, cracked, broken, bowed, misaligned or missing and associated t bar support grid shall be securely installed and properly aligned. Stair steps shall be in a safe configuration with no worn non-skid coatings, no loose nosings and all handrails securely fastened.
1.4.08.C		C. Components	The components include, but are not limited to, fire doors, personnel doors, computer flooring and associated support grid, floor surfaces including surface coatings, carpet tiles and floor tiles, ceiling tiles and support grid, walls, handrails, steps, projection screens, and permanently mounted auditorium and viewing room chairs. The stage curtain components consist of the stage curtain, mounting hardware and operating mechanisms used to move the curtain.

1.4.09	Civil	**Facility Exterior**	
1.4.09.A		A. Description	The facility exterior system provides an architectural protection from the elements and prevents the internal environment from being adversely affected. This system provides for weatherproofing of the facility from rain and inclement weather.
1.4.09.B		B. Output	The system shall provide for the safe condition and continuous waterproofing of the facility exterior structure without leaks. Corrective measures shall be taken to alleviate further leakage. If defects in the roofing, loggia ledge, or PEAF panel caulking are found, temporary repairs shall be accomplished under this section and the requirements for permanent repairs shall be submitted to the CO for accomplishment through Annex 3 or Annex 6. Typical Facility Exterior tasks that are covered under this definition include but are not limited to: replacement of broken glass in windows and doors, repair of rain water leaks through window seals and frames, PEAF panel caulking to alleviate leaks, repair of exterior personnel door hardware or weatherstripping, door painting to alleviate corrosion, or door replacement due to excessive corrosion, no build-up of debris on roofs that causes ponding, temporary repair of roof leaks and associated vent installation, if necessary, repair of roof drain leaks, repair of antenna or other tie-downs due to corrosion or stretching, replacement of portions of metal building siding as a result of wind damage, leaks, or excessive corrosion and replacement of fasteners on siding and roofs that have come loose, are missing or are deteriorated.
1.4.09.C		C. Components	The components include any portion of the building exterior system which are either unsafe or compromise the waterproofing integrity or security of the system. It includes, but is not limited to, all exterior glass systems, window seals and frames, exterior doors and seals, sheet metal siding walls and fasteners, PEAF panel walls and joints, other miscellaneous wall construction, loggia ledges, facility roofs, roof fasteners, parapets, associated roof hoods and appurtenances, and any wall penetrations.
1.4.10	Civil	**Doors & Barriers**	
1.4.10.A		A. Description	Rolling metal-coiled doors, interior or exterior, horizontal or vertical sliding doors that provide ingress and egress of personnel or large equipment at facilities. This includes the interior high-speed roll-up curtain in building 421, coiling hurricane shutters, accordian metal security gates and strip curtains.
1.4.10.B		B. Output	Provide maximum reliability and safety in all door operations. They must be available for continuous service in case an emergency situation arises in a building which would require their immediate use. Safe and reliable operation of automatic personnel doors shall be available for building occupants to enter and exit buildings. System shall operate doors from presence detectors where available and shall not close prematurely. Exterior doors that are damaged by the elements or wind will be repaired and recoated and hardware will be repaired or replaced. Corrosion protection shall be maintained on exterior doors.

1.4.10.C		C. Components	Rolling metal coiled and large, interior and exterior, horizontal or vertical sliding door systems includes all of the door hardware, controls, mechanical components and operating mechanisms. This includes components of the interior high-speed roll-up curtain in building 421 and coiling hurricane shutters. Component parts include but are not limited to: motors, gearbox, clutch assembly, labels, safety boot take-up reel, control box, forward and reversing relays, start-stop stations, limit switches or worm-gear, sliding door frames/rails, counterweights, caging, roller suspension tracks, travel blocks etc., and electronics microprocessor controllers, detectors (motion, safety beams, sensitivity sensors, motors, switches, relays etc).
1.4.11	Civil	**Fences & Gates**	
1.4.11.A		A. Description	Fencing refers to the perimeter security fence system and other internal fence systems utilized to secure areas at ***JSC** including associated gates. Also included at JSC are recreational area (ball fields, batting cage and tennis courts) fences, PEAF enclosures and bollards with chains adjacent to the building 30/48 complex and building 24 and PEAF enclosures surrounding utility and transformers and HV switches.
1.4.11.B		B. Output	Fence systems shall be maintained to provide continuous security of the associated areas including an uninterrupted section of barbed wire along the top of the fence, where applicable. Gates (especially the west entrance electric controlled gate and the tram road electric operated gate) shall be maintained in a condition that allows continuous operation and access to areas as needed. Bollards shall be in place and the chains continuous and corrosion free. Immediate repair mitigation shall be made on fences impacted by vehicles to provide site security with permanent repairs following.
1.4.11.C		C. Components	The fence system includes security bollards and associated chains, chain link fencing, mounting and support hardware, barbed wire and all components associated with the operation of gates including locking mechanisms to provide a system of continuous area security.
1.4.12	Civil	**Public Displays**	
1.4.12.A		A. Description	Public displays include: the static Rocket Display viewed by visitors to JSC, the permanently mounted flagpoles at ***JSC**, the memorial tree grove (located east of building 110) signage, the historical memorial displays located outside of building 2, outside of building 30M, at Rocket Park and attached to the east side of building 5N outside the high bay, and the large JSC entrance signs located on NASA Road One, at the Second Street entrance and the tram road entrance at Rocket Park.
1.4.12.B		B. Output	Safe and secure display of the static rocket hardware and it's mounting components and safe pedestrian travel areas utilized by JSC visitors. Continuous safe and reliable service shall be available for the daily use of the flagpole systems. Preservation and secure mounting of memorial displays and entrance signs shall be maintained.
1.4.12.C		C. Components	The Rocket Park Display consists of the static Rocket Display, mounting hardware and signage,

			and associated hardware along with pedestrian travel areas including roped stanchions. The flagpole system consists of the flagpoles, flag mounting rope and all of the hardware and mechanical components necessary to provide continuous safe, reliable and easy operation of the flagpole assembly. Components of the memorial displays and entrance signs includes the plaques, letters, logos, and mounting and display hardware.

1.5.0 Environmental

1.5.01	Environ.	**Waste Tank Collection**	
1.5.01.A		A. Description	The waste collection system including tanks, piping, leak detection and overfill protection systems and all associated equipment for the collection of wastes from the photographic lab, the metal finishing/cleaning labs for storage prior to disposal/treatment off-site or treatment onsite.
1.5.01.B		B. Output	The tank systems and surrounding structures shall be maintained to ensure: Accurate daily Resource Conservation and Recovery Act (RCRA) and other environmental and OSHA regulatory required inspections can be completed and logged. Silver recovery collection systems can be operated as needed. Wastes can be collected, removed and transferred as required by regulatory requirements, e.g. every 90 days. The operation and all equipment functions in compliance with all RCRA and other state and federal environmental regulatory requirements, JSC requirements, permit conditions and OHSA requirements. Samples can be collected as needed from tank sample ports or other sample locations to collect annual waste characterization sampling or during process changes or as required by regulatory or JSC requirements. The high level alarms shall detect levels at the high level set points and sound an alarm and initiate the visual alarm at the facility and the EMCS at all times in accordance with RCRA regulations and other state and federal environmental regulatory requirements, permit conditions and OSHA requirements. Leak detection systems shall immediately detect all leaks and shall initiate panel alarms, visual alarms and EMCS at all times as required by RCRA regulations and permit conditions.
1.5.01.C		C. Components	The waste collection system includes, but is not limited to; tanks and all tank appurtenances, piping, double-walled piping, quick disconnects, pumps, valves, aerators, gratings, pH meters, electrodes, leak detection cables, tank level sensors, sump high level sensors, flow indicators/totalizers, level controls, main panels for alarms, visual level indicators, heaters, piping insulation, overfill containers, compressors, carbon absorption canisters, tank identification labels, outside visual alarm indicator light, leak detection systems, and panel zones, tank system identification labels, safety showers and eyewash stations.
1.5.02	Environ.	**Vaults**	
1.5.02.A		A. Description	Vaults are the in ground concrete structures which house waste collection tanks.

1.5.02.B		B. Output	The structures must be maintained to meet RCRA and other state and federal environmental regulatory requirements, JSC requirements, permit conditions and OHSA requirements, and in such a manner that daily RCRA and other regulatory inspections can be safely conducted, waste can be collected, transferred or removed from the tanks, allows for accumulated liquids to be detected and removed. Structures must be maintained to prevent rainwater or other water infiltration into the vaults and are impervious and will prevent any liquids from leaching into the concrete or surrounding soil.
1.5.02.C		C. Components	Structure components include, but are not limited to, concrete walls, and floors, chemical resistant coatings on walls and flooring, drain caps, gratings/coverings, roof, doors, locks, stairways, vents, ventilation fans, air vents, lighting, safety bollards, tire stops, electrical components, warning signs, identification labels, safety showers and eyewash stations.
1.5.03	Environ.	**Container Storage Areas**	
1.5.03.A		A. Description	Areas used for the accumulation or storage of containers holding wastes.
1.5.03.B		B. Output	The container storage areas must be maintained to allow for the safe receipt inspection, accumulation, packaging and sampling, and transfer of waste containers and to comply with all environmental regulations, JSC requirements and permit conditions.
1.5.03.C		C. Components	Components may include, but are not limited to: Bracing, roof, louvers, lighting, forklift pathways, tie downs, fences, locks, gates, signs, audible telephone bells, safety showers and eyewash stations.
1.5.04	Environ.	**Containment Berms**	
1.5.04.A		A. Description	Containment Berms are used to provide secondary or tertiary containment for areas storing or accumulating wastes in tanks or containers.
1.5.04.B		B. Output	Containment structures shall be maintained in a manner such that the structure will collect and hold any released liquids and any incidental rainwater and allow the accumulation of liquids to be detected and removed. The containment must be impervious and prevent any liquids from leaching into the concrete or surrounding soil. All gratings must be maintained to be rust free. Containment structures shall be maintained in accordance with all RCRA and other state and federal environmental regulatory requirements, permit conditions, JSC requirements and OHSA requirements.
1.5.04.C		C. Components	Containment structures include, but are not limited to, concrete (or other construction materials) floors and sides, coatings or liners, drain caps, and gratings, safety showers and eyewash stations.
1.5.05	Environ.	**Wastewater**	

		Impoundments	
1.5.05.A		A. Description	Wastewater impoundments are in-ground imperviously lined concrete structures and all appurtenances used to collect process or storm water prior to discharge to the sanitary sewer and with the ability to provide aeration.
1.5.05.B		B. Output	Impoundments shall be maintained shall be maintained in accordance with all RCRA and other state and federal environmental regulatory requirements, permit conditions, JSC requirements and OHSA requirements, and to retain all wastewaters that are pumped or gravity fed into them without leaking or overflowing. Aeration capability shall be continuously available in sufficient amounts to reduce organics to meet discharge limits. The pumps shall be maintained to pump wastewater to the sanitary sewer in order to prevent overflowing or exceeding operating levels as needed.
1.5.05.C		C. Components	The wastewater impoundments include, but are not limited to, the concrete structure, liners, pumps, aerators, diffusers, blowers, piping, dewatering pumps and handrails, safety showers and eyewash stations.
1.5.06	Environ.	**Groundwater Treatment**	
1.5.06.A		A. Description	The system that provides the collection, treatment and disposition of contaminated groundwater.
1.5.06.B		B. Output	The groundwater treatment system shall be maintained to allow for a continuous operations that will provide draw down in the contaminated zone, treat the collected groundwater to 1 ppb Freon 113, and to comply with the applicable TNRCC Standard Exemption #68(e) 4 and shall be maintained in accordance with all RCRA and other state and federal environmental regulatory requirements, permit conditions, JSC requirements and OHSA requirements.
1.5.06.C		C. Components	The groundwater treatment system includes, but is not limited to: the extraction wells; submersible pumps, flow meters, sample ports, electrical panels, piping and insulation; piping and insulation, the air stripping towers, air stripper packing, carbon adsorption units, pumps, strainers, valves, fan blowers, liquid probes, level indicators, high level alarms/shut offs systems, three-way valves, tanks and all appurtenances, leak detection sight glass, catwalks, stairways, tank labels and identification labels, vents, stripper skid, sumps, pneumatic tank, electrical switches and panels, lighting; wet well, low level/pressure alarm, pressure switches, motors, covers; backflow preventers, warning lights, transformer and guide wires, system identification labels, safety showers and eyewash stations.
1.5.07	Environ.	**Plating Waste Pretreatment**	
1.5.07.A		A. Description	The system that provides for the collection, treatment and disposition of Preclean and plating type wastewaters.
1.5.07.B		B. Output	The treatment system shall be maintained to collect all wastewaters that are pumped to and

			transferred to and from all tanks, modules and filter presses without overflows, spill or leaks and must be available for use at all times. The system shall be maintained in accordance with all RCRA and other state and federal environmental regulatory requirements, permit conditions, JSC requirements and OHSA requirements. The system shall be maintained so that samples can be collected from all tanks as required by regulatory or ***JSC** requirements, and all collected wastes can be treated to meet the conditions of JSC's sewer ordinance and all State and Federal Clean Water Act regulations, RCRA and other state and federal environmental regulatory requirements, permit conditions, and OHSA requirements. All pH meters shall be maintained to continually and accurately measure and record all pH levels. The membrane modules shall be maintained to provide optimum pressure and flow rates as identified in ****Memtek O&M Manual** and ****Memtek Filter press O&M Manual**. All mixers shall be maintained to mix chemicals for treatment of wastewater at all times.
1.5.07.C		C. Components	The treatment systems consists of tanks, pumps, mixers, dust collector, valves, level controls, switches, filters, membranes modules, filterpress, filter cloths, filter bags, piping, pH probes and meters, ORP probes and meters, flow meters, instruments, metering pumps, regulators, alarms, lamps, relays, timers, probes, recorder, paper, sensors, gaskets, o-rings, batteries, strainers.
1.5.08	Environ	**Continuous Emissions Monitor**	
1.5.08.A		A. Description	The system that provides for the sampling, conditioning, analysis, and recording of emissions data from the B222-1 Nebraska boiler
1.5.08.B		B. Output	The system shall be maintained to allow for continuous operations to comply with TNRCC Permit #C-19670 and other state and federal environmental regulatory requirements, permit conditions, and JSC requirements.
1.5.08.C		C. Components	The continuous emissions monitor includes, but is not limited to: dual redundant Nox analyzers, oxygen (O2) analyzer, in-stack sample probes, sampling lines, ssample conditioning, pumps, filters, data acquisition system KVB Enertec NT-DAHS.

1.6.0 Other Equipment

#	System Type	System	
1.6.01	Other	**Elevators**	
1.6.01.A		A. Description	Electric/traction/hydraulic elevators are vertical transportation systems designed for the movement of personnel and freight between the various floors, or working levels of multi-story buildings. The passenger/freight cars of electric/traction elevators are suspended by wire ropes, which pass over a powered sheave, and terminate at a set of counterweights. The prime mover, or drive machinery, is generally located near the top of the elevator car shaft, or hoist way. In short,

			electric/traction elevators lift and lower a car which is suspended in the hoist way. The passenger/freight cars of hydraulic elevators are affixed atop, and are raised and lowered by, a telescoping hydraulic cylinder. This cylinder moves up or down in proportion to the increase or decrease in the oil pressure inside the cylinder. Increases in oil pressure result from an electric motor driven pump forcing oil into the hydraulic jack, or cylinder, which is typically buried in the earth beneath the building's elevator pit. Decreases in oil pressure result from the controlled opening of a valve, which allows the oil to return from the jack to the supply reservoir. The hydraulic pumping assembly is generally located in a machine room near the elevator pit or hoist way. In short, hydraulic elevators move a car by pushing it up through the hoist way. A dumbwaiter is defined as a hoisting and lowering mechanism with a car of limited capacity and size which moves in guides in a vertical direction and is used exclusively for the transport of materials between floors, or levels of a building. Dumbwaiters shall never be utilized for the movement of personnel.
1.6.01.B		B. Output	All elevators/dumbwaiters must safely operate and perform per the manufacturer's design criteria, and shall be maintained in strict compliance with all pertinent rules and regulations, as detailed in the most current edition of the Safety Code for Elevators and Escalators (ANSI/ASME A17.1). NASA shall verify such compliance through periodic safety inspections, which shall be conducted by certified inspectors, independently contracted by NASA, utilizing The American National Standard Practice for the Inspection of Elevators, Escalators, and Moving Walks Inspector's Manual (ANSI A17.2) as the basic reference for said inspections. Any anomalies or code violations, noted as a result of these inspections, shall be immediately corrected under this COSS contract, unless specifically waived, in writing, by the Contracting Officer.
1.6.01.C		C. Components	Components for which this contract assumes responsibility shall include, but shall not be limited to, buffers, car enclosures, gates, doors, car frames and platforms, hydraulic pumping units, tanks, hydraulic cylinders and casings, sheaves, counterweights, drive machines, governors, operating devices, controls, safeties, suspension ropes, guide rails, hoist way guards and covers, indicator lights and signaling devices, machine rooms, pits, wiring, piping, and ducts, hoist way guards and covers, indicator lights and signaling devices, pits, wiring, piping, and ducts.
1.6.02	Other	**Lifting Devices**	
1.6.02.A		A. Description	Generally, a system shall be defined as a crane if it has been so designed as to possess the capability not only to lift a load in the vertical axis, but to move that load along any horizontal axis, as well. Generally, a system shall be defined as a hoist if it has been so designed as to possess the capability to lift a load in the vertical axis only, but cannot move that load along any horizontal axis. Generally, a system shall be defined as a switchgear hoist if it has been designed and installed so as to perform the sole function of lifting components from panels, cabinets and other installations housing electrical switchgear. Generally, a system is defined as a lift if it has a manually, electrically, hydraulically, or pneumatically driven platform or cage which travels along a

			substantially vertical axis which is controlled by some mechanical means, such as rails, guides, telescoping frame, or similar. It typically consists of a simple manual winch mounted to a frame. Such lifts may be designed, operated, and maintained as personnel lifts, as freight lifts, or as test article positioners. They may also be designed to be portable, or may be more permanently affixed to a building or other structure.
1.6.02.B		B. Output	A crane, hoist, switchgear hoist or lift must safely perform all functions for which it was designed, and operate within the performance and safety parameters and specifications established by the equipment manufacturer, OSHA and ANSI/ASME, as well as all criteria and regulations set forth in the NASA Safety Standard for Lifting Devices and Equipment (NSS/GO-1740.9B). Lifts designed and utilized for the movement of personnel require a more stringent level of maintenance than do other types of lifts. Cranes, hoists, switchgear hoists and lifts must be maintained, tested, and certified in a manner consistent with general guidelines established by the manufacturer, as well as those outlined in NSS/GO-1740.9B, which shall maintain precedence over all other governing criteria, both expressed and implied.
1.6.02.C		C. Components	Crane. Hoist, switchgear hoist and lift designs vary significantly according to location and application. Component definition shall be generally described as, but shall not be limited to, any or all of the following system elements: (1) Cranes - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, braking systems, trolleys, trolley drive systems, bridge structures, tracks and rails, motors, reduction gears, electrical bus tracks and pickup shoes, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a crane, its supporting structure, or its power supply; (2) hoists - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, braking systems, motors, reduction gears, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a hoist, its supporting structure, or its power supply; (3) switchgear hoists - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, reduction gears, safeties, frames, and any other ancillary elements associated with a lifting device or its supporting structure; and (4) lifts - wire ropes, sheaves, lifting drive systems, braking systems, hydraulic pumps and motors, pneumatic and hydraulic cylinders, electric motors, reduction gears, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a particular lift, its supporting structure, or its power supply.

1.7.0 User Equipment

1.7.01	User Equip.	**User Equipment**	
1.7.01.A		A. Description	Those pieces of specific equipment which fulfill a user requirement in the facility. This equipment supports test or other specialized task.

1.7.01.B		B. Output	Each piece of equipment shall provide the designed function with the manufacturer's specified output as defined by the user and applicable documentation. Availability of output shall be 100% during user defined period of operation or requirement.
1.7.01.C		C. Components	The equipment identified by this line item shall include, but not be limited to vacuum pumps, refrigeration equipment, chillers, boilers, film processors, printers, water pumps, cooling towers. The line item shall include the listed, numbered piece of equipment only and not be inclusive of peripheral or support piping, wiring, equipment or other ancillary hardware. Other components which might be included as parts of a particular system in which the User Equipment is installed, yet are not integral parts of the specific piece of equipment, are not included in this definition. Such parts and components are "ancillary hardware."

SECTION J, ATTACHMENT N, EXHIBIT N-1
TABLE 2
LIST OF FACILITIES

MAINT ID	DESCRIPTION	SITE	BLDG
E135XX	ELL BLDG 135, HANGER MAINTENANCE BUILDING	ELL	135
E136XX	ELL BLDG 136, AIRCRAFT CORROSION CONTROL FACILITY	ELL	136
E137BX	ELL BLDG 137B, AIRCRAFT WHEEL STAGING BUILDING	ELL	137B
E137XX	ELL BLDG 137, AIRCRAFT TIRE AND WHEEL MAINTENANCE SHOP	ELL	137
E138XX	ELL BLDG 138, FLAMMABLE STORAGE SHED	ELL	138
E139XX	ELL BLDG 139, GATEHOUSE NO. 1	ELL	139
E140BX	ELL BLDG 140B, FIRE SUPPRESION STORAGE BUILDING	ELL	140B
E140XX	ELL BLDG 140, ENGINE TEST COMPLEX NO. 1	ELL	140
E140AX	ELL BLDG 140A, ENGINE TEST COMPLEX STORAGE BLDG NO. 1	ELL	140A
E142XX	ELL BLDG 142, AIRCRAFT TEST ARTICLE FACILITY	ELL	142
E150XX	ELL BLDG 150, FUEL CELL SUPPORT FACILITY	ELL	150
E151XX	ELL BLDG 151, SOUND SUPPRESION FACILITY	ELL	151
E245XX	ELL BLDG 245, DELUGE PUMP STATION	ELL	245
E248XX	ELL BLDG 248, DELUGE WATER STORAGE TANK	ELL	248
E247XX	ELL BLDG 247, DELUGE WATER STORAGE TANK	ELL	247
E260XX	ELL BLDG 260, TELECOMMUNICATIONS FACILITY	ELL	260
E261XX	ELL BLDG 261, GUARDHOUSE	ELL	261
E263XX	ELL BLDG 263, SUPPLIES AND EQUIPMENT SHED	ELL	263
E264XX	ELL BLDG 264, SUPPLIES AND EQUIPMENT SHED	ELL	264
E265XX	ELL BLDG 265, WAREHOUSE SUPPLY AND MAINTENANCE	ELL	265
E266XX	ELL BLDG 266, WAREHOUSE	ELL	266
E267XX	ELL BLDG 267, MANAGEMENT SUPPORT FACILITY	ELL	267
E269XX	ELL BLDG 269, GATE HOUSE NO. 2 (RETIRED)	ELL	269
E270XX	ELL BLDG 270, WAREHOUSE SUPPLY AND MAINTENANCE	ELL	270
E271XX	ELL BLDG 271, AVIATION SUPPORT FACILITY	ELL	271
E272XX	ELL BLDG 272, AIRCRAFT OPERATIONS WELDING SHOP	ELL	272
E273XX	ELL BLDG 273, MULTIPURPOSE SUPPORT FACILITY	ELL	273
E276XX	ELL BLDG 276, AIRCRAFT MAINTENANCE HANGER	ELL	276
E278XX	ELL BLDG 278, AIRCRAFT GROUND SUPPORT EQUIPMENT SHOP	ELL	278
E279XX	ELL BLDG 279, WELDING SHOP	ELL	279
E380XX	ELL BLDG 380, WAREHOUSE SUPPLY AND MAINTENANCE	ELL	380
E990XX	ELL BLDG 990, AIRCRAFT MAINTENANCE HANGER	ELL	990
E991XX	ELL BLDG 991, CRYOGENIC STORAGE SHED	ELL	991
E992XX	ELL BLDG 992, HAZARDOUS MATERIALS TRANSFER FACILITY	ELL	992
E993XX	ELL BLDG 993, HANGER SUPPORT FACILITY	ELL	993
E994XX	ELL BLDG 994, AIRCRAFT MAINTENANCE SUPPORT BUILDING	ELL	994
E998XX	ELL FIELD GENERAL SITE CODE	ELL	998
J000XX	JSC BLDG 000, SITE UTILITY TUNNELS	JSC	000
J001XX	JSC BLDG 001, PROJECT MANAGEMENT BUILDING	JSC	001
J002XX	JSC BLDG 002, AUDITORIUM AND PUBLIC AFFAIRS BUILDING	JSC	002
J003XX	JSC BLDG 003, CENTRAL CAFETERIA	JSC	003
J004NX	JSC BLDG 004N, FLIGHT OPERATIONS FACILITY	JSC	004N
J004SX	JSC BLDG 004S, FLIGHT OPERATIONS FACILITY	JSC	004S
J005NX	JSC BLDG 005N, MISSION SIMULATION AND TRAINING FACILITY	JSC	005N
J005SX	JSC BLDG 005S, MISSION SIMULATION AND TRAINING FACILITY	JSC	005S
J007BX	JSC BLDG 007B, CREW SYSTEMS LABORATORY	JSC	007B
J007AX	JSC BLDG 007A, CREW SYSTEMS LABORATORY	JSC	007A
J007XX	JSC BLDG 007, CREW SYSTEMS LABORATORY	JSC	007
J008AX	JSC BLDG 008A, PHOTOGRAPHIC WASTE STORAGE TANKS	JSC	008A
J008XX	JSC BLDG 008, PHOTOGRAPHIC TECHNOLOGY LABORATORY	JSC	008

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TABLE 2
LIST OF FACILITIES

MAINT ID	DESCRIPTION	SITE	BLDG
J009NE	JSC BLDG 009NE, SYSTEMS INTEGRATION FACILITY (C)	JSC	009NE
J009NW	JSC BLDG 009NW, SYSTEMS INTEGRATION FACILITY (B)	JSC	009NW
J009NX	JSC BLDG 009N, SYSTEMS INTEGRATION FACILITY (A)	JSC	009N
J009SX	JSC BLDG 009S, SYSTEM INTEGARTIN FACILITY MOCK UP FABRICATION	JSC	009S
J009SE	JSC BLDG 009SE, SYSTEMS INTEGRATION ADMINISTRATION FACILITY	JSC	009SE
J010XX	JSC BLDG 010, TECHNICAL SERVICES SHOP	JSC	010
J011XX	JSC BLDG 011, BRANCH CAFETERIA	JSC	011
J012XX	JSC BLDG 012, CENTRAL DATA OFFICE	JSC	012
J013XX	JSC BLDG 013, STRUCTURES AND MECHANICS LABORATORY	JSC	013
J014XX	JSC BLDG 014, ANTENNA AND TRACKING DEVELOPMENT LABORATORY	JSC	014
J015XX	JSC BLDG 015, EXPERIMENTS AND SYSTEMS LABORATORY	JSC	015
J016AX	JSC BLDG 016A, AVIONICS SYSTEMS LABORATORY ANNEX	JSC	016A
J016XX	JSC BLDG 016, AVIONICS SYSTEM LABORATORY	JSC	016
J017XX	JSC BLDG 017, ENGINEERING AND APPLICATIONS DEVELOPMENT	JSC	017
J018XX	JSC BLDG 018, RADAR BORESIGHT RANGE CONTROL	JSC	018
J019XX	JSC BLDG 019, BLDG 30 SOUTH LOT GUARD HOUSE	JSC	019
J023XX	JSC BLDG 023, WEATHER STATION	JSC	023
J024XX	JSC BLDG 024, CENTRAL HEATING AND COOLING PLANT	JSC	024
J025XX	JSC BLDG 025, FIRE STATION	JSC	025
J028XX	JSC BLDG 028, AUXILLARY CHILLER FACILITY	JSC	028
J029XX	JSC BLDG 029, LONG DURATION EVALUATION FACILITY	JSC	029
J030AX	JSC BLDG 030A, MISSION CONTROL ADMINISTRATION FACILITY	JSC	030A
J030LX	JSC BLDG 030L, MISSION CONTROL LOBBY AREA	JSC	030L
J030MX	JSC BLDG 030M, HISTIORCAL MISSION CONTROL	JSC	030M
J030SX	JSC BLDG 030S, MISSION CONTROL	JSC	030S
J031AX	JSC BLDG 031A, PLANETARY AND EARTH SCIENCES LABORATORY	JSC	031A
J031XX	JSC BLDG 031, PLANETARY AND EARTH SCIENCES LABORATORY	JSC	031
J032AX	JSC BLDG 032A, EMERGENCY PRESSURIZATION SYSTEMS	JSC	032A
J032QX	JSC BLDG 032Q, TEST ARTICLE STAGING FACILITY	JSC	032Q
J032XX	JSC BLDG 032, SPACE ENVIRONMENT SIMULATION LABORATORY	JSC	032
J033XX	JSC BLDG 033, SPACE ENVIRONMENT EFFECTS LABORATORY	JSC	033
J034XX	JSC BLDG 034, LABORATORY SUPPORT FACILITY	JSC	034
J035XX	JSC BLDG 035, MISSION SIMULATION DEVELOPMENT FACILITY	JSC	035
J036XX	JSC BLDG 036, BIOENGINEERING AND TEST SUPPORT FACILITY	JSC	036
J037XX	JSC BLDG 037, LIFE SCIENCES LABORATORY	JSC	037
J038XX	JSC BLDG 038, LOGISTICS SUPPORT BUILDING	JSC	038
J039XX	JSC BLDG 039A, DOMESTIC SATELLITE EARTH STATION COMPLEX NO. 1	JSC	039
J040XX	JSC BLDG 040, ELEVATED WATER STORAGE TANK	JSC	040
J041XX	JSC BLDG 041, HYPO/HYPERBARIC TRAINING FACILITY	JSC	041
J042XX	JSC BLDG 042, GENERAL SUPPORT FACILITY	JSC	042
J043XX	JSC BLDG 043, PROTOTYPE AND MODEL PAINTING SHOP	JSC	043
J044XX	JSC BLDG 044, COMMUNICATIONS AND TRACKIND DEVELOPMENT	JSC	044
J045XX	JSC BLDG 045, PROJECT ENGINEERING OFFICES AND TECHNICAL	JSC	045
J046XX	JSC BLDG 046, CENTRAL COMPUTER FACILITY	JSC	046
J048XX	JSC BLDG 048, MISSION CONTROL EMERGENCY POWER FACILITY	JSC	048
J049AX	JSC BLDG 049A, VIBRATION AND ACOUSTICS TEST FACILITY	JSC	049A
J049XX	JSC BLDG 049, VIBRATION AND ACOUSTICS TEST FACILITY	JSC	049
J050XX	JSC BLDG 050, TEST FIXTURE STORAGE FACILITY	JSC	050
J051XX	JSC BLDG 051, BLDG 30 NORTH LOT GUARD HOUSE	JSC	051
J056XX	JSC BLDG 056, BIOENGINEERING LABORATORY	JSC	056

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TABLE 2
LIST OF FACILITIES

MAINT ID	DESCRIPTION	SITE	BLDG
J057XX	JSC BLDG 057, TEST ARTICLE DESIGN FACILITY	JSC	057
J090DX	JSC BLDG 90D, MANNED SPACE FLIGHT EXHIBIT COMPLEX RESTROOM	JSC	090D
J090XX	JSC BLDG 090, MANNED SPACE FLIGHT EXHIBIT COMPLEX	JSC	090
J101XX	JSC BLDG 101, SECOND STREET GATE HOUSE	JSC	101
J103XX	JSC BLDG 103, THIRD STREET GATE HOUSE	JSC	103
J110XX	JSC BLDG 110, SECURITY CENTER	JSC	110
J111XX	JSC BLDG 111, PROCUREMENT ASSISTANCE FACILITY	JSC	111
J204XX	JSC BLDG 204, AVENUE B EAST GATE HOUSE	JSC	204
J207AX	JSC BLDG 207A, GILRUTH UTILITY MAINTENANCE AND STORAGE	JSC	207A
J207XX	JSC BLDG 207, GILRUTH RECREATION FACILITY	JSC	207
J210XX	JSC BLDG 210, CHILD CARE FACILITY (OLD)	JSC	210
J211XX	JSC BLDG 211, CHILD CARE CENTER (NEW)	JSC	211
J220XX	JSC BLDG 220, TEST ARTICLE PREPERATION FACILITY	JSC	220
J221XX	JSC BLDG 221, 138 KV ELECTRICAL SUBSTATION	JSC	221
J222XX	JSC BLDG 222, ATMOSPHERIC AND RE-ENTRY MATERAILS AND	JSC	222
J223XX	JSC BLDG 223, COOLING TOWER BLOWDOWN PRETREATMENT FACILITY	JSC	223
J225XX	JSC BLDG 225, ADMINISTRATION SUPPORT FACILITY ANNEX	JSC	225
J226XX	JSC BLDG 226, ADMINISTRATION SUPPORT FACILITY	JSC	226
J227XX	JSC BLDG 227, GRAPHICS PRINITNG AND REPRODUCTION FACILITY	JSC	227
J228XX	JSC BLDG 228, ENVIRONMENTAL HYGIENE LABORATORY	JSC	228
J229XX	JSC BLDG 229, ENVIRONMENTAL SUPPORT FACILITY	JSC	229
J230XX	JSC BLDG 230, UTILITY ANNEX	JSC	230
J231XX	JSC BLDG 231, CUSTODIAL STORAGE FACILITY	JSC	231
J232XX	JSC BLDG 232, CUSTODIAL ADMINISTRATION FACILITY	JSC	232
J241XX	JSC BLDG 241, BOTANICAL SCIENCE LABORATORY	JSC	241
J259XX	JSC BLDG 259, ASTRONAUT SELECTION AND ISOLATION QUARTERS	JSC	259
J260AX	JSC BLDG 260A, VACUUM CHAMBER EQUIPMENT SHED	JSC	260A
J260XX	JSC BLDG 260, TRAINING AND TEST FACILITY	JSC	260
J261XX	JSC BLDG 261, PLANETARY AND EARTH SCIENCES LABORATORY ANNEX	JSC	261
J262AX	JSC BLDG 262A, STORAGE BUILDING NO. 1	JSC	262A
J262BX	JSC BLDG 262B, STORAGE BUILDING NO. 2	JSC	262B
J263AX	JSC BLDG 263A, HEALTH PHYSICS LABORATORY ANNEX	JSC	263A
J263XX	JSC BLDG 263, HEALTH PHYSICS LABORATORY	JSC	263
J264XX	JSC BLDG 264, STORAGE BUILDING NO. 3	JSC	264
J265XX	JSC BLDG 265, SUPPORT OFFICE FACILITY	JSC	265
J266XX	JSC BLDG 266, MEDICAL DATA SUPPORT FACILITY	JSC	266
J267XX	JSC BLDG 267, SPACE MATERIALS RESEARCH FACILITY	JSC	267
J268XX	JSC BLDG 268, ORBITAL DEBRIS TRACKING FACILITY	JSC	268
J269XX	JSC BLDG 269, PROCUREMENT SUPPORT FACILTY	JSC	269
J301XX	JSC BLDG 301, WATER WELL NO. 1	JSC	301
J302XX	JSC BLDG 302, WATER WELL NO. 2	JSC	302
J304XX	JSC BLDG 304, MAINTENANCE SPRAY PAINTING FACILITY	JSC	304
J305XX	JSC BLDG 305, AVENUE B WEST GATE HOUSE	JSC	305
J306XX	JSC BLDG 306, WATER WELL NO. 4	JSC	306
J320XX	JSC BLDG 320, STEAM CLEANING FACILITY	JSC	320
J321XX	JSC BLDG 321, CONSTRUCTION MATERAILS STAGING FACILITY	JSC	321
J322XX	JSC BLDG 322, WATER TREATMENT PLANT BUILDING	JSC	322
J323XX	JSC BLDG 323, CONSTRUCTION WORK CONTROL CENTER	JSC	323
J324XX	JSC BLDG 324, CLASSIFIED WASTE DISINTEGRATOR FACILITY	JSC	324
J325XX	JSC BLDG 325, SITE MAINTENANCE SHOP	JSC	325

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TABLE 2
LIST OF FACILITIES

MAINT ID	DESCRIPTION	SITE	BLDG
J326AX	JSC BLDG 326A, SPECIAL EQUIPMENT STORAGE FACILITY	JSC	326A
J326CX	JSC BLDG 326C, BOTTLED GAS STORAGE SHED	JSC	326C
J326DX	JSC BLDG 326D, MAINTENANCE EQUIPMENT REPAIR SHOP	JSC	326D
J326EX	JSC BLDG 326E, HEAVY EQUPMENT STORAGE SHED	JSC	326E
J326FX	JSC BLDG 326F, GROUNDS EQUIPMENT STORAGE SHED	JSC	326F
J326XX	JSC BLDG 326, GROUNDS MAINTENANCE SHOP	JSC	326
J327XX	JSC BLDG 327, SITE MAINTENANCE WORK CONTROL	JSC	327
J328XX	JSC BLDG 328, SITE MAINTENANCE PAINTING FACILITY	JSC	328
J329XX	JSC BLDG 329, SITE MAINTENANCE SHOP	JSC	329
J330XX	JSC BLDG 330, SITE MAINTENANCE AND OPERATIONS ADMINISTRATION	JSC	330
J332XX	JSC BLDG 332, CENTRAL WASTE COLLECTION FACILITY	JSC	332
J333AX	JSC BLDG 333A, STORAGE SHELTER	JSC	333A
J333XX	JSC BLDG 333, TEMPORARY STORAGE WAREHOUSE	JSC	333
J334XX	JSC BLDG 334, CUSTOMER SUPPORT WAREHOUSE	JSC	334
J335XX	JSC BLDG 335, LOGISTCAL SUPPLY WAREHOUSE	JSC	335
J336XX	JSC BLDG 336, TEST EQUIPMENT WAREHOUSE	JSC	336
J337XX	JSC BLDG 337, LOGISTIC SUPPLY WAREHOUSE	JSC	337
J338XX	JSC BLDG 338, SURPLUS EQUIPMENT STAGING WAREHOUSE	JSC	338
J339XX	JSC BLDG 339, ABOVE GROUND WATER STORAGE TANK NO. 1	JSC	339
J340XX	JSC BLDG 340, GAS METERING STATION	JSC	340
J341XX	JSC BLDG 341, ABOVE GROUND WATER STORAGE TANK NO. 2	JSC	341
J342XX	JSC BLDG 342, ABRASIVE BLASTING FACILITY	JSC	342
J343NX	JSC BLDG 343N, AUXILLARY METROLOGY LABORATORY	JSC	343N
J343XX	JSC BLDG 343, AUXILLARY METROLOGY ADMINISTRATION FACILITY	JSC	343
J348XX	JSC BLDG 348, LOGISTICS STORAGE ANNEX	JSC	348
J349XX	JSC BLDG 349, LOGISTICS STORAGE WAREHOUSE	JSC	349
J350XX	JSC BLDG 350, THERMOCHEMICAL TEST AREA SUPPORT LABORATORY	JSC	350
J351XX	JSC BLDG 351, THERMAL VACUUM TEST FACILITY	JSC	351
J352XX	JSC BLDG 352, PYROTECHNICS TEST FACILITY	JSC	352
J353XX	JSC BLDG 353, PROPULSION TEST FACILITY	JSC	353
J354XX	JSC BLDG 354, CRYOGENICS TEST FACILITY	JSC	354
J355XX	JSC BLDG 355, MANUFACTURING SUPPORT FACILITY	JSC	355
J356XX	JSC BLDG 356, FLUID SYSTEMS TEST FACILITY	JSC	356
J357XX	JSC BLDG 357, THERMOCHEMICAL TEST AREA GATEHOUSE	JSC	357
J358XX	JSC BLDG 358, PROPELLANT FUEL WASTE PRETREATMENT FACILITY	JSC	358
J359XX	JSC BLDG 359, THERMOCHEMICAL EQUIPMENT STORAGE FACILITY	JSC	359
J360XX	JCS BLDG 360, THERMAL CONTROL SYSTEM TEST FACILITY	JSC	360
J361XX	JSC BLDG 361, ACTUATOR SYSTEM TEST FACILITY	JSC	361
J380XX	JSC BLDG 380, HAZARDOUS MATERAIL STORAGE FACILITY	JSC	380
J381XX	JSC BLDG 381, CENTRAL GAS CYLINDER STORAGE SHED	JSC	381
J382XX	JSC BLDG 382, DRUM STORAGE SHED	JSC	382
J383XX	JSC BLDG 383, FREON RECOVERY FACILITY	JSC	383
J412XX	JSC BLDG 412, MISSION SUPPORT STORAGE FACILITY	JSC	412
J413XX	JSC BLDG 413, SPECIAL PURPOSE STAGING FACILITY	JSC	413
J415XX	JSC BLDG 415, RIGGING EQUIPMENT STORAGE SHELTER	JSC	415
J416XX	JSC BLDG 416, INSTALLATION SUPPORT FACILITY	JSC	416
J417AX	JSC BLDG 417A, WEIGH STATION	JSC	417A
J417XX	JSC BLDG 417, GARAGE	JSC	417
J418XX	JSC BLDG 418, HEAVY EQUIPMENT STORAGE SHED	JSC	418
J419XX	JSC BLDG 419, LOGISTICAL SERVICES OFFICES	JSC	419

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TABLE 2
LIST OF FACILITIES

MAINT ID	DESCRIPTION	SITE	BLDG
J420XX	JSC BLDG 420, SHIPPING AND RECEIVING WAREHOUSE	JSC	420
J421XX	JSC BLDG 421, GENERAL SUPPLY WAREHOUSE	JSC	421
J422XX	JSC BLDG 422, LOGISTICS SUPPORT WAREHOUSE	JSC	422
J423XX	JSC BLDG 423, MEDIA RESOURCE CENTER	JSC	423
J424XX	JSC BLDG 424, FILM REPOSITORY FACILITY	JSC	424
J425XX	JSC BLDG 425, LOGISTICS SUPPORT DEPOT	JSC	425
J450XX	JSC BLDG 450, MICROWAVE TRANSMITTING ANTENNA TOWER	JSC	450
J578XX	JSC BLDG T578, TEMPORARY TRAILER	JSC	578
J584XX	JSC BLDG T584, TEMPORARY TRAILER	JSC	584
J585XX	JSC BLDG T585, SPACE OPERATIONS MODULAR COMPLEX	JSC	585
J586XX	JSC BLDG T586, TEMPORARY TRAILER	JSC	586
J587XX	JSC BLDG T587, TEMPORARY TRAILER	JSC	587
J589XX	JSC BLDG T589, TEMPORARY TRAILER	JSC	589
J998XX	JSC GENERAL SITE CODE	JSC	998
S920AX	SCTF BLDG 920A, ADMINISTRATION	SCTF	920A
S920LX	SCTF BLDG 920L, LIGHT MANUF FACILITY	SCTF	920L
S920NX	SCTF BLDG 920N, NEUTRAL BOUYANCY LAB	SCTF	920N
S924XX	SCTF BLDG 924X SGSF STORAGE	SCTF	924
S925XX	SCTF BLDG 925X NBL MOCK-UP	SCTF	925
S998XX	SCTF SITE CODE	SCTF	998

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TABLE 3
EQUIPMENT TYPE DEFINITION INDEX AND CODES

CODE	DESCRIPTION
ACC	HVAC Condensor Unit
ACU	Portable HVAC Unit. (Incl. Window units)
AHU	HVAC Air Handling Unit
APL	Appliance (Refrigerator, Stove, etc...)
AVE	Audio-Visual Equipment
BAT	Battery Charging Systems (Incl. Batteries)
BCS	Building Control System
BFP	Back Flow Preventer
BLD	Building
BLO	Blower
BRK	Electrical Breaker
BRS	Boiler, Steam
BRW	Boiler, Hot Water
CAT	Cathodic Protection Equipment
CHL	Chiller
COM	Compressor
CPU	Computer
CRN	Crane
CRU	Condensate Return Unit
CTW	Cooling Tower
CVR	Conveyor
DOR	Door
DRY	Air Dryer
ELS	Emergency Lighting System
ELU	Emergency Lighting Unit
ELV	Elevator
ENG	Engine, Diesel or Gas
EWS	Eyewash and Shower
EXC	Exchanger
FAN	Fan
FIL	Filter
FSE	Fabrication Shop Equipment
GEN	Generator
HTR	Area Comfort Heater
INS	Instrument
MCC	Motor Control Center
MIS	Miscellaneous Equipment
MTR	Motor
PMP	Pump
PNL	Panel, Electrical
RAD	Radio
SKR	Skimmer
STT	Steam Trap
SWG	Electrical Switch Gear
SWI	Electrical Switch
SYS	System
TNK	Tank, Non pressure rated.
TOL	Tool
TRL	Trailer

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MOBILE SUPPORT EQUIPMENT (MSE)

	LICENSE PLATE NO	MAKE/DESCRIPTION	FUEL TYPE	YR	SIZE	LOCATION	ORG.	ECN	PM CYCLE DAY/HR	MANUFACTURER	MODEL	
		LIFT PALLET, LIFT-A-LOFT		91		BLDG. 029	SP/JEC	G098370	6 MOS.			1
	NA8510	TRACTOR, TOW, WHSE, GAS	G	86	4000 LB	BLDG. 354	EP6	275421	6 MOS.	CLARK	CT-40	1
	NA8514	TRUCK, FORKLIFT, YALE	E	91	3000 LB	BLDG. 009N	SP/JEC	G98214	60/100	YALE		1
	NA8516	VEHICLE ALL TERRAIN	G	94		BLDG. 34	SN	1855590	6 MOS.	RECREATIVED IND. INC	MAX II	1
	NA8548	TRUCK, FORKLIFT, ELEC.	E	88	4000 LB	BLDG. 013	ES/LOC	075358	60/100	ALLIS CHAMBERS	E60/EV 36 VOLT	1
#	NA8553	TRAILER, TUBE, HELIUM		92		BLDG. 009	SP/JEC	1547396	AS REQ	UNKNOWN	UNKNOWN	1
*	NA8561	TRAILER, VAN, REFRIG.		82		BLDG. 268	SN3	713682	12 MOS.	DORSEY	AIDD-SPEC	1
	NA8576	TRUCKSTER, UTILITY	E	92		BLDG. 350	EP6	641063	6 MOS.	CUSHMAN	GT1-370	1
	NA8577	TRUCKSTER, UTILITY	E	92		BLDG. 351	EP6	641085	6 MOS.	CUSHMAN	GT1-370	1
*	NA8585	TRAILER, TUBE, ARGON		71		BLDG. 222	ES42	1445927	12 MOS.	UNKNOWN	MHI	1
	NA8593	TRUCK, FORKLIFT, DIESEL	D	89	4000 LB	BLDG. 350	EP6	G22228	6 MOS.	YALE	GDPO4ORDNUAV086D5	1
#	NA8602	TRAILER, TUBE, HELIUM		74		BLDG. 350	EP6	683891	AS REQ	UNKNOWN	UNKNOWN	1
	NA8606	PALLET JACK, YALE	E	91		BLDG. 029	SP	1165615	6 MOS.	YALE	MPW060	1
#	NA8629	TRAILER, TUBE, HELIUM		74		BLDG. 356	EP6	1345871	AS REQ	UNKNOWN	UNKNOWN	1
	NA8634	TRUCK, FORKLIFT, YALE	E	87	2000 LB	BLDG. 009	EM4	075225	60/100	YALE	MCW020LAN12C5083	1
*	NA8645	TRAILER, TUBE, OXYGEN		71		BLDG. 356	EP6	156909	12 MOS.	UNKNOWN	50611-001	1
*	NA8650	TRAILER, TUBE HELIUM		71		BLDG. 353	EP/LOC	G095914	12 MOS.	UNKNOWN	6-4000	1
*	NA8676	TRAILER, TANK, NITROGEN		67		BLDG. 260	ES361	682570	12 MOS.	AIR PROD.	32A-4	1
*	NA8681	TRAILER, TANK, NITROGEN		64		BLDG. 356	EP6	715407	12 MOS.	UNKNOWN	UNKNOWN	1
	NA8743	TRUCK, PALLET, CLARK	E	81	6000 LB	BLDG. 227	PS/HEI	553242	90/100	CLARK	HWP60C	1
*	NA8768	TRAILER, TOWER, COMM/MTD		80		BLDG. 014	EV3	600271	12 MOS.	TRI-EX	WRS 582	1
	NA8797	TRUCK, FORKLIFT, ALLIS C	E	86	8000 LB	BLDG. 010	EM5	275712	60/100	ALLIS CHALMERS	ACE526207	1
#	NA8804	TRAILER, TUBE, OXYGEN		77		BLDG. 222	ES/LOC	157874	AS REQ.	UNKNOWN	MHI	1
#	NA8823	TRAILER, TUBE, HELIUM		74		BLDG. 359	EP6	716179	AS REQ.	UNKNOWN	UNKNOWN	1
*	NA8824	TRAILER, TUBE, HYDROGEN		71		BLDG. 356	EP6	1450338	12 MOS.	UNKNOWN	54L-4806	1
#	NA8825	TRAILER, TUBE, HELIUM		73		BLDG. 032	EC4B	554886	AS REQ.	TAYLOR-WHARTON		1
*	NA8827	TRAILER, TUBE, HYDROGEN		78		BLDG. 356	EP6	156910	12 MOS.	UNKNOWN	MH2	1
*	NA8828	TRAILER, TUBE, OXYGEN		80		BLDG. 356	EP6	1914656	12 MOS.	UNKNOWN	MH2	1
*	NA8853	TRAILER, VAN		70		BLDG. 014	EV/LOC	155092	12 MOS.	HARMAN&COMPANY	HH-500	1
	NA8901	TRUCK, FORKLIFT, TCM	E	84	3000 LB	BLDG. 029	SP54	720276	6 MOS.	TCM	FCB1542	1
#	NA8902	TRAILER, TUBE, OXYGEN		72		BLDG. 222	ES36	1445962	AS REQ.	UNKNOWN	UNKNOWN	1
#	NA8915	TRAILER, TUBE, OXYGEN		71		BLDG. 007A	EC4B	560248	AS REQ.	UNKNOWN	TL236CSP1	1
#	NA8924	TRAILER, TUBE, HELIUM		63		BLDG. 032	EC4B	554887	AS REQ.	UNKNOWN	5689501	1
	NA8940	TRUCK, FORKLIFT, A/C.	G	69	5000 LB	BLDG. 049	ES43	712705	6 MOS.	ALLIS CHALMERS	F50-24PS	1
*	NA8943	TRAILER, TUBE, NITROGEN		70		BLDG. 222	ES36	1445942	12 MOS.	UNKNOWN	MHI	1
*	NA8944	TRAILER, SEMI, GAS CYL		70		BLDG. 356	EP6	1450318	12 MOS.	UNKNOWN	UNKNOWN	1
*	NA8946	TRAILER, TUBE, NITROGEN		70		BLDG. 353	EP6	1450317	12 MOS.	UNKNOWN	6-4000	1
*	NA8948	TRAILER, TUBE, NITROGEN		73		BLDG. 222	ES36	157873	12 MOS.	UNKNOWN	MHI	1

SECTION J, ATTACHMENT N, EXHIBIT N-1
TABLE 3
EQUIPMENT TYPE DEFINITION INDEX AND CODES

CODE	DESCRIPTION
TRN	Transformer
UPS	Uninterruptible Power Supply
VEH	Mobile Equipment
VES	Vessel, Pressure Rated
VFD	Variable Frequency Drive
WAF	Water Fountian
WLD	Welder

	LICENSE		FUEL						PM CYCLE			
	PLATE NO	MAKE/DESCRIPTION	TYPE	YR	SIZE	LOCATION	ORG.	ECN	DAY/HR	MANUFACTURER	MODEL	
	NA8959	TRUCK, FORKLIFT, PETTIBONE	E	71	6000 LB	BLDG. 032	EC4B	554837	90/100	PETTIBONE	6000E	1
	NA8964	TRUCK, PALLET, ELEC.	E	83	4000 LB	BLDG. 227	PS/HEI	672509	60/100	MULITON	WPT-45-27	1
#	NA8969	TRAILER, TUBE, OXYGEN		71		BLDG. 007A	EC4B	1295343	AS REQ.	UNKNOWN	UNKNOWN	1
	NA8982	TRUCK, FORKLIFT, A/C.	G	80	4000 LB	BLDG. 260	ES361	673795	90/100	ALLIS CHALMERS	ACC45PS	1
	NA8983	PLATFORM MANLIFT CLARK	E	82	450 LB	BLDG. 005	BENDIX	717792	6 MOS.	AMERICAN HIGH LIFT	30EB	1
	NA8987	TRUCK, STEP-VAN	G	82	1 TON	BLDG. 014	EV/LOC	600276	6 MOS.	CHEVROLET	CP31442	1
		GENERATOR ELECTRIC	G	85		BLDG. 417		728385	6 MOS.	HONDA MOTOR CO.		1
		GENERATOR ELECTRIC	G	85		BLDG. 417		728386	6 MOS.	HONDA MOTOR CO.		1
		STOCK STACKER	E			BLDG. 7A		560131	6 MOS.	BLUE GIANT STOCKER	P15T140	1
		TRUCK UTILITY	E	96		BLDG. 10		1735225	6 MOS.	CUSHMAN INDUSTRIES		1
		TRUCK FORKLIFT, YALE	E	97	2000 LB	BLDG. 220	EM	1854933	6 MOS.	YALE MAT. HAND. CORP.	MCB020LCN12TS083	1
		LIFT, HYDRAULIC		97	2000 LB	BLDG. 13	ES	1914577	6 MOS.	LEE ENGINEERING	C74	1
		TRUCK, FORKLIFT YALE		98		BLDG. 10	EM	1914825	6 MOS.	YALE MAT. HAND. CORP.	ERC100HDN36SE096	1
		LIFT, PERSONNEL	E	90	500 LB	BLDG. 356	EP	1914452	6 MOS.	GENIE INDUSTRIES	44757	1
		TRUCK, FORKLIFT	E	98	3000 LB	BLDG. 5S	DV	1929848	6 MOS.	CATERPILLAR INDUSTRIAI	2EC30	1
		TRUCK, FORKLIFT	E	98	3000 LB	BLDG. 49	ES	1918376	6 MOS.	CLARK MFG. INC	ECG30	1
	NA8581	MANLIFT	E	00	500 LB	BLDG. 49	ES	1996321	6 MOS.	UP-RIGHT INC	AB46	1
		FORKLIFT	E	00	2000 LB	BLDG. 10	EM	1996322	6 MOS.	CLARK MFG. INC	ST10	1
		PERSONNEL LIFT	E	96	500 LB	BLDG. 13	ES	1846414	6 MOS.	UP-RIGHT INC	068001-001	1
		TRUCK, FORKLIFT	G	88	4000 LB	BLDG. 920L	EM	1926812	6 MOS.	YALE MAT. HAND. CORP.	GLC040AENUAE092	1
		TRUCK, FORKLIFT	G	99	6000 LB	BLDG. 920N	DX	1986461	6 MOS.	MITSUBISHI CATERPILLAR	FGC60K	1
												1
												60
*	REQUIRE PMs ONCE A YEAR											
#	REQUIRES A SAFETY INSPECTION EVERY TIME IT DEPARTS THE CENTER.											

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT O – RESERVED

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PART III-LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

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SECTION J, ATTACHMENT P

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING
AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
1		1	3,588	24,761	477	3,337	232	256						32,651
		2	12,482	4,789	436	2,060		322						20,089
		3	13,683	3,054	436	2,687		322	45					20,227
		4	4,894	12,368	436	2,224		322						20,244
		5	6,920	9,875	436	2,704		322						20,257
		6	8,282	8,718	436	2,499		322						20,257
		7	12,452	4,436	436	2,587		322						20,233
		8	1,340	15,979	436	2,180		318						20,253
		9	1,700	15,713	626		1,902	340						20,281
		P						155						155
1 Total			**65,341**	**99,693**	**4,155**	**20,278**	**2,134**	**3,001**	**45**	**0**	**0**	**0**	**0**	**194,647**
2	N	1	9,283	3,043	689	3,138	331	0		619				17,103
	S	1	14,754	5,404	1,035	8,771		311						30,275
		2	2,722			26	508	472						3,728
2 Total			**26,759**	**8,447**	**1,724**	**11,935**	**839**	**783**	**0**	**619**	**0**	**0**	**0**	**51,106**
3		1	406		636	2,386	8,914		24					12,366
3 Total			**406**	**0**	**636**	**2,386**	**8,914**	**0**	**24**	**0**	**0**	**0**	**0**	**12,366**
4		1	13,974	826	824	7,185	250	275	133	5,658	365			29,490
		2	4,830	12,430	855	1,888	2,096	600	88	9,166	729			32,682
		3	25,162	2,074	859	5,636	327	603	53	29				34,743
4	S	1	2,361	19,438	844	5,425	2,672	672	190					31,602
		2	323	19,350	1,117	544	8,334	663	74		7,790			38,195
		3	426	27,046	842	553	8,318	670	77					37,932
		4	399	28,333	803	565	6,181	679	77					37,037
		5	344	29,377	842	507	5,399	664	77					37,210
		6	344	28,665	843	540	5,740	665	77					36,874
4 Total			**48,163**	**167,539**	**7,829**	**22,843**	**39,317**	**5,491**	**846**	**14,853**	**8,884**	**0**	**0**	**315,765**
5	N	1	4,753	0	497	2,240	2,183	640	2,930	17,413				30,656
		2	4,399		180	1,219		966	167	1,784				8,715
		3	3,380	458	208			698	196					4,940
	S	1	5,571	523	712	3,091		526	4,097	9,883				24,403
		2	2,158	3,108	365	1,242		541	25	6,497				13,936
		3			364			573	25	8,851				9,813
5 Total			**20,261**	**4,089**	**2,326**	**7,792**	**2,183**	**3,944**	**7,440**	**44,428**	**0**	**0**	**0**	**92,463**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

Bldg. No.	Wing	Floor	Area 1 Sq. Ft.	Area 2 Sq. Ft.	Area 3 Sq. Ft.	Area 4 Sq. Ft.	Area 5 Sq. Ft.	Area 7 Sq. Ft.	Area 8 Sq. Ft.	Area 9 Sq. Ft. Tile	Area 9 Sq. Ft. Carpet	Area 10 Sq. Ft. Tile	Area 10 Sq. Ft. Carpet	Total Sq. Ft.
7	E	1	6,664		209	364		617	22,613	2,865				33,332
		1MP							20					20
		2	7,969	618	913	3,225		866	1,458					15,049
		3	3,996			416		269						4,681
	W	1	9,153	1,470	398	4,094		269	91	87				15,562
		2	14,365	353	398	2,060		467	44					17,687
		3	14,335		489	1,793		321	129					17,067
7 Total			**56,482**	**2,441**	**2,407**	**11,952**	**0**	**2,809**	**24,355**	**2,952**	**0**	**0**	**0**	**103,398**
8		1	11,093	985	608	4,066	355	424	44	1,186		3,970	859	23,590
		2	13,138	2,605	676	3,531		567	1,558	2,534		1,346	330	26,285
8 Total			**24,231**	**3,590**	**1,284**	**7,597**	**355**	**991**	**1,602**	**3,720**	**0**	**5,316**	**1,189**	**49,875**
9	E	1	7,322	1,169		2,089								10,580
	N	1	4,790	71,120	2,823	1,247	1,863	1,267	2,556		4,263			89,929
		2	2,107	7,936	853	451	4,376	1,410	341		3,511			20,985
		3	1,354	1,462	359	123	1,019	685	2,153		4,605			11,760
	S	1	3,995	614	978	695		38	37,355					43,675
9 Total			**19,568**	**82,301**	**5,013**	**4,605**	**7,258**	**3,400**	**42,405**	**0**	**12,379**	**0**	**0**	**176,929**
10	C	1	1,066		538	50		215	13,794					15,663
		2						183	26					209
	E	1	261		497	75		93	23,056					23,982
		2	2,418	1,713	214	1,402		202	311					6,260
	W	1	1,017		473			43	19,678					21,211
		2	5,358		214			182	253					6,007
10 Total			**10,120**	**1,713**	**1,936**	**1,527**	**0**	**918**	**57,118**	**0**	**0**	**0**	**0**	**73,332**
11		1	1,724	150	526	2,477	6,811		20					11,708
11 Total			**1,724**	**150**	**526**	**2,477**	**6,811**	**0**	**20**	**0**	**0**	**0**	**0**	**11,708**
12		1	***10,220***	***5,094***	691	4,520		510	512	3,342				24,889
		2	13,052	6,186	742	4,812		551	38	5,884				31,265
12 Total			**23,272**	**11,280**	**1,433**	**9,332**	**0**	**1,061**	**550**	**9,226**	**0**	**0**	**0**	**56,154**
13	N	1	10,666	708	576	3,759		502	190					16,401
		2	14,474	604	579	2,745		889						19,291
	S	1						307	19,820	433				20,560
		2	261	539		386		260	4,907	1,052				7,405
13 Total			**25,401**	**1,851**	**1,155**	**6,890**	**0**	**1,958**	**24,917**	**1,485**	**0**	**0**	**0**	**63,657**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft.
14	A	1	5,105	249	322	1,345			44					7,065
	H	1	2,678	680	166	765		179	11,578					16,046
		2	758			276		286						1,320
		3	2,581			367		204						3,152
	N	1	2,082		303			161		1,870				4,416
		2		2,144				155						2,299
	S	1			93	685		61	6,712					7,551
		2	626					60						686
14 Total			**13,830**	**3,073**	**884**	**3,438**	**0**	**1,106**	**18,334**	**1,870**	**0**	**0**	**0**	**42,535**
15	N	1	17,033	1,768	671	5,326		383	138					25,319
		2	16,860	1,492	667	3,682		619	79	4,437				27,836
	S	1	9,323			1,165		207		69				10,764
		2	1,315			157		102						1,574
		3	1,526			249		70						1,845
15 Total			**46,057**	**3,260**	**1,338**	**10,579**	**0**	**1,381**	**217**	**4,506**	**0**	**0**	**0**	**67,338**
16	E	1	6,790		393	2,772		473	100	3,796				14,324
		2	10,106		544	2,490		486	35	3,502				17,163
	N	1	7,648			3,123		711	3,114	14,824				29,420
		2	11,084	1,321		1,542		702		3,329				17,978
	S	1	18,633	1,079	966	7,328		814	183	6,793				35,796
		2	25,311	1,078	922	6,110		897	223	5,821				40,362
16 Total			**79,572**	**3,478**	**2,825**	**23,365**	**0**	**4,083**	**3,655**	**38,065**	**0**	**0**	**0**	**155,043**
17		1	16,749	975	853	6,272		548	295	10,874				36,566
		2	25,069	876	842	5,733		610	379	7,135				40,644
17 Total			**41,818**	**1,851**	**1,695**	**12,005**	**0**	**1,158**	**674**	**18,009**	**0**	**0**	**0**	**77,210**
18		1	724		61			128						913
		2	990					201						1,191
18 Total			**1,714**	**0**	**61**	**0**	**0**	**329**	**0**	**0**	**0**	**0**	**0**	**2,104**
24		1	387		345									732
		2	968		50						965			1,983
24 Total			**1,355**	**0**	**395**	**0**	**0**	**0**	**0**	**0**	**965**	**0**	**0**	**2,715**
25		1	203	1,546	292		510		37					2,588
25 Total			**203**	**1,546**	**292**	**0**	**510**	**0**	**37**	**0**	**0**	**0**	**0**	**2,588**
28		1	64		173									237
28 Total			**64**	**0**	**173**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**237**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
29	N	1	3,742		407	2,209		161	88	985				7,592
		2	5,221	2,573	408	1,295		462	24					9,983
	S	1	2,345	276		426		153	21,884					25,084
		2	1,358					347		1,256				2,961
		3						95						95
29 Total			**12,666**	**2,849**	**815**	**3,930**	**0**	**1,218**	**21,996**	**2,241**	**0**	**0**	**0**	**45,715**
30	A	1	16,336	2,950	988	6,125		237	81	6,502				33,219
		2	20,470	795	980	4,844		525	82	9,241				36,937
		3	21,058		978	4,853		525	82	9,758				37,254
	L	1	236	750	183	56	2,960	122	49					4,356
		2	1,148			861		200		2,561				4,770
		3		2,241		130	308	210			1,643			4,532
	M	1	758		564	2,614		360	34	29,265				33,595
		2	944		927	5,596	165	417	2,487	12,500	10,731			33,767
		2M	744					295	2,035					3,074
		3	797		870	5,793		477	2,486	22,371	3,758			36,552
	S	1		1,261	860	1,371	3,026	477	190		3,695			10,880
		2		2,289	526	1,983		434	485	33	10,482			16,232
		2M	60	1,491	381	199	3,227	659	39					6,056
		3		669	528	1,638		320	56	1,138	13,897			18,246
		4			530	1,469		319	54	11,055	3,028			16,455
		5			504	1,475		324	53	13,767	482			16,605
	V	1			432	1,399		228	36					2,095
		1MP				199		185						384
		2		1,317		220		201						1,738
		3				220		201						421
30 Total			**62,551**	**13,763**	**9,251**	**41,045**	**9,686**	**6,716**	**8,249**	**118,191**	**47,716**	**0**	**0**	**317,168**
31	E	1	12,092	659	414	4,538		387	37					18,127
		2	13,910		440	2,847		439						17,636
	N	1	4,571			797		513						5,881
		2	847			595		326						1,768
	W	1	4,102		50	772		161	7,919					13,004
		2	3,467		151	564		303						4,485
31 Total			**38,989**	**659**	**1,055**	**10,113**	**0**	**2,129**	**7,956**	**0**	**0**	**0**	**0**	**60,901**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft.
32		1		409	108	973		289	1,520					3,299
		2	763		125	567		279	29	3,270				5,033
	A	1	7,044	3,945	956	4,322		550	124		451			17,392
		2	8,806	293	489	1,700	248	413	53	3,250	1,653			16,905
	C	1	1,486			314		36	317					2,153
		2	4,237		33	630		1,009	4,044	1,245				11,198
32 Total			**22,336**	**4,647**	**1,711**	**8,506**	**248**	**2,576**	**6,087**	**7,765**	**2,104**	**0**	**0**	**55,980**
33		1	6,235		366	468		54	57	381				7,561
33 Total			**6,235**	**0**	**366**	**468**	**0**	**54**	**57**	**381**	**0**	**0**	**0**	**7,561**
34		1	810	626	45			98	2,090					3,669
		2		259				113	1,848					2,220
34 Total			**810**	**885**	**45**	**0**	**0**	**211**	**3,938**	**0**	**0**	**0**	**0**	**5,889**
35	N	1	2,019	1,973	429	1,355		281	45	6,380	215			12,697
		2		5,223	578		1,305	482	48					7,636
	S	1	4,123	995	301	982			37		2,266			8,704
35 Total			**6,142**	**8,191**	**1,308**	**2,337**	**1,305**	**763**	**130**	**6,380**	**2,481**	**0**	**0**	**29,037**
36	A	1	6,186	385	485	2,701								9,757
	H	1	11,653			1,547		537	4,145	5,545				23,427
		2	5,182	2,118	259	1,305		552		2,558				11,974
		3	4,982		294	1,389		217						6,882
36 Total			**28,003**	**2,503**	**1,038**	**6,942**	**0**	**1,306**	**4,145**	**8,103**	**0**	**0**	**0**	**52,040**
37		0	1,034					81	25					1,140
		1	36,077	892	2,111	9,320		448	80	1,535		3,671		54,134
		2	3,133		40	425		393	146					4,137
		3	1,895					164						2,059
37 Total			**42,139**	**892**	**2,151**	**9,745**	**0**	**1,086**	**251**	**1,535**	**0**	**3,671**	**0**	**61,470**
41		1	258	426	124	114								922
41 Total			**258**	**426**	**124**	**114**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**922**
42		1			34				19					53
42 Total			**0**	**0**	**34**	**0**	**0**	**0**	**19**	**0**	**0**	**0**	**0**	**53**
44		1	6,686		451	3,458		221	315	19,576	196			30,903
		2	17,087	3,875	366	3,506		597	3,460	521	416			29,828
44 Total			**23,773**	**3,875**	**817**	**6,964**	**0**	**818**	**3,775**	**20,097**	**612**	**0**	**0**	**60,731**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING
AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
45	L	1		1,895		11,605								13,500
	T	1	308	9,548	511	2,855	525	278	251					14,276
		2	***10,977***	***1,648***	459	2,059		354	144					15,641
		3	10,244	2,307	458	2,142		360	144					15,655
		4	11,519	1,004	456	2,162		354	144					15,639
		5	6,650	5,984	458	2,055		354	144					15,645
		6	11,950	603	458	2,241		354	43					15,649
		7	11,855	1,135	458	1,662		354	43					15,507
		P						157	1,254					1,411
45 Total			**63,503**	**24,124**	**3,258**	**26,781**	**525**	**2,565**	**2,167**	**0**	**0**	**0**	**0**	**122,923**
46		1	1,038	352	516	3,227		466		10,404				16,003
		2			358	830		456	86	18,331				20,061
		3			359	562		457	86	18,595				20,059
46 Total			**1,038**	**352**	**1,233**	**4,619**	**0**	**1,379**	**172**	**47,330**	**0**	**0**	**0**	**56,123**
48		1		583	49									632
48 Total			**0**	**583**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**632**
49		1	3,295	579	631	2,327		283	21,487					28,602
		2			3,315	262		470	2,612					6,659
		3	1,939					171						2,110
49 Total			**5,234**	**579**	**3,946**	**2,589**	**0**	**924**	**24,099**	**0**	**0**	**0**	**0**	**37,371**
56		1	4,910		330									5,240
56 Total			**4,910**	**0**	**330**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,240**
57		1	4,317		299									4,616
57 Total			**4,317**	**0**	**299**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,616**
90D		1	36		506									542
90D Total			**36**	**0**	**506**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**542**
102		1	60											60
102 Total			**60**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**
103		1	60											60
103 Total			**60**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**
105		1							49					49
105 Total			**0**	**0**	**0**	**0**	**0**	**0**	**49**	**0**	**0**	**0**	**0**	**49**
110		1	1,422	882	283	416								3,003
110 Total			**1,422**	**882**	**283**	**416**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,003**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
111		1	85	1,949	310		644							2,988
111 Total			**85**	**1,949**	**310**	**0**	**644**	**0**	**0**	**0**	**0**	**0**	**0**	**2,988**
204		1	60											60
204 Total			**60**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**
207		1	***8,134***	***7,490***	2,824	970	3,153	36						22,607
		2	2,989	4,167	404		2,504	47						10,111
	E	1	8,771	684			2,618		568					12,641
207 Total			**19,894**	**12,341**	**3,228**	**970**	**8,275**	**83**	**568**	**0**	**0**	**0**	**0**	**45,359**
220		1			157				11,291					11,448
220 Total			**0**	**0**	**157**	**0**	**0**	**0**	**11,291**	**0**	**0**	**0**	**0**	**11,448**
221E		1	526		50									576
221E Total			**526**	**0**	**50**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**576**
222		1	2,039	211	244	694		71	6,842	1,147				11,248
		2	1,027											1,027
222 Total			**3,066**	**211**	**244**	**694**	**0**	**71**	**6,842**	**1,147**	**0**	**0**	**0**	**12,275**
222N		1						72	1,194					1,266
222N Total			**0**	**0**	**0**	**0**	**0**	**72**	**1,194**	**0**	**0**	**0**	**0**	**1,266**
225		1	3,144		142	425								3,711
225 Total			**3,144**	**0**	**142**	**425**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,711**
226		1	4,824	5,352	597	2,135	331							13,239
226 Total			**4,824**	**5,352**	**597**	**2,135**	**331**	**0**	**0**	**0**	**0**	**0**	**0**	**13,239**
227		1	16,538	6,097	547		467							23,649
227 Total			**16,538**	**6,097**	**547**	**0**	**467**	**0**	**0**	**0**	**0**	**0**	**0**	**23,649**
228		1	3,724		32									3,756
228 Total			**3,724**	**0**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,756**
229		1	4,540		244									4,784
229 Total			**4,540**	**0**	**244**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,784**
230		1			80									80
230 Total			**0**	**0**	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**80**
231		1							1,959					1,959
231 Total			**0**	**0**	**0**	**0**	**0**	**0**	**1,959**	**0**	**0**	**0**	**0**	**1,959**
232		1	951											951
232 Total			**951**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**951**
241		1	764	6,946	247				2,122					10,079
241 Total			**764**	**6,946**	**247**	**0**	**0**	**0**	**2,122**	**0**	**0**	**0**	**0**	**10,079**

SECTION J, ATTACHMENT P

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING
AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft.
259		1	636	5,520	976		1,476		1,015					9,623
259 Total			**636**	**5,520**	**976**	**0**	**1,476**	**0**	**1,015**	**0**	**0**	**0**	**0**	**9,623**
260	G	1	7,303	2,727	720	273			285					11,308
		2						36						36
	H	1	1,566		299	856			7,815	859				11,395
260 Total			**8,869**	**2,727**	**1,019**	**1,129**	**0**	**36**	**8,100**	**859**	**0**	**0**	**0**	**22,739**
261		1	6,513	479	149	1,437			49					8,627
261 Total			**6,513**	**479**	**149**	**1,437**	**0**	**0**	**49**	**0**	**0**	**0**	**0**	**8,627**
262A		1	830		131				1,923					2,884
262A Total			**830**	**0**	**131**	**0**	**0**	**0**	**1,923**	**0**	**0**	**0**	**0**	**2,884**
262B		1							1,200					1,200
262B Total			**0**	**0**	**0**	**0**	**0**	**0**	**1,200**	**0**	**0**	**0**	**0**	**1,200**
263		1	345											345
263 Total			**345**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**345**
263A		1			40	26			802					868
263A Total			**0**	**0**	**40**	**26**	**0**	**0**	**802**	**0**	**0**	**0**	**0**	**868**
264		1							420					420
264 Total			**0**	**0**	**0**	**0**	**0**	**0**	**420**	**0**	**0**	**0**	**0**	**420**
265		1	1,424	6,204	606	517	880		27					9,658
265 Total			**1,424**	**6,204**	**606**	**517**	**880**	**0**	**27**	**0**	**0**	**0**	**0**	**9,658**
266		1	6,197		526	1,641								8,364
266 Total			**6,197**	**0**	**526**	**1,641**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,364**
267		1	1,526		55				5,524					7,105
267 Total			**1,526**	**0**	**55**	**0**	**0**	**0**	**5,524**	**0**	**0**	**0**	**0**	**7,105**
268		1	1,648	306	251	538			653	1,040				4,436
268 Total			**1,648**	**306**	**251**	**538**	**0**	**0**	**653**	**1,040**	**0**	**0**	**0**	**4,436**
269		1	43	4,293	216	548								5,100
269 Total			**43**	**4,293**	**216**	**548**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,100**
305		1							60					60
305 Total			**0**	**0**	**0**	**0**	**0**	**0**	**60**	**0**	**0**	**0**	**0**	**60**
321		1			319									319
321 Total			**0**	**0**	**319**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**319**
323		1	1,754		219	583								2,556
323 Total			**1,754**	**0**	**219**	**583**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,556**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
325		1	1,318		467	77		53						1,915
		2	1,786			312		86						2,184
325 Total			**3,104**	**0**	**467**	**389**	**0**	**139**	**0**	**0**	**0**	**0**	**0**	**4,099**
326		1	372		124	44		42						582
326 Total			**372**	**0**	**124**	**44**	**0**	**42**	**0**	**0**	**0**	**0**	**0**	**582**
327		1	4,336		224	320								4,880
327 Total			**4,336**	**0**	**224**	**320**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,880**
328		1	291		63			7						361
328 Total			**291**	**0**	**63**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**361**
329		1	543		369	58		109						1,079
		2	360											360
		2M						75						75
329 Total			**903**	**0**	**369**	**58**	**0**	**184**	**0**	**0**	**0**	**0**	**0**	**1,514**
330		1	3,537		324	655								4,516
330 Total			**3,537**	**0**	**324**	**655**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,516**
336		1		338	198				21					557
336 Total			**0**	**338**	**198**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**557**
342		1			59									59
342 Total			**0**	**0**	**59**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59**
343		1	9,425		306	863								10,594
343 Total			**9,425**	**0**	**306**	**863**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,594**
350		1	9,120		514	1,908			1,727					13,269
350 Total			**9,120**	**0**	**514**	**1,908**	**0**	**0**	**1,727**	**0**	**0**	**0**	**0**	**13,269**
351		1	924		99	69		39	661					1,792
		2	925		71	151		62		841				2,050
351 Total			**1,849**	**0**	**170**	**220**	**0**	**101**	**661**	**841**	**0**	**0**	**0**	**3,842**
352		1	1,101		188	60			1,363					2,712
352 Total			**1,101**	**0**	**188**	**60**	**0**	**0**	**1,363**	**0**	**0**	**0**	**0**	**2,712**
353		1	1,184		135	373			1,382	707				3,781
353 Total			**1,184**	**0**	**135**	**373**	**0**	**0**	**1,382**	**707**	**0**	**0**	**0**	**3,781**
354		1	483		152	77			479	622				1,813
354 Total			**483**	**0**	**152**	**77**	**0**	**0**	**479**	**622**	**0**	**0**	**0**	**1,813**
355		1	415											415
355 Total			**415**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**415**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
										Tile	Carpet	Tile	Carpet	
356A		1	145			58			65	1,618				1,886
356A Total			**145**	**0**	**0**	**58**	**0**	**0**	**65**	**1,618**	**0**	**0**	**0**	**1,886**
356B		1	365		247	219			1,211					2,042
356B Total			**365**	**0**	**247**	**219**	**0**	**0**	**1,211**	**0**	**0**	**0**	**0**	**2,042**
359		1	114											114
359 Total			**114**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**114**
361		1	1,549	601	297	168			3,522					6,137
361 Total			**1,549**	**601**	**297**	**168**	**0**	**0**	**3,522**	**0**	**0**	**0**	**0**	**6,137**
380		1	506		58									564
380 Total			**506**	**0**	**58**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**564**
383		1	407		385				383					1,175
383 Total			**407**	**0**	**385**	**0**	**0**	**0**	**383**	**0**	**0**	**0**	**0**	**1,175**
416		1	101	5,661	606		496							6,864
416 Total			**101**	**5,661**	**606**	**0**	**496**	**0**	**0**	**0**	**0**	**0**	**0**	**6,864**
417		1	495	164	185	66	49							959
417 Total			**495**	**164**	**185**	**66**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**959**
419		1	10,001	2,577	473	3,074								16,125
419 Total			**10,001**	**2,577**	**473**	**3,074**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16,125**
420		1	5,869	294	537	1,933			1,038					9,671
420 Total			**5,869**	**294**	**537**	**1,933**	**0**	**0**	**1,038**	**0**	**0**	**0**	**0**	**9,671**
421		1	1,376		438				52					1,866
421 Total			**1,376**	**0**	**438**	**0**	**0**	**0**	**52**	**0**	**0**	**0**	**0**	**1,866**
422		1	1,772		283	769		146	43	1,313				4,326
422 Total			**1,772**	**0**	**283**	**769**	**0**	**146**	**43**	**1,313**	**0**	**0**	**0**	**4,326**
423		1	793	2,481	233									3,507
423 Total			**793**	**2,481**	**233**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,507**
424		1	3,096		76									3,172
424 Total			**3,096**	**0**	**76**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,172**
24TRLR		1	657		15									672
24TRLR Total			**657**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**672**
TNLTRLR		1	644		28									672
TNLTRLR Total			**644**	**0**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**672**
T585		1	129	15,838	574		2,243							18,784
T585 Total			**129**	**15,838**	**574**	**0**	**2,243**	**0**	**0**	**0**	**0**	**0**	**0**	**18,784**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft.
T586		1			309									309
T586 Total			**0**	**0**	**309**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**309**
T587		1	277		23									300
T587 Total			**277**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**300**
T589		1							53					53
T589 Total			**0**	**0**	**0**	**0**	**0**	**0**	**53**	**0**	**0**	**0**	**0**	**53**
E135	H	1	4,571	1,825	254	40		232						6,922
		2	99	5,406	850	736	647	314						8,052
	L	1	4,739	392	240			92	9,156					14,619
		2		4,430				40						4,470
	S	1	2,305					73						2,378
		2	1,699	143		32		146						2,020
E135 Total			**13,413**	**12,196**	**1,344**	**808**	**647**	**897**	**9,156**	**0**	**0**	**0**	**0**	**38,461**
E136		1	564		308				5,377					6,249
E136 Total			**564**	**0**	**308**	**0**	**0**	**0**	**5,377**	**0**	**0**	**0**	**0**	**6,249**
E137		1							1,126					1,126
E137 Total			**0**	**0**	**0**	**0**	**0**	**0**	**1,126**	**0**	**0**	**0**	**0**	**1,126**
E137b		1							532					532
E137b Total			**0**	**0**	**0**	**0**	**0**	**0**	**532**	**0**	**0**	**0**	**0**	**532**
E139		1	57											57
E139 Total			**57**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**57**
E150		1	1,133		113				6,770					8,016
E150 Total			**1,133**	**0**	**113**	**0**	**0**	**0**	**6,770**	**0**	**0**	**0**	**0**	**8,016**
E261		1							46					46
E261 Total			**0**	**0**	**0**	**0**	**0**	**0**	**46**	**0**	**0**	**0**	**0**	**46**
E267		1	2,990	5,334	371	107	69							8,871
E267 Total			**2,990**	**5,334**	**371**	**107**	**69**	**0**	**0**	**0**	**0**	**0**	**0**	**8,871**
E270		1	7,477	1,239	182									8,898
E270 Total			**7,477**	**1,239**	**182**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,898**
E271		1		814	142									956
E271 Total			**0**	**814**	**142**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**956**
E272		1							954					954
E272 Total			**0**	**0**	**0**	**0**	**0**	**0**	**954**	**0**	**0**	**0**	**0**	**954**
E273		1		8,145	533		90							8,768
E273 Total			**0**	**8,145**	**533**	**0**	**90**	**0**	**0**	**0**	**0**	**0**	**0**	**8,768**

EXHIBIT P-1,
INTERIOR SQUARE FOOTAGE DATA BY BUILDING AND AREA TYPE

			Area 1	Area 2	Area 3	Area 4	Area 5	Area 7	Area 8	Area 9	Area 9	Area 10	Area 10	Total
Bldg. No.	Wing	Floor	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft. Tile	Sq. Ft. Carpet	Sq. Ft.
E276		1	7,047	2,126	395	857	209	504	351					11,489
		2	3,244	6,692	1,046	126	423	433						11,964
E276 Total			**10,291**	**8,818**	**1,441**	**983**	**632**	**937**	**351**	**0**	**0**	**0**	**0**	**23,453**
E278		1	1,327		66				1,402					2,795
E278 Total			**1,327**	**0**	**66**	**0**	**0**	**0**	**1,402**	**0**	**0**	**0**	**0**	**2,795**
C920	A	1	2,796	4,631	972	1,568	***542***	***432***	65	11,208				22,214
		2	5,302	16,707	823	***3,422***	7,776	***454***						34,484
	L	1		145	44	***60***	51	729	***67,182***					68,211
		2		4,025	359		2,090	502						6,976
	N	1	118	4,633	418	1,788	***305***	***808***	2,984					11,054
		2		***1,364***	***2,082***		1,591	476	1,010					6,523
		2M						363						363
		3	40	3,932	2,462		4,883	931	88				73	12,409
C920 Total			**8,256**	**35,437**	**7,160**	**6,838**	**17,238**	**4,695**	**71,329**	**11,208**	**0**	**0**	**73**	**162,234**
E990	A	1	3,209	1,654	657	166		300						5,986
		2	5,003		510	869		337	141					6,860
E990 Total			**8,212**	**1,654**	**1,167**	**1,035**	**0**	**637**	**141**	**0**	**0**	**0**	**0**	**12,846**
E993		1		1,146	188				1,499					2,833
E993 Total			**0**	**1,146**	**188**	**0**	**0**	**0**	**1,499**	**0**	**0**	**0**	**0**	**2,833**
E994		1	937		130				1,742					2,809
E994 Total			**937**	**0**	**130**	**0**	**0**	**0**	**1,742**	**0**	**0**	**0**	**0**	**2,809**
Rounding			1											1
Rounding Total			**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Grand Total			**1,037,798**	**616,674**	**98,296**	**315,238**	**113,622**	**62,205**	**421,503**	**371,111**	**75,141**	**8,987**	**1,262**	**3,121,837**

SECTION J, ATTACHMENT P

EXHIBIT P-2,
JOHNSON SPACE CENTER
EXTERIOR BUILDING WINDOWS

BUILDING NUMBER	WINDOWS - SQUARE FT.	BUILDING NUMBER	WINDOWS - SQUARE FT.	BUILDING NUMBER	WINDOWS - SQUARE FT.
SITE					
1	70,200	49	1,808	322	12
2	12,481	50	12	323	126
* 3	5,407	56	12	324	0
4	66,197	57	2	325	12
5	24	102	120	326	74
7	11,430	103	120	327	66
8	11,128	105	120	328	6
9	3,224	110	1,471	329	63
10	10	111	1,130	330	18
11	3,699	204	120	333	0
12	15,901	207	Not Included	334	0
13	11,538	210	Not Included	335	0
14	4,122	220	0	336	0
15	14,655	221	36	337	0
16	21,489	222	1,064	338	24
17	6,837	223	24	342	10
18	112	225	36	343	46
24	Not Included	226	725	348	0
25	1,363	227	123	349	0
28	0	228	24	350	981
29	5,770	229	2	351	0
30	27,367	230	0	352	0
31	7,910	231	0	353	0
32	6,431	232	30	354	0
32q	0	241	0	355	0
33	957	259	124	356	2
34	0	260	191	358	0
35	42	261	810	359	4
36	2,396	262	48	361	20
37	4,818	263	15	380	0
38	12	264	0	381	0
39	8	265	0	382	0
41	27	266	36	383	0
42	0	267	12	384	0
43	0	268	24	411	0
44	4,301	269	42	412	0
45	28,831	304	12	413	0
46	160	305	120	415	0
47	42	320	0	416	36
48	12	321	30		

* - Includes 900 sq. ft. for interior gift shop.

SECTION J, ATTACHMENT P

EXHIBIT P-2,
JOHNSON SPACE CENTER
EXTERIOR BUILDING WINDOWS

BUILDING NUMBER	WINDOWS - SQUARE FT.	BUILDING NUMBER	WINDOWS - SQUARE FT.	BUILDING NUMBER	WINDOWS - SQUARE FT.
SITE (CONT)					
417	234	420	64	423	18
418	0	421	0	424	216
419	0	422	0	425	0
				T585	438
ELLINGTON					
E135	315	E260	0	E272	12
E136	82	E261	72	E273	417
E137	4	E263	0	E276	794
E138	0	E264	0	E278	0
E139	27	E265	0	E380	0
E140	4	E266	0	E990	546
E142	0	E267	301	E993	48
E150	0	E270	74	E994	48
E151	8	E271	22	**C920**	**2,700**

JSC 359,814 sq. ft.
Ellington Field 5,474

Total 365,288 sq. ft.

SECTION J, ATTACHMENT P

EXHIBIT P-3,
APPROXIMATE SQUARE FOOTAGE OF BUILDING INTERIORS THAT ARE
NOT CLEANED BUT THAT MAY REQUIRE EXTERMINATION ON AN AS NEEDED BASIS

Building	Square Footage		Building	Square Footage
9S	1,602		348	4,802
10	3,165		349	4,802
13	405		351	3,797
14	196		352	1,794
16	397		353	3,172
24	40,195		354	1,975
25	3,358		356A	1,935
28	8,046		356B	1,167
31N	4,400		357	142
32	2,046		358A	144
32C	73,636		359	4,785
32Q	5,867		361	467
33	1,683		380	2,265
38	4,111		412	4,800
42	2,791		413	4,753
43	3,615		415	423
48	27,400		417	5,428
49	21,390		420	30,516
50	5,761		421	40,132
222N	272		422	23,054
304	1,063		425	4,798
321	10,953		C920	82,614
323	3,516		E135	24,532
325	10,416		E140A	39
326	4,159		E140B	39
326D	906		E142	149
328	1,143		E265	9,056
329	11,130		E266	9,059
333	29,754		E276	24,436
334	4,802		E278	86
335	4,787		E380	20,291
336	29,126		E990	41,182
337	4,802			
338	2,825		Totals	683,527
342	4,752			

Text from Correspondence No. NA3-95-084, dated 06/23/95
Subject: Memorandum of Understanding Concerning the Cleanup of Potentially Infectious Material Spilled During Accidents or Emergencies at JSC.

Recently, a Safety Hotline was distributed entitled "Blood and Emergencies in the Workplace". In this document it was stated that clean up of blood and other potentially infectious materials will be conducted by the emergency response personnel. At the time the Safety Alert was written, the organization which would be responsible for this cleanup had not been determined, hence the vagueness of this statement.

Four blood spillage scenarios have been anticipated, and the procedures for clean up of these incidents are as follows:

1. During the first Shift of weekday operations at JSC, for accidents involving NASA or contractor personnel, a specially trained crew made up of custodial personnel will be responsible for responding to scenes to clean the spillage of blood or potentially infectious materials. The first responsibility at the accident or emergency scene where blood is spilled is to attend to the needs of the victim. Once this has been accomplished, security or any other responder can provide site control until the cleanup crew can be mobilized to complete the response.

2. During second and third shift weekday and during all weekend operations, for accidents or emergencies involving NASA or contractor personnel, the area where the blood has been spilled will be secured by JSC Fire Protection Specialist (FPS) using cones and biohazard tape. Cleanup of the blood material will be conducted on the following, first weekday shift, by the JSC custodial contractor infectious material cleanup crew. Notification of the cleanup team will be the responsibility of fire protection. The custodial contractor employees begin their shift at 6 a.m., and the clean up could be completed before the employees who work in the area arrive for the day. If the area where the accident occurs must be reoccupied immediately, then the custodial contractor will be called in for cleanup. This option should be exercised only when absolutely necessary to continue mission critical or shutdown type of operations.

3. Accidents where blood is spilled outside of a building in parking lots, roads, walkways, etc., JSC FPS will spray the blood with a 50 to 1 solution of water and bleach. This will destroy any viable pathogens in the blood. No other response is necessary. However, if the spill occurs on a weekday during working hours, the custodial response team may be called out to wipe up the sprayed material. Discussion with OSHA indicated that this activity by the FPS does not incur any exposure potential in regard to the OSHA Bloodborne Pathogen Program.

4. For any emergency or accident of Space Center Houston personnel or its visitors involving blood, the Space Center Houston nurse and staff will be responsible for the cleanup. JSC FPS responds to all emergency calls and if a blood cleanup is needed, the FPS can notify the Space Center Houston nurse.

Several points for these proposals must be made.

1. The custodial contractor will have to modify their current Blood Borne Pathogen Program to incorporate the emergency cleanup function.

2. The custodial contractor will have to establish a response team for the rare case where they will have to be called into clean up an area that must be reoccupied immediately.

3. The response for cleanup will not be immediate. Security of the scene will be necessary until the response team arrives in any case.

4. Any waste from the cleanup would be brought to the JSC clinic for disposal under its Biological Waste Disposal System.

5. The FPS responds to all emergency scenes at JSC, so the changes in their procedures are minimal.

In addition, it must be also be noted that there are several buildings at JSC which normally conduct medical operations in which blood or body fluids may be spilled during a procedures. In these cases, the personnel operating the facility and conduction the procedure are qualified to conduct the cleanup of these materials and should do as soon as they occur. The Safety Alert was intended to address the loss of blood or body fluids in areas outside of JSC medical operations and usually in accidents or emergencies.

The Emergency Operations Center or members of the emergency preparedness organizations at JSC are the only groups who are authorized to call for a blood or potentially infectious materials cleanup.

This type of incident occurs infrequently at JSC, so the overall impact to the organizations should be minimal after the initial setup.

Original letter signed by Stacey T. Nakamura

MSDS Information

JSC MSDS #33056

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Section 1. CHEMICAL PRODUCT SECTION

Product Name: Zero Charge Static Dissipative Floor Coating
Product Number: 1720 BULK
General Use:
Product Description:

MANUFACTURER: Tech Spray, Inc.
P.O. Box 949
Amarillo, TX 79105-0949
PHONE: 806/372-8523
FAX: 806/372-8750

For Chemical Emergency, Spill, Leak, Fire Exposure, or Accident Call CHEMTREC DAY OR NIGHT 1-800-424-9300.

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Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL	C.A.S. Number	Weight %
Tributoxyethyl Phosphate	78-51-3	< 1
Diethylene Glycol Monomethyl Ether	111-77-3	3-4
Dipropylene Glycol Methyl Ether	34590-94-8	< 1
Octylphenoxpolyethoxyethanol	9036-19-5	<< 1
Nonylphenoxypolyethoxyethanol	68412-54-4	<< 1
Zinc Oxide Complex	1314-13-2	<< 1
Ammonium Hydroxide	1336-21-6	.1
Dibutyl Phthalate	84-74-2	.89
Acrylic Copolymer	25987-66-0	10-15
NJ trd. sec.#00850201001-5391P		< 5
Perfluoroalkyl Phosphates		<< 1
Deionized Water	7732-18-5	75-85
Polyethylene Polymer		< 3

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	Exposure Limits 8 Hours TWA (PPM) OSHA PEL	ACGIH TLV	Supplier
Tributoxyethyl Phosphate		NIF	
Diethylene Glycol Monomethyl		NIF	
Dipropylene Glycol Methyl Ether	100	100	
Ammonium Hydroxide		25	
Dibutyl Phthalate	5mg/m3		
Perfluoroalkyl Phosphates	NIF		

==========

Section 3. HAZARD IDENTIFICATION

Emergency Overview:

Potential Health Effects:

INHALATION: Inhalation of vapors will not likely cause any effects of exposure.

EYES: Due to the high pH, this product is a moderate eye irritant.

SKIN: Slight irritation possible.

INGESTION: Nausea and diarrhea are possible.

==========

Section 4. FIRST AID MEASURES

Inhalation:
Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for
prompt medical attention.

Eye Contact:
Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

Skin Contact:
Remove contaminated clothing (including shoes) and wash before reuse.
Flush with large amounts of water. Use soap if available. If irritation persists, seek medical attention.

Ingestion:
Do not induce vomiting unless directed by a physician. If conscious
and alert, give two glasses of water. Seek medical attention immediately.

==========

Section 5. FIRE FIGHTING MEASURES

Flash Point & Method: None TCC Method
Flammable Limits: LEL: NA UEL: NA
Autoignition Temperature:

GENERAL HAZARD:
None

FIRE FIGHTING INSTRUCTIONS:
Fire fighters should wear self contained, positive-pressure breathing apparatus and avoid skin contact.

FIRE FIGHTING EQUIPMENT:
Water, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS:
Smoke, fumes and oxides of carbon.

==========

Section 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:
Pick up material and place in sealed container for disposal.

WATER SPILL:

==========

Section 7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient
STORAGE PRESSURE: Atmospheric

GENERAL:
Keep container closed when not in use. Store in cool, well ventilated
place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied.

==========

Section 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls:

(X) Local Exhaust ventilation acceptable.
( ) Mechanical ventilation recommended.
( ) Use explosion-proof ventilation equipment.
( ) Do not use in confined spaces without mechanical ventilation equipment.

See section 2 for component exposure guidelines.

Personal Protection:

RESPIRATOR:

If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable.
Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator.

HAND PROTECTION:

(X) Gloves recommended

(X) Solvex	(X) Neoprene
(X) Butyl	(X) Buna
(X) Natural Latex	( ) Cotton/Jersey

EYE PROTECTION:

(X) Safety Glasses ( ) Chemical Goggles ( ) Full Face Shield

OTHER RECOMMENDATIONS:

( ) Rubber Boots ( ) Splash-proof chemical resistant suit/apron

==========

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density.....	1.004	pH.....	8.6
Boiling Point.....	100C / 212F	% Volatile.....	80
Freezing Point.....	NIF	% Solids.....	20
Vapor Density (Air=1):..	NIF	Evaporation Rate (H2O=1)...	NIF
Solubility in Water.....	50	Viscosity.....	N/A
Molecular Weight.....	N/A	Physical State.....	LIQUID
Non-Exempt VOC (g/l)....	54.1	Odor.....	NIF

Appearance: Opaque white emulsion with ammonical odor.

==========

Section 10. STABILITY AND REACTIVITY

GENERAL:

STABLE

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

None
Reactive alkali metals, strong acids & bases.

HAZARDOUS DECOMPOSITION:

Forced combustion yields carbon oxides.

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Section 11. TOXICOLOGICAL INFORMATION

RESULTS OF COMPONENT TOXICITY TEST PERFORMED:

Information not available.

HUMAN EXPERIENCE:

Information not available.

==========

Section 12. ECOLOGICAL INFORMATION

FURTHER INFORMATION:

Information not available.

==========

Section 13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification:

Federal, State, and Local laws governing disposal of materials can differ.
Ensure proper disposal compliance with proper authorities before disposal.

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Section 14. TRANSPORTATION INFORMATION

U.S. DOT Information
- Basic Description: NON HAZARDOUS MATERIAL
- Proper Shipping Name: N/A
- Hazard Class: N/A
- Packaging Group: N/A
- UN Number: N/A
- Limitations: 1720-K ships as CONSUMER COMMODITY ORM-D

IATA
- Proper Shipping Name: NON HAZARDOUS MATERIAL
- Hazard Class: N/A
- Packing Group: N/A
- UN Number: N/A
- Limitations: 1720-K ships as POTASSIUM HYDROXIDE SOLUTION, 8, UN1814, II. FOR DOMESTIC SHIPMENTS ONLY. WHEN SHIPPING INTERNATIONAL CONTACT THE TECH SPRAY SHIPPING DEPT.

IMO
- Proper Shipping Name: NON HAZARDOUS MATERIAL
- Class: N/A
- UN Number: N/A
- Packaging Group: N/A
- EMS: N/A
- MFAG: N/A
- Marine Pollutant: N/A
- Canadian TDG: N/A
- Limitations: 1720-K ships as DANGEROUS GOODS IN LIMITED QUANTITIES OF CLASS 8 (POTASSIUM HYDROXIDE), 8, UN1814, II, EMS: 8-06, MFAG: 705, IMDG: 148

==========

Section 15. REGULATORY INFORMATION

UNITED STATES FEDERAL REGULATIONS:

MSDS complies with OSHAs Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/SUPERFUND, 40 CFR 117, 302:
--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986
TITLE III Sections 302, 311, 312 and 313:

Section 302 - Extremely hazardous substances (40 CFR 355):
--- None of the chemicals are Section 302 hazards ---

Section 311/312-Material Safety Data Sheet Requirements (40 CFR 370)
( ) By our hazard evaluation, this product is non-hazardous.

(X) By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard.
(X) Immediate (acute) health hazard
( ) Delayed (chronic) chronic health hazard
( ) Sudden release of pressure hazard
( ) Reactive hazard
( ) FLAMMABLE

Section 313 - List of Toxic Chemicals (40 CFC 372)
This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals.

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are 313 Toxic Chemicals ---		

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D:
Refer to Section 11. for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)
This product contains the following chemicals which are listed:

CHEMICAL	C.A.S. NUMBER	WEIGHT %

CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:
CALIFORNIA PROPOSITION 65:
This product contains the following ingredients which appear on the California proposition 65 list:

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are on the Proposition 65 list ---		

INTERNATIONAL REGULATIONS:
CANADA WHMIS: NIF
EUROPE EINECS NUMBERS: NIF

==========

Section 16. OTHER INFORMATION

LABEL INFORMATION:
European risk and Safety Phrases: S2, S7, S24/25
European Symbols Needed: NIF
Canadian WHMIS Symbols: NIF

NFPA HAZARD RATING:
(0) Fire (1) Health (0) Reactivity

REVISION DATES, SECTIONS, REVISED BY:
27-JULY-94, CONVERTED TO ANSI STANDARD, B. RIFFEL
26-APR-95, Updated Section 16, B. Riffel
09-MAY-95, Corrected CAS Number Section 2, B. Riffel
18-AUG-97, Reviewed, B. Riffel

ABBREVIATIONS USED IN THIS DOCUMENT:
NE - Not Established, NA - Not Applicable, NIF - No Information Found

REFERENCES:
Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data

Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, Inc. or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein,we cannot guarantee that these are the only hazards which exist.

MSDS Information

JSC MSDS #33057

==========

Section 1. CHEMICAL PRODUCT SECTION

Product Name: Zero Charge Anti-Static Floor Stripper
Product Number: 1721 BULK
General Use:
Product Description:

MANUFACTURER: Tech Spray, Inc.
P.O. Box 949
Amarillo, TX 79105-0949
PHONE: 806/372-8523
FAX: 806/372-8750

For Chemical Emergency, Spill, Leak, Fire Exposure, or Accident Call CHEMTREC DAY OR NIGHT 1-800-424-9300.

==========

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL	C.A.S. Number	Weight %
Potassium Hydroxide	1310-58-3	4-4.5
Water		> 70%
Diethylene Glycol Monomethyl ether	111-77-3	< 6
Sodium Metasilicate	68349-20-0	< 5
Tetrasodium Ethylendiamine-Tetraacetate		< 1
Diethanol amide of coconutte fatty acid		< 3
Phosphated Alkyl Ethoxilate Potassium Salt	68071-17-0	2-6

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	Exposure Limits 8 Hours TWA (PPM)	
	OSHA PEL	ACGIH TLV
Supplier		
Potassium Hydroxide		2mg/m3
ether	NIF	
Sodium Metasilicate		NIF
Tetraacetate	NIF	
Potassium Salt	NIF	

==========

Section 3. HAZARD IDENTIFICATION

Emergency Overview:

Potential Health Effects:

INHALATION: Inhalation of mist can cause irritation and damage to the upper respiratory tract and lungs. Effects will vary, depending on the severity of the exposure, from mild irritation of nasal membranes to severe pneumonitis.

EYES: Contact with eyes rapidly causes burning. Damage to eye possible if material is not quickly removed.

SKIN: Severe irritant. Burning and redness caused by contact with liquid. Prolonged or repeated exposure can cause scar tissue to form. Small amounts of liquid on skin may not cause irritation for several minutes; however, the material is still causing damage to tissues

which will be felt later. Keep skin clear from all contact and frequently wash hands.

INGESTION: Ingestion results in severe damage to mucous membranes and to underlying tissues with which contact is made. Perforation of these tissues may follow; severe and extensive scar formation may occur. Death may occur if material penetrates to vital areas.

==========

Section 4. FIRST AID MEASURES

Inhalation:

Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for
prompt medical attention.

Eye Contact:

Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

Skin Contact:

Remove contaminated clothing (including shoes) and wash before reuse.
Flush with large amounts of water. Use soap if available. If irritation persists, seek medical attention.

Ingestion:

Do not induce vomiting unless directed by a physician. If conscious and alert, give two glasses of water. Seek medical attention immediately.

==========

Section 5. FIRE FIGHTING MEASURES

Flash Point & Method: None, TCC Method
Flammable Limits: LEL: NA UEL: NA
Autoignition Temperature:

GENERAL HAZARD:

None

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear self contained, positive-pressure breathing apparatus and avoid skin contact.

FIRE FIGHTING EQUIPMENT:

Water, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes and oxides of carbon.

==========

Section 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:

Evacuate area. Personnel should wear full protective clothing including rubber boots and protective gloves. Dike up area and prevent runoff to sewer or surface waters. Pump or absorb liquid with suitable absorbent and place in sealed containers for disposal. Remove all possible sources of ignition from area.

WATER SPILL:

Section 7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient
STORAGE PRESSURE: Atmospheric

GENERAL:
Keep container closed when not in use. Store in cool, well ventilated place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied.

Section 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls:
(X) Local Exhaust ventilation acceptable.
( ) Mechanical ventilation recommended.
( ) Use explosion-proof ventilation equipment.
( ) Do not use in confined spaces without mechanical ventilation equipment.
See section 2 for component exposure guidelines.

Personal Protection:
RESPIRATOR:
If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable. Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator.

HAND PROTECTION:
(X) Gloves recommended
(X) Solvex (X) Neoprene
(X) Butyl (X) Buna
(X) Natural Latex ( ) Cotton/Jersey

EYE PROTECTION:
( ) Safety Glasses (X) Chemical Goggles ( ) Full Face Shield

OTHER RECOMMENDATIONS:

(X) Rubber Boots ( ) Splash-proof chemical resistant suit/apron

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density	1.050	pH	12
Boiling Point	100C / 212F	% Volatile	>80
Freezing Point	NIF	% Solids	<20
Vapor Density (Air=1)	NE	Evaporation Rate (H2O=1)	NIF
Solubility in Water	100	Viscosity	N/A
Molecular Weight	N/A	Physical State	LIQUID
Non-Exempt VOC (g/l)	59.8	Odor	NIF

Appearance: Fluoroscene colored, mobile liquid with low odor.

Section 10. STABILITY AND REACTIVITY

GENERAL:
STABLE
INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:
Contact with open flame, heat.
Material will react with acids producing heat.

HAZARDOUS DECOMPOSITION:
Combustion yields carbon oxides.

==========

Section 11. TOXICOLOGICAL INFORMATION

RESULTS OF COMPONENT TOXICITY TEST PERFORMED:
Glycol Ether: LD50, oral (Guinea Pigs) 4160 mg/kg
Potassium Hydroxide, LD 50, oral (rats) 365 mg/Kg

HUMAN EXPERIENCE:
Material is corrosive. Contact with skin or eyes can cause irritation
and burns. Glycol Ethers may be absorbed through skin.

==========

Section 12. ECOLOGICAL INFORMATION

FURTHER INFORMATION:
Caustic materials can have adverse effects on ecological systems in high
concentrations.

==========

Section 13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification:

Federal, State, and Local laws governing disposal of materials can differ.
Ensure proper disposal compliance with proper authorities before disposal.

==========

Section 14. TRANSPORTATION INFORMATION

U.S. DOT Information
Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION
Hazard Class: 8
Packaging Group: II
UN Number: UN1814
Limitations: N/A

IATA
Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION
Hazard Class: 8
Packing Group: II
UN Number: UN1814
Limitations: CARGO AIRCRAFT ONLY OVERPACK MUST BE USED.
Domestic shipments only. When shipping International
please contact Tech Spray shipping department.

IMO
Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION
Class: 8
UN Number: UN1814
Packaging Group: II
EMS: 8-06
MFAG: 705
Marine Pollutant: N/A
Canadian TDG: N/A
IMDG Page: 8214

==========

Section 15. REGULATORY INFORMATION

UNITED STATES FEDERAL REGULATIONS:
MSDS complies with OSHAs Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/SUPERFUND, 40 CFR 117, 302:
--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986
TITLE III Sections 302, 311, 312 and 313:
Section 302 - Extremely hazardous substances (40 CFR 355):
--- None of the chemicals are Section 302 hazards ---

Section 311/312-Material Safety Data Sheet Requirements (40 CFR 370)
( ) By our hazard evaluation, this product is non-hazardous.
(X) By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard.
(X) Immediate (acute) health hazard
( ) Delayed (chronic) chronic health hazard
( ) Sudden release of pressure hazard
( ) Reactive hazard

Section 313 - List of Toxic Chemicals (40 CFC 372)
This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals.

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are 313 Toxic Chemicals ---		

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D:
Refer to Section 11. for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)
This product contains the following chemicals which are listed:

CHEMICAL	C.A.S. NUMBER	WEIGHT %

CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:
CALIFORNIA PROPOSITION 65:
This product contains the following ingredients which appear on the California proposition 65 list:

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are on the Proposition 65 list ---		

INTERNATIONAL REGULATIONS:
CANADA WHMIS: NIF
EUROPE EINECS NUMBERS: NIF

==========

Section 16. OTHER INFORMATION

LABEL INFORMATION:
European risk and Safety Phrases: S2, S26, S27, S37/39, R35
European Symbols Needed: CORROSIVE
Canadian WHMIS Symbols: Corrosive

NFPA HAZARD RATING:
(0) Fire (3) Health (1) Reactivity

REVISION DATES, SECTIONS, REVISED BY:
28-MAY-96, Updated Section 8, B. Riffel

14-NOV-96, Updated Section 12 and 13, B. Riffel
18-AUG-97, Updated Section 16, B. Riffel
ABBREVIATIONS USED IN THIS DOCUMENT:
NE - Not Established, NA - Not Applicable, NIF - No Information Found

REFERENCES:
Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data
Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, Inc. or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and
should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

MSDS Information

JSC MSDS #33058

Section 1. CHEMICAL PRODUCT SECTION

Product Name: Zero Charge Anti-Static Cleaner/Neutralizer
Product Number: 1722 BULK
General Use:
Product Description:

MANUFACTURER: Tech Spray, Inc.
P.O. Box 949
Amarillo, TX 79105-0949
PHONE: 806/372-8523
FAX: 806/372-8750

For Chemical Emergency, Spill, Leak, Fire Exposure, or Accident Call CHEMTREC DAY OR NIGHT 1-800-424-9300.

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL	C.A.S. Number	Weight %
Deionized Water	7732-18-5	70-80
Isopropyl Alcohol	67-63-0	1-5
Tetrasodium Ethylenediamine-tetraacetate	64-02-8	< 1
Sodium Hydroxide	1310-73-2	<2
poly(oxy-1,2-ehtanediyl)	9016-45-9	< 5
Dodecylbenzene Sulfonic Acid	27176-87-0	10-15
Quaternary Ammonium Compounds	68071-95-4	< 5
Diethanol amide of coconut Fatty acid	111-42-2	< 5

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	Exposure Limits 8 Hours TWA (PPM)		
	OSHA PEL	ACGIH TLV	Supplier
Isopropyl Alcohol	400	400	
tetraacetate	NIF		
Sodium Hydroxide	2mg/m3		
Dodecylbenzene Sulfonic Acid	NIF	NIF	
Quaternary Ammonium Compounds	NIF	NIF	
Fatty acid			

Section 3. HAZARD IDENTIFICATION

Emergency Overview:
Potential Health Effects:

INHALATION: No observable effects of overexposure.

EYES: Mild irritation.

SKIN: Very mild, if any, irritation.

INGESTION: Nausea and diarrhea are possible.

Section 4. FIRST AID MEASURES

Inhalation:

Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for prompt medical attention.

Eye Contact:

Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

Skin Contact:
Remove contaminated clothing (including shoes) and wash before reuse.
Flush with large amounts of water. Use soap if available. If irritation persists, seek medical attention.

Ingestion:
Do not induce vomiting unless directed by a physician. If conscious
and alert, give two glasses of water. Seek medical attention immediately.

==========

Section 5. FIRE FIGHTING MEASURES

Flash Point & Method: None, T.C.C Meth
Flammable Limits: LEL: NA UEL: NA
Autoignition Temperature:

GENERAL HAZARD:
None

FIRE FIGHTING INSTRUCTIONS:
Fire fighters should wear self contained positive-pressure breathing apparatus.

FIRE FIGHTING EQUIPMENT:
Water, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS:
Smoke, fumes and oxides of carbon.

==========

Section 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:
Pick up and place in appropriate container.
WATER SPILL:

==========

Section 7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient
STORAGE PRESSURE: Atmospheric

GENERAL:
Keep container closed when not in use. Store in cool, well ventilated
place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied.

==========

Section 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls:
(X) Local Exhaust ventilation acceptable.
( ) Mechanical ventilation recommended.
( ) Use explosion-proof ventilation equipment.
( ) Do not use in confined spaces without mechanical ventilation equipment.
See section 2 for component exposure guidelines.

Personal Protection:
RESPIRATOR:
If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable.
Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator.

HAND PROTECTION:
(X) Gloves recommended

(X) Solvex	(X) Neoprene
(X) Butyl	(X) Buna
(X) Natural Latex	( ) Cotton/Jersey

EYE PROTECTION:
(X) Safety Glasses ( ) Chemical Goggles ( ) Full Face Shield

OTHER RECOMMENDATIONS:

( ) Rubber Boots ( ) Splash-proof chemical resistant suit/apron

==========

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density.....	1.030	pH.....	7.2
Boiling Point.....	100C / 212F	% Volatile.....	>70
Freezing Point.....	NIF	% Solids.....	<30
Vapor Density (Air=1):..	NE	Evaporation Rate (H2O=1)...	NE
Solubility in Water.....	100	Viscosity.....	N/A
Molecular Weight.....	N/A	Physical State.....	LIQUID
Non-Exempt VOC (g/l)....	14.48	Odor.....	NIF

Appearance: Clear blue liquid with pleasant odor.

==========

Section 10. STABILITY AND REACTIVITY
GENERAL:
STABLE
INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:
None
None
HAZARDOUS DECOMPOSITION:
Forced combustion yields carbon and silicone oxides.

==========

Section 11. TOXICOLOGICAL INFORMATION
RESULTS OF COMPONENT TOXICITY TEST PERFORMED:
Information not available.
HUMAN EXPERIENCE:
Information not available.

==========

Section 12. ECOLOGICAL INFORMATION
FURTHER INFORMATION:
Information not available.

==========

Section 13. DISPOSAL CONSIDERATIONS
RCRA 40 CFR 261 Classification: Non-hazardous

Federal, State, and Local laws governing disposal of materials can differ.

Ensure proper disposal compliance with proper authorities before disposal.

==========

Section 14. TRANSPORTATION INFORMATION

U.S. DOT Information
Basic Description: NON HAZARDOUS MATERIAL
Proper Shipping Name: N/A
Hazard Class: N/A
Packaging Group: N/A
UN Number: N/A
Limitations: N/A

IATA
Proper Shipping Name: NON HAZARDOUS MATERIAL
Hazard Class: N/A
Packing Group: N/A
UN Number: N/A
Limitations: N/A

IMO
Proper Shipping Name: NON HAZARDOUS MATERIAL
Class: N/A
UN Number: N/A
Packaging Group: N/A
EMS: N/A
MFAG: N/A
Marine Pollutant: N/A
Canadian TDG: N/A

==========

Section 15. REGULATORY INFORMATION

UNITED STATES FEDERAL REGULATIONS:

MSDS complies with OSHAs Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/SUPERFUND, 40 CFR 117, 302:
--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986
TITLE III Sections 302, 311, 312 and 313:

Section 302-Extremely hazardous substances (40 CFR 355):
--- None of the chemicals are Section 302 hazards ---

Section 311/312-Material Safety Data Sheet Requirements (40 CFR 370)
( ) By our hazard evaluation, this product is non-hazardous.
(X) By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard.
(X) Immediate (acute) health hazard
( ) Delayed (chronic) chronic health hazard
( ) Sudden release of pressure hazard
( ) Reactive hazard

Section 313 - List of Toxic Chemicals (40 CFC 372)
This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals.

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are 313 Toxic Chemicals ---		

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D:
Refer to Section 11. for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15
(FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)
This product contains the following chemicals which are listed:

CHEMICAL	C.A.S. NUMBER	WEIGHT %

CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:
CALIFORNIA PROPOSITION 65:
This product contains the following ingredients which appear on the California proposition 65 list:

CHEMICAL	C.A.S. NUMBER	WEIGHT %

--- None of the chemicals are on the Proposition 65 list ---

INTERNATIONAL REGULATIONS:
CANADA WHIMS: NIF
EUROPE EINECS NUMBERS: NIF

==========

Section 16. OTHER INFORMATION

LABEL INFORMATION:
European risk and Safety Phrases: S2
European Symbols Needed: NIF
Canadian WHIMS Symbols: NIF

NFPA HAZARD RATING:
(0) Fire (1) Health (0) Reactivity

REVISION DATES, SECTIONS, REVISED BY:
27-JLY-94, CONVERTED TO ANSI STANDARD, B. RIFFEL
28-May-96, Updated Section 8, B. Riffel
18-AUG-97, Updated Section 13, B. Riffel
28-SEP-99, Reviewed MSDS, B. Riffel
ABBREVIATIONS USED IN THIS DOCUMENT:
NE - Not Established, NA - Not Applicable, NIF - No Information Found

REFERENCES:
Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data
Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, Inc. or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein,we cannot guarantee that these are the only hazards which exist.

Answers to Draft SOW Questions Previously Unanswered

BD #	Annex	CLIN	Question	Response
1-360	1	1.8.1.1	With an accident rate monitoring requirement to obtain VPP Merit rating, will current/historical data related to accidents/close calls be made available in the TRL?	No, the current historical data is directly related to the current contractor's performance and cannot be used for proposal purposes.
1-361	8		Will a copy of the MP2 license agreement(s) be made available in the TRL?	The Government does not have this data.
1-362	8		Does a CMMS System Design Specification exist for the JSC MP2 implementation? Will this document be available in the TRL?	The Government does not have this data.
1-363	8	8.8.2	Paragraph 8.8.2, CADD Software Licenses. Are ALL drawings to be produced in AutoCAD format beginning six months after start of contract, as opposed to Microstation?	This requirement will be removed from the final RFP.
1-364	8		Reference is made to multiple databases to include the SM, CMMS, FCA, AME, EBi, EMCS, field engineering database, Tunnel Cable, and the EE database. A review of the TRL data provides reports generated from some of these databases however, the database structure is not clearly identified. Does a database requirement document exist that provides the database format or structure for each of these databases currently in use on the contract?	The Government does not have this data.
1-365	1	1.1.6b	Annex 1, page C1, 2, paragraph 1.1.6b, refers to Section J, Attachment O to find JA Management Guidance. At the present Attachment O is reserved. Please clarify.	A change will be made in the final RFP to provide the correct references.
1-366	5	5.5	% of as-builts converted to electronic format, what format?	There are about 10,000 manual and 5,000 CAD and about 3,000 scanned drawings. The CAD drawings are in DGN format and the scanned images are in TIF or CIT. The final RFP will be changed to reflect this answer.

Answers to Pre-Proposal Conference Questions

P-1. Question: Is the COSS Contractor Responsible for trash/dumpsters? If not, who provides this service?

Answer: Collection and proper disposal of trash and refuse generated from center operations shall be the responsibility of the COSS contractor. This requirement, including the placement and management of numerous dumpsters, is part of Annex 14 (Custodial). This requirement does not include the collection and proper disposal of trash and refuse generated by contractors other than the COSS contractor while performing construction of facilities work under a contract other than the COSS contract.

P-2. Question: Annex 9 it refers to the contractor using MP-2 as the Maintenance Management software. In Section J Appendix for Annex 8, it states Maximo rather than MP-2. Which is correct?

Answer: MP2 is the current CMMS system.

P-3. Question: Are the JSC, NPG and/or JHB Manuals available on the internet? If so, what is the URL or address to use?

Answer: While some Government publications might be available on the web, there has been no attempt to post electronic versions of documents referenced in the Center Operations Support Services solicitation in a central internet location. Notwithstanding, a technical reference library (TRL) has been established for this purpose at the Johnson Space Center in Building 227.

P-4. Question: Will you publish all companies that will bid on this contract?

Answer: NASA has no way to determine who will submit a proposal in response the COSS solicitation prior to receipt of all the proposals. A list of people or organizations that have expressed notable interest has been published using the NASA Acquisition Internet Service (NAIS). Similarly, a list of people or organizations that signed the registration sheet and the preproposal conference has also been published using NAIS. The URL for this location is http://Procurement.nasa.gov.

P-5. Question: Building 48 is operated on a 24/7 basis during missions. Does this statement include all manned activity on the International Space Station?

Answer: No, Annex 4 identifies operational requirements for building 48 support during Shuttle missions.

P-6. Question: Is the current Work Control Center operating 24 hours a day, 7 days a week as required in Annex 1.3?

Answer: No, but in this contract the requirement is 24/7.

P-7. Question: Will NASA's decision to reduce the ODIN support contract effect the services that are included in the RFP for the COSS, and, if so, in what way?

Answer: NASA's decisions on the ODIN Support Contract will have no impact on the COSS contract and its services.

P-8. Question: Is the current COSS contractor VPP certified?

Answer: Yes.

P-9. Question: How, if any, will proposed NASA budget cuts impact the extent of services and support that are currently included in the COSS RFP?

Answer: To the extent future budget realities are known, the requirements have been defined in the contract to correlate to the anticipated budget. To the extent future budget reductions could impact COSS, those impacts are unknown at this time.

P-10. Question: Reference Section J, Attachment K, List 2 Computerized Maintenance Management System (CMMS) – Please provide the following information about the Government Provided MAXIMO Software run on a Contractor provided server – (J-K, List 2, 3):

- What Version is it?
- What Modules are provided?
- How many user licenses are provided?

Answer: The listing of Maximo as the current CMMS was a mistake. MP2 is the current CMMS.

P-11. Question: Please provide the location of all local systems identified in Section J, Attachment K, that the contractor is responsible for.

*Answer: All local systems are at *JSC.*

P-12. Question: Reference Paragraph 1.1.8 – Information Technology Systems: -- If the contractor decides to replace a Government provided system, what is the timeline for the new system to run parallel before the government-provided system is taken off-line?

Answer: Unless identified in the contract, there is no specific time. This would have to be worked out with the Government when it occurred.

P-13. Question: Is the trouble desk located within the Work Control Center?

Answer: That is contractor determined.

P-14. Question: Workstation information is not listed in section J, Attachment K, List 2, IT Systems Description. Please provide this information.

Answer: The standard varies with technology and the seat contractor refresh cycle. The standard PC as of 5/1/01 is equivalent to Dell GX110, 933MHz Intel Pentium III, 256K cache, 133MHz Bus, 128MB RAM, 15.0 GB HDD, NVIDIA, TNT2 (16MB), 10/100 Network, 48x CD-ROM, 16-bit full duplex sound system, and 17" monitor.

P-15. Question: What is the specific version number of the COTS systems listed in Section J, Attachment K, List I?

Answer: The Government does not have this data.

P-16. Question: Will the systems manuals, listed in section J, Attachment K, be available in the Technical Reference Library?

Answer: The Government does not have this data.

P-17. Question: When will the final solicitation be released?

Answer: The final RFP will be released as quickly as possible; however, at this point in time, a definitive timeframe for its release cannot be established.

P-18. Question: Which of the Neutral Buoyancy Lab Facility support functions are included in this RFP? Specifically, are the following included?

a) Water quality monitoring and control,
b) Compressor room operations and maintenance,
c) Breathing gas system operations and maintenance,
d) Hyperbaric chamber and supporting equipment operation and maintenance,
e) Pneumatic/hydraulic systems.

Answer: The COSS contractor operates the facility systems such as HVAC and electrical. As far the specific systems mentioned in the question: a) No, b-d) maintenance only, e) maintenance only except for facility air.

P-19. Question: Are any of the NBL facilities supported by union employees, and if so, are these required to remain union activities since they are critical in nature?

Answer: Some personnel performing work in the NBL may be represented by one or more unions. No contract requirement exists that requires the use of union personnel. Notwithstanding, the successful offeror shall pay prevailing wages and benefits as required to comply with the Fair Labor Standards Act, the Service Contract Act and the Davis Bacon Act requirements. Further, the contractor will be expected to maintain harmonious labor relations.

Answers to Draft RFP Questions

For all industry questions submitted, whether set 1, set 2 or Pre-Proposal, the Government has electronically cut and pasted them into the answer forms. The Government has attempted to answer each question exactly as submitted.

2-1. Reference: Section C, Annex 1, Paragraph 1.6.3, Page C-1, 13 (formerly Paragraph 1.7.3 in the previous Draft SOW) and previously published Question 1-2.

In the Government's response to Draft SOW Question 1-2, which is directly related to the Draft RFP Paragraph 1.6.3 requirement, the response states: "The incumbent contractor is ISO 9000 certified as per contract requirements of the existing contract, which specified the ISO 9000 1994 standard. SOP's internal to the incumbent operation are not available to the Government."

Question: At other Centers, NASA has required contractors to post their ISO 9000 documentation on the NASA Technical Document System. What levels of ISO 9000 documentation developed at Government expense under the current contract are available?

Answer: All available documentation created through the contractor's ISO 9000 process has been provided in the TRL.

2-2. Reference: Section C, Annex 2, Paragraph 2.1.2, Page C-2, 1.

The SM Database appears to contain equipment that is not part of the COSS scope of work (e.g., pistols and shotguns for security personnel). Please clarify which equipment in the SM Database is part of the scope of work for the new contract.

Answer: The pistols and shotguns are not part of the scope for the new contract. All other items in the SM Database are part of the scope.

2-3. Reference: Section C, Annex 2, Paragraph 2.1.2, Page C-2, 1, and previously published Question 1-79.

The Government's response to Question 1-79 indicated that there are equipment items within the scope of the COSS that are not included in the SM Database. Please provide a listing of the equipment items missing from the SM Database.

Answer: The missing equipment is user equipment that cannot be identified because the Government does not yet have a listing from the various user organizations. This equipment will be identified as the need for the work arises and will be covered under Annex 13.

2-4. Reference: Section C, Annex 2, Paragraph 2.1.2, Page C-2, 1.

Please clarify the title / version / revision of the present CMMS software.

Answer: MP2 Enterprise, Version 5.1, Oracle Edition.

2-5. Reference: Section C, Annex 2, Paragraph 2.1.2, Page C-2, 1.

This paragraph states that equipment categories within the SM Database include UE/JA, SFUSS, IAGP, MSE, UE, NSE.

Question: Which tables and fields contain the identifying codes? Please clarify how these equipment categories are specified in the SM Database.

Answer: The various categories of equipment are shown in the system label on the Equipment Record. However, a review of the database indicates a number of errors of identification. The offerors should propose the work tasks and the Government will work to correct category discrepancies before phase-in.

2-6. Reference: Section C, Annex 2, Paragraph 2.2.2, Page C-2, 4.

Question: Should the performance requirements for this section include MSE?

Answer: No, MSE is covered in Annex 13.

2-7. Reference: Section C, Annex 2, Paragraph 2.2.2, Page C-2, 4, and previously published Question 1-95.

This section states "Accomplish all UE, UE/JA, SFSUSS, and IAGP maintenance tasks in the SM database." The Government's response to Question 1-95 indicated that User Equipment (UE) is part of Annex 13 and not Annex 2. Please clarify how UE maintenance tasks are to be administered.

Answer: UE maintenance tasks will be administered under Annex 13. The RFP will be changed to reflect this answer.

2-8. Reference: Section C, Annex 2, Paragraph 2.3.1, Page C-2, 6.

This paragraph states, "If repairs are anticipated to exceed 66% of the replacement cost of the equipment, notify the Maintenance and Repair TMR for direction or authorization to replace the equipment." The SM Database does not include values for all equipment.

Question: Does replacement cost include labor to install? Please provide equipment replacement costs for equipment within the COSS scope of work.

Answer: No. The replacement cost of equipment does not include labor. The replacement cost of equipment changes yearly based on inflation and other factors. The contractor will have to make a determination of the replacement value at the time of the repair.

2-9. Reference: Section C, Annex 2, Paragraph 2.4h, Page C-2, 9.

Please clarify how the "value" of original database tasks are expected to be determined as required in the Quarterly Reconciliation Report. The SM Database does not seem to contain such a field.

Answer: The value of original database tasks shall be the cost of the SM task as proposed by the successful bidder in its proposal.

2-10. Reference: Section C, Annex 2, Paragraph 2.5, Page C-2, 9.

Question: Does a warranty program presently exist? If so, is this program presently integrated into the CMMS?

Answer: A warranty program presently exists and the warranty period is captured in the CMMS.

2-11. Reference: Section C, Annex 2, Paragraph 2.5a, Page C-2, 10.

Question: What data fields are required to track facilities or equipment under warranty? Please specify required fields.

Answer: The contractor shall determine the fields required identifying when a warranty is in effect. The Government anticipates that a prudent contractor would develop searchable fields that would allow it to track equipment, warranty times, and warranty providers.

2-12. Reference: Section C, Annex 2, Paragraph 2.5f, Page C-2, 11.

Please provide a copy of the present monthly status report for warranty actions.

Answer: The Government does not have a copy to provide. The RFP is being changed to clarify what needs to be in the report.

2-13. Reference: Section C, Annex 2, Paragraph 2.7, Page C-2, 11.

Question: Does the present CMMS track availability (time and date stamps) and failure codes?

Answer: Not at the present time, but the program has the capability of tracking availability and failure codes.

2-14. Reference: Section C, Annex 4, Page C-4, 1.

Please provide historical water treatment chemical usage rates for boilers, cooling towers, and other applicable water systems.

Answer: This historical data is not available to the Government.

2-15. Reference: Section C, Annex 4, Paragraph 4.1.3, Page C-4, 1.

Question: Will all current Utility Procedures and Operating Procedures be made available to the COSS Contractor?

Answer: All available procedures have been made available in the TRL.

Question: What is the expected workload for development of any new procedures by the COSS Contractor?

Answer: The workload to determine how many procedures the COSS contractor would need to adequately perform contract requirements is solely up to the contractor and how it does business.

2-16. Reference: Section C, Annex 5, Paragraph 5.3d, Page C-5, 5.

This Annex 5 Paragraph states: "The COSS Contractor shall fix any construction or performance problems that may arise due to errors or omissions from designs performed by the COSS Contractor at no cost to the Government."

Question: In view of the changed acquisition strategy for this Annex, should this language be changed to reflect the FAR cost principle that the Government will pay for all allowable, allocable, and reasonable costs?

Answer: Yes. The RFP will be changed to reflect this answer.

2-17. Reference: Section C, Annex 9, Paragraph 9.1.17, Page C-9, 1.

Please provide historical details for any violations of environmental, health, or safety laws, regulations, or requirements for the past 5 years. Please include the following information: nature and cause of violation, corrective action, fines or penalty dollar values, and the historical total "Government-incurred expenses" as defined in Section 9.1.1 for each occurrence.

Answer: With reference to 9.1.1 we are not aware of any fines levied against the Government in the last five years.

2-18. Reference: Section C, Annex 9, Paragraph 9.1.17, Page C-9, 1.

Question: Will the COSS Contractor be responsible for fines or penalties due to repeat occurrences where any of the previous occurrences were due to the actions or inactions of the Government or other parties?

Answer: The contractor will be responsible for that portion of the assessed fine or penalty applicable to the violation alleged, minus any fine escalation for a repeat occurrence due to a previous contractor or Government violation.

2-19. Reference: Section C, Annex 9, Paragraph 9.1.1, Page C-9, 1, and previously published Question 1-251.

The Government's response to Question 1-251 indicated that the Draft RFP expands both the scope and number of environmental tasks and requirements.

Question: Which tasks and requirements included in the COSS RFP are not included in the present Contractor's scope of work? Which environmental staffing and qualification requirements are in addition to the present Contractor's scope of work? Are these "new" tasks presently performed by the Government or other parties?

Answer: Offerors are to propose based upon the content of the COSS RFP. The Government does not intend to provide a comparison to the existing BOSS requirements for either tasks or staffing qualifications.

2-20. Reference: Section C, Annex 9, Paragraph 9.1.1, Page C-9, 1, and previously published Question 1-273.

The Government's response to Question 1-273 indicated that the COSS Contractor will be responsible for providing an engineering analysis at each point of waste generation to adequately determine process knowledge if it does not exist.

Question: Does an engineering analysis for all waste streams presently exist? If not, which waste streams presently need an engineering analysis?

Answer: Annex 9, CLIN 9.3.2.1 will be changed in the final RFP. All waste streams require a process description, but not all waste streams require an engineering analysis or flow diagrams. All wastestreams require periodic review for accuracy and updating, generally on an annual basis, along with the characterization information.

Question: How many new waste streams per year are expected to require engineering analysis?

Answer: The number of new wastestreams requiring an engineering analysis per year may be highly variable and is dependent upon the activities and operations at the Center. See the environmental documents in the TRL for information on the number of Notices of Registration (NORs).

Question: Are waste generators required to provide justification (process knowledge) for their waste streams as part of present waste minimization efforts?

Answer: Waste generators are not required to provide justification for their wastestreams at the present time. The Government anticipates having this information submitted by generators by contract start via survey or annual certification rather than intensive data gathering or engineering analysis.

2-21. Reference: Section C, Annex 10, Paragraph 10.2.1.5, Page C-10, 2.

Question: The referenced paragraph states, in part, that demand items that do not meet stocking criteria are delivered directly to the customer. Do these items go through central receiving, or does the customer acknowledge receipt?

Answer: Demand items that do not meet stocking criteria are processed through central receiving then delivered directly to the customer instead of to warehouse stock.

2-22. Reference: Section C, Annex 10, Paragraph 10.2.3, Page C-10, 13.

Question: What is the pass/fail history for item issue and receipt reconciliation against the NASA Inventory Management Manual requirements?

Answer: The pass-fail history is not available to the Government.

2-23. Reference: Section C, Annex 11, Paragraph 11.2.1.3, Page C-11, 1.

Question: Why will the Government provide only NEMS listings for sensitive items?

Answer: The Government has determined that this is the best method.

Question: Are these items not bar-coded?

Answer: The items are bar-coded.

Question: Is the Contractor locked out from the NEMS data on sensitive items?

Answer: The contractor does have the capability of viewing individual sensitive items, but not the capability to generate a sensitive item report.

2-24. Reference: Section C, Annex 12, Paragraph 12.1.7, Page C-12, 2.

Question: Please clarify the requirement for rigging task completion. The definition for General Work Order states, in part, "Rigging support to be performed when no specific time is requested by the customer where the contractor has up to 2 full **workdays** from notification". A note beneath the General Work Order definition states, "2 **workdays** are 48 hours from the time the work order is received by the contractor." Annex 1 defines **workday** as Monday thru Friday, excluding Holidays.

Answer: The requirement for rigging task completion does not include weekends or holidays. The RFP will be changed to reflect this answer.

Question: Is it expected that all General Work Orders (or Priority 2 Work Orders) for rigging work received less than 2 days prior to a weekend or Holiday will be performed within 48 hours?

Answer: No, this does not include weekends or holidays. The RFP will be changed to reflect this answer.

Question: If so, how much weekend and Holiday rigging work can be expected?

Answer: None. The RFP will be changed to reflect this answer.

2-25. Reference: Section C, Annex 12, Paragraph 12.4.1, Page C-12, 7.

Question: This paragraph states a rigging support requirement to "Provide assistance in the assembly and disassembly, installation and dismantling, placement, and removal of equipment to include installing and removal of fasteners (bolts, screws, etc.) when requested by the customer." Please clarify the workload for this type of assistance. What is the typical scope of work involved with the indicated assembly and disassembly work?

Answer: This work is incidental to the performance of the rigging tasks and should not have any impact on manpower.

2-26. Reference: Section C, Annex 12, Paragraph 12.4.3, Page C-12, 7.

Please clarify the typical diameters, load strengths, types, and lengths for the 20 wire rope slings.

Answer: This requirement will be deleted in the final RFP.

2-27. Reference: Section C, Annex 12, Paragraph 12.4.4, Page C-12, 8.

Please provide a list of material lifting and handling equipment used by the present Contractor.

Answer: This information is provided in Section J, Attachment I, List 2.

2-28. Reference: Section G, Paragraph G.13, Page G-11 and Section L Part II, Paragraph 5.1.B, Page L-12.

Question: Paragraph G.13 states that the total subcontracting goal, as a percentage of total contract value, is 20 percent, whereas the referenced Section L paragraph states that this is 36 percent. We assume that the 36 percent in Section L is the desired percentage; is this a correct assumption?

Answer: Subcontracting goals stated in Section G are incorrect. The goals listed in Section L are correct. The RFP will be changed to reflect this answer.

2-29. Reference: Section I clauses 52.219.25 - Small Disadvantaged Business Participation Program - Disadvantage Status and Reporting and 52.219-26 - Small Disadvantaged Business Participation Program - Incentive Subcontracting, Page I-1.

Although the Draft RFP requires a Plan for Small Business Subcontracting Goals, there appears to be no requirement for a Small Disadvantaged Business Participation Plan.

Question:
(a) Based on the inclusion of the referenced clauses, should offerors assume that the Final RFP will require the submission of a SDB Participation Plan in accordance with FAR 19.12?
(b) If the answer to (a) is yes, how many points will be assigned to it for evaluation purposes?
(c) If the answer to (a) is yes, will the Government either increase the page limit for the Management Volume to accommodate this requirement or, alternatively, exclude the Small Business and SDB Plans from the page limit as is the case with the Safety and Health Plan?

Answer: The SDB participation contemplated by 52.219-25 shall be addressed in the subcontracting plan required by FAR 52.219-9. Since Award Fee incentivizes subcontract goals, 52.219-26 will be removed from the final RFP.

2-30. Reference: Section L.3.(c).(2), Page L-2.

Question: This paragraph specifies certain information required to be presented on the first page of the proposal. What does the Government consider the first page? Is this the Volume I Title Page, the first page of the Volume I front material (i.e., Table of Contents etc.), the first page of the page-limited Volume I content following the front material, or some other location? Please clarify the meaning of the term "first page of the proposal".

Answer: The first sheet of paper behind the front cover of Volume I is the first page of the proposal. All pages not explicitly exempted from the page count will be included in the count.

2-31. Reference: Section L.7, Page L-6.

The Total page limitation states 225 for Volume I, II and IV; however, the table also states 125 pages for Volume I, 100 for Volume II and no limit to Volume IV. Please clarify this discrepancy.

Answer: Volume IV does not have a page restriction. The provision at L.7 will be updated in the final solicitation to correct this error.

2-32. Reference: Section L Part II, Section 1.0, Page L-10.

Question: Where does the Government want offerors submit the Section K Representations and Certifications?

Answer: Offerors shall complete the Section K Representations and Certifications and return them with Volume I of its proposal. The completed Section K will not count against the total page count for Volume I. Section L was modified to incorporate these instructions.

2-33. Reference: Section L Part II, Paragraph 5.1.C(4), Page L-14.

Question: We assume the reference to compensation forms (a), (b), (c), and (d) should be pages 41-43 and 51 rather than the pages 36-40 specified in the text of this paragraph; is this a correct assumption?

Answer: No. The page numbers for the above forms should be pages 38 – 41.

2-34. Reference: Section L Part II, Paragraph 5.1.C(4), Page L-14.

Question: We assume that the instruction in the referenced paragraph for offerors to provide the specified compensation forms is that these forms should be provided only in Volume IV, as directed in Section L Part II, Paragraph 5.4.E, and not also in Volume I; is this a correct assumption?

Answer: Yes. The compensation forms shall be submitted with Volume IV.

2-35. Reference: Section L Part II, Paragraph 5.3.A, Page L-19.

The requirement to provide data for all contracts over $1M in value, either completed or ongoing, within the past 3 years will result in listing hundreds of contracts for large companies. We request a change restricting the list to all relevant contracts.

Answer: The Government agrees with the recommendation and the RFP will be changed.

2-36. Reference: Section L Part II, Paragraph 5.3.B, Page L-20.

Question: The second sentence of this paragraph appears to be incomplete. Should it end with the words: "in Form 1."? Please clarify the intended meaning of the phrase "contracts identified" in this paragraph.

Answer: Yes. It means the contracts identified in Form 1. The RFP will be changed to reflect this answer.

2-37. Reference: Section L Part II, Paragraph 5.3.C, Page L-20.

Question: Do the phrases "contracts similar to this effort" in the first sentence and "those contracts cited above as directly applicable to the proposed effort" in the second sentence refer to the same set of contracts?

Answer: Yes. The RFP will be changed to clearly express this connection.

Is that set of contracts the same set as the "up to 2 contracts that best represent your related experience" referred to in Paragraph B, Related Experience?

Answer: Yes. The RFP will be changed to clearly express this connection.

2-38. Reference: Section L Part II, Section 5.4.A, 2nd paragraph, Page L-21.

This paragraph states: "You are required to submit IDIQ rates for estimating fixed priced delivery orders and cost reimbursement task orders. You are to propose a Not-To-Exceed fee rate for task orders."

Every organization has a unique Cost Accounting structure. Also, an organization might treat procured labor different from in-house labor. The schedule does not allow for these variations in such cost elements as G&A and Material Handling. Please clarify how these labor rate variations are to be presented in the proposal.

Answer: All labor rates for fixed priced ID/IQ work are to be proposed as bare labor rates without an allowance for indirect price elements such as G&A and material handling. The cost proposal instructions in Section L require that most indirect costs associated with fixed price ID/IQ work be proposed as a component of one or more of the ID/IQ pricing coefficients. Pre-established labor rates are intended to streamline or standardize the development of reasonable prices for fixed priced ID/IQ work or appropriate cost estimates for cost-reimbursable ID/IQ work; consequently, they do not treat in-house labor differently than procured labor. The appropriate labor burdens should be included for pre-established rates. Once the price is negotiated or a cost estimate is agreed upon, the prospective offeror may use either in-house or procured labor. Cost performance under cost reimbursement ID/IQ work will be subject to evaluation for purposes of award fee evaluation. The cost instructions in final RFP will be revised to reflect this answer.

2-39. Reference: Section L Part II, Paragraph 5.3.D, Page L-21.

Question: In the first sentence, why is the word "elsewhere" included? Is "elsewhere" to be interpreted as from anywhere other than JSC?

*Answer: Yes. Elsewhere means locations other than *JSC.*

2-40. Reference: Section L Part II, Section 5.4.A, 9th and 10th paragraphs, Page L-22.

These paragraphs state that, due to the price adjustment allowed under the FLSA and SCA, direct labor covered by this clause shall not be escalated and that this only applies to the IDIQ rates. We believe that the cited clause and restriction on escalation should apply to the rates for other annexes as well. Please clarify the applicability of the prohibition on rate escalation within the cost proposal.

Answer: The restriction on escalation under the Fair Labor Standards Act and the Service Contract Act applies to the fixed price portions of the contract. This would include Annex 6, Annex 7 and Annex 14. The cost/price proposal instructions in Section L of the final solicitation will be revised to more clearly delineate what prices should not include labor escalation.

2-41. Reference: Section L Part II, RFP Form 1, Draft RFP Pages L-32 and L-33.

Question: We understand that Page 2 of RFP Form 1 is a continuation of the form to be completed for each individual contract. Therefore, we do not understand why the columns "Prime Contractor or Team Member" and "Contract #" are repeated for every row instead of being provided once, perhaps on Page 1 of RFP Form 1, and applying to the entire contract being referenced. Please clarify the reason for requiring the repetition of these columns for each row of Page 2 of RFP Form 2.

Answer: The "Prime Contractor or Team Member" column and the "Contract Number" column will be deleted in the final RFP. Also Form 1 and 2 will be combined to better clarify the information requirement.

2-42. Reference: Section L Part II, RFP Form 2, Draft RFP Pages L-34 and L-35.

The header and caption on these pages identify them as being RFP Form 1, Page 2 of 2 and Past Performance Data, whereas we believe they are Page 1of 2 of RFP Form 2, Related Experience Data. Please correct the header and caption information on these pages.

Answer: The Government agrees. The final RFP will be changed to reflect this answer. Also Form 1 and 2 will be combined to better clarify the information requirement.

2-43. Reference: Section L Part II, RFP Form 2, Page L-36.

Question: This form requests "Variance classifications". What are the threshold values for variances that should be reported in this table?

Answer: This value does not have a threshold but includes all variances.

2-44. Reference: Section L Part II, RFP Form 3, Page L-38.

This form requests the Annual Salary of each person proposed as "Key Personnel". Salary data is normally provided in the Cost Proposal, and we request that this information requirement be removed from the form.

Answer: This will not be changed.

2-45. Reference: Section L Part II, RFP Form 3, Draft RFP Pages L-38 through L-40.

All three pages of RFP Form 3 have a header stating that they are RFP Form 2, Page 2 of 2. Please correct the header identification of these pages.

Answer: This will be changed in the final RFP.

2-46. General Question Section B: Several responses to questions identify Cost Reimbursable CLINs. However, the draft copy of Section B only had Firm Fixed Price (FFP) CLINs listed.
Question: Will there be a revised draft Section B listing FFP and CPAF CLINs? Please clarify.

Answer: The clause at B.5 entitled "Estimated Cost and Award Fee (NASA 1852.216-85)" captures in Section B the estimated cost of all cost reimbursable work. Other than Annex 13, no attempt will be made to capture in Section B the estimated cost of each cost reimbursable CLIN. Some pre-established cost values for labor and services likely to be acquired through issuance of task order(s) under Annex 13 are captured in Section B to serve as a basis of estimate for pricing ID/IQ tasks throughout the contract's period of performance.

2-47. B.3 (b) ID/IQ, Page B-1 references minimum and maximum quantities before an equitable adjustment can be made. **Schedule B** indicates that custodial and grounds have distinct quantities.

Question: Are these the minimum or maximum quantities?

Answer: Yes. For IDIQ work $200,000 per year is the minimum and $20,000,000 per year is the maximum. Annexes 7 and 14 define a fixed quantity of work. If any additional Custodial or Grounds Maintenance work is required, it will be acquired at pre-established Annex 6 Prices (reference Section B, B.8). Any reduction in Annex 7 or Annex 14 services would require a contract modification.

2-48. B.5 Estimated Cost and Award Fee (NASA 1853.216-85)(SEPTEMBER 1993), Page B-2. NASA has established that the base fee is $0.00.

Question: Is NASA establishing the base fee as zero (thus establishing $0.00 as the only fee that can be earned through the award fee), or is this a typo?

Answer: NASA is establishing a base fee (fee that is earned regardless of performance) of zero. This is being done to make the entire award fee subject to the performance evaluation.

2-49. B.8 Pre-established Annex 6 Prices, Pages B-15 through B-18 do not specify quantities.

Question: Where are the quantities and definitions of work to be done located in the Statement of Work for the priced items identified in paragraphs 6.6.3.2.2 through 6.14.3.9?

Answer: B.8 identifies the items for which the Government is requesting prepriced values. These values will be used when the Government purchases one or more of these items at those pre-priced values. The Government has not established quantities it will purchase from this area. The definitions for each B.8 line item are identified in each appropriate annex which is found by removing the initial number 6 (e.g. 6.6.3.2.2 definition is found in CLIN 6.3.2.2). The RFP will be changed to reflect this answer.

Question: What are the estimated minimum and maximum range quantities the Government will order?

Answer: The Government has not established quantities it will order from this area.

Question: Is B-8 a listing of IDIQ-priced items? If so, where are the performance requirements located for each item to be priced?

Answer: Yes, the listing is of IDIQ-FFP items. The definitions for each B.8 line item are identified in each appropriate annex which is found by removing the initial number 6 (e.g. 6.6.3.2.2 definition is found in CLIN 6.3.2.2). The RFP will be changed to reflect this answer.

2-50. B.9 Pre-established Annex 13 Cost Values, Pages B-19 through B-25.

Question: Where are the quantities and definitions of work to be done located in the Statement of Work for the priced items identified in paragraphs 13.2.4 through 13.6.4.18?

Answer: The types and quantities of UE work that will likely be ordered under Annex 13 are identified in the SM Database, located in the TRL.

2-51. B.8 and B.9 (see above for titles and pages)

Question: Is workload data included in the SOW, or in the TRL?

Answer: There is no workload data associated with these additional IDIQ requirements.

Question: If in the TRL, what is the document reference?

Answer: None.

2-52. B.10 Fixed Bare Labor Rates (for use with Annex 6), Pages B-26 through B-35 and B.11 Pre-Established Loaded Labor Rates (for use with Annex 13), Pages B-36 – B45.
Annex 6 IDIQ rates are based on bare costs, while Annex 13 uses loaded labor rates through price.

Question: Why is there a difference in rate basis?

Answer: Since the estimated value of Annex 13 tasks will not be established using Annex 6 pricing coefficients, it is reasonable to fully burden the pre-established labor cost values that will serve as a basis of estimate for those tasks. The estimated cost of each task order provides a basis against which the contractor's cost management of that task can be evaluated during award fee evaluations. Each task order represents a cost-reimbursement, completion form requirement. While each offeror shall propose a maximum fee rate for Annex 13 tasks, the actual fee negotiated for a particular task may be substantially lower than the maximum Annex 13 fee rate. The actual fee negotiated for a task should be commensurate with the actual risks assumed by the contractor when performing task requirements. Generally, material purchases involve minimal contractor risk and fail to justify fee at the higher end of the allowable range.

Question: Does the coefficient apply to Annex 6 only?

Answer: Yes.

Question: Are the rates for Annex 13 to be used for a T&M type basis?

Answer: Annex 13 does not attempt to acquire services on a time and materials basis.

Question: If Annex 13 is to be used on a Time and Materials (T&M) basis, how should material costs be handled?

Answer: It is not to be used on a Time and Materials basis.

Question: If Annex 13 is to be used on a cost reimbursable bases (rather than T&M), is profit on material allowed?

Answer: No.

2-53. B.12 Coefficient Factors – Annex 6 IDIQ Work, Page B-51 lists specific coefficients to be used in the contract.

Question: Are these coefficients to be used for Annex 6 only, or can they to be applied to other annexes as well?

Answer: All of these coefficients apply to Annex 6 and the material and subcontractor coefficients apply to Annex 13 also. The final RFP has been changed to reflect this answer.

Question: Is the coefficient to be based on R.S. Means cost data?

Answer: The appropriate coefficient shall be applied to the R.S. Means cost data. The coefficient shall be based upon CLIN 6.1.4.

2-54. 1.1.2.a Facilities, Page C1, 1 has been changed to allow approved facility changes at no cost to the contractor.

Question: Should Clause 1.1.2.b Land also be changed to mirror the revised clause 1.1.2.a?

Answer: Yes. The RFP will be changed to reflect this answer.

2-55. 1.5 Installation Accountable Government Property, Page C1, 12 establishes a $5,000 per occurrence limit.

Question: Does this amount include overheads, G&A, and Fee, or just bare cost of labor and materials?

Answer: The $5,000 is the bare cost of labor and materials.

Question: Are these types of repairs fee-bearing?

Answer: The award fee applies to this area of the contract.

2-56. 1.5.5.c Contractor Qualifications, Page C1, 2.

Question: Will the Contractor be allowed to conduct their own training for Forklift Operator per 29 CFR 1910-178, NSS/GO-1740.9B and JSC 1700D?

Answer: Yes.

2-57. 1.6.1 Quality Control (QC) Program, Page C1, 12 Establish and submit quality objectives needed to meet contract requirements for products/services for all contract requirement functions and

levels within the Contractor's organization. Additional emphasis shall be placed on those "high visibility" areas identified below.

Question: What is the definition of 'high visibility"?

Answer: High visibility areas are those that the Government has deemed to be essential to the JSC mission.

2-58. 1.6.1 Quality Control (QC) Program, Page C1, 14. By the 15th of each month, measure and report QC program performance, customer satisfaction metrics, and "high visibility" area metrics. "High Visibility" metrics are Safety, Special Events, Work Control Center, Service Orders, CMMS, Environmental Services, Maintenance and Repair, Equipment Accountably, Supply, Operations, Custodial, Engineering, Transportation, and Grounds. Establish a system to act upon customer feedback and metrics to effectively improve delivered products and services.

Question: What is the definition of "high visibility"?

Answer: High visibility areas are those that the Government has deemed to be essential to the JSC mission.

2-59. 1.6.1 Quality Control (QC) Program, Page C1, 14. The Performance Evaluation Criteria states the following: "QC Program meets the QC Plan and contract requirements. QC Program is compliant with ISO 9001-2000." In order to receive and continue to maintain ISO 9001-2000 certification, the contractor's Quality Management System (QMS) is audited initially and on a regular basis by the contractor's ISO 9001-2000 registrar. If the contractor receives and maintains ISO 9001-2000 certification of its QMS, an independent party has determined that the contractor's performance in maintaining the QMS meets the requirements of the ISO 9001-2000 Standard.

Question: Since the QMS is audited and certified by an independent party, is the Performance Evaluation Criteria for 1.6.1 that states "QC Program is compliant with ISO 9001-2000" a duplication of effort by the Government?

Answer: No, the performance evaluation criteria simply states what the contractor must perform to successfully meet the contract requirements. It does not state who will perform the surveillance.

Question: What value does the ISO 9001-2000 certification add to the contractor if the Government is going to evaluate the QMS also?

Answer: Evaluation of the contractor's Quality Management Program is different from the required third party audit for the purpose of registration certification. The Government performance evaluation is to ensure that the contractor adheres to the approved third party registration certification obtained by the contractor.

Question: Who does the contractor respond to if the performance of the contractor in maintaining the QMS is deemed acceptable by the ISO 9001:2000 registrar and is deemed unacceptable by the Government?

Answer: For registration certification purposes the contractor would respond to their independent third party auditor. The Government performance evaluation is to ensure that the contractor adheres to the approved third party registration certification obtained by the contractor.

Question: If the Government is going to determine if the contractor's QMS is compliant to ISO 9001-2000 requirements, what qualifies the Government to perform the assessment of the QMS?

Answer: The Government is not performing an assessment of the contractor's QMS similar to the registration audit. A third party auditor would make this determination. The Government performance

evaluation is to ensure that the contractor adheres to the approved third party registration certification obtained by the contractor.

Question: Is the Government certified to perform assessments of the contractor's QMS?

Answer: The Government performance evaluation is to ensure that the contractor adheres to the approved third party registration certification obtained by the contractor. It is not to be confused with the independent third party audit assessment.

2-60. 1.6.4 Continuous Improvement Program (CI), Page C1, 15. Provide the appropriate level personnel with expertise in the subject matter to participate on Continuous Improvement Teams for the purpose of developing a solution for continuous improvement when chartered. NOTE: Duration of a single team may range from four to six months. Personnel participation per team may range from two to three persons, 4 hours per week.

Question: If the Contractor is required to support JSC's Continuous Improvement Program (CI), what processes will the Program target for improvement (e.g., Contractor processes, NASA processes)?

Answer: The program will normally target NASA processes but may target areas such as safety that cross both the Government's and contractor's processes.

2-61. 1.7.1.c). Safety and Health Program, Page C1, 15. The definition of the LWDC Severity Rate does not appear to meet recognized standards. As stated, it requires the number of days in the current contract year, and the prior contract year, but only divided by the number of man-hours of the current calendar year. This is not an accurate way to calculate the severity rate. The work hours used in the calculation should be consistent with the period of time during which incident causing the lost days occurred. If the prior contract year days away are used in the calculation, then the prior contract year work hours should also be used. The National Safety Council Accident Prevention Manual defines the severity rate as the Number of lost workdays, multiplied by 200,000 divided by "total hours worked by all employees **during the period covered**." That does not include the year before.

Question: Please clarify the JSC method, to explain why it differs from the method used by recognized safety organizations.

Answer: JSC measures lost day severity rates by counting all days away accrued from current year cases and those from cases that occurred in past years. Active cases from prior contract years that continue to accrue days away in the current year are counted. The formula shown is correct but here is an amplification for clarity: Severity rate = days away in the current year from cases in the current year plus days away in the current year from cases that occurred in past years multiplied by 200,000 and divided by the total hours worked in the current contract year. (JSC uses fiscal year values but the Government will use contract year values for this evaluation.)

2-62. 1.12.5.f. Environmental Training, Page C1, 23. Provide visible emission observer training and certification sufficient to ensure that there is a certified observer available on-site when equipment that may have visible emissions are started or on other occasions when readings are required. The certification is the "Visible Emission Evaluator Certification" from the Texas Natural Resource Conservation Commission, Operator Certification Section.

Question: Will this require to have personnel physically present to monitor emergency start up for equipment as well?

Answer: No. The Federal EPA Title V and TNRCC equipment opacity observation requirements states that readings are required when smoke is present. This includes (but is not limited to): (a) initial startup of any new source, (b) once per year for all stationary vents, and (c) whenever any source is operated on liquid fuel for 24 consecutive hours.

2-63. DRD "Safety and Health Plan" Section 2.2.1. Requires "A 'wall to wall' comprehensive engineering assessment of the work site including facilities, equipment processes, and materials (TNRCC/EPA solid and hazardous, radioactive, explosives, medical-infectious-biological.)" This is a major requirement: a wall to wall assessment of JSC would have to be staffed by safety, health, and environmental professionals, and could take substantial resources to complete.

Question: Please clarify this requirement, which is now somewhat buried in the Safety and Health plan requirements. Shouldn't such an undertaking be included as a CLIN?

Answer: This requirement applies to the contractor's work site, which includes the Government furnished facilities, and the immediate vicinity in which a work task will be performed. How this requirement will be met shall be described in the safety and health work plan which is why the requirement is located in the DRD. The RFP will be changed to reflect this answer.

2-64. 2.1.5.b. Facilities (F), Page C2, 2. A facility is an enclosed structure to protect personnel, material, or equipment from the elements and to provide associated work or storage space. A facility includes the utility systems inside the facility to a point of interface as defined in Section J, Attachment N, Exhibit N-1. The facility is defined to extend to five feet from the facility on each utility system or as otherwise defined.
(1) Civil (C): Includes roll-up and automatic doors, domestic hot water, potable water, sanitary and storm sewer, natural gas, fire protection water, roofs, doors, windows, flooring (coatings and coverings), stairs and stairwells, interior walls, ceilings, and partitions, **foundation**, structural system, building shell, **including Pre-cast Exposed Aggregate Faced (PEAF) panels**, external attachments such as walkway covers, overhangs, barge and loading docks.

Question: Does this mean the repair or replacement of these structural systems will be included in the contract?(Note: B-37 Slab North side is in great need of repair)

Answer: Yes. The repair or replacement of structural systems is included in the contract.

2-65. 2.1.7 Restrictions, Limitations, and Special Conditions, Page C2, 3. All personnel performing maintenance and repair work within any ***JSC** facility shall sign in and out on the Facility Managers building work log. Sign in/out is required for occupancy/evacuation purposes and shall be done for each separate activity even if performed on the same workday.

Question: What about buildings that do not have Facility Manager sign in logs?

Answer: To the extent that the Facility Manager decides to make use of a sign-in/out log the contractor is required to fill it out.

Question: Who will provide these logs?

Answer: The Facility Manager.

Question: Who will maintain the logs themselves?

Answer: The Facility Manager.

2-66. 2.2.2 Accomplish Scheduled Maintenance, Page C2, 4. Accomplish all UE, UE/JA, SFUSS, and IAGP maintenance tasks in the SM database. Tasks shall be performed within the windows specified in Table 2-2 for each applicable maintenance frequency. Ensure performance of the PM tasks in the SM Database Maintain HVAC equipment and systems free of mold, mildew, fungus, algae, and other biological growth to ensure indoor air quality meets current ASHRAE recommendations. Provide outage/operation support for maintenance work.

Question: Do all systems currently containing mold need to be cleaned to be free of said mold by the beginning of the contract?

*Answer: No. Mold cleaning is accomplished as it is found and the scheduled maintenance is designed to prevent the start of mold. Therefore, it is not expected that *JSC will be mold free at the start of the contract.*

2-67. 2.2.2 Ensure Performance of the PM tasks in the SM Database, Page C2, 4. Maintain HVAC equipment and systems free of mold, mildew, fungus, algae, and other biological growth to ensure indoor air quality meets current ASHRAE recommendations.

Question: What is the current condition of the HVAC equipment?

Answer: The answer to this question does not impact contract requirements since the contractor is being given a prescribed scheduled maintenance program that it must perform independent of the current conditions.

Question: What is the amount of total linear feet of HVAC duct in the TRL?

Answer: The Government does not have the answer to this question.

2-68. 2.2.3 Equipment Inventories & Database Update – Verify/Validate an accurate CMMS Equipment Database, Page C2, 4. Conduct two comprehensive physical field inventories of all equipment in the ****SM Database**. One inventory within 90 days of contract start, including re-labeling and bar coding the equipment. Conduct a second inventory 42 months after contract start. (Year 1 and Year 4 of contract). There are approximately 12,600 items in the database.

Question: Do these quantities reflect all buildings (e.g., Buildings 56, 211, and 921)?

Answer: Yes. The RFP will be changed to reflect this answer.

Question: Does the total number of items include all equipment at SCTF and Ellington Field?

Answer: Yes. The RFP will be changed to reflect this answer.

2-69. 2.3.1. Repair Equipment and Systems identified in the SM Database, Page C2, 6. Ensure accurate repairs. Perform all repair work required for systems, equipment and components identified in the ****SM database**. a. For all equipment in the **** SM Database**: If repairs are anticipated to exceed 66% of the replacement cost of the equipment, notify the Maintenance and Repair ***TMR** for direction or authorization to replace the equipment. b. For equipment not included in the ****SM Database**: Repairs for this equipment will be accomplished by Task Order/ IDIQ as specified in Annex 13. Provide outage/operation support for repair work. NOTE: Response and Repair times are defined in Table 2-1.**** Workload History**

Question: Does this include equipment with a cost under the package factor? (For example, a window unit costing 350$ - 400$.

Answer: Yes, it includes all equipment.

Question: Does the contractor need TMR permission before making a decision to replace instead of repair such equipment?

Answer: Yes.

2-70. 2.3.2 Non-Specified Equipment Emergency Response, Page C2, 7 establishes $500 as the threshold for approval.

Question: Does this cost include overheads, G&A, and Fee, or just the bare cost of labor and materials?

Answer: It is bare cost of labor and materials. The RFP will be changed to reflect this answer.

Question: Are these types of repairs fee-bearing?

Answer: The award fee applies to this area of the contract.

2-71. 2.3.3 Critical Spare Parts Management, Page C2, 7. Ensure Availability of Correct Spare Parts for Critical Equipment Provide all necessary program analysis, field validation, technical research, analysis, failure rate determination, life cycle forecasting, and critical parts determination for critical equipment. The contractor shall recommend to the Government, the critical spares that need to be purchased for all new equipment or equipment that has changed in criticality of use. When equipment is removed from ***JSC** the Contractor shall recommend changes to the critical spares system. All approved critical spare parts will be procured, received, and warehoused according to Annex 10. Note: The current Critical Spares Catalog includes 3540 line items.

Question: Has this been done in the past?

Answer: The contractor will be expected to comply with contract requirements notwithstanding performance on any previous contract.

Question: How detailed are the records?

Answer: The records are computerized listings and are detailed to the extent needed for the Government's use.

2-72. 2.4 Maintenance Activation Program, Page C2, 7. Ensure a seamless transition from construction work to site Maintenance and Operations responsibility. Develop and implement a Maintenance Activation (MA) program to ensure that all necessary changes to the ****SM database** are made. The changes shall be made whenever required due to the following: Installation of new equipment as part of Repair, Service Orders, or work estimated to cost under $200,000. MA for IDIQ work estimated to cost greater than $200,000 shall be priced per IDIQ in Annex 6. Note: This can be either new capability equipment or replacement equipment. Note: New equipment installed by delivery order shall be added to the ****SM Database** during the quarterly equipment reconciliation. Changes identified through application of maintenance actions, manufacturer's maintenance change bulletins, configuration changes, etc. Changes identified through the application of the JSC Reliability Centered Maintenance analysis program. Tasks in the program include but are not limited to the following:
Ensure correct Scheduled Maintenance Task Instructions are assigned/written, Government approved and added to **the ****SM database** and the equipment is accurately input. Ensure that the task instructions maintain the manufacturer's warranty in full effect for its scheduled duration. Update ****SM database** within 14 days of receipt of approved changes.

Question: Will the DO estimate need to include the PM cost until the end of the contract?

Answer: The scheduled maintenance tasks are written under CLIN 2.4 and the scheduled maintenance tasks are performed under CLIN 2.2. No PM costs are to be included with the DO estimate.

2-73. 2.5 Warranty Program, Page C2, 9. Develop and maintain a warranty program. Develop and maintain a warranty program for warranties received for the Government that includes, but is not limited to the following areas: all warranties for facilities, structures, utilities, construction, and equipment that have been transferred to the property accounts of the Government regardless of the source of the warranty.

a. Administer the warranty program. For construction projects, the normal warranty period is 1 year from the beneficial occupancy date (BOD). The warranty period for some items (typically landscape planting) will be less and others (termite protection, roofs, metal wall panels and certain equipment, etc.) will be longer. Warranty information will be provided on or near BOD and shall be maintained in the TRL for all contractor originated work. Data fields shall be established and updated in the CMMS to track facilities or equipment under warranty.

b. Identification of warranty and warrantor notification. When an anomaly or discrepancy condition is identified on a newly installed item, the Contractor shall determine if a warranty is in effect. If so, the Contractor shall notify the warrantor and request corrective action. Notification may be by telephone, but shall be confirmed in writing, with a copy provided to the CO. If a warranty discrepancy creates an emergency or priority condition, the Contractor shall correct the emergency or priority condition without regard to warranty provisions.

Question: Equipment under warranty is typically not in the contract. Does the contractor absorb the cost of this repair that will void the warranty?

Answer: No. This is a cost reimbursable contract.

2-74. 2.7 Reliability Centered Maintenance, Page C2, 11. Perform one (1) RCM Analyses per quarter for each year of the contract. Systems, equipment, or components shall be selected as specified in the RCM Guideline or as directed by the Government.

Question: The resources to build RCMs may require outside assistance. Can all four RCMs be done in the first quarter of a given year?

Answer: No. The systems that will be analyzed may not be selected at the start of each year.

2-75. 2.8.1 Personnel Requirements, Page C2, 11. Provide Qualified Personnel Provide personnel who meet the following education or experience criteria. See Annex 1 Equivalent criteria may be submitted through the Maintenance and Repair * **TMR** for approval. Personnel directly supervising individuals with maintenance and repair responsibilities shall successfully complete all education or experience required for the individuals they are supervising.

Question: To what level does this apply?

Answer: It shall be through the superintendent, foreman, and etc. type level.

Question: Is this for foreman and general foreman or does this include management such as superintendent?

Answer: It includes all of the above.

2-76. 2.8.7 PT&I Personnel Requirements, Page C2, 13. A manager of the Thermography program shall maintain an American Society of Nondestructive Testing (ASNT) Level III Certification.

Question: There are only 3 sanctioned Level III Thermographyers in the state of Texas (per Gary Strahan, the State's leading Thermograher. # 713-859-3599). Given this situation, is this level required?

Answer: No. The contract will be changed to reflect that the manager must be a Level II Thermographer.

Question: What activities will require Level III certification?

Answer: See the answer to the first part of question 2-76.

2-77. 2.9.1 User Equipment Maintenance Report, Provide Monthly PM Report, Page C2, 15. Prepare and submit a report listing the preventive maintenance performed for each **user in the PM program purchased by DO**. Submit to the M & R (***TMR**) by the 10th of each month. The report shall cite the DO, task instruction number, title, and completion date of each task, sorted by User organization.

Question: Does this refer to each user (there could be hundreds), or to each user organization?

Answer: This refers to the preventive maintenance tasks performed for each user and the report is sorted by the user organization. The number of people who are authorized to order this type work is limited and does not approach the numbers mentioned in this question.

2-78. Table 2-1, Following Page C2, 15

Question: How should submitted repair plans include response timeframes?

Answer: The date of scheduled work performance shall be provided.

Question: What are valid technical reasons for disapproving repair plans?

Answer: Failure of the contractor to start work promptly or procure parts in a timely manner are examples of reasons for disapproval.

2-79. 4.2.1.2.1.b Operations Information, Building 48 Power Systems, Page C4, 7. Provide continuous certified operator and Operations Engineer support regardless of engine status during all engine runs and *mission period.

Question: Is it the intent of NASA to have a qualified Operations Engineer on duty 24/7 in the event that diesel generators are required for weather support?

Answer: No. The final RFP will be changed to reflect this answer.

2-80. 4.2.1.2.2.a Standing Work, Shuttle Mission and International Space Station Support, Page C4, 10. Provide a Contractor Alternate COD Mission Manager to perform the duties of the NASA COD Mission Manager during the latter's absence. See **Mission Manager Training Book. These duties include but are not limited to: The Mission Manager Training Book is not available in the TRL.

Question: How often is it anticipated that a contractor Alternate Mission Manager will be required?

Answer: This requirement is for each mission, which is listed as six missions. The number of days required for this substitution for the NASA mission manager is shown as 30 days.

Question: Who will provide the training and qualification?

Answer: The successful offeror per the mission manager training book to be provided in the TRL.

Question: What are the prerequisites?

Answer: The mission managers shall be operations engineers with the qualifications as shown in CLIN 4.2.4.c.

2-81. 4.2.1.6.1b, Performance Requirement, PageC4, 41, Paragraph 1

Question: How much time will be provided to transition from the existing 600+ alarms to the "no EMCS alarms older than 5 workdays"?

Answer: The existing contractor will be required to mitigate all existing alarms before the beginning of the new contract.

2-82. 4.2.1.6.1b, Performance Requirement, PageC4, 41, Paragraph 4

Question: Is the COSS responsible for maintaining an audit trail related to Honeywell's EBi hardware and software activities?

Answer: Under this CLIN the COSS contractor is responsible for hardware audits but not software activities. The COSS contractor will maintain an Access database of the changes or problems to Ebi hardware and software.

2-83. 4.2.1.6.1b, Performance Requirement, PageC4, 41, Paragraph 7

Question: When does the 1 hour limit for points being tagged out begin?

Answer: It begins at the time the equipment is placed out of service.

2-84. 4.2.1.6.1c, Performance Requirement, PageC4, 43

Question: Will the COSS be required to purchase software not provided by the transition to the new contract, such as the Honeywell "CARE" system?

Answer: Yes. The RFP will be changed to reflect this answer.

2-85. 4.2.1.6.1d, Performance Requirement, PageC4, 45, Item 1, Paragraph 1

Question: Will Honeywell provide COSS access to the EBi server to make graphic screen changes, or is the COSS to provide the information to Honeywell?

Answer: No. COSS will not be allowed access to the server but shall have personnel trained in the graphics software. COSS shall make graphic changes and give them to Honeywell for transfer to the server.

2-86. 4.2.1.6.1d, Performance Requirement, PageC4, 46, Paragraph 10 "Make all EMCS databaseand programs available electronically for Government access on a continuous basis."

Question: Does "all EMCS databases and programs" include all applications software and programs loaded into field equipment, such as Liebert AHUs, PLCs, Metasys NCUs, Ports, DX-9100s and UNTs, and Honeywell XL-500s?

Answer: Yes. The Government requires access to the databases on a continuous basis and requires access to the field equipment programs on an as desired basis (e.g. The Government would expect to be able to view the Metasys system from the Metasys workstations or any other workstation that displays Metasys software).

2-87. 5.2.b. Scope of Work, Page C5, 3. It appears that the importance of the SOW is diminished if an SOW is required in 28 days for projects of less than $2500. It would seem logical that larger projects(>$2500) will require more time to develop an SOW than smaller projects.

Question: Please explain the purpose of the SOW for smaller and larger projects.

Answer: The SOW is used to provide a description of the facilities work to the site customer that requested the work.

2-88. 5.3. Engineering Designs, Page C5, 5.

Question: In the 0 - $2500 Construction Cost category, is a full design really needed, or will a simple sketch do?

Answer: The contractor shall provide the amount of drawings or sketches necessary to meet the requesting customer's facility modification requirement.

2-89. 5.8.4.c Construction Updates, Page C5, 11. "Accurate preliminary drawings are provided electronically within 1 day of government approving final design." The Government's previous response

to question on paragraph 5.3.1 was "The Government will not review and approve all design drawings. The phrase "final approved design drawings" refers to the final design package approved by the contractor and funded for construction".

Question: Is this a different situation? Please explain.

Answer: Yes. This CLIN refers to design for furniture moves. The government will approve these designs.

2-90. 5.8.4.d. Family Housing Plans, Page C5, 12. "Assign room numbers due to the addition of a new building at 60% design completion". Normally new buildings are designed by an A & E firm managed by NASA.

Question: Are new building designs going to be provided to the COSS contractor at 60% so room numbers can be assigned?

Answer: Yes.

2-91. 6.1.3.a IQ DO Ordering and Proposals, Page C6, 1.

Question: Is there a minimum dollar value on the subcontract bids to be submitted?

Answer: The contractor shall determine the price reasonableness of all subcontractor or vendor quotes that are based upon subcontractor quotes regardless of the value of each subcontract. If the contractor has an approved purchasing system, the documentation shall comply with its approved system. Otherwise, to the extent the lowest quote serves as the basis of estimate for Annex 6 work, the Government will accept three competitive vendor quotes as an adequate basis for the contractor to determine price reasonableness.

Question: What is meant by "necessary documentation to indicate there is adequate engineering"? Isn't this a design or client function?

Answer: The Government requires a sketch or written document describing the work that the estimate was based upon. The final RFP will be changed to reflect this answer.

2-92. 6.1.4.1.6 Means Cost and Non Pre-Priced Work Coefficients, Page C6, 2. The solicitation requires the offeror to submit a coefficient requiring lockout/tag-out field verification to be put in as part of the coefficient. This effort is normally a direct charge.
Question: How much lock-out tag-out time is done each year?

Answer: The Government does not have this information.

Question: Is this cost for the administration of the program, and not the actual cost to perform the function?

Answer: The coefficients shall include the cost for both the administration of the lock-out, tag-out .program and the cost of the actual lockout/tagout work.

Question: Please clarify the Governments intent. Is this an allowable direct cost?

Answer: No, because it is included in the coefficients.

2-93. 6.1.4.1.a (6), Means Cost and Non Pre-Priced Coefficients, Page C6, 2.

Question: These two activities, lockout and verification, require direct cost(man hours) to perform. Why is this part of the coefficient?

Answer: The Government has decided to do it in this manner.

2-94. 6.1.4.3 Materials and Equipment Rental (MER) Coefficient, Page C6, 2.

Question: Can the estimating program handle multiple coefficients for a single line item? If not, the line item would have to be manipulated, in essence altering the normal program function.

Answer: Yes. WinEst version 3, through the current version, will allow a user to customize the setting in the software to allow the program to handle multiple coefficients for a single line item. WinEst reportedly will also set up a user's version to do this without having to make any setting changes.

2-95. 6.1.4.4 Cost-Estimates for Unit Price Book (UPB) Work, a, Page C6, 2. The basis for the Contractor's cost-estimate shall be the prices published by the R.S. Means Company, Inc., herein after referred to as Means. Means Publications are available from the following source: R.S. Means Company, Inc., 100 Construction Plaza, P.O. Box 800, Kingston, MA 02364-0800, Telephone: 1-800-448-8182. Estimates and proposals shall be based on the edition of the R.S. Means Cost Data Publications current at the time of contract award and the respective quarterly updates. The Means Facilities Construction Cost Data, **and the Means Facilities Maintenance and Repair Cost Data Publications shall be used for construction and maintenance and repair respectively.** The Means Cost Data shall be used to determine the required trades, labor hours, materials (type, quantity, and base price), and the equipment type usage and price necessary to submit a detailed cost proposal to the Government. The Government will only be obligated to pay the lowest price derived from the various pricing methodologies described in this Annex.
Question: Will this effect the bidding of user equipment, for maintenance purposes, or will the equipment still be considered Non-Prepriced?

Answer: User equipment will be proposed per annex 13. The successful offeror shall use the task ordering procedure specified in that annex.

Question: This appears contradictory to the pricing hierarchy as stated in 6.1.5. Please explain intent.

Answer: The Government does not understand your comment.

2-96. 6.1.4.6 Subcontracted Services, Page C6, 3.

Question: Are there any provisions for a subcontractor who cannot/will not provide a bid with the break out "materials and other"?

Answer: Yes, the COSS contractor shall apply the MER coefficient to the entire subcontractor quote(s) per CLIN 6.1.4.6.

2-97. 6.1.5 Pricing Information, Page C6, 4. The Government may furnish any materials associated with work in an RFP. When furnished, the Contractor shall not include any cost for such materials in its proposal. The Contractor shall also not apply a coefficient factor to any Government-furnished materials.

Question: Does this include all user groups?

Answer: Yes.

2-98. 6.1.5.(4), Price using Subcontract Prices, Page C6, 4. "if the Contractor subcontracts a pre-priced item, the Government will pay the lower price of either the subcontract value or the pre-priced value". Annex 6 is FFP, not cost reimbursable. If the contractor finds a more efficient way of doing a job, they are usually entitled reap benefits. It appears, however, that NASA will not allow the contractor to reap the benefits of their own efficiencies.

Question: Is this the Government's intent?

Answer: All Annex 6 ID/IQ proposals that use subcontractor or vendor quotes as a basis of estimate shall demonstrate price reasonableness. However, notwithstanding any other determination of price reasonableness, for purposes of proposals to be submitted under Annex 6, no vendor or subcontract quotes that exceeds one or more pre-established contract prices shall be considered as reasonable.

Question: If the subcontractor costs more than the pre-priced item, does the contractor get an equitable adjustment upward?

Answer: No. The contract ensures that the Government benefits from the best prices proposed by the Contractor without preventing the contractor from reaping the benefits of any additional efficiencies it achieves beyond what it proposed initially.

Question: What provisions will be made if pre-priced work is required to be performed during other than normal work hours?

Answer: None. Your prices should account for this possibility.

2-99. 6.1.6.1, Daily Inspections, Page C6, 4.

Question: Will the daily inspection be performed in a reasonable amount of time? Please define the response time for third party inspection?

Answer: Given that each facility modification is different the Government can not give a standard specified time that is to be considered reasonable.

2-100. 6.1.6.2, Inspection Notification, Page C6, 4.

Question: Please define the time limits for reasonable acceptance. Is it 5, 10, 30 or more days?

Answer: Given that each facility modification is different the Government can not give a standard specified time that is to be considered reasonable.

Question: What is defined as reasonable ?

Answer: A time period in which the contractor can still perform per the contract requirements.

2-101. 6.1.6.3, Acceptance, Page C6, 4.

Question: Can the contractor progress bill for work accomplished and be paid for all construction work while waiting for maintenance activation to be completed?

Answer: Maintenance activation must be complete before final acceptance and any payment is made by the Government.

Question: Will the Government hold money in retainage?

Answer: See above answer.

Question: If so, what is the percentage or amount?

Answer: See above answers.

2-102. 6.1.6.3 Acceptance, Page C6, 4. The IDIQ ***TMR** will perform acceptance. The CO may designate a different Government Agent as the authorized representative. The Contractor shall be notified by a written notice or by a copy of the delegation of authority if a different representative is designated. The acceptance of IDIQ work will be based on whether the completed work satisfies the design SOW,

final design package, and performs to meet the customer's requirements. **Maintenance activation, when applicable to a DO, shall be completed before the Government will make final acceptance.** Question: Will a newly installed piece of equipment require an excepted maintenance program and task before job is considered complete and payment is made?

Answer: Yes.

Question: Will this hold true even though there may be a 1 year warranty period for the piece of equipment that has been installed?

Answer: Yes. The warranty period has nothing to do with performance of Maintenance Activation.

2-103. 6.2 Service Orders, Pages C6, 6 through C6, 10. Service Orders are listed as an IDIQ item in Annex 6, but do not have a CLIN number in Section B.

Question: What are the Service Order sizes?

Answer: Service Order count, sizes and response times are found in CLIN 6.2.2.

Question: What are the response times?

Answer: Service Order count, sizes and response times are found in CLIN 6.2.2.

Question: Are Potential Service Orders FFP or Cost Reimbursable?

Answer: "Potential Service Orders" is not a term used in this contract. Service Orders under this contract are firm fixed price.

Question: Are Service Orders only to be priced using bare costs with no Profit, G&A or other overheads allowed, or is the price of a Service Order to include profit and the associated overheads?

Answer: Service Orders are only to be priced using bare costs per CLIN 6.2.2.

Question: Are Service orders to be priced as a pot of money to be drawn against, or will they be ordered by a Delivery Order?

Answer: They will be ordered in groups as needed using Delivery Orders.

Question: What is the mechanism for ordering Service Orders?

Answer: They will be ordered in groups as needed using Delivery Orders.

Question: How does the contractor get paid for Service Orders (since they are IDIQ)?

Answer. The Government will allow the contractor to bill each month for those Service Orders that are completed and accepted.

Question: Is profit to be placed on the top of the maximum amount of the Service Order, or is the contractor to assume some liability for the Government maximizing the value of the Service Order.?

Answer: The price of a Service Order includes only bare cost. This pre-priced value is what the contractor will receive. The Delivery Order purchasing the Service Orders is not to have any added costs.

Question: At what point does notification occur when a Service Order is expected to exceed the value and become a roll-over?

Answer: The contractor shall notify the Government as soon as it discovers that the requested work will exceed the value of the Service Order. See CLINs 6.2.1.4 and 6.2.1.5.

Question: Is a 75% notification limit required?

Answer: No.

2-104. 6.3.1.5 Records, Reports, and Submittals, Page C6, 11. The index of IQ Construction Support Service Data Requirements could not be found in the TRL.

Question: Where are they located?

Answer: A new copy will be put in the TRL.

2-105. 6.3.2.2 Miscellaneous Construction Services, Page C6, 12.

Question: What are the estimated annual quantities of the listed services (a-p)?

Answer: The Government has not established quantities it will purchase from this area.

Question: Are other requirements, standards and/or clarifications available for these items? An example is item h or i.

Answer: All data available on these items is in the TRL under the item called Miscellaneous Construction Services Data.

Question: Should this pricing include any provisions for electrical or mechanical items in wall, and to what standard?

Answer: The offeror should price only those items called out in the Miscellaneous Construction Services Data located in the TRL.

2-106. 6.3.2.3 Erect and Dismantle Scaffolding, Page C6, 13.

Question: Is this a scaffolding support service for NASA or NASA contractors?

Answer: It could be for whomever NASA chooses.

2-107. 8.1.9.2 – Server-based Storage for General Web Applications, Page C8, 2

Question: Will the contractor be permitted to maintain and manage its own internal web server for web-based applications and databases within the Government's intranet?

Answer: Yes. The contractor will be allowed web space provided they follow policy guidelines including: NPG 2801.1, Security of Information Technology, JPD 2800.4, IT Program Management, and JPD 2800.1A, JSC Information Technology Policy.

2-108. 8.8.3 – CGM Viewing Support/Facility drawing database, PAGE C8,10

Question: What is a GMG File?

Answer: The GMG reference was a typo and should be CGM. A CGM file is a Computer Graphics Metafile.

2-109. 8.10.1 - NEMS System Scanning, PAGE C8, 13.

Question: What type/size of documents will be scanned in support of COD?

Answer: The documents to be scanned can be scanned on a standard flatbed scanner. CLIN 11.2.2.b identifies the documents to be scanned, which are located in the TRL.

Question: How many additional document types does the Government expect to add in addition to the 50,000 documents in CLIN 11.2.2?

Answer: None.

Question: Does the Government expect the new scanning work to be performed under CLIN 11.2.2?

Answer: Yes, all scanning is performed under Annex 11.

2-110. 9.1.1. Annex Description, 2nd Column, 6th Paragraph, Page C9, 1. In the event that an authorized Federal, State, or Local authority assesses a monetary fine or penalty against the Government for violations of environmental, health, or safety laws, regulations, or requirements caused by Contractor negligence or failure to comply with the contract terms and conditions, the Contractor shall reimburse the Government for the amount of that fine and all other Government-incurred expenses. Government incurred expenses, include, but are not limited to, all actual, direct and indirect costs incurred by the government, (e.g. personnel time expended in gathering information and preparing responses, copying, application fees, travel expenses, development of presentation materials, mail delivery costs), negotiations to final settlement, and costs of implementation of all regulatory required corrective actions whether completed by the government or other support contractor until JSC is restored to full compliance for the cited violation.

Answer: The word "authorized" will be deleted in the final RFP.

2-111. 9.1.4 Definitions Site-wide compliance, Page C9, 3: Adherence to all applicable federal, state and local laws, Executive Orders and NASA policies by all on-site organizations, Government and Contractor personnel in the execution of their respective duties, responsibilities, programs, projects and activities.

Question: NASA-JSC has historically taken the position that its own environmental professionals are regulators in their own right, with legitimate inspection and enforcement authority. Does NASA consider itself , or any of its civil service employees, an authorized authority capable of assessing a monetary fine for any alleged non-compliance?

Answer: NASA does not have authority to assess monetary fines for alleged non-compliances.

2-112. 9.3.2.1 Waste Stream Characterization, Page C9, 9. It is the contractor's responsibility to interview or request the necessary information from process owners to complete waste characterization in full compliance with applicable regulatory requirements. The contractor shall conduct an engineering analysis at each point of waste generation to adequately determine process knowledge if it does not exist. The COSS contractor, as part of the site-wide program management requirements, shall identify segregation problems, areas to be improved, and conduct or provide training and guidance to improve waste segregation by generators.

Question: How many engineering analyses will be required per year?

Answer: See the environmental documents in the TRL for information on the number or Notices of Registration (NORs

2-113. 10.2.1.11 - Physical Inventories, Page C10, 3.

Question: How long will the COSS Contractor have to perform the Wall-to-Wall inventory (Stores Stock 800 L/I, Critical Spares 3540 L/I, Program Stock 32,000 L/I) including physical count and research?

Question: Will the time frame in NPG 4100 be used to accomplish the inventory?

Answer: There is no time frame mentioned in NPG4100 for completion of wall to wall inventories. The time frame for completion of the inventory will be 90 days from start of the contract phase-in. The RFP will be changed to reflect this answer.

2-114. 10.3.1.2, Furniture Definitions: Reupholstering, Page C10.3, 16.

Question: What type and how many items does the Government expect the Contractor to reupholster?

Answer: There are approximately 30 Hoover acoustical panels and 400 conference chairs per year that require reupholstering. The RFP will be changed to reflect this answer.

Question: Does the Government expect the Contractor to perform this work on-site?

Answer: It is contractor determined as to where the work is accomplished.

2-115. 11.2.2.3.b, Equipment Inventories, Perform equipment inventories, Page C11, 3.

Question: Will the Contractor select the 20% of sensitive items to be inventoried annually?

Answer: No, it is computer generated by NEMS.

Question: Will the Contractor use the same process (database) that the Government is presently using, or will the Contractor be expected to create their own?

Answer: The contractor shall use the existing system.

2-116. 11.4.1.2.d, Limitations, Restrictions, or Other Expectations, Page C11, 6. (monthly inventory of all precious metals).

Question: Will the Contracting Officer or the Property Disposal TMR participate in the inventory?

Answer: The Property Disposal TMR will participate in the inventory. The RFP will be changed to reflect this answer.

2-117. CLIN 11.4.2.a, Reutilization and Disposal Operations, Page C11, 7 and C11, 8. JHB 4300.2A and JPG 5151.2A provide guidelines for excess material/equipment.

Question: Does the Government require the contractor to comply with these guidelines?

Answer: Yes.

2-118. 12.1.7 Rigging and Heavy Hauling Services, Page C12, 1

Question: What type/size and how many cranes will be required to accomplish this work?

Answer: See the "3 Year Historical Listing of Rigging and Heavy Hauling Work Performed" document in the TRL to determine the average work performed at JSC. The contractor shall provide the cranes necessary to perform this type work.

Question: Will consideration be given for the time required to rent additional equipment; i.e., cranes, pads, scales, etc. in response to one or more work orders?

Answer: Yes, where it is shown that equipment rental is necessary and did cause delay.

Question: Will the Contractor have the flexibility to coordinate directly with the requestor to accomplish "Priority 2 Work Orders" that are to be performed in less than 2 workdays?

Answer: Yes. The contractor is expected to perform this coordination while verifying the requirements identified in 12.4.1.c items one through seven.

Question: If the Contractor is to provide service from 15 minutes to less then 2 workdays, who will establish the scheduling requirements?

Answer: The Government.

Question: What considerations will be given to the Contractor to perform actions in CLIN 12.4.1 including preparation of lift plans and signature approvals?

Answer: The Government will reimburse the cost of the work. Based upon performance, consideration will be given as part of the award fee.

Question: Does the 15-minute response time apply to non-core hours, weekends and holidays for "Priority 1 Work Orders" for Rigging and Heavy Hauling Services?

Answer: No.

2-119. 12.4.4 Lifting Equipment Listing, Page C12, 9.

Question: Will the Government provide the database to include data for this CLIN?

Answer: The listing of lifting equipment is included in Section J, Attachment I.

2-120. 12.6.1.c.6 Receive/Deliver Inbound Freight, Page C12, 15. Workload data states 27,000 inbound shipments.

Question: Does the Government anticipate JSC customers making a large number of these shipments a work stoppages? What could prevent this?

Answer: As stated in the note for CLIN 12.6.1.c.6, the contractor can expect approximately 1,400 shipments annually to be work stoppage.

Question: Is there a JSC center-wide definition available to customers and the Contractor which defines a work stoppage?

Answer: No, but the definition included in the contract under Annex 12 definitions applies to this annex.

Question: Will the Contractor be permitted to question or validate the necessity of such requests?

Answer: No.

2-121. 12.6.2 Receiving Personnel, Page C12, 22.

Question: Will the Government provide the Computer Based Training software for the x-ray machine?

Answer: Yes. It will be provided at contract start.

Question: What are the minimum standards for operation of the x-ray machine?

Answer: The operator must be able to successfully complete the computer based training.

Question: Is the Government or the Contractor responsible for the maintenance of the x-ray machine?

Answer: The contractor will maintain this equipment as part of the IAGP equipment maintenance requirements identified in Annex 1.

Question: What is the Government's definition of "Destructive Device", and "Contraband"?

Answer: Destructive devices are apparatuses (usually explosive) that can be harmful and contraband means illegal or prohibited substances.

2-122. 13.2.1.1 Preventative Maintenance and Repair of User Equipment, Page C13, 2, (b) Last Paragraph. "Minor changes in requirements for user equipment maintenance (i.e. +/- 15% of number of task instructions) shall not constitute grounds for an equitable adjustment in fee." This appears to require the contractor to price items up to 115%, and may penalize the contractor for less than 85% on the fee. Such an approach appears to contradict the intent of cost-type contracting.

Question: Is this the Government's intent?

Answer: No. The sole purpose of the 15% band is to reduce administrative actions.

Question: Is there a problem with uncertain workload quantities?

Answer: No.

2-123. E-3 Quality Assurance Surveillance Plan (JSC 53.246-93)(JULY 1996), Page E-1. The Government has not included a QA Plan as part of the solicitation. Such a plan enables bidders to know the Government's intent for the contract's QA program, and to factor in acceptable quality levels.

Question: Will the Government publish its QA Plan and acceptable quality levels in the form of a Performance Requirements Summary?

Answer: No.

2-124. G.4.2 Submission of Invoices for Fixed-Price Services, Invoices for payment for services provided under SOW Annex 7 and 14, Page G-4 allows payments for fixed price grounds and custodial services.

Question: It is our intent to perform Annex 7 and 14 services via a small businesses. Will the Government permit twice a month billing to mitigate the cost of money (as allowed in **G.4.3, Invoices for payment for ID/IQW services provided under SOW Annex 6**)?

Answer: The clause at G.4 entitled "Submission of Invoices for Fixed-Priced Services" permits submission of invoices once per month. While NASA strongly encourages participation, it has no assurance the successful offeror will be a small or disadvantaged business; consequently, no special financing payments under Annexes 7 or 14 are contemplated at this time.

2-125. G.7(d). Award Fee for Service Contracts (NASA 1852.216-76)(JUN 2000), Page G-6.

Question: What circumstances that would cause NASA to withhold 15% of the potential award fee? Please give examples.

Answer: If the Contracting Officer determines that circumstances justify withholding payment of award fee to protect the interests of the Government, the Government may withhold up to 15% of award fee. For example, if an audit raises questions about the allowability of costs previously incurred, the Contracting Officer may determine it necessary to withhold payment of some fee to protect the Government's interest pending disposition of the audit findings. Similarly, near the end of the period of performance, the Contracting Officer may determine it necessary to withhold payment of some fee to protect the Government's interests pending the final incurred cost audit. The examples above shall not be construed as an exhaustive list of circumstances under which the Contracting Officer may exercise his or her

discretion and determine it necessary to withhold the payment of award fee to protect the Government's interests.

2-126. G.8. Submission of Vouchers for Payment, Page G-6.

Question: Is it the Government's intent to also set up provisional rates and Forward Pricing Rate Agreements on this contract?

Answer: No. Section B rates will be used for proposing on Delivery Orders and Task Orders.

2-127. G.13 Subcontracting Goals, Page G-11 states that "the total subcontracting goal expressed, as a percent of total contract value, is 20 percent". Section L - paragraph L-2 states that "the total subcontracting goal expressed, as a percent of total contract value is 36 percent".

Question: Please clarify which percentage is correct.

Answer: The correct subcontracting goal stated as a percent of total contract value is 36%. Section G has been revised to correct this.

2-128. G.13 Subcontracting Goals, Page G-11. NFS 1852.219-76 sets out an 8% goal for HBCU's Minority Institutions, SDB concerns, Women-Owned Small Business Concerns. **G.13** calls out a goal of 20%.

Question: Is the 8% goal in addition to the 20% goal?

Answer: The 8% goal identified in NASA FAR Supplement 1852.219-76 is an agency-wide goal. The total subcontracting goal specific to the contemplated COSS contract is significantly higher than the overall agency goal of 8%. Please note that the clause at G.13 of the draft RFP incorrectly stated the total subcontracting goal – it should have stated 36% rather than 20%. The instructions for proposal preparation contained in Section L of the draft RFP correctly stated the total subcontracting goal as 36% percent of total contract value. The RFP will be changed to correct this discrepancy. The total percentage goal (36%), includes the following goals expressed as a percent of total contract value: Small Disadvantaged Business Concerns, 17%; Women-owned Small Business Concerns, 6%; HUBZone Small Business Concerns, 2%; and Veteran-Owned Small Business Concerns, .25%.

2-129. H.5(b) Providing Facility Items, Page H-4. This contract is a cost reimbursable contract. Clause H.5(b) states that replacements of Government property are not a direct charge to the contract.

Question: Isn't this contrary to cost-type contracting?

Answer: No, paragraph (b) of the clause at H.5 (b) entitled "Providing Facility Items" is consistent with cost-type contracting. It simply requires the contractor to capitalize facilities it acquires to perform this contract in accordance with the Federal Acquisition Regulation Cost Principles and its approved accounting system.

Question: Should this apply only to those FFP annexes (e.g., 7 and 14) and the IDIQ portion under Annex 6?

Answer: For annexes 6, 7, and 14, offerors shall include capital expenditures for facility items in their prices since no additional cost will be allowed once these prices are established.

2-130. Clause before H.6 Capital Equipment, Page H-5. Per the wording of this clause, a contractor is not able to propose any capital equipment depreciation in support of the FFP CLINs, but is allowed to do so for the reimbursable CLINs.

Question: Is this the Government's true intent? If so, please provide rationale.

Answer: No. It is the Governments intent that the fixed prices proposed constitute full and complete consideration for all successfully completed firm fixed price work.

2-131. H.6 Capital Equipment, Page H-5. The cost of depreciation for equipment for Annexes 6, 7, and 14 is an allowable expense under FAR 31.205-11. According to the clauses in Section I, this contract is a CAS- covered contract. The clause to not allow for depreciation therefore appears to be in direct violation of 48CFR 9904.409, Depreciation of Tangible Assets.

Question: What is the purpose behind not allowing the cost of depreciation? If this is not the Government's intent, BRS recommends that it be deleted in relation to Annexes 6, 7, and 14.

Answer: The cost accounting standards apply only to the cost reimbursable annexes. The applicability of the clause 52.230-2 will be revised to reflect this answer.

2-132. H.10.3 Contract Adjustment for Completion Form, Page H-8 states that an equitable adjustment will be made in cost and fee if the following conditions are met:

1. Workload for one or more SOW annexes has exceeded or has not met 20%; and,
2. The net cost increase or decrease of all workload data combined is $2,000,000.

Question: What is the intent of this clause?

Answer: The intent of this clause is to maximize the efficient management and administration of this contract.

Question: Is it a form of cost reimbursable VIQ clause? If so, the adjustment in fee becomes a direct conflict with cost reimbursable contracting principles and FAR Part 15.

Answer: No. It is not a VIQ. The clause merely establishes a point at which the estimated cost and award fee might be subject to negotiation. Since any fee adjustment will be based upon risk borne by the contractor and not based upon a percentage of cost, it does not violate the cost reimbursable contracting principles or FAR part 15.

Question: Has this clause been approved for use by an authority with the ability to grant a FAR deviation (normally at a level above the Contracting Officer, e.g., NASA's Associate Administrator for Procurement)?

Answer: No deviation is required.

2-133. Attachment K List 1 Final Draft Computerized Maintenance Management System (CMMS) PAGE J-K, List 1

Question: Column "Language" Can Oracle serve as the operating language instead of SQL server?

Answer: The current CMMS, MP2, uses an Oracle database.

2-134. L.2 Notice of Priority Rating for National Defense Use (FAR 52.211-12)(SEP 1990), Page L-1 states that this contract will be DO-rated under the DPAS.

Question: Please clarify what the intended DPAS rating will be.

Answer: As stated on the standard form 33 of the draft RFP, the DPAS rating is DO-C9.

2-135. L.4.1 Facilities and Government-Provided Property and Services, Page L-11

Question: Will the Government provide office space and equipment on-site during the phase-in, or will the contractor be required to lease office space off-site?

Answer: The offeror should propose off site space for use during transition.

2-136. L.5.1 Volume 1- Management, Page L-11 defines Subcontracting Goals as 36% of the total value. However, **Section G, Paragraph G-13** states the subcontractor goal as 20%.

Question: What is the overall subcontractor goal for the contract,?

Answer: The goal is 36% Subcontracting goals stated in Section G are incorrect. The goals listed in Section L are correct. The RFP will be changed to reflect this answer.

Question: What are the specific breakdown goal for each category the contractor is to meet and be evaluated on?

Answer: The total subcontracting goal, expressed as a percent of total contract value, is 36%. The percentage goal, 36%, includes the following goals, expressed as a percent of total contract value: Small Disadvantaged Business Concerns 17%, Women Owned Small Business Concerns 6%, HUBZone Small Business Concerns 2%, and Veteran Owned Small Business Concerns .25%.

2-137. L. 5.1 (3) iii. Phase-in (Transition). Milestone 3, Page L-13 requires 90% of proposed personnel are to be on the contractors payroll.

Question: Is the Government's intent to seek assurances that known personnel have been hired?

Answer: Yes. Furthermore, for milestone 3, the requirement for being on the payroll by March 15 will be deleted.

Question: As incumbent, may we state that some personnel have accepted employment and are being processed, but will not being paid until contract start?

Answer: Yes. See answer above.

2-138. L.5.3 Volume III -- Past Performance, L.5.3.B Related Experience, Page L-20. Instructions on page L-2 limits past performance information to 2 contracts. In our experience, this is a very low number. It seems to restrict competition, and might not show a true picture of a offeror's performance.

Question: Would the Government consider increasing this contract total, thus allowing more past performance references to more accurately reflect each offeror's related experience?

Answer: Yes. This will be changed to 10 in the final RFP.

2-139. L.5.4 Volume IV – Cost Proposal, 5.4.A General Cost/Price Instructions, Page L-21. Question: Please clarify the NTE Fee rate for task orders. Is this fee for profit only, or for all Overhead, G&A ,and Profit?

Answer: The NTE fee rate for task orders allows for profit only.

2-140. L.5.4 Volume IV – Cost Proposal. L.5.4.D IDIQ Cost/Price Proposal Instructions, Page L-27. These instructions reference a pricing model that will not be disclosed to the offerors.

Question: What evaluation criteria that will be used to evaluate each offeror's pricing?

Answer: Each offerors pricing will be evaluated against a set of hypothetical requirements so that all offeror's proposals are evaluated equally.

2-141. Section M – Part II, Evaluation Factors for Award, M4.0 Past Performance Factor, Page M-3. Past Performance and Mission Suitability are rated equal. Mission Suitability has a specific rating system. FAR 15.305 states that the evaluation of an offeror's past performance may be conducted using any

rating method, including color or adjectival rating. Based on this requirement, NASA is required to quantify how it will rate offerors with a clear and distinct rating criteria.

Question: What is NASA's rating criteria for Past Performance?

Answer: An adjectival rating system will be used in NASA's evaluation of offerors' past performance. NASA FAR Supplement (NFS) 1815.305(a)(2)(B) states that evaluation of past performance may include any or all of the items listed in FAR 42.1501. NFS 1842.15 states that NASA will use the award fee adjectives prescribed at NFS 1816.405-275 when evaluating past performance.

Question: How is it rated in conjunction with Mission Suitability?

Answer: It is one of three evaluation factors and is distinct from Mission Suitability. Mission Suitability and Past Performance, when combined are significantly more important than Cost/Price.

Question: How are strengths, deficiencies, significant weaknesses, and risks going to be numerically evaluated?

Answer: The board will consider strengths and weaknesses and reach consensus on an adjectival rating or numerical score.

2-142. Section M – Part II, Evaluation Factors for Award, M5. 3 IDIQ, Page M-4.

Question: What estimated amount will be used for evaluation purposes?

Answer: The Government will use a pricing model for work to be purchased through IDIQ. The offeror's proposed rates and factors will be applied to this model to determine the estimated amount mentioned in 5.3.

2-143. NASA PIC 98-12. NASA has modified FAR 52.245-5 using NASA PIC 98-13.

Question: Please provide a copy of PIC 98-13, or indicate where it can be located.

Answer: A copy of PIC 98-13 will be placed in the TRL.

2-144. NFS 18-52.243-71 Shared Saving.

Question: Is this clause similar to a Value Engineering Change Proposal?

Answer: Yes.

2-145. DRD AN-1-18

Question: Is it the Government's intent for Years 1 and 2 to be cost reimbursable?

Answer: Yes. For Annexes 1-5 and 8 –13.

Question: Is Year 3 to be used to negotiate the annexes and transition to FFP?

Answer: The Government anticipates evaluating the potential of transitioning one or more annexes to fixed price during the third contract year.

Question: Are the last two years to be FFP for the entire contract?

Answer: This will depend upon the success of negotiations to transition to fixed price.

2-146. DRD AN-1-17 Workload Data Collection Report

Question: What are the required inputs and format?

Answer: The Government is developing these requirements and they will be in the final RFP.

2-147. DRD AN-1-19 Cost Data Report

Question: What are the required inputs and format?

Answer: The Government is developing these requirements and they will be in the final RFP.

2-148. The MP2 System. Datastream, the manufacturer of MP2, will no longer support the MP2 software. The Government should be aware that the license can be transferred to the follow-on contractor, but technical support will no longer be available.

Question: How does the Government plan to handle technical support for MP2 if it is no longer available?

Answer: The successful offeror will have to provide technical support for whichever CMMS it proposes. The final RFP will be changed to reflect this answer.

2-149. Reference Section B, paragraph B.5. Please clarify whether base fee for Annexes 1-5 and 8-12 may be proposed. The third sentence says the base fee is $0 while the fourth sentence seems to imply that base fee as part of the total estimated cost is permissible and is to be input by offerer.

Answer: No. Base fee will not be entertained by the Government.

2-150. Section B, paragraph B.10, items B.11.DP (Locksmith), B.11.DQ (Security Officer), B11.DR (Emergency Operations Center/Operator, and B.11.DS (Security Inspector) appear to be from Annex 4 (Security) of the current contract and not applicable to the new contract. Please clarify.

Answer: The Locksmith will be left in the contract and the rest of the positions will be deleted from the final RFP.

2-151. Section B, paragraph B.11, items B.12.DP (Locksmith), B.12.DQ (Security Officer), B.12.DR (Emergency Operations Center/Operator, and B.12.DS (Security Inspector) appear to be from Annex 4 (Security) of the current contract and not applicable to the new contract. Please clarify.

Answer: The Locksmith will be left in the contract and the rest of the positions will be deleted from the final RFP.

2-152. Annex 2, paragraph 2.2.3, verify/validate an accurate CMMS database, states there are approximately 12,600 items in the database. This is significantly less than the 16,211 items identified in SM Database currently in the technical reference library. Please clarify the number of items requiring scheduled maintenance.

Answer: The Government realizes that the databases do not match. That is why the Government is requiring a wall to wall facility equipment inventory at the start of the COSS contract to make corrections and updates to the existing database.

2-153. Reference Annex 14. Is the contractor permitted to use Utility Carts to transport workers, supplies, and materials?

Answer: No. The vehicle requirements are identified in Annex 1.

2-154. Reference Annex 14 paragraph 14.1.7 – Recycle Program. Who is the current contractor for the removal and utilization of recycled products at JSC?

Answer: The BOSS contractor is responsible for this function.

Question: Is it included in the current custodial services contract?

Answer: Yes.

Question: What happens if the cost of the program is not recovered from the sale of the recyclables?

Answer: The COSS contractor will be responsible for those costs.

2-155. Reference Annex 14 paragraph 14.2.5 – Restrooms. Is there a count of the number of fixtures by category in each restroom?

Answer: The Government does not have this data.

2-156. Reference Annex 14 paragraph 14.2.6 – Stairwells. Please provide the total number of stairwells and landings, not just the square footage.

Answer: The Government does not have this data.

2-157. Reference Annex 14 paragraph 14.2.7 – Light Fixtures. Of the 100,000 light fixtures listed, in order to calculate cost of replacement lights, please provide a breakout of the various types of fixtures, size of the bulb and any historical information pertaining to the average annual usage.

Answer: Approximately 75,000 are single fluorescent bulb fixtures. Approximately 1,000 are fluorescent 4 bulb fixtures. Approximately 1,000 are quartz, halogen, or other similar fixture. Approximately 3,000 are incandescent fixtures.

2-158. Reference Annex 14 paragraph 14.2.8 – Walk Off Mats.

Question: What is the size, make, model number of the walk off mats to be replaced.

Answer: The Government does not have this data.

Question: Is there a service that currently cleans the mats?

Answer: No.

Question: What is the total number of walk off mats to be serviced 3W?

Answer: The Government does not have this data.

2-159. Reference Annex 14 paragraph 14.2.9b – Wet or damp mop, or machine scrub floors. There is a big difference in man hours required to wet mop/damp mop and to machine scrub floors.

Question: Can these two items be split into two different categories?

Answer: No, because the Government does not have the data necessary to delineate the percentages. The contractor needs to do whichever type of cleaning is necessary each time.

2-160. Reference Annex 14 paragraph 14.2.14 – Solid Waste Removal.

Question: Who is currently providing this service at JSC?

Answer: The BOSS contractor is responsible for this function.

2-161. Reference Annex 14 paragraph 14.3 – Periodic Services. Within this section, JSC has provided the square footage, no. of man hours anticipated or anticipated number of requests.

Question: Where JSC has not provided the anticipated number of requests, can you give historical information as to how often these services were ordered? An example is:

Answer: Generally, for CLINs 14.3.1 and 14.3.3 through 14.3.6 the contractor can expect about one twelfth of the annual workload square footage to be requested per month. The contractor may then schedule the task throughout the month.

Question: How often are we to be expected to strip and recondition the floors?

Answer: See above answer.

Question: How often can we expect to shampoo the carpets?

Answer: See above answer.

2-162. Reference Annex 14 paragraph 14.3.3 – Interior Windows/Venetian Blinds. Please provide a count as to the number of windows and blinds covered in the 130,000 sf shown.

Answer: The Government does not have this data.

2-163. Reference Annex 14 paragraph 14.3.4 – Exterior Windows. Please provide a count as to the number of windows covered in the 100,000 sq ft.

Answer: The Government does not have this data.

2-164. Reference Annex 14 paragraph 14.4.4 – Custodial Monthly Supply Usage. Please provide copies of the last annual year of all DRD AN-14-4s, Custodial Monthly Supply Usage Report.

Answer: This requirement will be removed from the final RFP.

2-165. Reference Annex 14, various paragraphs have workload indicators identifying 260 cleanings are required per year in several locations.

Question: Are these services required on holidays, or should the workload be 250 cleanings?

Answer: The number of cleanings per year should be 251. (This is based on 365 days minus 104 weekend days minus the 10 Government holidays). The RFP will be changed to reflect this answer.

2-166. Section L, Page Numbers skip from L-41 to L-51.

Question: Are pages missing, or is L-51 simply misnumbered?

Answer: L-51 was simply incorrectly numbered. It will be changed in the final RFP.

2-167. Reference page L.34 is identified as Form 1, page 2 of 2.

Question: Should this be identified as Form 2 page 1 of 2? The next page is identified as Form 2, page 2 of 2.

Answer: Yes. Despite this, Form 1 and 2 will be combined to better clarify the information requirement. The final RFP will be changed to reflect this answer.

2-168. Reference Section L, Para 5.1.c.(6).a, page L-15: Request clarification on who should be identified as key personnel on Form 3, if several annexes are directly managed by a single individual.

Answer: The offeror should identify in its management volume of the proposal who it considers its key personnel.

Question: Is this manager of several Annexes the key person for the each Annex, or are we required to provide a supervisor for each Annex?

Answer: It is up to the offeror to determine how many supervisors are needed. The offeror should determine who are its key personnel.

Question: In addition please define the functions of Project Management, which require a key person?

Answer: The offeror shall identify the functions of its proposed project management.

Question: Would these be the positions that directly report to the Project Manager?

Answer: The offeror shall identify its key personnel.

2-169. Can the Government provide additional workload data for redistribution and utilization? The workload data (JSC JA0008) covers only two month or less.

Answer: The Government has provided data that it believes is representative of the workload in general.

2-170. Reference Annex 4 paragraph 4.1.4.

Question: What costs are included in the $300,000 construction value on page C4.2?

Answer: All construction costs.

Question: Does it include design, construction inspection, as building, etc.?

Answer: See above answer.

Question: Also, Annex 2 uses $200,000 as a threshold for maintenance costs. Should these thresholds be the same?

Answer: No.

2-171. Reference Annex 4 paragraph 4.2.1.2.2.a.

Question: Can you clarify the performance evaluation criteria "continuous qualified operations engineering support for ISS support"?

Answer: The ISS support requirement will be removed from the final RFP.

2-172. Reference Annex 4 paragraph 4.2.1.2.2.a.

Question: There are several meetings identified in 4.2.1.2.2.a. Are there some examples of the typical agenda available?

Answer: The Government does not have this data.

2-173. Reference Annex 4 paragraph 4.2.1.3.1.b.

Are the Bldg. 48 chillers used to supply water to JSC as implied in the third paragraph of the performance requirement?

Answer: The building 48 chilled water system is not generally used to support the site. They are not as efficient as the newer chillers at buildings 24/28.

2-174. Reference Annex 4 paragraph 4.2.1.3.1.b. Chillers must be removed from service for periodic maintenance and repair. The stated performance evaluation criterion of "no chillers are out of service" is not practical. Please clarify.

Answer: The criterion is " No chillers are out of service due to lack of maintenance". This means that the Government does not expect chillers to be down because of problems associated with a lack of maintenance.

2-175. Annex 4 paragraphs 4.2.1.3.2.a, 4.2.1.3.2.b and 4.2.1.5.2 require Bldg. 48 heating and cooling logs. Please provide the distinction between these logs.

Answer: This is a term given to a log for HVAC equipment serving the Building 30/48 complex.

2-176. Reference Annex 4 paragraph 4.2.1.6.1.b. Please provide some quantified data on the number and types of alarms received by OCC during a typical day.

Answer: The Government does not have this data.

2-177. Reference Annex 4 paragraph 4.2.1.6.1.b. Does OCC have to receive TMR approval for all temperature changes or just those outside the JSC energy conservation program limits?

Answer: Just those outside the JSC energy conservation program limits.

2-178. The performance requirement for **paragraph 4.2.1.6.1.c** uses the phrase: "included but not limited to", as does performance 4.2.1.6.1.d and 4.2.3.3.1.a. Can the Government better quantify these requirements?

Answer: No, the Government has identified the requirements to the best of its ability and knowledge.

2-179. Reference Annex 4 paragraph 4.2.1.6.1.c. Is the contractor responsible for the costs associated with hardware and software upgrades?

Answer: No. This is a cost reimbursable annex.

2-180. Reference Annex 4 paragraph 4.2.1.6.3.b. Please identify the "software support contractor" and their responsibilities and interfaces.

Answer: The software support contractor is currently Honeywell. The COSS responsibilities are identified in the contract.

2-181. Reference Annex 4 paragraph 4.2.1.7.1.a. Is the 1200-gallon truck provided by the Government?

Answer: No.

2-182. There appears to be an overlap between **paragraphs 4.2.2.2 and 4.2.3.2**. Please clarify which area the facility switches, step-down transformers, containment pits, and capacitor banks are located?

*Answer: CLIN 4.2.2.2 covers the substation and HV distribution up to the point where it connects to the 15kV switches. CLIN 4.2.3.2 covers the 15kV switches and distribution into the buildings. The systems are located throughout *JSC.*

2-183. Reference Annex 4 paragraph 4.2.3.2.2.a. There seems to be a numerical conflict on the number of generators. The performance requirements note indicates 15 buildings and the workload data states 16 generators. Please clarify.

Answer: Building 17 has two generators.

2-184. Reference Annex 4 paragraph 4.2.3.3.1.a. The performance requirements stipulates daily visual check of all JSC HVAC components, while the performance evaluation criteria limits the visual check to the locally operated equipment. Please clarify.

Answer: The visual checks by the operators on equipment that they manually operate is done while operating the equipment. The other daily checks are to be done as operators and crafts do daily maintenance and normal operations. It is not intended that every piece of equipment will be viewed daily.

2-185. Reference Annex 4 paragraph 4.2.4.f. Many electronic technician programs are 1 and 2 years long. The 4-year programs normally provide a bachelor's degree. Does the Government intend a 4-year program?

Answer: Yes, but the Operations TMR may allow a deviation if he is convinced that there is the required expertise and capability to do the task.

2-186. Reference Annex 4 paragraph 4.2.4.h . There are no formal educational requirements for the position cited in 4.2.4.h. Is this correct?

Answer: Yes.

2-187. Reference Annex 4 paragraph 4.2.1.2.1.b. Are there any load testing requirements for the "A" power UPS?

Answer: No.

2-188. A discussion of the FAR price adjustment clause (52.222-43) is given on page L-22. The last sentence, "This only applies to the IDIQ rates," seems to incorrectly imply that escalation SHOULD be applied to SCA rates for Annexes 1-5, 7-12, and 14. Please verify that there should be no escalation applied to SCA rates used in pricing any of the annexes.

Answer: The Government has confirmed that there should be no cost escalation applied to SCA rates for annexes 6, 7 and 14. The cost/price proposal preparation instructions contained in Section L will be changed to clarify this point.

2-189. Only one of the CBAs attached to the RFP had rates beyond 2001. Since the CBAs are the wage determinations for the affected positions, is it the Government's intent that escalation not be applied and price adjustments would be provided IAW FAR 52.222-43?

Answer: It is the Government's intent that escalation not be applied to SCA or FLSA personnel used to perform fixed price work. The contractor should propose reasonable escalation when developing cost estimate for cost reimbursable work.

2-190. The Government has been silent about when Davis-Bacon Act (DBA) rates apply.

Question: Are there labor titles in section B.11 that are DBA?

Answer: The contractor shall use DBA rates whenever the work performed that is covered by the Davis Bacon Act. Some labor titles contained in Section B are covered by the DBA.

Question: Are the unit priced tasks in **Annex 6 (6.3.2.2)** to be part of projects that exceed the DBA thresholds and, therefore, should be priced with DBA rates?

Answer: If the value of a delivery order exceeds the DBA threshold then DBA rates may be required.

Question: Are the coefficient factors for IDIQ to be for maintenance work or for DBA?

Answer: It could be either. The coefficient factors apply to all annex 6 work other than pre-priced work.

Question: If they are for maintenance, will an adjustment be allowed for a project that requires DBA rates?

Answer: No. The coefficient factors will not be adjusted.

2-191. Table B.11 is titled, "Pre-Established LOADED Labor Rates." Furthermore, these rates are to be used for both Annex 6 Delivery Orders and Annex 13 Task Orders. The instructions given in 6.1.4.5 seem to treat these rates as bare labor since the coefficient is to be applied (paragraph 6.1.4.1 includes normal labor loading in the coefficient).

Answer: The IDIQ cost/price proposal instructions on page L – 27 will be revised to clarify that loaded labor rates will be use to establish the estimates costs of task orders under annex 13 and that bare labor rates will be used to establish prices for delivery orders under annex 6.

Question: Are the rates in B.11 to be loaded?

Answer: Yes.

Question: If so, how will the bare labor costs be identified for Delivery Orders?

Answer: Since the bare labor costs apply only to annex 6 and the rates in B.11 apply only to annex 13 it is not necessary to determine bare labor costs for rates in B.11.

2-192. Since the **IDIQ Task Orders for Annex 13** are cost reimbursable, is it correct to assume that the current DCAA approved direct and indirect rates will be applied at the time an estimate is provided to the Government?

Answer: No. To the extent pre-established rates are contained in Section B, the rates in Section B shall be used at the time estimates are provided to the Government. DCAA approved direct or indirect rates are appropriate to the extent pre-established rates are not contained in Section B.

2-193. The level of detail being requested for the FFP portion is the same as the cost reimbursable work. Since the risk to manage cost rests solely with the Contractor for the FFP Annexes, it seems reasonable that the level of disclosure should be minimized. Would the Government please reconsider the Section L instructions for the FFP portion?

Answer: No. The Government has requested only the data it believes is truly necessary to evaluate the ability of each offeror to do the work.

2-194. Section L RFP Form 2: The header of the Past Performance Data – Related Experience Data indicates that this is Section L RFP Form 1, Page 2 of 2. It appears that it should be Section L RFP Form 2, Page 1 of 2. Please clarify.

Answer: The Government agrees. Despite this, Form 1 and 2 will be combined to better clarify the information requirement. The final RFP will be changed to reflect this answer.

2-195. Section L, Part II, paragraph 5.3.A: Complete the attached RFP Form 1 to identify all contracts (completed and ongoing) over $1 million in value that your company or any proposed joint venture partner has had within the past three years. Also, for any proposed subcontractor or team member that you expect to perform services valued at or above $1 million under this contract, complete the attached RFP

Form 1 to identify all contracts (completed and ongoing) over $1 million held by those legal entities during the past three years.
Question: It appears that Page 1 of Section L RFP Form 1 should be used for individual contracts identified, but Page 2 should be used to list all contracts. Please clarify.

Answer: Form 1 shall be used for individual contracts and page 2 of Form 1 will be modified for the same.

2-196. Section L, Part II, paragraph 5.3.B: The offeror shall complete RFP Form 2 to provide additional information on up to 2 contracts that best represent your related experience.
Question: Page 2 of what appears to be RFP Form 2 appears to be intended for many more contracts than just 2, as indicated in the instructions. Please clarify.

Answer: Form 1 and 2 will be combined in the final RFP to better clarify the information requirement.

2-197. Please clarify how and/or whether or not the government wants offerors to submit classified Past Performance information, since, in most cases, the contract number itself is considered classified information.

Answer: Do not submit Past Performance information on classified contracts.

2-198. Annex 9 – paragraph. 9.15.1, page C9, 49.There seems to be a disparity in the requirement for candidates to be licensed as P.Es. Specifically, Engineers are required to be licensed, but science majors do not need to meet the licensing requirement. Is a P.E. license required? Please clarify.

Answer: Engineers are required to be licensed professional engineers (P.E.). There is no current state licensing requirement for science majors in the environmental field.

2-199. Section L.7, Page L-6.

Question: Under (a) Page count states that the combined total for Volumes I, II, and IV = 225. Should the reference to Volume IV be deleted?

Answer: Yes. The provision at L.7 will be updated in the final solicitation to correct this error.

Question: 12 point, Arial font is required for text. What point size is acceptable for graphics? (Usually 8 minimum, 9 preferred). Please specify.

Answer: The Government has left this up to the offeror.

Question: Is the text to be typed single spaced, or 1.5 spacing.

Answer: Single spaced.

Question: According to the DRD for the Quality Control Plan, it is necessary to match the elements of the ANSI/ISO/ASQC Q9001-2000 standard and address each element. Since this format is quite lengthy, adequate response to each element could drive this document to be 25 or more pages. Is this Plan counted as part of the page count?

Answer: Yes.

2-200. Reference 1.1.4.a

Question: Admin Support/Record says, "Record shall be automated, as required in contract, in compliance with Annex 8 and other Annexes." Are the current records management systems fully automated?

Answer: Not all of these items are currently automated or electronic. The Government does not have a listing of all these items and which are or are not automated.

2-201. Reference 1.1.7.7

Question: In the event that the Government takes possession of or use of any partially completed work, and this results in a schedule impact relative to completing the balance of the work, will the Government make any equitable adjustment to the negotiated schedule?

Answer: Yes.

2-202. Reference 1.1.7.9 This section reads, "The following deferral explanations and related codes will be used when work actions cannot be accomplished due to Government interference. If the Contractor fails to request access or attempt to start work within the first 25 percent of the time allowed for the task per Table 2-2, a deferral code that assigns the cause for the delay to the Government shall not be used."

Question: Does this apply to daily maintenance tasks?

Answer: No. A daily task has to be completed during that day. The Government is not looking to track deferral codes down to the hour so this does not apply to a daily task.

2-203. Reference 1.1.7.9 It reads, "Government Contract Work by Others is a list of the present active contracts, and additionally describes those as pending awards, that may be advertised and awarded prior to the award of this COSS contract.,"

Question: Our search of the TRL index yielded no list, please assist in providing this information

Answer: This TRL item will be deleted and the final RFP will be changed to reflect this answer.

2-204. Reference 1.1.10 Please provide a specific list of the core meetings to be supported or quantify this support in some other way?

Answer: To the extent possible the government has attempted to identify the meeting requirements in the statement of work

2-205. Reference 2.7 Under Perform one (1)RCM analysis per quarter, the referenced **JSC RCM Guideline could not be located in the TRL index. Please either make that document available or explain an RCM analysis more fully.

Answer: The RCM guideline will be placed in the TRL when the final RFP is issued.

2-206. Reference 2.7.1 Will training certifications for incumbents hired by the union carry over to the COSS winner or will new certifications be necessary on day 1 of the new contract? This question applies to all areas of the DRFP where training certifications are needed.

Answer: The training certifications for the incumbent union personnel would carry over. The successful offeror shall verify that all certifications are valid and keep them on file.

2-207. Reference 5. Is Table 5.1 "Fixed Price Design?" What is fixed price - the design or the construction or both? Please clarify.

Answer: The words fixed price will be removed from the final RFP.

2-208. Reference 5.11. Under Real Property Accounting, RPAS is not listed in Attachment K – List 1 or List 2. There are requirements that RPAS must interface with the Facility Housing Plans system, the NASA Hqs IMAS system and others. Please explain the existing technical interfaces or products that allow the exchange of data?

Answer: RPAS will be added to Attachment K, List 1 in the final RFP. There is no requirement to have RPAS interface with the FHP system, IMAS or any other system. The NASA HQ real property database referenced in CLIN 5.11.5 is a separate database maintained by COSS which contains the same data as RPAS.

2-209. Reference 5.5a, 5.8.4c. Regarding Facility Housing Plans (FHPs): Section C, Annex 5.5a says "As-build all construction projects within 90 days of construction field completion as determined by the CO." Section C, Annex 5.8.4c says "Perform field verification [of preliminary FHP] within 7 days of construction completion. Provide final FHP to the Government within 7 days of field verification."

Question: Since the post-construction, field-verified FHP is required in 14 days, isn't this in conflict with the 90-day allowance provided under Annex 5.5a?

Answer: No. CLIN 5.5.a refers to the requirement to as-built the master facility drawings. Due to the extensive field investigation necessary for this activity the Government has a 90-day requirement. CLIN 5.8.4.c refers to as-building FHPs. The Government requires this minimal work to be performed in 14 days.

2-210. Reference 6. This section requires that the contractor provide the Government with a fixed-price quote for construction tasks. Normally in a fixed-price construction job, materials procurement is not under the FAR regulations. Are materials in Annex 6 construction relieved from the FAR regulations?

Answer: To the extent that the FAR applies, the contractor shall follow it.

2-211. Reference 6.1.3 – b. Please provide a historical distribution of the types of proposal requested by Class (Class I, II, and III)?

Answer: The only data the Government has is included in the *****Workload History*** *document in the TRL.*

2-212. Reference 6.1.4.4b&d. Given that the City Cost Indexes, provided by Means, adjust labor and equipment rental costs using the same Installation City Cost Index and adjust material costs using a separate Material City Cost Index, are we to apply the UPB pricing equations as shown below? If not, please advise.

UPB Labor Cost = (Means Bare labor Cost) x (CSI Division Installation City Cost Index) x (J-COSS Contract Coefficient Factor for Means Cost Data)

UPB Material Cost = (Means Bare Material Cost) x (CSI Division Material Cost Index) x (J-COSS Contract MER Factor)

UPB Equip. Rental Cost = (Means Bare Equipment Rental Cost) x (CSI Division Installation City Cost Index) x (J-COSS Contract MER Factor)

Answer: Yes.

2-213. Reference 6.1.5(4). If a service is priced using the Means UPB, which is hierarchy 2, are lower-hierarchy pricing methods required to confirm that the UPB price is favorable to the Government? That is, are we expected to price the same service using the UPB method, Non-Pre-Priced task method, and even the Subcontract method as implied by DRFP Section C. Annex 6.1.5(4), which states "the Government will only be obligated to pay the lowest price derived by the four pricing methods?" Or, is the following pricing methodology intended?

(1) Pre-Priced Tasks—no further pricing is required.
(2) UPB—if there are other tasks that are not pre-priced under (1), then use Means UPB line items for pricing.

(3) Non-Pre-Priced Task—if there are other tasks that are not pre-priced under (1) and cannot be priced under (2) because the Means line items do not correlate directly to the task, then use non-pre-priced methods.
(4) If the task is subcontracted, then confirm it is the lowest price by developing an independent cost estimate using the prioritized pricing methodology outlined in (1), (2) and (3) above.

Answer: Yes. The "following" pricing methodology was intended.

2-214. Reference 7. The Grounds Maintenance Annex 7 seems to be silent on equipment replacement. Does the Government require the contractor to replace Government provided equipment when it wears out or will the Government provide replacement equipment?

Answer: This is a firm fixed price annex and the contractor will replace equipment per the Government Furnished Property requirements.

2-215. Reference 9.1.1. Specified core hours for environmental support are 0730 to 1700, thereby necessitating 9-hour workdays. Is the intent to provide coverage (thereby anticipating being able to flex work schedules) or is full environmental capability required in order to be considered sufficient? Per 9.3.4, the B-358 storage area only needs to be "manned" from 0800 to 1530, so there appears to be some inconsistency. There are other areas where the Government hours exceed core hours.

Answer: The intent for specifying core hours of 0730 to 1700 for environmental support is to provide adequate coverage for the facility during the period from 1530 to 1700 hours. Flexible work schedules are contractor determined.

2-216. Reference 9.1.2.

Question: If existing manuals or procedures are lacking, upon notification to the TMR, will the contractor be afforded time to develop an acceptable procedure to operate or maintain an environmental system?

Answer: Yes. While these procedures are being created the contractor shall meet all applicable environmental laws.

Question: Can this timeframe be negotiated on a case-by-case basis?

Answer: Yes.

2-217. Reference 9.1.2. We recognize that the analytical costs are probably being charged to another funding code, rather than against the Center Operations budget. However, this process may cause concerns with regard to QA/QC and timeliness of data. Will the COSS contractor be able to have the additional flexibility of subcontracting directly with a reputable laboratory when turnaround (in particular) is of particular concern – perhaps through an IDIQ mechanism?

Answer: QA/QC and timeliness of lab data have only rarely been an issue. The Contractor will have the flexibility of utilizing an offsite laboratory with notice to the TMR. Significant cost increases due to frequent utilization of offsite laboratories may adversely impact the contractor's award fee.

2-218. Reference 9.1.3. Is cost for development of additional permit applications, permit renewals, etc. for future or ongoing requirements considered under IDIQ?

Answer: Yes, see Annex 13, CLIN 13.3.10, Permitting Application Services.

2-219. Reference 9.2.1. Are the terms "noncompliance" and "nonconformance" intended to be synonymous? Nonconformance typically is used to denote a departure from a quality, administrative, or work procedure, that may not necessarily be a noncompliance with a regulatory, permit, or government policy document. For example, in Section 9.3.2, Page C.9,8 the reader is referred to Section 9.2.1, but the terminology is inconsistent. It is understandable that the TMR would need at least daily notification

and updated knowledge of all "noncompliance" situations, but would not necessarily want similar details for all "nonconformance" situations. Similar inconsistency is repeated throughout the annex under each media.

Answer: As appropriate, the term "nonconformance" will be changed to "non-compliance" in the final RFP

2-220. Reference 9.3.6.

Question: Unless a COSS contractor representative physically accompanies the driver on each shipment, item 6 is not feasible. We agree that if the transporter specifies that they use a transfer facility, it would be appropriate for occasional inspection and approval by NASA.

Answer: CLIN 9.3.6 pertains to arranging for services. Item 6 of this CLIN has not historically and does not currently require a COSS contractor representative to physically accompany the driver of each shipment. This CLIN will be changed in the final RFP to reflect this answer.

Question: Does the Government envision the COSS contractor physically accompanying waste shipments?

Answer: No. See above.

2-221. Reference 9.3.6. For the additional flexibility of having a variety of transport vehicles available on demand, does the Government consider providing a retainer to the transporter as allowable expense?

Answer: As determined to be allowable, allocable and reasonable by the Contracting Officer, a retainer may be an approved expense.

2-222. Reference 9.3.7.

Question: If the COSS contractor chooses to subcontract TSDR audits, must the COSS contractor provide a representative to attend each audit?

Answer: No, however, the Government believes that a prudent Contractor would provide a representative to attend the initial audits to critically evaluate and confirm the validity of the subcontractor's audit information and final assessment determination.

Question: For subsequent TSDRs used by the audited TSDRs (e.g., kilns, incinerators, etc), is a table top evaluation of the compliance status of these facilities satisfactory (ref. d, f, g)?

Answer: *No. Physical audits, as stated in the CLIN, are required due to the dynamic nature of the TSDR business and changes in ownership and personnel.*

2-223. Reference 9.5.1. Since the COSS contractor cannot control all potential discharges or emission, it is inappropriate to utilize compliance criteria as an indicator of performance. The COSS contractor should be required to perform sampling (refer to paragraph d), provide data, and identify noncompliance issues to the TMR in a timely fashion, but cannot ensure 100% compliance for activities that are not within our control. It is not reasonable to expect a complete assessment of all discharges for industrial components under routine operations; the development of a comprehensive Sanitary Sewer Industrial Discharge Management Plan is an example of a project that should be considered as an IDIQ study. Will the Government incorporate this in the RFP?

Answer: No. This is within scope of the CLIN as described. Should a study or project become necessary for this or other work, the Government may utilize either annex 6 or 13 for the accomplishment of IDIQ services.

2-224. Reference 9.5.3. Please verify that the level of effort anticipated for SPCC development and implementation is accurate. The number of weekly inspections (3,016) anticipated may be overly conservative and somewhat counterproductive.

Answer: The Government believes the number of inspections to be accurate, and we do not anticipate changes for the final RFP.

2-225. Reference 9.5.4. Weather conditions and activities within the ESTA, and not necessarily COSS operational issues, may dictate whether an impoundment will overflow. Therefore, this criterion should not necessarily be used as a performance metric, but should more appropriately be tracked as an incident that would require notification to the TMR, per 9.2.1. Will the Government incorporate this in the RFP?

Answer: No. The Government is seeking a proactive COSS contractor to minimize notifications of non-compliance by coordinating with customers on operational issues, and to the extent possible, anticipating and preparing for adverse weather conditions,

2-226. Reference 9.6. Development of a comprehensive lead program, and an associated database, should be an IDIQ task. Once the program is developed, maintenance and implementation of the program would be a recurring activity. Again, it is understood that the OMOH contractor will provide analysis of samples collected for lead content. Will the Government incorporate this in the RFP?

Answer: No. This is within scope of the CLIN as described. Should a study or project become necessary for this or other work, the Government may utilize either annex 6 or 13 for the accomplishment of IDIQ services.

2-227. Reference 9.7. How will the COSS contractor be notified of non-COSS contracted asbestos work or abatement activities, in order to provide tracking and oversight?

Answer: This is a contractor initiative which may require one or more of the following types of actions: attend construction project review meetings, attend planning and design review meetings, attend ISD cabling meetings, attend other directorate meetings as required.

Development of an asbestos database (MS Access) should be an IDIQ effort.

Answer: This is within scope of the CLIN as described. Should a study or project become necessary for this or other work, the Government may utilize either annex 6 or 13 for the accomplishment of IDIQ services.

2-228. Reference 9.7. The COSS contractor is expected to be responsible for obtaining samples of PACM. According to the performance criteria, the COSS contractor is responsible for results to be accurate and on time and reported to the TMR within one day of receipt; however, since samples are turned over to OMOH for analysis, how can COSS contractor be held responsible for this performance requirement?

Answer: Test results are to be reported within one day of receipt by the COSS contractor. The COSS contractor is responsible for determining that results are accurate from the OMOH contractor no differently than if a subcontract lab is utilized.

2-229. Reference 9.10.2. The implication of paragraph 3 is that the COSS contractor would only need to contact the OMOH contractor for asbestos releases and not for chemical releases. Does this mean that the COSS contractor will need to provide its own occupational health and safety industrial hygienists for chemical spill response support and should not rely upon OMOH contractor for this support?

Answer: The first sentence is an incorrect assumption. No, JSC provides Occupational Health and Industrial Hygiene contract support services under the OMOH contract for spill response support.

2-230. Reference 9.10.4. The requirement states that the COSS contractor will maintain reference materials, including MSDSs. This would seem to be inconsistent with the JSC Hazcom program. Is the COSS contractor required to maintain a duplicated record of the central repository?

Answer: No. The contractor is required to maintain MSDSs, per OSHA, for all materials that they use. The contractor is not required to maintain a duplicate record of the central repository.

2-231. Reference 9.12. Under Communication, Training and Participation in Work Groups, the contractor is required to provide outreach and training support services.
Will you discuss in more detail, your expectations of an "outreach" program and who the target audience might be?

*Answer: The Government believes the CLIN is clear as to performance requirements. Outreach programs are targeted towards *JSC and EPFOL employees (contractor and civil servant), except for one off-site location per year, as described in the RFP.*

2-232. Reference 9.16.1.4. Concerning development of the ERD for EPFOL, should the development of this be an IDIQ task?

Answer: No. This is within scope of the CLIN as described.

2-233. Reference 9.16.2.5.

Question: Is the monthly report for ISW generation based upon waste pickup requests and associated documentation?

Answer: Yes. See CLIN 9.3.1 "Waste Pickup", 9.3.2.2 "Accomplish Waste Tracking" and 9.3.3 "Maintain waste satellite accumulation areas".

Question: If not, is it anticipated that the report would compile data provided by the generators?

Answer: Waste generators generally do not track this information.

Question: Or is it expected that the COSS contractor would be expected to visit each accumulation site each month and attempt to estimate the quantity in each container?

Answer: No.

2-234. Reference 9.16.2.6. Concerning development of the Contingency Plan for EPFOL, should the development of this be an IDIQ task?

Answer: No. This is within scope of the CLIN as described.

2-235. Reference 9.16.2.7. In development of the Waste Analysis Plan for EPFOL, should the development of this be an IDIQ task?

Answer: This is within scope of the CLIN as described. The Notice of Registration for EPFOL is provided with a list of wastes and descriptions and copies of JSC and EF's Waste Analysis Plans (WAP) as guides.

2-236. Reference 9.16.2.11. The date of the shipment of the manifest should be used to track whether the waste was received at the TSD within 45 days. The statement "46days after manifests are not received" is unclear. Please clarify.

Answer: Regulatory requirements state that exception reports are due when original manifests are not received from the TSDR within 45 days. When return of the original manifest has exceeded 45 days (hence 46th day), the report is due immediately.

2-237. Reference 9.16.2.14. Regarding development of the training plans for EF and EPFOL, should the development of this be an IDIQ task?

Answer: No. This is within scope of the CLIN as described.

2-238. Reference 9.16.6.2. The GLO Application and certification, including database - should the development of this be an IDIQ task?

Answer: No. This is within scope of the CLIN as described.

2-239. Reference 9.16.8.2. In respect to development of the Pollution Prevention Plans for JSC, EF, and EPFOL , should the development of this be an IDIQ task?

Answer: No. This is within scope of the CLIN as described.

2-240. Reference 9.16.8.3. Clarify the source of the data for compiling the annual Affirmative Procurement Report. Are non-COSS contractors required to provide this information for the COSS contractor to enter into NETS?

Answer: See Annex 1, CLIN 1.10 "Environmental Programs", and Annex 10, CLIN 10.2.2. Manage Supply Operations, and a new CLIN that will be added to the final RFP, Annex 9, CLIN 9.11.5. Yes, this data is required from all affected contractors.

2-241. Reference 9.16.8.5. Clarify the source of the data for compiling the annual ODS Report. Are non-COSS contractors required to provide this information for the COSS contractor to enter into NETS?

*Answer: See CLIN 9.11.3 "Track use of ODS at *JSC and EPFOL". Yes, the annual ODS report includes all ODS used at *JSC and EPFOL.*

2-242. Reference 9.16.8.8. Clarify the source of the data for compiling the annual Tier II and TRI Reports. Are non-COSS contractors required to provide this information for the COSS contractor to prepare the forms?

Answer: The facility chemical inventory database maintained by the OMOH contractor, prior year reports, and information obtained and managed by the COSS contractor under other environmental CLINs. Yes, but note that the CLINs requires and entails more than filling out an EPA form.

2-243. Reference 12.1.2.

Question: Is the contractor to supply all vehicles and material handling equipment such as pallet racks, fork lifts and their associated support equipment?

Answer: If it is not listed in the GFP or IAGP list it is up to the contractor to furnish it.

Question: Will the contractor be authorized to use GSA as a source of the required vehicles?

Answer: No.

2-244. Reference 14.1.8. This CLIN states that the contractor is to supply all supplies, equipment, personnel, tool, materials supervision, etc. necessary to do this job. However, in Section B, Schedule of Prices, there is no line item for supplies, equipment, tools, materials, etc. Is this a Government oversight, or does the Government not care what is spent on these items, or does the Government plan to pay for these items some other way?

Answer: This is a firm fixed priced annex. It is the Government's intent that the fixed prices proposed constitute full and complete consideration for all successfully completed firm fixed price work.

2-245. Reference F.5. "Option 2" and "Option 3" are specifically for the fourth and fifth contract years. Why are the pricing references made to Annex 6 ID/IQ prices for Contract Year 3" when the option is describing contract years 4 and 5. Please clarify why the pricing reference are different in Annexes 6 and 13?

Answer: The Government will clarify the pricing references in Section F to appropriately identify contract year 4 and 5 to correlate with options 2 and 3 respectively.

2-246. Reference G.13, L.5.1. In reference to Subcontracting Goals, "The total subcontracting goal expressed, as a percent of total contract value, is 20 percent, including options and includes the following goals:...."

Small Disadvantaged Business Concerns	17.0 percent
Woman-Owned Small Business Concerns	6.0 percent
HUBZone Small Business Concerns	2.0 percent
Veteran-Owned Small Business Concerns	0.25 percent

However,

Section L
5.1 Volume 1 – Management B. NASA Plan for Small Business Subcontracting Goals (pg. L-12)

"....The total subcontracting goal expressed, as a percent of total contract value, is 36 percent, including options. The percentage goal (36 percent), includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns	17.0 percent
Woman-Owned Small Business Concerns	6.0 percent
HUBZone Small Business Concerns	2.0 percent
Veteran-Owned Small Business Concerns	0.25 percent

Question: Is the Small Business Goal 20% or 36% of the contract value?

Answer: Please refer to the answer given for question 2-128.

2-247. Reference L-6. In paragraph I.7, the proposal section volume IV, Cost/Price has N/A under page limitation yet it is listed just below as one of the elements of page limit, Should Volume IV be removed from the page limitation?

Answer: Yes. The final RFP will be changed to reflect this answer.

2-248. Reference L-7. Can the requirement for Arial 12 point font be changed to Times New Roman 10 point?

Answer: No.

2-249. Reference L.Part II.5.1. In the Phase-in (Transition), under Phase-in Milestones, Items ii – iv and viii, it implies in Milestones 2, 3, and 4 that workers must be employed and on the payroll by March 15. Milestone 3 states that 90% of all personnel proposed to perform all contract requirements are on its payroll no later than March 15. Milestone 8 states, "has completed JSC's clearance and badging as well as training requirements for all personnel necessary to perform the full scope of contract requirements. This milestone shall be fully achieved no later than March 31, 2002." To meet clearance, badging, and training requirements by the milestone will require hiring and paying personnel much sooner in the phase-in period. This will substantially increase the cost of phase-in. Is this the Government's intent?

Answer: No. For milestone 3, the requirement for being on the payroll by March 15 will be deleted.

2-250. Reference L.Part II.5.3.A. Past performance requirements include completing Form A for all contracts completed and ongoing within the past 3 years with a value of more than $1M. This requirement will result in over 300 separate contract entries for our large business as well as the evaluation by the Government of all of these. Will the Government please consider changing the time period, increasing the dollar amount, or limiting the number required?

Answer: The Government is changing this requirement in the final RFP to include only those contracts that provide similar services.

2-251. Reference L.Part II.5.1.C.(3) Commonly the phasing in contractor does not bring on staff until start of contract. However, the Government schedule indicates that the phasing in contractor has 90 percent of the workforce on their payroll prior to contract start. Does the Government intend for the phasing in contractor to assume work responsibility and accountability prior to total contract start?

Answer: No. See answer to question 2-249 above.

2-252. Reference "high visibility areas", AN-1-2, SOW 1.6.2(b): Definitions of "high visibility metrics", broadly categorized in 1.6.2, are not included in Annex 1 definitions. "High visibility areas", in 1.6.2, appear to include nearly all annexes, and each annex has numerous minimum standards. Do you plan to specify which of the standards, with its associated metrics, will be considered by NASA JSC to be "high visibility"?

Answer: No. Section L calls for each offeror to propose metrics for each of the high visibility areas. The successful offeror's proposed metrics will be included in the contract to meet this requirement.

2-253. Do the RFP Form 3s for the PM and the Annex Managers count in the page count for the Management Volume.

Answer: No.

2-254. Are the Compensation Forms list in Sec L, pages 38-40, included in the page count for the Management volume.

Answer: No.

2-255. Is the Draft Environmental Compliance Plan IAW DRD No. AN9-1 listed in the Management volume considered part of the 100 page limit.

Answer: Yes.

2-256. Is the Draft QC Plan IAW DRD No AN-1-2 listed in the Quality Control Section of the Management volume considered part of the 100 page limit.

Answer: Yes.

2-257. Section G.13 list Subcontracting goals as 20% of total contract value, Section L list the goals as 36% of total contract value, which is correct.

Answer: Subcontracting goals stated in Section G are incorrect. The goals listed in Section L are correct. The RFP will be changed to reflect this answer.

2-258. Ref. SOW 2.2.4, equipment identification: What is the estimated accuracy of the current CMMS equipment database of 12,600 items, including the required information associated with each item.

Answer: The Government does not know the exact accuracy of the CMMS database. Most of the site equipment that is required is in the database.

2-259. Reference Section L. page 31, through 34, RFP Forms 1 and 2.

Question: Form 1 has 2 page 2 of 2's and Form 2 has page 2 of 2. Please clarify the disparity.

Answer: Form 1 and 2 will be combined to better clarify the information requirement. Additionally, the page numbers on the combined form will corrected in the final RFP.

Form 1 requests all contracts over $1 million active and completed in the last 3 years to be listed. Is the dollar value annual or total.

Answer: The dollar value will be based on total contract value. The final RFP will be changed to reflect this answer.

Question: Form 2 page 2 of 2 , please clarify "Performance Variance from Contract Baseline" as it pertains to each annex.

Answer: This will be explained in the final RFP.

2-260. Reference Annex 2, paragraph 2.2.2 Accomplish Scheduled Maintenance. Please provide the current maintenance tasks in the SM database. These maintenance tasks are required to develop the estimated FTE's for Systems Maintenance.

Answer: The SM Database is a new database of tasks. The individual task descriptions are in the database. The database is in the TRL.

2-261. Reference Annex 2, paragraph 2.2.5 Pressure Systems Support. Please provide the Pressure Systems Inventory. The Pressure Systems Inventory is needed to estimate the FTE's required to perform the inspections and certifications.

Answer: This data is identified in the TRL under JA00023, "Pressure Systems Inventory."

2-262. Reference Annex 2, paragraph 2.3.1 Repair Equipment and Systems identified in the SM Database. Please provide the historical workload (number of repair orders per system, Average cost per repair order and or minimum staffing requirements).

Answer: The data that the Government has available is in the TRL Workload History.

2-263. Reference Annex 2, paragraph 2.8.7 Personnel Requirements. Please provide the workload data to support the qualified personnel listed in these PWS's or the minimum required staffing

Answer: The Government does not have this data.

2-264. Reference Annex 13. Please provide the current maintenance tasks for the tasks listed in section B. These tasks are unique to JSC and are not industry standard.

Answer: The maintenance tasks that the successful offeror will have to perform are listed in ***the **SM Database*** *located in the TRL.*

2-265. Reference Section L.7, Proposal page limitation, "Total Volume I, II and IV equals 225." Should This read "Total Volume I and II equal 225."

Answer: Yes. The final RFP will be changed to reflect this answer.

2-266. Ref 5.1 (c.)(4), Labor Relations Plan. The first sentence says, " The offeror shall complete compensation forms (a), (b), (c) and (d) as described in Section L, Pages L36-40... Those forms are described on pages L29-30. The sample forms are actually on pages L-41, L-42, L-43 and L-51. Please clarify.

Answer: Section L will be revised to eliminate this discrepancy.

2-267. Ref L5.1 (c.)(6)(a). The requirement for an RFP form 3 for the project and annex managers implies that a totally new management staff is required for non-incumbents. Is this the case.

Answer: No. The contractor shall fill out the forms for whomever they propose for their management staff. This applies whether they propose incumbent personnel or otherwise.

2-268. Ref DRD AN-1-2. Under scope, CLIN 1.7.2 is referenced. We assume that should be CLIN 1.6.2 to be consistent with the revised DRFP. Is that correct?

Answer: Yes. The final RFP will be changed to reflect this answer.

2-269. Reference Section G, Paragraph G.8(a): Change from "...Annexes 1 through 5 and 7 through 13"...to ... "Annexes 1 through 5 and 8 through 13" as it appears Section G, Paragraph G.4 already covers invoicing for Annex 7 efforts.

Answer: The clause at G.8 will be corrected to eliminate the reference to annex 7.

2-270. Section B. 9 – Pre-established Annex 13 Cost Values

Question: Excluding the last 5 items, item identifiers on pages B-20 through B-24, begin with the prefix 13. 2. 4. What is the significance of this identifier, since there is no SOW No. 13. 2. 4?

Answer: The identifier in Section B will be changed to 13.2, which is the reference for IDIQ cost reimbursement maintenance and repair.

Question: What is the purpose of item 6. 3. 2. 2 for Miscellaneous Construction Delivery Orders? It appears that no pricing is required for this item.

Answer: The purpose is to establish pre-priced values for the items identified in this CLIN.

Question: What is the significance of the identifier 13. 6. 4. 18? There doesn't appear to be a correlation with the SOW for Annex 13.

Answer: The identifier will be changed in Section B to 13.3.14, which is the reference in annex 13 for scanning support services.

2-271. Section B.10 – Fixed Bare Labor Rates (for use with Annex 6)

Question: Item identifiers begin with the prefix B.11. What is the significance of this prefix? Should the prefix be B.10 instead of B.11?

Answer: The numbering system was inadvertently skewed. It will be changed in the final RFP.

Question: In most cases, the job title indicates the source of the rate requested, Exempt, Wage Determination, Union, or Davis Bacon. However, there are multiple line items which use the same job title. What is the source of the rates requested where this occurs, e.g. Carpenters, Electricians, Forklift Operators, Roofers, Sheetmetal Workers?

Answer: The Government will clarify this in the final RFP.

2-272. Section B.11 – Pre-Established Loaded Labor Rates (for use with Annex 13)

Question: Item identifiers begin with the prefix B.12. What is the significance of this prefix? Should the prefix be B.11 instead of B.12?

Answer: *The numbering system was inadvertently skewed. It will be changed in the final RFP.*

Question: In most cases, the job title indicates the source of the rate requested, Exempt, Wage Determination, Union, or Davis Bacon. However, there are multiple line items which use the same job title. What is the source of the rates requested where this occurs, e.g. Carpenters, Electricians, Forklift Operators, Roofers, Sheetmetal Workers?

Answer: The Government will clarify this in the final RFP.

2-273. Section L – Part II, 3.0 Period Covered By Procurement

Question: Page L-11 shows a 60 day phase-in period, yet there is no CLIN in the Section B to cover this period. Should the phase-in costs be included in Annex 1 for the Base Period, or will there be an additional CLIN for phase-in?

Answer: The RFP will be changed to include a fixed price in the Section B price to correlate to each of the phase-in milestones identified in the proposal preparation instructions contained in Section L of the RFP. The cost proposal instructions in Section L have been updated to address how these prices should be proposed.

2-274. Section L – Page L-28, ID/IQ Bare Labor Rates

Question: The above form defines that the 2nd column requires the offeror to provide the corresponding straight time labor rate per labor category. Does NASA consider the straight time rate to exclude shift differential, but include any lead pay if applicable?

Answer: Yes.

Question: The 3rd column requires the hourly fringe rate per labor category. Does NASA consider all of the following payroll related items to be included in the fringe rate?

1. Health & Welfare
2. Pension / 401K
3. Non-Productive Pay, including Vacation, Holiday, Sick, etc.
4. Payroll taxes, including FICA, FUTA, SUI, etc.

Answer: Yes.

Question: Is Worker's compensation insurance, Overtime Premium and Shift Differential to be included in the coefficients, rather than the Fringe Rate?

Answer: All three shall be included in the coefficients. The final RFP will be changed to reflect this answer. The contractor shall put overtime and shift differential in the various coefficients according to its management philosophy.

2-275. Section L – Page L-28, Coefficient Factor Forms
The expense items listed on the subject forms include the items listed below. Please provide additional definition of what is required for each coefficient.

Question: How can the Contractor provide accurate data, when no quantities of hours or dollar volume is provided by NASA? Most of the items require some knowledge of the volume of purchases required.

- Compliance Issues
- Moving
- Administrative Support
- Cleanup/Signs
- Indirect Labor

- Equipment
- Fluctuations
- Other

Answer: To the extent data is available, the Government has provided it in the TRL in the document ***Workload History.***

2-276. Section L – Page L-29, Compensation Form (a), Salaries and Wages Non- Exempt – Contract Year 1

Question: The 2nd column requires listing the "Labor Category-Government", matched to the categories listed on the applicable DOL WD. What information is required in the 5th column, "Category as per DOL WD"?

Answer: The second column is being removed. The fifth column should include wages based on classifications identified in column one. The final RFP will be changed to reflect this answer.

2-277. Is there any prohibition against "marking up" the materials, supplies, and subcontracts that would be required to support the COSS statement of work and purchased under the COSS contract? If so, please explain.

Answer: Offerors have discretion relative to their development of fixed prices to be proposed for annexes 7 and 14. Offerors are required to propose fixed bare labor rates, pre-established annex 6 prices and IDIQ pricing coefficients in accordance with the cost/price instructions contained in Section L. For annexes 1-5 and 8-13, the contractor is only permitted to seek reimbursement for allowable, allocable and reasonable costs permitted by the FAR.

2-278. Will the Government leave the decsion how to mark up or burden purchased materials, supplies, and equipment (with materials handling charges, G&A, and fee for example) up to the contractors involved as part of the contractor's overall business decision and cost bidding strategy?

Answer: Offerors have discretion relative to their development of fixed prices to be proposed for annexes 7 and 14. Offerors are required to propose fixed bare labor rates, pre-established annex 6 prices and IDIQ pricing coefficients in accordance with the cost/price instructions contained in Section L. For annexes 1-5 and 8-13, the contractor is only permitted to seek reimbursement for allowable, allocable and reasonable costs permitted by the FAR.

2-279. Does the Government consider the total cost for materials, supplies, and equipment if purchased by a small business subcontractor, to be included towards achieving the 36% small business subcontracting goal for this procurement?

Answer: Yes.

2-280. Will the Government provide historical figures on an annual basis for at least the last three years for materials, supplies, and equipment that have been procured under the current base operations support contract? There can be large variances in estimating these items and the incumbent has a distinct advantage in knowing what has been purchased over the life of the current contract.

Answer: The Government does not have this data.

2-281. In order to avoid "gaming" the amount of purchases for materials, supplies, and or equipment, many Government contracting officers provide "plug" numbers for this items based on historical data and their projections for the future. Will the Government provide annual "plug" numbers for materials, supplies, and equipment required to be purchased under the COSS contract. This would preclude wide variances in the figures for these items as shown in bidders cost proposals. If plug numbers are provided, they can be caveated so that the contractor is free to develop their own estimates or use the plug numbers or to add to the plug number based on their proposed approach.

Answer: The Government will not provide "plug" numbers for materials, supplies, or equipment.

2-282. Reference: Draft RFP Section M.3.2

Question: The Management Approach and Technical Performance Subfactors of Mission Suitability are equal in value. We strongly recommend that Management Approach be given a higher value than Technical Performance, since this will reduce the incumbent's technical advantage, and "level the playing field". Also, the relative weight of the award criteria should emphasize program management, since the predominant challenge on COSS is management.

Answer: The Government has selected values it believes best fit a performance-based contract.

2-283. Reference: Section L - Part II, Section 5.1.C.6, "Key Personnel & Staffing"

Question: Is this Section intended to instruct the offeror to propose a one to one correlation between key personnel and each Annex?

Answer: No. This area is at the discretion of the offeror.

Question: If the answer to question 2 is yes, we feel that the government is dictating the organizational structure as opposed to allowing the offeror to propose what we feel is an innovate approach. We suggest the government allow the offeror to determine the organizational structure and identifying key positions.

Answer: The Government is not intending to dictate any organizational structure. The Government desires to know how the contractor intends to manage each annex and by whom.

2-284. Reference: Section L - Part II, Section 5.2.A.1, "Technical Performance"

Question: Can the government provide the source data to identify previous incidents to better estimate risk, or, is this information available in the library?

Answer: No historical data to identify previous incidents is available. Furthermore, the Government wishes the offerors to identify where they believe risk exists on this contract and address it.

2-285. Reference: Section L - Part II, Section 5.2.A.5

Question: Are the contractors referenced in this section those contractors on the COSS team or does it also include interfacing with contractors outside the offereors team?

Answer: Both.

2-286. Reference: Section L - Part II, Section 5.2.B

Question: Is sufficient information available in the library to fully understand all the factors identified in this Section? Without this information, the incumbent has a distinct advantage.

Answer: The Government believes that offerors have enough information in both the TRL and the performance requirements to understand each annex. This section calls for the offerors to describe how it will perform the requirements and manage the interrelationships involved.

2-287. Reference: Section L - Part II, Section 5.3.A, "Past Performance"

Question: Does the government intend, under this section, that the offeror must list every contract over one million dollars in the past three years or is it possible to narrow this down to either just functionally

applicable contracts or contracts performed within the operating division of the company bidding the program?

Answer: The Government is changing this requirement in the final RFP to include up to 10 contracts that best demonstrate the offeror's ability to successfully perform under the contemplated contract.

2-288. Reference 4. Paragraph 4.2.1.6.1. Identifies responsibilities for the EMCS system, but the structure is slightly confusing.

Question: Does Honeywell have a separate contract with Johnson Space Center to monitor and control the equipment?

Answer: Yes they take care of the EMCS servers. It is not clear what equipment is referred to in this question.

Question: It would seem that the separate PC interface to the EMCS system via the System 20/20 is a critical aspect to continued, uninterrupted support to SCTF and HVAC. Changing the software could be a time consuming process to work out an agreement with Honeywell to properly interface to EMCS. Is more data about the existing agreement available, or perhaps a point of contact?

Answer: The reference to BOSS will be removed from the contract. UES Corporation is the contractor currently supporting that system.

2-289. Reference Section L, para 5.2.A.(7). Paragraph 7 and its subparagraphs calls for an extensive discussion of 'work control' and 'work', i.e. "Describe how work control will be structured and accomplished, including all delegations of authority, to meet the contract requirements specified. Describe your process for receiving, scheduling, tracking, completing, and closing out work. Describe how delayed work will be tracked, rescheduled, and completed. Describe the mechanism you will use to match the correctly trained and skilled manpower to the work requirement."

Is it intended for the offeror to describe these processes for work orders and service orders, or for all annexes? (A description, and even a procedure, to "close-out work" for annexes like Supply, Transportation, Safety, etc. seems unnecessary.)

Answer: Neither. This description should explain how your Work Control will function as required in CLIN 1.2.

2-290. Reference Section L, para 5.2.C.(3). The paragraph requests "For any tool proposed, the offeror shall fully describe the tool, identify the contract requirements that will benefit from its use, and explain how it can improve performance." Is this asking for a tool that is defined as a means of accomplishing a task or purpose, or a more literal definition of an implement for performing mechanical operations.

Answer: It means both.

Center Operations Support Services (COSS)
Section C, Statement of Work Roadmap

1. The scope of work is comprised of 14 separate annexes. Each annex describes performance requirements of a similar nature. The annexes and their titles are:

Annex 1	Administrative Support
Annex 2	Maintenance And Repair
Annex 3	Directed Services
Annex 4	Operations
Annex 5	Engineering
Annex 6	Non-Routine Fixed Price IDIQ
Annex 7	Grounds Maintenance
Annex 8	Information Technology
Annex 9	Environmental Program
Annex 10	Supply
Annex 11	Property and Equipment
Annex 12	Transportation
Annex 13	Non-Routine Cost Reimbursable IDIQ
Annex 14	Custodial

2. All information and performance requirements within an annex are assigned a contract line item number (CLIN) for ease of identification. (e.g. CLIN 1.2 Work Management and Control.)

3. The first digit in a CLIN number always represents the annex number. (e.g. CLIN 1.2 – represents a CLIN in annex 1.)

4. To assist the Contractor's understanding, three methods were used throughout the contract to provide specific information at the location it might be needed. The three methods were:

   a. To single asterisk and bold commonly defined words – These are words defined in Annex 1, Table 1-1, Definitions. (e.g. See CLIN 1.1.2.a.) For a further explanation see CLIN 1.1.3.

   b. To double asterisk and bold reference material titles – These are the titles to reference materials located in the Technical Reference Library. (e.g. See CLIN 1.1.2.c.) For a further explanation see CLIN 1.1.3.

   c. To add "Note(s)" at critical locations – These note(s) describe background information the Contractor may need to understand the specific CLIN requirements or the environment in which that CLIN's services will be provided. (e.g. See CLIN 2.3.3).

5. Each annex is divided into four basic parts:
   a. General Information - This part of the annex describes background information the Contractor may need to understand the annex requirements or the environment in which the annex services will be provided. Examples are:
      1) A description of the services requested in the annex.
      2) Any restrictions, limitations, and special conditions.
      3) Definitions that apply to that specific annex.
      4) Information or performance requirements that apply to the entire annex.

   b. Performance Requirements - This part of the annex describes the specific performance requirements the Contract shall perform. This part is delineated by the following heading across the top of the page:

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA

      1) Item No. – This column provides the CLIN for the required product or service.
      2) CLIN Title / Outcome – This column provides a brief title for the product or service and a brief description of the outcome of the product or service.
      3) Performance Requirements - This column describes the required product or service the Contractor is to provide.
      4) Workload Data - This column describes the count, the frequency, the historical workload data, or the items requiring the product or service. All items in this column are for one year.
         Example Count – See CLIN 5.3
         Example Frequency – See CLIN 4.2.1.2.2.c and 4.2.1.2.3.b
         Example Historical Workload Data – See CLIN 1.2
         Example Items Requiring the Product or Service – See CLIN 2.2.2
      5) Performance Evaluation Criteria - This column describes the general "pass-fail" criteria used to determine if the delivered product or service is acceptable.
         Note 1 – Although the government attempted to line up the applicable "pass-fail" criteria next to the appropriate paragraph, any minimum standard described for a CLIN shall be applied to the appropriate performance requirements within that CLIN, whether it is next to the appropriate paragraph or not.
         Note 2 – Minimum standards for a CLIN applies to the appropriate paragraph within all subsets of that CLIN. Example - Minimum standards for CLIN 9.5 applies to CLIN 9.5.1 through 9.5.4.

   c. Personnel, Training, and Certifications - This part of the annex describes the types of personnel required for that particular annex, along with the specific training, certifications, etc. necessary. This part of the annex is a sub element of the performance requirements.

d. Records, Reports, Submittals - This part of the annex describes the records, reports, and submittals required for that particular annex. This part of the annex is also a sub element of the performance requirements.

6. Data Requirement Description (DRD) - These are created when a contractor product must be delivered in a specified format, to specific individuals, with specific information, and when the description of these three items are fairly extensive. No DRD was specified when the description of the above three items could be explained in a few paragraphs. In these cases, the product was described within the CLIN calling for the product or in the "Records, Reports, and Submittals" section of the respective annex.

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
Abacus Technology Corporation	5454 Wisconsin Ave., Ste. 1100 Chevy Chase, MD 20815	301-907-2445 fax: 301-907-8508	Ray Zdancewicz	SDB
ABC Pest Tool & Services	12460 NW Frwy. Houston, TX 77092	281-730-9500 fax: 713-316-0049	John Sazma	Sm. Bus
Ace Building Services		915-751-1789	Steve or Joann Chapel	
Adkins and Associates	2251 Highland Vista Drive, Arcadia CA 91006		Judi M. Teasdale, Consultant	
Advancia Corporation	800 Research Parkway, Ste. 250 Oklahoma City, OK 73104	405-996-3000	Dick Hall	SDB
AeroSpace Insights, Inc.	1190 St. George Rd. Merritt Island, FL 32952	321-454-3430 fax: 321-454-4031	Shirley or Godfrey Bottomley	Sm. Bus Woman Owned
AHNTECH, Inc.	3333 Camino del Rio South San Diego, CA 92108	619-516-5900 fax: 619-516-5955	Won G. Choi	SDB
Airlift Technologies Int'l, Inc.	8101 Opportunity Drive Milton, FL 32583	850-623-3330 fax: 850-623-3323	Bryon L. Woram, President	Sm. Bus
AMEC Earth & Environmental	113 West Hampton Ct. Niceville, FL 32578	850-897-6565 fax: 850-897-1074	Peter Slatcoff, Sr. Project Manager	Lg. Bus
America's Finest Service Co., Inc.	P.O. Box 24477 111 Travelers Way St. Simons Island, GA 31522-7477	912-638-9916 fax: 912-638-5701	Dennis J. Donnelly, III	Sm. Bus
Arthur D. Little, Inc.	Acorn Park 15F-211 Cambridge, MA 02140	617-498-6196	Stanley H. Werlin	Lg. Bus
Aztec Facility Services	6600 Sands Point Dr. Houston, TX 77074	713-779-1500	Vern Crosby	SDB
Barrios Technology, Inc.	2525 Bay Area Blvd., Ste. 300 Houston, TX 77058-1556	281-280-1960 fax: 281-280-1903	Chuck Hoffman	Sm. Bus Woman Owned
B Harvey Company, Inc.			Michael Harvey, COO	
Big Bear Construction, Inc.		512-396-1810 fax:512-392-5558	Gary Long	Sm. Bus
BMAR & Associates, Inc.	P.O. Box 688 Hopkinsville, KY 42241	270-885-4642 fax: 270-886-9067	Jill P. Richardson	Lg. Bus
BRSP	P.O. Box 58565 Houston, TX 77058	281-483-6539 fax: 281-483-6693	Robin Alex, Procurement Manager	Lg. Bus
Burns and Roe Services Corp.	800 Kinderkamack Rd. Oradell, NJ 07649	201-986-4613	Jim Morrison	Lg. Bus

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
C2 Multimedia, Inc.	7700 Leesburg Pike, Ste. 219 Falls Church, VA 22043	703-748-2780, x3107	Bob Bealle	8(a) Woman Owned
Caelum Research Corp.	1700 Research Blvd. #100 Rockville, MD 20850	301-424-8205 x304	Bob Bealle	SDB
Call Henry, Inc.	306 Brevard Avenue Cocoa, FL 32922	321-631-6669 fax: 321-631-7320	Henry L. Foster, President	Sm. Bus
Capital Hill Building Maintenance, Inc.	8521 Rainswood Drive, Suite D, Hyattsville, Maryland 20785-2345	301-341-3650	Sarian S. Bouma, President	8(a)
CH2M Hill Services, Inc.	155 Grand Avenue, Ste. 1000 Oakland, CA 94612	510-251-2888 x 2049	Roy MacGregor	Lg. Bus
Charles Flagg LLC	23010 Lake Forest Dr. Ste. D-181 Laguna Hills, CA 92653	949-654-1297 fax: 949-654-1015	Charles Flagg	Sm. Bus
ChemCal	P.O. Box 180785 Arlington, TX 76096	800-330-7174 fax: 936-273-5870	Jim McCure	HUBZone, Woman Owned
CL Vick Construction Company, Inc.	207 Laurel Friendswood, TX 77546	281-482-4173 fax: 281-482-4648	Curtis Vick, President	Sm. Bus
Comprehensive Health Services, Inc.	8810 Astronaut Blvd., Ste. 145 Cape Canaveral, FL 32920	321-783-2720 fax: 321-783-1440	Gary Palmer, Vice President Government Sector	Sm. Bus
Computer Sciences Corporation	7700 Hubble Drive Lanham-Seabrook, MD 20706	301-794-4000 fax: 301-794-9553	David Ziobro	Lg. Bus
Contract Services, Inc.	P.O. Box 3019 Junction City, KS 66441	785-762-6161 fax: 785-762-4372	Desaree Venema	8(a)
Corrigan Consulting, Inc.	P. O. Box 99, 1909 Capri Lane, Seabrook, TX 77586	281-474-7455 fax: 281-474-4501	Gail Corrigan, President	8(a)
Cortez III Service Corporation	6747 Academy Rd. NE, Ste. D Albuquerque, NM 87109	505-237-3602	Kenneth Simmonds	Lg. Bus
Critique, Inc.	10001 Lake Forest Blvd., Ste. 200 New Orleans, LA 70127	504-246-5875	Bruce Easley	8(a)
CTS, LLC	4117 Hillsboro Pike #103, Nashville TN 37215	615-886-9889 fax: 615-886-9890	Steve Chatham	
Cyncor International, Inc.	2303 N. 44th St., Ste. 14-1150 Phoeniz, AZ 85008	480-967-6498	Juan Alvarez	Sm. Bus
DDMS Technologies	1110 NASA Rd. 1, Ste. 205 Houston, TX 77058	281-335-9222	Ms. Vijay Krishen	8(a) Asian-Pacific, Woman Owned
Desert Support Services	1163 N Calle Rolph Palm Springs, CA 92262	760-318-8159 fax: 815-461-4462	Mark Dozbaba	8(a) Veteran & Woman Owned

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
Diversitech, Inc.	110 Boggs Lane, Ste. 325 Cincinatti, OH 45246-3145	513-772-4447, x18 513-772-4476	James W. Askew	8(a)
DocuPro Service Co.			Nina Schildknecht	
DP Electronics, Inc.	17380 Groschke Rd. Houston, TX 77084	281-646-9500 fax: 281-646-1710	Maureen Byrnes, OPS Manager	Sm. Bus. Disabled Veteran Owned
DSS Services, Inc.	1246 West Laurel San Antonio, TX 78201	210-734-3060 fax: 210-734-8440	Edwin R. Jones	Sm. Bus
DXP Enterprises, Inc.	7272 Pinemont Houston, TX	713-996-4809	John Graham	
Dyncorp Technical Services, Inc.	2000 Edmund Halley Drive Reston, VA 20191-3436	703-264-9172 fax: 703-715-4896	Ralph R. Tuccillo	Lg. Bus
E2 Consulting Engineers, Inc.	1201 Jadwin Avenue Richland, WA 99352	509-946-0341 fax: 509-946-3135	Max H. Dixson, Western Operations Project Manager	SDB
EG&G	900 Clopper Road, Ste. 200 Gaithersburg, MD 20878	281-996-8563	Jeff Blanchard	Lg. Bus
Energy Efficiency Consultants/Resource Management	22 Carter Smith, Nevada 89430	775-465-2986 fax: 775-465-9435	De Anna K. Jones, Owner	8(a) HUBZone, woman-owned
Enron Building Services, Inc.	8200 Brookriver Dr. Ste. N-511 Dallas, TX 75247	214-630-0905	Jackson Routt, Regional Manager	Lg. Bus
Enterprise Advisory Service Inc. (EASI)	16903 Bucaneer, Ste. 250 Houston, TX 77058	281-461-2305 fax: 281-486-8454	Liz Lawler	8(a)
Erin Services, Inc.	P. O. Box 24477, 111 Travelers Way, St. Simons Island, Georgia 31522-7477	912-638-9916 fax: 912-638-5701	Mr. Dennis J. Donnelly	
Environmental Resources Corporation	P.O. Box 34604 San Diego, CA 92163	619-564-0432 fax: 619-574-1229	C.A. Clark	
Fairway Landscape & Nursery, Inc.	15135 Herring Rd. Atascosa, TX 78002	210-924-3919	Jose or Ricardo Perez	8(a) Disabled Veteran Owned
Federal Sources, Inc.		703-610-8736 703-610-8747	Terri Snowden Scott LeCount	
Fluor Federal Services	2111 Wilson Rd., Ste. 1050 Arlington, VA 22201	703-812-8320	John Shinnick	Lg. Bus
G&Z Contracting	P.O. Box 58863 Nassau Bay, TX 77258	281-218-8491 fax: 281-218-8482	Zaky S. Zaky, President	8(a)

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
General Physics Corp. (GP)	6700 Alexander Bell Drive, Ste. 400 Columbia, MD 21046	410-290-2500 fax: 410-290-2401	Bill Bauman	Lg. Bus
Greenway Enterprises, Inc.	608 Lincoln Rd. West Helena, MT 59602	406-458-9411 fax: 406-458-6516	Lynne Cook	SDB Woman & Native American Owned
Griffin Services, Inc.	5755 Dupree Drive, NW, Ste. 220 Atlanta, GA 30324	770-952-1479, x271	Jim Griffin	Lg. Bus
Grijalva & Allen (G&A)	5847 San Felipe, Ste. 3850 Houston, TX 77057	713-784-1181 fax: 713-784-2705	David C. Vasquez	8(a)
GRS and Associates	1 Phillips Trail Greenville, SC 29609	864-246-5450	George R. Smith	Sm. Bus
GS Tech, Inc.	2320 East North Street, Ste. E Greenville, SC 29607	864-241-4062 fax: 864-241-4018	George C. O'Neal, President	8(a)
Hawk Industrial Corp.	1001 Southmore, Ste. 407 Pasadena, TX 77501	ph/fax: 713-475-9944	Rod Havens	Sm. Bus
Hicks Services	8502 Canyon Ridge Dr. Spring, TX 77379	281-251-6267	Calvin Hicks	Sm. Bus
Holmes & Narver Services	1515 E. Tropicana Avenue Las Vegas, NV 89119	702-798-0098	Hank Hutson	Lg. Bus
Honeywell Technology Solutions, Inc.	7000 Columbia Gateway Drive Columbia, MD 21046	410-964-7082	Mark Hitch	Lg. Bus
HS-Singleton & Associates, Inc.	One East Chase Street, Ste. 1131 Baltimore, MD 21201	888-532-4644 fax: 877-532-4644	Jean-Robert Siclait, President/CEO	SDB HUBZone
IMRI, Inc.	119 S. Main, Ste. 500 Memphis, TN 38103	901-345-1986 fax: 901-345-1989	Gerrelynn F. Crawford, Account Manager	8(a) Veteran & Woman Owned
IT Corporation	1525 Wilson Blvd., Ste. 600 Arlington, VA 22209	702-870-2490	Mary Lou Brown	Lg. Bus
Jacobs Engineering	1111 S. Arroyo Parkway Pasadena, CA 91105	626-578-3500	Kim Hoag, VP Federal Sales	Lg. Bus
James Noble Architect	2104 Rock Creek Lane Pearland, TX 77581	281-652-9216 fax: 281-652-9217	James Noble	Sm. Bus
JANTEC, Inc.	2810 W. Charleston Blvd., Ste. 45 Las Vegas, NV 89102	702-870-5200 fax: 702-870-5320	Quentin M. Thomas, Executive Vice President	Sm. Bus Woman Owned
JE Services Technologies, Inc.	125 Broadway Avenue Oak Ridge, TN 37830	1-865-220-6028 fax: 1-865-220-6033	Fred Dew, P.E., President	Sm. Bus
Jerry Ballard & Associates	7767 Biloxi Cove Millington, TN 38053	901-873-2154	Jerry Ballard	SDB

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
Johnson Controls, Inc.	7315 North Atlantic Avenue Cape Canaveral, FL 32920-3792	321-784-7163	William Huseonica	Lg. Bus
JWK International Corporation	7617 Little River Turnpike, Ste. 800 Annandale, VA 22003	703-750-0500 fax: 703-256-1986	Jim Gilmore	SDB
Kleen-Tech Services Corp.	7100 N. Broadway, Ste. 6-L Denver, CO 80221	303-428-1873	Patrick Hughes or Brad Brandt	Lg. Bus
L&M Tech	4209 Balloon Rd., NE Albuquerque, NM 87109	505-343-0200	Fred Mondragon, Vice President for Business Development	SDB
LB&B Associates, Inc.	9891 Broken Land Pkwy. Columbia, MD 21046	301-596-2440	Rick Franz	Lg. Bus
LME, Inc.	6700 Odyssey Dr., Ste. 201 Huntsville, AL 35806	256-971-6911 fax: 256-971-6913	David L. Clark, Vice President	Sm. Bus Veteran Owned
Logicon	2411 Dulles Corner Park, Ste. 800 Herndon, VA 20171-3430	703-713-4000	Robert Knuutila	Lg. Bus
Loncoleman Corporation	1775 East 45th Street Cleveland, OH 44103	216-431-8070	Kelli Coleman	Sm. Bus
Lynx, Ltd.	4225 Real La Luz Las Cruces, NM 88012	505-524-5335 fax: 505-527-6731	Armando Chaires or Tim Davis	Sm. Bus Woman Owned
Mainthia Technology	17535 Rosbough Dr., Ste. 200 Cleveland, OH 44130	440-816-0202 fax: 440-816-1121	Hemant Mainthia, President	8(a)
McSys Technology Corp.	301 Cedar St., Ste. 2 Greenville, AL 36037	256-534-1944 fax: 256-534-9644	Patricia B. McDonald, President	HUBZone, Woman Owned
Metrica, Inc.		281-461-9525 fax: 281-461-9550	Phyllis Thompson	SDB Woman Owned
MRO Software, Inc. (MAXIMO)	13655 Dulles Technology Dr. Herndon, VA 20171	703-713-0700, x13	Gary Gray	Lg. Bus
NATECH		713-521-3576 fax: 713-807-0676	Jason Davis	8(a) HUBZone
NDS, Inc.	11108 Timber Crest Dr. Houston, TX 77065	281-469-8777 fax: 281-469-7464	Wm. H. Watts, President	Small Bus
North American Telecommunications, Inc.	9015 Rhode Island Ave. College Park, MD 20740	301-220-1818 x103	Chwang Wong	Sm. Bus
Northrop Grumman/Logicon	1980 North Atlantic Ave, Ste. 330 Cocoa Beach, FL 32931	321-868-3889 fax: 321-868-3931	Mel Pollack, Director, Operations & Services	Lg. Bus

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
NVT Technologies, Inc.	21515 Ridgetop Circle, Ste. 300 Sterling, VA 20166	703-406-8000	Alan B. Cristal, Director of Marketing	SDB
OAO Corporation	16511 Space Center Blvd., Ste. 300 Houston, TX 77058	281-280-2662	John Martinec	Lg. Bus
Olympus Building Services, Inc.	5 Taylor Avenue Doylestown, PA 18901	215-345-6004	Angelo DeSantis	Sm. Bus
Omni Corporation	2725 Broadbent Pkwy. NE, Ste. B Albuquerque, NM 87107	505-341-1400 fax: 505-341-4897	Tom O'Brien	SDB
Pacific Environmental Services, Inc.	5001 S. Miami Blvd., Ste. 300 Durham, NC 27703	919-941-0333	Bob Norton, President	Sm. Bus
Paramount Paint & Wallpaper	8629 Dunlap Houston, TX 77074	ph/fax: 713-771-0989 Mobile: 713-539-2126	Deborah J. Sterling, Owner	Woman Owned
Pioneer Contract Services, Inc.	8090 Kempwood Houston, TX 77055	713-464-2003 or 281-483-6680 (Fort)	Ed Fritcher or Frank Fort	Sm. Bus
PM Services Company	2220 Central Avenue St. Petersburg, FL 33712	727-323-1060 fax: 727-323-4540	Carole Metour, President & CEO	Sm. Bus Woman Owned
Price Consulting, Inc.	211 Highland Cross Rd., Ste. 270 Houston, TX 77073	281-209-1724 fax: 281-209-2724	Jim Brown	Sm. Bus.
ProMedia, Inc.	PO Box 7 Ormond Beach, FL 32175	904-441-4400 fax: 904-441-3211	Tom Visconti	Sm. Bus
RAMCOR Services Group, Inc.	PO Box 36956 Tucson, AZ 85740	520-887-8267 fax: 520-888-4574	Barbara Resley, President	8(a) Woman & Native American Owned
Ranger Support Services, Inc.	4411 Bluebonnet, Ste. 107 Stafford, TX 77477	281-565-1440 fax: 281-565-1440	Jerry Ellis, President	SDB
Reliant Energy		713-207-7802	Don Anderson	
Research Planning, Inc.	6400 Arlington Blvd. Falls Church, VA 22042	703-245-2561	Jesse Johnson	Lg. Bus
Rigging & Welding Specialists, Inc.	1403 S. Main Highlands, TX 77562	281-843-2164 fax: 281-843-2923	Charles Fayle	8(a) Native American Owned
Rothe Development	4614 Sinclair Rd. San Antonio, TX 78222	210-648-3131 fax: 210-648-4091	Lorraine M. Vontur	Sm. Bus Woman Owned
Rothe Enterprises	4535 E. Houston St. San Antonio, TX 78220	210-310-0447	Rick Owens	HUBZone
SAIC, Inc.	7990 Science Applications Court, Vienna, VA 22182	703-676-0018	Terry Duran	

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
Safeguard Maintenance Corp.	10611 York Rd. Cockeysville, MD 21030-2303	410-666-0385 fax: 410-683-0443	H.T. Brown	Sm. Bus
SecTek, Inc.	208 Elden St., Ste. 201 Herndon, VA 20170	703-834-0507, x101 fax: 703-834-0124	Bruce Moore, Vice President	8(a)
Sierra Lobo, Inc.	426 Croghan St. Fremont, OH 43420	419-621-9931	Daniel R. Lowe, P.E.	8(a)
SMI International	5520 Tech Center Dr. Colorado Springs, CO 80919	719-264-4324	Grandin West	
Smith Global Services	33 Charleston Sugarland, TX	281-242-1165	Thad Smith	
Smith Research Corp.	P.O. Box 1203 Zachary, LA 70791	225-334-6880	Jim Smith	8(a) Veteran Owned
Southeastern Facility Mgt. Inc.	P.O. Box 8827 Columbus, GA 31909-8827	706-563-9978 fax: 706-563-5218	Paul Rogers	SDB Veteran Owned
Southern Region Federal Business Development Parsons	Norcross, GA 30092	770-516-7044 fax: 770-446-4910	Rob Kelly	Lg. Bus
Sparkle Maintenance, Inc.	5827 4th St. N.W. Albuquerque, NM 87107	505-345-5501 fax: 505-345-4901	Carlo Lucero, President	8(a)
Springfield Management, Inc.	249 E. Emerson Ave., Ste. H Orange, CA 92865	714-685-0381 fax: 714-279-7977	David Pond	SDB
SSI Services, Inc.	125 North Washington St. Falls Church, VA 22046	703-532-4990 fax: 703-532-5848	Bobby Brashears	Lg. Bus
Technology Ventures, Inc.	8200 Old Thirteen Mile Road Warren, MI 48093	810-573-6000, x204 fax: 810-573-6001	Constance E. Blair, President	8(a) Veteran & Woman Owned
Teltara, Inc.	16100 N. Greenway-Hayden Lp, Ste. 400 Scottsdale, AZ 85260	480-451-7000 x131 480-922-8388	Greg J. Bosserman	SDB Native American Owned
The Appliance Doctor	622 E. Edgewood Friendswood, TX 77546	281-996-5706	Rex Boyce	Sm. Bus
The Integrity Group - Houston	12337 Jones Rd., Ste. 100 Houston, TX 77070	281-955-0707 fax: 281-955-8540	Arthur Bettes	
Triple Tree Fabrication	9363 Winkler Dr., Ste. A Houston, TX 77017	713-947-9702 fax: 713-947-9705	Brian McRae	SB
TYBRIN Corporation	1030 Titan Ct. Fort Walton Beach, FL 32547	850-337-2712	E. Wayne Harris	Sm. Bus

INTERESTED PARTIES

NAME	ADDRESS	PHONE	POC	STATUS (IF KNOWN)
United Paradyne Corporation	212 W. Carmen Lane, Ste. 201 Santa Maria, CA 93458-7777	805-348-3156	David Walsh or Joseph Hasay	Sm. Bus
Washington Group International (WGI)	2101 NASA Road One Houston, TX 77058	281-244-1769	George Abendroth or Dick Cummings	Lg. Bus
Wastren, Inc.	225 North 5th Street, Ste. 900 Grand Junction, CO 81501	970-256-1134 fax: 970-256-0951	John Moore, Proposal Manager	Sm. Bus
Way Services, Ltd.	4308 Ashbrook Houston, TX 77081	713-512-9832	Drew Anton, V.P. of Facility Services	Sm. Bus
XL Associates	677 Emory Valley Rd., Ste. C Oak Ridge, TN 37830	865-482-0100 fax: 865-482-0101	Jay G. McDonald	SDB
Yang Enterprises, Inc. (YEI)	1420 Alafaya Trail, Ste. 200 Oviedo, FL 32765-4705	407-365-7374 fax: 407-365-2650	Michael Cohen, Section Manager, Technical Education Services	Woman Owned

SECTION K

INVITATION FOR BID (IFB)/REQUEST FOR PROPOSALS (RFP)

REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

K.1 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION
(FAR 52.203-2)(APR 1985)

(a) The offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above [Insert full name of person(s) in the offeror's organization responsible for determining the prices offered in the bid or proposal, and the title of his or her position in the offeror's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

K.2 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (FAR 52.203-11)(APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

K.3 TAXPAYER IDENTIFICATION (FAR 52.204-3)(OCT 1998)

(a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d),

reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

* TIN: _____.

* TIN has been applied for.

* TIN is not required because:

* Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

* Offeror is an agency or instrumentality of a foreign government;

* Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

* Sole proprietorship;

* Partnership;

* Corporate entity (not tax-exempt);

* Corporate entity (tax-exempt);

* Government entity (Federal, State, or local);

* Foreign government;

* International organization per 26 CFR 1.6049-4;

* Other _____.

(f) Common parent.

* Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

* Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

K.4 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS)
(FAR 52.204-5) (MAY 1999)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it * is a women-owned business concern.

(End of provision)

K.5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS
(FAR 52.209-5)(MAR 1996)

(a) (1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

K.6 PLACE OF PERFORMANCE (FAR 52.215-6)(OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation,
*
intends, * does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of Performance Name and Address of Owner

_____
(Street Address, City, and Operator of the Plant

_____
State, County, Zip Code) or Facility if Other than

_____
Offeror or Respondent

_____

(End of provision)

K.7 SMALL BUSINESS PROGRAM REPRESENTATIONS (FAR 52.219-1) (OCT 2000)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is __561210_____.

(2) The small business size standard is $20 million average annual sales for past 3 years.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it * is, * is not a small business concern.

(2) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, for general statistical purposes, that it * is, * is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it * is, * is not a women-owned small business concern.

(4) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it * is, * is not a veteran-owned small business concern.

(5) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.] The offeror represents as part of its offer that it * is, * is not a service-disabled veteran-owned small business concern.

Alternate I (Oct 2000). As prescribed in 19.307(a)(2), add the following paragraph (b)(6) to the basic provision:

(6) [Complete only if offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It * is, * is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

(ii) It * is, * is not a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(c) Definitions. As used in this provision--

"Service-disabled veteran-owned small business concern"--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

K.8 SMALL DISADVANTAGED BUSINESS STATUS (FAR 52.219-22)
(OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations. (1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

* (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or

* (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2) * For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture:_____.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall--

(1) Be punished by imposition of a fine, imprisonment, or both;

(2) Be subject to administrative remedies, including suspension and debarment; and

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(End of provision)

K.9 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FAR 52.222-22) (FEB 1999)

The offeror represents that--

(a) It * has, * has not participated in a previous contract or subcontract subject the Equal Opportunity clause of this solicitation;

(b) It * has, * has not filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

K.10 AFFIRMATIVE ACTION COMPLIANCE (FAR 52.222-25)(APR 1984)

The offeror represents that--(a) It [ ] has developed and has on file, [ ] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) It [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

K.11 RECOVERED MATERIAL CERTIFICATION (FAR 52.223-4) (OCT 1997)

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the offeror certifies, by signing this offer, that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by the applicable contract specifications.

(End of provision)

K.12 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (FAR 52.223-13) (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: [Check each block that is applicable.]

* (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

* (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

* (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

* (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

* (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of provision)

K.13 NOTICE OF BUY AMERICAN ACT/BALANCE OF PAYMENTS PROGRAM REQUIREMENT--CONSTRUCTION MATERIALS (FAR 52.225-10) (FEB 2000)

(a) Definitions. "Construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act--Balance of Payments Program--Construction Materials" (Federal Acquisition Regulation(FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act or Balance of Payments Program should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act or Balance of Payments Program before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act or Balance of Payments Program, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

K.14 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (FAR 52.227-15) (MAY 1999)

(a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) As an aid in determining the Government's need to include Alternate II or Alternate III in the clause at 52.227-14, Rights in Data--General, the offeror shall complete paragraph (c) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify, to the extent feasible, which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

(c) The offeror has reviewed the requirements for the delivery of data or software and states [offeror check appropriate block]--

* None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.

* Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

Note: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights in Data--General."

(End of provision)

K.15 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (FAR 52.230-1) (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. Disclosure Statement--Cost Accounting Practices and Certification

(a) Any contract in excess of $500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

Caution: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

* (1) Certificate of Concurrent Submission of Disclosure Statement. The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows:

(i) Original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable; and

(ii) One copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

* (2) Certificate of Previously Submitted Disclosure Statement. The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

* (3) Certificate of Monetary Exemption. The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling $50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

* (4) Certificate of Interim Exemption. The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

Caution: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of $50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. Cost Accounting Standards--Eligibility for Modified Contract Coverage

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

* The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the

offeror received less than $50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

Caution: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of $50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of $50 million or more.

III. Additional Cost Accounting Standards Applicable to Existing Contracts

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

yes * no

(End of provision)

K.16 USE OF GOVERNMENT-OWNED PROPERTY (NASA 1852.245-79) (JUL 1997)

(a) The offeror ( ) does, ( ) does not intend to use in performance of any contract awarded as a result of this solicitation existing Government-owned facilities (real property or plant equipment), special test equipment, or special tooling (including any property offered by this solicitation). The offeror shall identify any offered property not intended to be used. If the offeror does intend to use any of the above items, the offeror must furnish the following information required by Federal Acquisition Regulation (FAR) 45.205(b), and NASA FAR Supplement (NFS) 1845.102-71:

(1) Identification and quantity of each item. Include the item's acquisition cost if it is not property offered by this solicitation.

(2) For property not offered by this solicitation, identification of the Government contract under which the property is accountable and written permission for its use from the cognizant Contracting Officer.

(3) Amount of rent, calculated in accordance with FAR 45.403 and the clause at FAR 52.245-9, Use and Charges, unless the property has been offered on a rent-free basis by this solicitation.

(4) The dates during which the property will be available for use, and if it is to be used in more than one contract, the amounts of respective uses in sufficient detail to support proration of the rent. This information is not required for property offered by this solicitation.

(b) The offeror ( ) does, ( ) does not request additional Government-provided property for use in performing any contract awarded as a result of this solicitation. If the offeror requests additional Government-provided property, the offeror must furnish --

(1) Identification of the property, quantity, and estimated acquisition cost of each item; and

(2) The offeror's written statement of its inability to obtain facilities as prescribed by FAR 45.302-1(a)(4).

(c) If the offeror intends to use any Government property (paragraph (a) or (b) of this provision), the offer must also furnish the following:

(1) The date of the last Government review of the offeror's property control and accounting system, actions taken to correct any deficiencies found, and the name and telephone number of the cognizant property administrator.

(2) A statement that the offeror has reviewed, understands, and can comply with all property management and accounting procedures in the solicitation, FAR Subpart 45.5, and NFS Subparts 1845.5 and 1845.71.

(3) A statement indicating whether or not the costs associated with paragraph (c)(2) of this provision, including plant clearance and/or plant reconversion costs, are included in its cost proposal.

(End of provision)

[END OF SECTION]

SECTION L

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFEROR

L.1 DATA UNIVERSAL NUMBERING SYSTEMS (DUNS) NUMBER (FAR 52.204-6) (JUNE 1999)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

(1) Company name.

(2) Company address.

(3) Company telephone number.

(4) Line of business.

(5) Chief executive officer/key manager.

(6) Date the company was started.

(7) Number of people employed by the company.

(8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet home page at http://www.customerservice@dnb.com. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(End of provision)

L.2 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (FAR 52.211-14) (SEP 1990)

Any contract awarded as a result of this solicitation will be a DO-rated order certified for national defense used under the Defense Priorities and Allocations System (DPAS)(15 CFR Part 700); and the Contractor will be required to follow all of the requirements of this regulation.

(End of provision)

L.3 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (FAR 52.215-1) (FEB 2000)(ALTERNATE I) (OCT 1997)

(a) Definitions. As used in this provision--

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

"In writing" or "written" means any worded or numbered expression which can be read, reproduced, and later communicated, andincludes electronically transmitted and stored information.

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.
"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address, if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, revision, and withdrawal of proposals.

(i) Offerors are responsible for submitting proposals, and any modifications or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due.

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend:

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with--the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend:

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's best interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract after conducting discussions with offerors whose proposals have been determined to be within the competitive range. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals. Therefore, the offerors initial proposal should contain the offeror's best terms from a price and technical standpoint.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in postaward debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(End of provision)

L.4 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (FAR 52-215-20)(ALTERNATE IV) (OCT 1997)

(a) Submission of cost or pricing data is not required.

(b) Refer to Section L Part II for specific price proposal instructions.

(End of provision)

L.5 PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION (FAR 52.222-24) (FEBRUARY 1999)

If a contract in the amount of $10 million or more will result from this solicitation, the prospective Contractor and its known first-tier subcontractors with anticipated subcontracts of $10 million or more shall be subject to a preaward compliance evaluation by the Office of Federal Contract Compliance Programs (OFCCP), unless, within the preceding 24 months, OFCCP has conducted an evaluation and found the prospective Contractor and subcontractors to be in compliance with Executive Order 11246.

(End of provision)

L.6 SERVICE OF PROTEST (FAR 52.233-2) (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Hand-Carried Address:
Charles C. Bell
Building 416N

Mailing Address:
NASA Lyndon B. Johnson Space Center
Attn: SEB 416/Charles C. Bell
2101 NASA Road One
Houston, TX 77058

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

L.7 PROPOSAL PAGE LIMITATIONS (NASA 1852.215-81) (FEB 1998)

(a) The following page limitations are established for each portion of the proposal submitted in response to this solicitation.

Proposal Section Volume	Proposal Section	Page Limit
I	Management	125
II	Technical	100
III	Past Performance	N/A
IV	Cost/Price	N/A
	Total Volume I, and II	225

(b) A page is defined as one side of a sheet, 8 1/2" x 11", with at least one inch margins on all sides, using not smaller than 12 point type, Arial font. Foldouts count as an equivalent number of 8 1/2" x 11" pages. The metric standard format most closely approximating the described standard 8 1/2" x 11" size may also be used.

(c) Title pages and tables of contents are excluded from the page counts specified in paragraph (a) of this provision. In addition, the Price section of your proposal is not page limited. However, this section is to be strictly limited to cost and price information. Information that can be construed as belonging in one of the other sections of the proposal will be so construed and counted against that section's page limitation.

(d) If final revisions are requested, separate page limitations will be specified in the Government's request for that submission.

(e) Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the offeror.

(End of provision)

L.8 SAFETY AND HEALTH PLAN (NASA 18-52.223-73) (MAY 2001)

The offeror shall submit a detailed safety and occupational health plan as part of its proposal (see NPG 8715.3, NASA Safety Manual, Appendix H). The plan must include a detailed discussion of the policies, procedures, and techniques that will be used to ensure the safety and occupational health of contractor employees and to ensure the safety of all working conditions throughout the performance of the contract. The plan must similarly address safety and occupational health for subcontractor employees for any proposed subcontract whose value is expected to exceed $500,000, including commercial services and services provided in support of a commercial item. Also, when applicable, the plan must address the policies, procedures, and techniques that will be used to ensure the safety and occupational health of: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property. This plan, as approved by the Contracting Officer, will be included in any resulting contract.

(End of provision)

L.9 PROTESTS TO NASA (NASA 18-52.233-70) (MARCH 1997)

Potential bidders or offerors may submit a protest under 48 CFR part 33 (FAR Part 33) directly to the Contracting Officer. As an alternative to the Contracting Officer's consideration of a protest, a potential bidder or offeror may submit the protest to the Deputy Associate Administrator for Procurement, who will serve as or designate the official responsible for conducting an independent review. Protests requesting an independent review shall be addressed to Deputy Associate Administrator for Procurement, NASA Code H, Washington, DC 20546-0001.

(End of provision)

L.10 CONTRACT AWARD QUANTITIES (JSC 52.215-91) (JAN 2000)

Proposals for quantities less than specified in the solicitation will not be considered for award (Reference paragraph (c)(4) of solicitation provision 52.215-1 Instruction to Offerors—Competitive Acquisitions).

(End of clause)

L.11 COMMUNICATIONS REGARDING THIS SOLICITATION (JSC 52.215-105) (DEC 1999)

Any communications in reference to this solicitation shall cite the solicitation number and be directed to the following Government representative:

Name: Charles C. Bell
Phone: 281-483-1372
(collect calls not accepted)

Address: NASA Johnson Space Center
Attn: Charles C. Bell
Mail Code: SEB 416
2101 NASA Road 1
Houston, TX 77058-3696

QUESTIONS REGARDING THIS SOLICITATION MUST BE PRESENTED IN WRITING and should be submitted to the above address within 10 days of the Request for Proposal (RFP) issue date in order that answers may be obtained and disseminated in a timely manner, since it is not expected that a proposal submission date can be extended. Oral questions are not desirable due to the possibility of misunderstanding or misinterpretation. Questions shall not be directed to the technical activity personnel.

Note: Any written communications should include the mail code on the envelope to expedite processing.

(End of provision)

L.12 SUBMISSION OF PROPOSALS BY COMMERCIAL CARRIER (JSC 52.215-108) (SEP 1988)

Offerors are advised that proposals sent to JSC by commercial carrier (e.g., Federal Express, Purolator, United Parcel Service) are NOT delivered directly to the place designated in the solicitation for submission of proposals. All parcels and packages delivered by commercial carriers are routed to the Transportation Branch in building 420 at JSC. If such a parcel contains on its visible, exterior surface the information required by the "Submission of Offers" provision of this solicitation (i.e., the time specified for receipt, the solicitation number, and the name and address of the offeror), it will be handled on an expedited basis by the Transportation Branch; however, depending on when it is received by the Transportation Branch, it MAY OR MAY NOT be received by the office designated for receipt of proposals by the required time. Transportation Branch personnel will NOT open the commercial carrier's package to determine its contents.

In view of the above, offerors who choose to submit proposals by a commercial carrier should, if they want to have reasonable assurance that their proposals will be timely received at the place designated in the solicitation, do the following:

(a) make sure that the carrier puts the information required by the "Submission of Offers" provision ON THE EXTERIOR OF THE ENVELOPE IN WHICH HE DELIVERS THE PARCEL, and

(b) get the proposal to the carrier in time for it to be delivered to the Transportation Branch at JSC ON THE DAY BEFORE THE SCHEDULED TIME DESIGNATED FOR RECEIPT OF PROPOSALS.

While taking the above steps should normally result in the timely receipt of proposals, offerors are reminded that proposals may be sent by U.S. Mail, and that clear and precise rules regarding the consideration of late submissions are set forth in the solicitation provision titled "LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF PROPOSALS." Offerors are further reminded that it is their responsibility to get their proposals to the designated place on time. Proposals, which are sent by commercial carrier, are considered to be handcarried, and if they are received late at the place designated in the solicitation, they will only be considered if it is shown that the sole or paramount cause for the late receipt was some Government impropriety.

(End of provision)

L.13 OFFEROR ACCEPTANCE PERIOD

Proposals submitted in response to this solicitation shall remain firm for at least 180 days after the date specified for receipt thereof by the Government and shall contain a statement to this effect.

(End of provision)

SECTION L - PART II

INSTRUCTIONS FOR PROPOSAL PREPARATION

NOTE TO OFFERORS: For a better and more complete understanding of this part of Section L, you should also refer to Section M. The instructions in this part of Section L are directly related to the evaluation factors set forth in Section M.

1.0 INTRODUCTION

As detailed in the provision at L.7 entitled "PROPOSAL PAGE LIMITATIONS (NASA 1852.215-81)(FEB 1998)" proposals shall be submitted in four volumes.

Volume	Proposal Section
I	Management
II	Technical
III	Past Performance
IV	Cost/Price

It is NASA's intent, by providing the instructions set forth below, to solicit information that will demonstrate the offeror's competence to successfully complete the requirements specified in the Statement of Work (SOW), to determine its capability to successfully accomplish the effort defined therein, and to permit a competitive evaluation of its proposal. Generally, the proposal should:

a. demonstrate understanding of the overall and specific requirements of the proposed contract;

b. convey the company's capabilities for transforming understanding into accomplishment;

c. present in detail, the plans and methods for so doing; and

d. present, as requested below, the costs/prices associated with so doing.

In the event that other organizations are proposed as being involved in conducting this work, their relationships during the effort shall be explained and their proposed contributions to the work shall be identified and integrated into each part of the proposal, as appropriate.

2.0 GENERAL

Offerors shall provide twenty (20) copies of Volumes I and II, 5 copies of Volume III, and ten (10) copies of Volume IV. In addition, offerors shall provide two (2) copies of their entire proposals electronically on CD ROM. RFP Forms (1, 2, and all cost/price data forms) and the Safety and Health Plan are excluded from the page counts identified in the provision at L.7.

3.0 PERIOD COVERED BY PROCUREMENT

This solicitation covers a period of 5 years. For contracting purposes, this total period will be broken down in increments as follows:

Anticipated Calendar Time	Duration	Contractual Coverage
1/31/02 - 3/31/02	60 Days	Phase In
4/1/02 - 3/31/04	2 Years	Base Period
4/1/04 – 3/31/05	1 Year	Firm Option
4/1/05 – 3/31/06	1 Year	Firm Option
4/1/06 – 3/31/07	1 Year	Firm Option

Offerors shall submit firm cost/price proposals for each of the 5 years of the procurement and phase in. More information on preparation of the cost/price proposals is contained later in Section L under instructions relating the cost/price factor.

The options identified above will be exercised only if the requirements of FAR 17.207(c) have first been met. The Government is not obligated to exercise any option if it determines for any reason that doing so is not in its best interest.

4.0 FACILITIES AND GOVERNMENT-PROVIDED PROPERTY AND SERVICES

4.1 Government-Provided Property and Services

Services and property to be furnished by the Government for use on the proposed contract are as set forth in Section G, JSC Alternate I to NASA Clause 18-52.245-77, LIST OF INSTALLATION PROVIDED PROPERTY AND SERVICES and NASA 1852.245-76 LIST OF GOVERNMENT-FURNISHED PROPERTY.

5.0 PROPOSAL CONTENT

Offerors are requested to provide information responsive to the items set forth below. This information is considered essential for the Government to conduct a fair and uniform evaluation of proposals in accordance with the evaluation factors and subfactors provided in Section M. The items listed are not, however, all-inclusive, and offerors should therefore include in their proposals any further discussion that they believe to be necessary or useful in demonstrating their ability to understand and perform the work under the contemplated contract.

5.1 VOLUME I – MANAGEMENT

A. Safety and Health Plan

A Safety and Health Plan, prepared in accordance with the requirements of DRD No. SA-1-1, is to be submitted with your proposal. The plan is to include a detailed discussion of the policies, procedures, and techniques that will be used to ensure the safety and health of your employees (and subcontractor employees, if a subcontracting arrangement is proposed) and to ensure the safety of all working conditions throughout the performance of the contractual effort.

B. NASA Plan for Small Business Subcontracting Goals

For purposes of FAR clause 52.219-9, the terms, "HUBZone Small Business Concern," Small Disadvantaged Business Concern," "Veteran-Owned Small Business Concern," and Women-Owned Small Business Concern" are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total subcontracting goal expressed, as a percent of total contract value, is 36 percent. The percentage goal, (36 percent), includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns,	_____17.0 percent;
Women-Owned Small Business Concerns,	_____6.0 percent;
HUBZone Small Business Concerns,	_____2.0 percent;
Veteran-Owned Small Business Concerns,	_____0.25 percent.

C. Management Approach

(1) Quality Control

Describe the quality control policies, standards, procedures, and techniques that you propose to use to ensure quality control through the contract. Describe your implementation plan to acquire your ISO 9001-2000 certification within one year. Fully explain your rationale for the approaches proposed. Provide a draft Quality Control Plan that addresses the requirements outlined in DRD No. AN-1-2, plus any other items you consider important.

(2) Environmental Compliance

Describe the policies, standards, procedures, and techniques you shall use to ensure compliance with all environmental contract requirements. Fully explain the rationale for the approaches proposed. Provide a draft Environmental Compliance Plan that addresses the requirements outlined in DRD No. AN-9-1, plus any other items you consider important.

(3) Phase-in (Transition)

A phase-in period is anticipated during which staffing buildup, training and gradual assumption of responsibilities will transpire during 60 days prior to contract start. Each offeror shall provide the information requested in the following paragraphs relative to the proposed phase-in plan.

a. Describe in detail the plan for effecting a smooth phase-in without compromising effective and efficient operations at JSC. Provide the management milestones, and all associated schedules that you believe are required from start of phase-in to the full assumption of contract responsibilities.

b. Describe in detail your plans for certifying and training your personnel for assuming operational responsibility, including key and critical personnel and functions.

c. Discuss in detail your specific plans for successfully completing each phase-in performance milestone described below in paragraphs i. through x.. For each milestone, offerors are requested to: (1) provide a detailed plan inclusive of personnel responsible, (2) provide all relevant interim and final schedule dates to be met, and (3) propose objective criteria that can be used to determine if the milestone has been achieved.

i. Milestone 1: The successful offeror has hired all personnel it proposed as key personnel and all of these personnel are onsite at JSC and performing work. This milestone shall be fully achieved no later than February 15, 2002.

ii. Milestone 2: The successful offeror is able to fully operate the Computerized Maintenance Management System inclusive of: (1) ability to receive work, (2) ability to appropriately dispatch appropriate personnel across a broad range of requirements, and (3) ability to track requests, schedule work, complete tasks, effectively control quality, and document completion. This milestone shall be fully achieved no later than March 15, 2002.

iii. Milestone 3: At least 90% of all personnel proposed to perform all contract requirements have provided written acceptance of firm job offers. This milestone shall be fully achieved no later than March 15, 2002.

iv. Milestone 4: The successful offeror has hired all critical personnel including staffing of operating engineers and other personnel to support Building 48 operations. This milestone shall be fully achieved no later than March 15, 2002.

v. Milestone 5: The successful offeror has subcontracts in place with NASA-approved hazardous waste transportation, treatment-storage-disposal, and recycling subcontractors and has comprehensive ability to manage all wastes. This milestone shall be fully achieved no later than March 31, 2002.

vi. Milestone 6: The successful offeror has identified an emergency spill response team that is properly trained and available. In addition, the successful offeror has all necessary spill response materials on site and in a trailer, including a vehicle to tow it, to any potential spill site. This milestone shall be fully achieved no later than March 31, 2002.

vii. Milestone 7: The successful offeror has implemented an appropriate system to account for all Government furnished property. Furthermore, the successful offeror is prepared to perform an inventory of that property and is prepared to sign for accountability of the property upon completion of the inventory. This milestone shall be accomplished no later than March 31, 2002.

viii. Milestone 8: The successful offeror has completed JSC's clearance and badging as well as training requirements for all personnel necessary to perform the full scope of contract requirements. This milestone shall be fully achieved no later than March 31, 2002.

ix. Milestone 9: the successful offeror has implemented an accounting system fully capable of accurately accounting for actual completion of tasks at the workload unit level for each CLIN identified in the contract as necessary to

submit proper invoices and workload metrics. This milestone shall fully achieved no later than March 31, 2002.

x. Milestone 10: The successful offeror has successfully completed all negotiations with any unions representing workers to be used in performance of this contract and has provided the Government with signed copies of all collective bargaining agreements (CBA's). This milestone shall be fully achieved no later than March 31, 2002.

(4) Labor Relations Plan

The offeror shall complete compensation forms (a), (b), (c), and (d) as described in the instructions for preparation of the Cost/Price volume (for contract year 1 only). In addition, the offeror shall submit a complete discussion of the following:

a. Describe your company history during the past 3 years in working with organized labor. Provide the names of the unions that you have negotiated with, the location of the worksite, how many employees are represented, and the average number of grievances per year that your company receives.

b. Describe the experience of the proposed person responsible for working labor relations issues within your company; including: (1) the person's experience in negotiating CBA's and resolving grievances;(2) where will that person be located onsite at JSC; and (3) describe how day-to-day issues will be handled.

c. Describe your company plan with respect to the use of organized labor on this contract. Describe your plan for recognizing the existing CBA's, negotiating new agreements, or complying with the economic terms only and not recognizing the union.

d. Describe how your proposal is in compliance with all existing wage determinations.

e. Describe the methods your company plans to use to promote and maintain harmonious labor relations during the transition phase and during contract performance.

(5) Organizational Approach

a. Describe the proposed organizational structure, including a chart depicting the proposed organization, and provide the rationale for its application to the contract requirements. Discuss the status of formal arrangements with any proposed subcontractors, team members, or joint venture partners.

b. Describe the communication channels, lines of authority (including the line of succession if Project Manager is unavailable), reporting relationships, and responsibilities of all organizational elements. Include in this discussion any proposed subcontractors, team members, or joint venture partners proposed, to illustrate their relationships within the proposed structure or between the organizational elements and any other proposed subcontractors, team members, or joint venture partners. Describe the reporting responsibilities of the Project Manager to corporate management and the relationship

between the Project Manager and the prime offeror's corporate management as well as the management of any proposed subcontractors, team members, or joint venture partners.

c. Describe the organizational elements within the overall organization considered most critical to satisfactory accomplishment of all performance requirements and provide rationale as to why these are judged most critical within the framework of the overall organization. Provide supporting rationale that demonstrates the proposed organizational approach will ensure success in each of the critical areas identified.

d. Describe the management policies, procedures, and techniques the prime offeror and any proposed subcontractors, team members, or joint venture partners will use to create a single face to the Government (e.g., once a task is assigned to the Center Operations Support Services (COSS) prime offeror, the prime offeror coordinates the work through different functional areas, including any proposed subcontractors, team members, or joint venture partners without Government involvement). Describe how the management policies, procedures, and techniques proposed will be monitored to ensure their effectiveness.

e. Describe any corporate monitoring, oversight, or assistance (e.g., semi-annual reviews of the COSS quality or safety program by the corporate Quality or Safety Offices) you propose to use to compliment performance by the COSS contractor staff. Describe the level at which you intend to implement corporate monitoring, oversight, or assistance (e.g., at the prime contractor level only or inclusive of any proposed subcontractors, team members, or joint venture partners). Describe how implementation will be accomplished.

(6) Key Personnel & Staffing

a. Complete RFP Form 3 for each person proposed to perform the functions of Project Management and for each person directly responsible for managing each Annex of the SOW. The personnel performing these functions are considered key personnel in accordance with the NASA FAR Supplement clause at 1852.235-71.

b. Describe the recruitment and employment methods and policies your company will use to staff your organization. This description should address initial staffing requirements as well as those for the duration of the contract. Provide your rationale for selecting the proposed staffing methods and policies. Include a table of personnel sources, noting the percentage of the total workforce you intend to recruit from the following sources:

i. Offeror's own resources
ii. Other divisions of the company
iii. Incumbent contractors' workforce
iv. Outside recruitment

c. Describe the initial steps that have been taken regarding recruitment. Submit appropriate substantiating documentation, including letters of commitment to support the offeror's ability to provide those skills defined in Annex 4, personnel requirements including Building 48 operators and operating engineers, as well as the offeror's ability to support activities related to the Center's high voltage electrical system.

d. Describe your training program for new hires. Describe how, once on the job, employee training will be accomplished and monitored. Describe the minimum qualification standards you will use to determine if an employee is suitable for hire or promotion into a key position.

e. Describe your plan to maintain an experienced workforce while adapting to significant workload fluctuations during periods of increasing or decreasing requirements.

f. Describe effective techniques that will be used to minimize turnover and retain experienced personnel.

g. Describe how you will ensure the availability of personnel for special or emergency tasks during standard and non-standard working hours (e.g. weekends, holidays, and evenings). Describe how you will obtain technical expertise beyond the capabilities of your local JSC organization to resolve critical technical requirements or unique problems.

h. Describe the minimum qualification standards (training, certifications, type and length of experience, etc.) you will use to replace key or critical personnel, if required, during the term of the contract. Provide this information for each key or critical position. Describe how key or critical personnel will be monitored to ensure that they satisfy the minimum qualification standards and how you will determine if the minimum standards are stringent enough. Describe what, if any, policies you proposed to implement to improve the key or critical personnel or the minimum qualification standards over the life of the contract.

5.2 VOLUME II – TECHNICAL PERFORMANCE

A. Understanding of Requirements (General)

(1) Describe the process you will use to monitor, accurately identify, and control risks. Identify those areas of risk you believe should be addressed relative to performance of work under this contract and your plans to mitigate or accept each risk.

(2) Describe how you will ensure the complete success of each special event sponsored by JSC's Center Director (Reference Annex 3.2.3). Describe the oversight, coordination, skills, staffing levels, and physical resources you shall put into place to support real-time, short lead-time requirements before and throughout these events.

(3) Describe the innovative techniques you plan to employ to maximize operational efficiencies and reduce Government inventories at JSC without compromising timely availability of items when required (e.g., JSC currently uses a Just-in-Time (JIT) program for office supplies through a General Services Administration schedule vendor). Provide an explanation of all the specific technologies and/or processes that you will implement. Describe how you will efficiently maintain inventories for critical spare items currently in stock.

(4) Describe the method(s) you will use to provide real-time engineering support in the field to assist craftspeople and superintendents with issues as they occur in various site locations (e.g., operations, maintenance, and repair problems). Describe

the engineering resources, capabilities, and tools that you will provide in the field. Describe the process by which the craftspeople and superintendents shall use to call upon this engineering support. Demonstrate that the available resources and proposed process will ensure a timely and adequate engineering solution to support contract requirements. Fully describe the interrelationship between this engineering support and the engineering support provided in Annex 5.

(5) Describe how you will perform work with other contractors to ensure an integrated, fully-operational Energy Control Management System is available at all times. Describe the personnel assigned to ensure coordination occurs, the processes that you will use, the lines of communications that you will establish between the prime offeror, proposed subcontractor, any proposed team members, and the Government. Explain how the effectiveness of this coordination will be evaluated.

(6) Describe how the highly critical Building 30/48 Mission Control Center complex shall be operated including all delegations of authority, to support contract requirements. Describe your staffing and training plan to adequately maintain an experienced work force to support up to 10 Space Shuttle Flights per year and training simulations throughout the year (e.g., adequate number of properly trained operating engineers are available for each flight).

Describe your process for integrating and coordinating with the Mission Operations Directorate (MOD), the organization responsible for mission control, to ensure maintenance and operation of these facilities does not interfere with MOD's mission.

Describe your process for documenting and correctly updating the facility as-built drawings when maintenance or repairs cause a change in a facility (e.g. Building 30/48).

(7) Describe how Work Control, identified in CLIN 1.2, will be structured and accomplished, including all delegations of authority, to meet the contract requirements specified. Describe your process for receiving, scheduling, tracking, completing, and closing out work. Describe how delayed work will be tracked, rescheduled, and completed. Describe the mechanism you will use to match the correctly trained and skilled manpower to the work requirement. Describe how work control's effectiveness will be monitored, measured, and controlled.

Describe the process that you will use to provide a single work order number for all requested work and a cradle-to-grave audit trail regardless of the project/task phasing (number of Annexes that support the work) or the number and kinds of crafts assigned to complete the work.

Describe the process you will use to handle requests for task plans under Annex 13 for maintenance or repair of user or non-specified equipment. Describe how you will respond to emergency requests for problem mitigation or repair to user or non specified equipment.

B. Understanding of Requirements (Annex Level)

By Annex, and for the major functional areas within each Annex, describe each of the items requested below in specific and concise terms using techniques such as logic and flow diagrams, charts, or matrices. As applicable for each item requested below, describe the basic set-up, sequential flows with typical timelines, the degree of automation planned, interfaces internal and external to the COSS contract, and how each will be monitored to assure it's working properly.

(1) Describe how you will meet contract requirements in each Annex including how work will be:

a. Received
b. Reviewed
c. Prioritized
d. Scheduled
e. Tracked
f. Performed

(2) Describe:

a. How your Quality Control program will effectively monitor products and services to ensure that they meet contract requirements.

b. The specific metrics that you will use in each Annex (including those for the high visibility areas)

c. The performance each metric will be designed to measure.

d. For each metric, give the value(s) that will trigger actions to fix the problem with the deliverables.

e. Description of the actions that will occur if that trigger is reached.

f. Specific methods that the offeror will use to monitor, identify, and control risks such as occupational safety, damage to property, and contamination of property resulting from or occurring while performing facilities-related work.

(3) Identify and describe:

a. Where you will use effort from one Annex to support the accomplishment of requirements in other Annexes.

b. The impact of the interrelationship. (e.g., maintenance reviews of Annex 5 designs to ensure equipment maintainability to support Annex 2 work.).

c. Any information generated within an Annex that is essential or useful in the effective performance of contract requirements in other Annexes.

d. How the quality of this information shall be monitored and maintained.

e. How information shall be disseminated to each applicable Annex.

f. The controls (including lines of authority) that will be used to ensure control and disseminate information from one Annex to another.

g. The requirements for which estimating procedures will be required to process work.

(4) During handoff of products from one Annex to another, if the product is returned to the previous Annex for rework, describe how work will be:

a. Tracked

b. Scheduled
c. Reprioritized

C. RFP Issues

(1) Describe how you shall implement customer support and how you plan to develop and maintain customer relationships. Describe the techniques, processes, or tools you will use to measure the effectiveness of your customer support and if customer expectations are being met.

Describe how you will provide effective customer service across the entire contract. Specifically, discuss how customer service will be handled when it involves direct COSS contractor interaction with JSC customers both within and outside of the Center Operations Directorate (COD), the organization managing this contract. Describe the steps that you will take to ensure that customer interactions are positive (e.g., meeting contract requirements in a friendly, professional manner). Describe the steps that you will take, if any, to continuously improve customer service. Describe procedures, techniques, or methods that you will use to monitor, identify, and promptly correct customer service problems.

(2) Describe your method for disseminating real-time, accurate, and current information to numerous site customers requesting work from you as the COSS contractor. The information to be addressed includes, but is not limited to, such data as work order number, COSS point of contact, scheduled completion data, and work status (open, in process, or closed). Describe the techniques, technologies, methodologies, and systems that you shall use to satisfy this requirement. Describe the specific information you will provide, how frequently it will be provided, how it will be acquired, updated, checked for accuracy, and distributed as well as identify the people to whom the information will be provided. Identify the method(s) and system(s) that you will use to create your metrics.

(3) Each Offeror is requested to propose effective and efficient tools, systems, or capabilities it offers to provide in order to enhance its ability to perform contract requirements. For any tool proposed, the offeror shall fully describe the tool, identify the contract requirements that will benefit from its use, and explain how it can improve performance. For any system proposed, the offeror shall fully describe the system, identify any existing system(s) it is intended to replace, describe how any existing system(s) would be transitioned to the new system, identify the contract requirements that will benefit from using the new system, and describe how the system can improve performance. For any capability proposed, the offeror shall fully describe the capability, demonstrate possession of the capability, identify the contract requirements that will benefit from the proposed capability, and describe how the capability can improve performance.

5.3 VOLUME III - PAST PERFORMANCE

The Source Evaluation Board will contact organizations for which your company has previously performed work in order to obtain appraisals of your company's performance. In order to facilitate these checks, when completing the forms identified below, supply the name, address, and telephone numbers of customers' technical managers and contracting officials most familiar with the contract for which the data is being provided. Offerors should ensure that phone numbers and times of availability provided for references are current and correct.

A. Past Performance Data

Complete RFP Form 1 to identify up to 10 contracts (completed and ongoing) over $1 million in total value that the prime contractor or any proposed joint venture partner(s) has had within the past three years that best shows your ability to perform the COSS contract work. Additionally, each proposed subcontractor / team member expected to perform COSS services over $1 million total, shall complete Form 1 to identify up to 10 contracts (completed and ongoing) held by those legal entities during the past three years that best shows their ability to perform COSS work. Identify those contracts that are held by the same legal entity (e.g. company / division, or subsidiary), if applicable, that will perform under the proposed contract.

B. RESERVED

C. Safety and Environmental Performance

Offerors as well as any proposed joint venture partner(s) shall provide a statement of its past safety performance on contracts identified in A above. A statement shall be submitted regarding any OSHA citations of your company's operations during the past five (5) years. For those contracts cited in A above, records of your company's OSHA recordable injuries and illnesses are also to be included. The records will typically include, for each worksite, as a minimum, one copy of each year's OSHA logs for these past five (5) years as required by Title 29 of the Code of Federal Regulations, Section 1904.5(d) including the number of employees at the worksite and the calculated OSHA recordable frequency rate; and the Standard Industrial Classification Code utilized. At its option, offerors may submit a Consolidated Form 200 for all facilities or copies of the OSHA Form 200 for each facility during the requested period. If you propose a joint venture, team member, or prime/subcontractor relationship with multiple legal entities, the same information shall be provided for all legal entities identified in the proposal.

Offerors shall provide a statement of their past environmental performance. A statement shall be provided regarding any environmental related citation of your company's operations in the past five years. Citations may have come from federal, state, and local environmental agencies. If you propose a joint venture, team member, or prime/subcontractor relationship with multiple legal entities, the same information shall be provided for all legal entities identified in the proposal.

In addition to the above, a list of all safety and health insurance carriers that have underwritten the offeror's worker's compensation program or equivalent for the last five (5) years shall be provided. This list of insurance carriers shall include a point of contact and phone number to aid proposal evaluators in verifying the offeror's statements of its past safety and health performance. Please authorize these carriers to respond to questions by the Government. In addition, the worker's compensation experience modifier, including the respective state's formulas utilized for the computation shall be included; along with the loss ratio for the past five (5) years (where the loss ratio is defined as the ratio of losses to insurance premium). All figures used for computation shall be shown. Information on the liability and lawsuit history related to safety and health performance shall also be provided. Data shall be provided in the form of a certification letter from the insurance carrier. In the event that the company is self insured, the same information shall be provided and certified with the signature of a responsible company official. If you propose a joint venture, team member, or

prime/subcontractor relationship with multiple legal entities, the same information shall be provided for all legal entities identified in the proposal.

D. Quality System Experience

Each offeror is requested to provide copies of ISO certifications it has received elsewhere in the past three (3) years. If you propose a joint venture, team member, or prime/subcontractor relationship with multiple legal entities, the same information shall be provided for all legal entities identified in the proposal.

5.4 VOLUME IV – Cost/Price Proposal

A. General Cost/Price Instructions

This procurement will require the submittal of one cost/price proposal for the following areas: cost reimbursement, firm fixed price lump sum, ID/IQ, and labor relations. The cost/price proposal should be divided into these four sections and properly identified.

You are required to submit a set of ID/IQ rates that will be used for fixed priced delivery orders (Annex 6). You will also be required to submit another set of rates for the cost reimbursement task orders (Annex 13). You are to propose a Not-To-Exceed award fee rate for cost reimbursement task orders.

You are required to submit all the required cost forms to support the cost reimbursement portion. The cost forms are described in detail in this section.

The cost proposal shall encompass all cost/price elements associated with the requirements of the contemplated contract and shall comply with applicable Federal Acquisition Regulation (FAR), NASA FAR Supplement (NFS), and governing statutory requirements, including Public Law 87-653, Truth in Negotiations Act, and Public Law 100-679, Cost Accounting Standards.

To ensure that the Government is able to perform a fair assessment of the proposed cost/price, each offeror is required to submit the information requested in this volume. A cost realism analysis will be performed to assess whether the costs are realistic for the work to be performed and to assess whether the requirements are fully understood. It will also be used to assess whether the offeror will be able to satisfactorily perform as well as assess the financial responsibility of the offeror. Unrealistic estimates proposed by the offeror shall be presented to the Source Selecting Authority (SSA) who will consider the potential contractor's financial and performance impacts in performance of the SOW. Each cost proposal shall be suitable for evaluation and include supporting information cross-referenced to allow traceability/reconciliation to the technical/management proposal(s).

Each offeror is required to enter all unit rates, prices or cost estimates necessary to complete the cost/price schedules contained in Section B of the RFP. The schedule at Section B, B.8 contains fixed prices for services can be acquired by delivery orders. The schedule at Section B, B.10 contains fixed bare labor rates that can be used when pricing delivery orders in accordance with Annex 6 of the SOW. Similarly for cost reimbursable ID/IQ requirements, the schedule at Section B, B.9 contains pre-established cost estimates for commonly needed services that can be acquired by task orders. Also, the schedule at Section B, B.11 contains pre-established loaded labor rates that will be used when establishing task order cost estimates under Annex 13 of the SOW. These unit rates will be used for cost reimbursement ID/IQ task orders. Finally the schedule at Section B, B.12 contains pricing

coefficients to be used in pricing ID/IQ work. The coefficients for Means cost data and the coefficients for non-prepriced work are only used to price fixed price delivery orders. The coefficient factor for materials and equipment rental and the coefficient factor for subcontracted work will be used to price both fixed price delivery orders and cost reimbursement task orders. Therefore, it is important that you are realistic in developing your rates and coefficients.

Note: These instructions apply to the offeror proposed as prime and all proposed major subcontractors with an annual estimated value that exceeds $ 1 Million.

All pricing and estimating techniques shall be clearly explained in detail (projections, rates, ratios, percentages, coefficient factors, etc.) and shall support the proposed prices in such a manner that audit, computation, and verification can be accomplished. Also, any experience factors (unit prices, hours, quantities, etc.) and judgmental projections shall be explained. All past actuals shall show the periods of time and prices or costs in detail when used as a basis for estimating the proposed prices. The offeror shall discuss the rationale for any escalation proposed for each price element. The offeror shall also include the company's escalation history for each price element for the past 3 years.

Note: FAR Clause 52.222-43 Fair Labor Standards Act (FLSA) and Service Contract Act (SCA)—Price Adjustment (Multiple Year and Option Contracts). Direct labor covered by this clause (i.e. non-exempt labor used to price work performed under Annex 6, 7, 13, and 14) shall not be escalated. This clause prohibits offerors from including contingent pricing in its proposal to address anticipated future labor cost increases related to the fixed price requirements and Annex 13. However, the clause does allow for future equitable adjustment in contract price for any actual adjustments to minimum wages required by the Government for those categories of direct labor covered by the clause.

HARDCOPY AND COMPUTERIZED PRICE PROPOSAL INPUT:

The Government intends to use an IBM-compatible personal computer with Microsoft Excel to aid in the evaluation of the cost proposal. In addition to providing hardcopies of all forms described below, each offeror and subcontractor is required to submit electronic pricing data including formulas on CD-ROM. The submission of pricing data on CD-ROM is required to be compliant with the RFP instructions. The workbook file identifies tab names that correspond to each specific form identified in the RFP. The offeror is required to complete each of these forms with the same data that is supplied on the hard copy forms.

The file names and location of forms are located in the following table:

Form Name	**Form Location** (file name / tab)
Cost Reimbursement Forms:	
Annual Annex Summary Form (AASF)	CR.xls / AASF
Annex Cost Summary Form (ACSF)	CR.xls / ACSF
Annual Annex Resources Form (ANRF)	CR.xls / ANRF
Rates Form	CR.xls / RATES
FFP Lump Sum Forms:	
FFP Lump Sum: Annual Annex Summary Form (AAPSF)	FFP.xls / AASF
FFP Lump Sum: Annex Price Summary Form (APSF)	FFP.xls / APSF
FFP Lump Sum: Annual Annex Resources Form (AARF)	FFP.xls / AARF

FFP Lump Sum: Rate Form	FFP.xls / RATES
IDIQ Forms:	
ID/IQ Loaded Labor Cost (Annex 13)	IDIQ.xls / loaded rates-annex13
ID/IQ Bare Labor Cost (Annex 6)	IDIQ.xls / bare labor-annex6
Coefficient Factor - Means Cost Data Normal Work Hours	IDIQ.xls / means core
Coefficient Factor – Means Cost Data Other Than Normal Work Hours	IDIQ.xls / means non-core
Coefficient Factor – Non-Prepriced Work Normal Work Hours	IDIQ.xls / nonprepriced core
Coefficient Factor – Non-Prepriced Work Other Than Normal Work Hours	IDIQ.xls / nonprepriced non-core
Coefficient Factor – Subcontracted Work	IDIQ.xls / subcontracted work
Coefficient Factor – Materials and Equipment Rental	IDIQ.xls / matl & equip
Prime and Subcontractor Estimated Percentage Breakout of Work	IDIQ.xls / prime & sub
Labor Relations Forms:	
Salaries and Wages Non-Exempt	Comp forms.xls / Form a
Salaries and Wages Exempt	Comp forms.xls / Form b
Fringe Benefits Analysis of Compensation Package	Comp forms.xls / Form c
Personnel and Fringe Benefits Policies	Comp forms.xls / Form d

Offerors shall not adjust the spreadsheet file formats, except as required for formatting such as column widths, row heights and adding columns and rows to accommodate data. The location and contents of individual cells must not be adjusted.

Each CD-ROM shall have an external label affixed indicating:

(1) The name of the prime offeror

(2) The name of the proposed subcontractor, if applicable

(3) The RFP number.

(4) An indication of the files or range of files contained on the disk.

B. Cost instructions for preparation of Cost Reimbursement Portion

This section affects Annexes: 1, 2, 3, 4, 5, 8, 9, 10, 11, and 12. The offeror is required to complete the four forms provided for the non ID/IQ cost reimbursement portion of the SOW. These forms are described below and consist of the following: Annual Annex Summary Form (AASF), Annex Cost Summary Form (ACSF), Annual Annex Resources Form (AARF), and the Rates Form. Ensure that these forms reconcile with each other, where appropriate. Also, provide a description of your proposed fee structure. Also, to facilitate potential future contract administration as contemplated in the clause at H.10 entitled "Contract Adjustment for Completion Form," each offeror shall enter its estimated workload unit values in Section J, Attachment G.

(1) Annual Annex Summary Form (AASF)

The AASF is required only of the offeror proposed as prime; however, requires the offeror proposed as prime to consolidate all cost and fee by Annex. Therefore, the offeror proposed as prime is responsible for integrating all required pricing information (prime and all proposed subcontractor(s)) into this form. Proposed subcontractors' fee should be shown as fee on this form. Therefore, all proposed subcontractors should provide the required data to their appropriate prime for integration into a consolidated form. A reference column has been provided on the templates for the offeror to use to identify the supporting narrative data for each cost element. The detailed data (narrative and schedules) should be clearly displayed so that the Government may understand the cost development and computations.

(2) Annex Cost Summary Form (ACSF)

A separate APSF is required from the offeror proposed as prime and each proposed major subcontractor. This form should include cost summary level information for all cost reimbursement Annexes: Annex 1, 2, 3, 4, 5, 8, 9, 10, 11,and 12. It requires cost estimates by cost elements: Labor Hours (offeror proposed as prime vs. sub), Labor Cost (straight vs. overtime), Subcontractor cost (labor vs. non-labor), Other Direct Costs (materials, equipment, etc.), Overhead cost, G&A cost, Facilities Capital Cost of Money (FCCOM), and Fee by contract year. A reference column has been provided on the templates for the offeror to use to identify the supporting narrative data for each cost element. The detailed data (narrative and schedules) should be clearly displayed so that the Government may understand the cost development and computations. A detail narrative basis of estimate shall be provided for all proposed price elements; including estimating methodology, references, company history, etc.

(3) Annual Annex Resources Form (AARF)

The AARF is required only from the offeror proposed as prime; however, it requires the offeror proposed as prime to consolidate all resources data (hours and ODC) by Annex. Therefore, the offeror proposed as prime is responsible for integrating all required data (prime and all proposed subcontractor(s)) into this form. All proposed subcontractors should provide the required data to their appropriate prime for integration into a consolidated form. This form should reconcile to the ACSF.

The offeror shall complete the AARF to show the total resources (hours and other direct costs) by year at the Annex level. Provide a separate form for each Annex identified on the form. The following provides a brief explanation of the cost elements included on the form:

a. Labor Hours: The offeror shall provide a complete schedule of all proposed labor in sufficient detail to allow for the analysis of labor requirements time-phased and identified by labor categories listed on Schedule B. The information provided on this form must be at the Annex level. Do not provide this information by task level. Provide a separate detailed narrative explaining the reason for proposing the skills and hours for each Annex.

b. ODC: The offeror shall provide an estimated cost for ODC that shall include, but not be limited to, materials and minor subcontracts. ODC shall be

time-phased and identified by cost element over the estimated term of the contract. The rationale shall support the quantity of ODC (e.g.,materials, equipment and other).

The following supplemental price element data, where appropriate, shall also be submitted:

i. Purchased Parts & Raw Materials - For major items, provide a description of the manufacturer's part number, quantity, unit cost, total costs, anticipated source (manufacturer), and basis of estimate (e.g., vendor quote, prior buy, engineering estimate).

ii. Minor Subcontracted Items - Provide a separate cost breakdown for each minor subcontract.

iii. Interdivisional Transfers (between plants and divisions) - Provide a separate breakdown of costs.

Note 1: The basis of estimate (BOE) narrative can address the estimate down to the task level if necessary. For Example, your estimate for Annex 1 may be XYZ hours and it is comprised of "123" hours for 1.3.1 and "456" hours for 1.4.1 and so forth. Your BOE narrative explanation may address the significant task that comprises the total Annex. It is important that sufficient information is provided to assure the Government that you understand the requirements and proposed adequate and sufficient resources to satisfy the requirements. A cost realism analysis will be performed; therefore, it is important to propose realistic estimates.

Note 2: The supporting rationale associated with all proposed resources shall be submitted as a word document and shall be adequately cross-referenced to facilitate a comprehensive evaluation. It is important that in this word document, you provide adequate support (cost estimating relationships, historical experience, parametric estimates, etc.) for all proposed estimates.

(4) Rates Form

This form is required of the offeror proposed as prime and each major subcontractor. This form shall provide the Government annual labor and indirect rates. The offeror shall include all labor categories proposed on the AARF. The rates included on this form for direct labor shall be straight time rates.

Included on the form are the indirect rates information required. Offerors shall provide a written explanation for each rate proposed. For example: "the material handling rate of XYZ% is based on the latest budgetary data audited by XYZ for calendar year 01."

C. Cost instructions for preparation of Firm Fixed Price (FFP) Lump Sum Portion

This section affects Annexes: 7 and 14. These Annexes are firm fixed priced; therefore, prices must be realistic. The offeror will have to perform the requirements under these Annexes at the proposed prices. The offeror is required to complete the four forms provided. These forms are described below and consist of the following: FFP Lump Sum: Annual Annex Summary Form (AASF), FFP Lump Sum: Annex Price Summary Form (APSF), FFP Lump Sum: Annual Annex Resources Form (AARF), and the FFP Lump Sum: Rates Form. Ensure that these forms reconcile with each other, where appropriate. In addition, each offeror shall enter its fixed prices, including one for each phase-in milestone, into Section B. Each

offeror shall ensure that the phase-in milestones are appropriately priced to constitute full payment for all phase-in services.

(1) FFP Lump Sum: Annual Annex Summary Form (AASF)

The AASF is required only of the offeror proposed as prime; however, it does require the offeror proposed as prime to consolidate all cost, profit and prices by Annex. Therefore, the offeror proposed as prime is responsible for integrating all required pricing information (prime and all proposed subcontractor(s)) into this form. Any proposed subcontractors' profit should be shown as profit on this form. Therefore, all proposed subcontractors should provide the required data to their appropriate prime for integration into a consolidated form. A reference column has been provided on the templates for the offeror to use to identify the supporting narrative data for each line item. The detailed data (narrative and schedules) should be clearly displayed so that the Government may understand the price development and computations.

(2) FFP Lump Sum: Annex Price Summary Form (APSF)

A separate APSF is required from the offeror proposed as prime and each proposed major subcontractor. This form should include price summary level information for FFP annexes 7 & 14. It requires estimates by the following line items: Labor Hours (offeror proposed as prime vs. sub), Labor Cost (straight vs. overtime), Subcontractor cost (labor vs. non-labor), Other Direct Costs (materials, equipment, etc.), Overhead cost, G&A cost, Facilities Capital Cost of Money (FCCOM), and Profit by contract year. Phase-in costs associated with the FFP Annexes must be provided on this form. Phase-in costs must reconcile with the milestone payments in Section B. A reference column has been provided on the templates for the offeror to use to identify the supporting narrative data for each line item. The detailed data (narrative and schedules) should be clearly displayed so that the Government may understand the price development and computations. A detail narrative basis of estimate shall be provided for all proposed line items; including estimating methodology, references, company history, etc.

(3) FFP Lump Sum: Annual Annex Resources Form (AARF)

The AARF is required only of the offeror proposed as prime; however, it requires the offeror proposed as prime to consolidate all resources data (hours and ODC) by Annex. Therefore, the offeror proposed as prime is responsible for integrating all required data (prime and all proposed subcontractor(s)) into this form. All proposed subcontractors should provide the required data to their appropriate prime for integration into a consolidated form. This form should reconcile to the APSF.

The offeror shall complete the AARF to show the total resources (hours and other direct costs) by year at the Annex level. Provide a separate form for each Annex identified on the form. The following provides a brief explanation of the line items included on the form:

a. Labor Hours: The offeror shall provide a complete schedule of all proposed labor in sufficient detail to allow for the analysis of labor requirements time-phased and identified by labor categories listed on Schedule B. The information provided on this form must be at the Annex level. Do not provide this information by task level. Provide a separate detailed narrative explaining the reason for proposing the skills and hours for each Annex.

b. ODC: The offeror shall provide an estimated cost for ODC that shall include, but not be limited to, materials and minor subcontracts. ODC shall be time-phased over the estimated term of the contract. The rationale shall support the quantity of ODC (e.g.,materials, equipment and other).

Note 1: The basis of estimate (BOE) narrative can address the estimate down to the task level if necessary. For Example, your estimate for Annex 1 may be XYZ hours and it is comprised of "123" hours for 1.3.1 and "456" hours for 1.4.1 and so forth. Your BOE narrative explanation may address the significant task that comprise the total Annex. It is important that sufficient information is provided to convince the Government that you understand the requirements and proposed adequate and sufficient resources to satisfy the requirements. A cost realism analysis will be performed; therefore, it is important to propose realistic estimates.

Note 2: The supporting rationale associated with all proposed resources shall be submitted as a word document and shall be adequately cross-referenced to facilitate a comprehensive evaluation. It is important that in this word document, you provide adequate support (cost estimating relationships, historical experience, parametric estimates, etc.) for all proposed estimates.

(4) FFP Lump Sum: Rates Form

This form is required of the offeror proposed as prime and each proposed major subcontractor. This form shall provide the Government annual labor and indirect rates. The offeror shall include all labor categories proposed on the FFP Lump Sum: AARF. The rates included on this form for direct labor shall be straight time rates.

Included on the form are the indirect rates information required. Offerors shall provide a written explanation for each rate proposed. For example: "the material handling rate of XYZ% is based on the latest budgetary data audited by XYZ for calendar year 01."

D. ID/IQ COST PROPOSAL INSTRUCTIONS

This section requires the submittal of rates data to be used for both ID/IQ cost reimbursement (CR) task orders and firm fixed priced (FFP) delivery orders. It is important that the proposed rates are realistic. The loaded labor rates on the ID/IQ Loaded Labor Cost – Annex 13 form will be used for CR task orders, while the bare labor rates on the ID/IQ Bare Labor Cost – Annex 6 form will be used for the FFP delivery orders. The forms that are required in this section are as follows:

ID/IQ Loaded Labor Cost – Annex 13
ID/IQ Bare Labor Cost – Annex 6
Coefficient Factor – Means Cost Data Normal work Hours
Coefficient Factor – Means Cost Data Other Than Normal Work Hours
Coefficient Factor – Non-Prepriced Work Normal Work Hours
Coefficient Factor – Non-Prepriced Work Other Than Normal Work Hours
Coefficient Factor – Subcontracted Work
Coefficient Factor – Materials and Equipment Rental

These forms will be used to evaluate the ID/IQ portion of the offeror's proposal. The offeror is required to submit all direct, indirect and fee/profit rates as required on the forms. NASA will use an internally developed pricing model to evaluate the ID/IQ effort. The model will apply your proposed unit prices, rates and factors against an anticipated set of requirements. This model will not be provided to offerors. The model will be used for evaluating differences in rates and to assess the impact of the offerors proposed rates. This internal model will be used for evaluation purposes only and will reflect a representative sample of resources required in the SOW. This model will be applied consistently to all offerors to develop an estimated cost/price for selection purposes. Any differences in proposed direct and indirect rates that occur between this section and other sections of the must be adequately justified and explained.

Each of the ID/IQ forms are explained below:

(1) ID/IQ Loaded Labor Cost – Annex 13

The rates provided on this form will be used for cost reimbursement task orders. You should escalate the rates for DOL WD non-exempt personnel. These rates will not be adjusted in the contract when DOL issues new wage determinations.

This form is required only of the offeror proposed as prime. However, the offeror is required to consolidate the rates data. The offeror proposed as prime is responsible for integrating all required resources (prime and proposed subcontractor(s)) into this form. Therefore, all proposed subcontractors should provide the required data to their appropriate offeror proposed as primes for integration into a consolidated form. This form shall be completed for each year of the five-year contract. The left side of the form is structured so that the offeror may view all the DOL Wage Determination and exempt labor classifications as listed in the price schedule contained in Section B. The second column requires the offeror to provide the corresponding straight time labor rate per labor category. The third column requires the hourly fringe rate per labor category. For non-exempt personnel, the proposed rates must be at least equal to the applicable DOL Wage Determination rates. For exempt personnel, the rates proposed must be explained and supported by adequate pricing data such as company history, survey data, etc. The fourth through the seventh column is to account for all the company's indirect expense (overhead, G&A, etc.). The eighth column should include subcontractor fee/profit only. The prime offeror's fee will be determined when the task order is issued under Annex 13 and shall not be greater than the NTE fee rate proposed for this area. The last column is used to reference the basis of estimate.

Those labor categories not covered under the wage determination shall be provided as a composite of prime offeror and proposed subcontractor(s) combined as a weighted average or other basis of estimate that is appropriate to arrive at one rate. Provide an explanation of how these rates were derived and the assumptions made regarding subcontractors. It is important that you provide all assumptions used in developing these combined rates. If the prime offeror and a proposed subcontractor will be providing labor resources each for one labor category; you must provide your assumption regarding the percentage that each will contribute to the development of the combined rate.

In addition, provide in a separate word file attachment a Basis of Estimate for each of the line items listed in Section B.9 Pre-established Annex 13 Cost Values. The Basis of Estimate shall address how each unit cost was determined. For example, the Inspection for Cooling Tower

under 13.2, Sub-identifyer UEE1001, you should address the direct labor hours, all direct and indirect rates, material costs and all other direct costs in arriving at the unit prices.

(2) ID/IQ Bare Labor Cost – Annex 6

The rates provided on this form will be used for fixed priced delivery orders. It is important that you take this into consideration when developing these rates. You should not escalate the rates for DOL WD non-exempt personnel. These rates will be adjusted in the contract when DOL issues new wage determinations.

This form is required only of the offeror proposed as prime. However, the offeror is required to consolidate the rates data. The offeror proposed as prime is responsible for integrating all required resources (offeror proposed as prime and subcontractor(s)) into this form. Therefore, all proposed subcontractors should provide the required data to their appropriate prime for integration into a consolidated form. This form shall be completed for each year of the five year contract. The left side of the form is structured so that the offeror may view all the DOL Wage Determination and exempt labor classifications as listed in the price schedule contained in Section B. The second column requires the offeror to provide the corresponding straight time labor rate per labor category. The third column requires the hourly fringe rate per labor category. For non-exempt personnel, the proposed rates must be at least equal to the applicable DOL Wage Determination rates. For exempt personnel, the rates proposed must be explained and supported by adequate pricing data such as company history, survey data, etc. The fourth column is the bare cost which is the combination of the labor rate and the associated fringe rate. The fifth column is used to reference the basis of estimate.

Those labor categories not covered under the wage determination shall be provided as a composite of the prime offeror and proposed subcontractor(s) combined as a weighted average or other basis of estimate that is appropriate to arrive at one rate. Provide an explanation of how these rates were derived and the assumptions made regarding proposed subcontractors. It is important that you provide all assumptions used in developing these combined rates. If the prime offeror and a proposed subcontractor will be providing labor resources each for one labor category; you must provide your assumption regarding the percentage that each will contribute to the development of the combined rate.

(3) Coefficient Factor Forms

Only the offeror proposed as prime contractor shall complete these forms. Of the six Coefficients Factor Forms included in the instructions, two apply to both Annex 6 and 13 (i.e. Subcontracted Work Coefficient and the Materials and Equipment Rental Coefficient). The remaining forms (i.e. Means Cost Coefficient for Normal Work Hours, Means Coefficient for Other Than Normal Work Hours, Non Pre-priced Work for Normal Work Hours, and Non Pre-priced Work for Other Than Normal Work Hours) apply only to Annex 6. These forms address factors that will be applied to bare labor, subcontract, material, or equipment rental prices to address the burden cost (administrative and non-labor) required for a particular task.

The following lists the six coefficients:

1. Means Cost Coefficient Factors for Normal Work Hours
2. Means Cost Coefficient Factors for Other Than Normal Work Hours

3. Non Pre-priced Work for Normal Work Hours
4. Non Pre-priced Work for Other Than Normal Work Hours
5. Subcontracted Work Coefficient
6. Materials and Equipment Rental Coefficient

A description of each of the six coefficients and the cost/price elements to be contained within each is provided in Annex 6. Each coefficient proposed shall include all such elements.

E. LABOR RELATIONS FORMS

The following compensation forms are required in order for the Government to perform an evaluation of your labor relations. These forms will be used in conjunction with data provided in the "Labor Relations" section for evaluation. These forms should reconcile with the cost templates described above, wherever applicable.

a. Compensation Form (a): SALARIES AND WAGES NON-EXEMPT - CONTRACT YEAR 1

The offeror shall submit a completed Compensation Form a for non-exempt personnel in the first contract year only. This form is required of the offeror proposed as prime and all proposed major subcontractors. The offer should include the DOL WD or CBA number at the top of the form. A separate form is required for each DOL WD and/or CBA. In the "LABOR CATEGORY - Offeror's" column, list all labor classifications included in the proposal, by titles from the offeror's estimating system. In the adjacent column, "LABOR CATEGORY - Government", match each of the "Offeror's" classifications to one of the categories listed on the applicable DOL WD. The "Number of Proposed Personnel" is required for each row on the form containing a "LABOR CATEGORY - Offeror's". The "Proposed Average Labor Rate" is the Contract Year 1 labor costs divided by the number of hours proposed for that labor category. The "Lowest Labor Rate" and "Highest Labor Rate" are the lowest and highest wage rates included in the proposal for each labor classification listed under the "LABOR CATEGORY - Offeror's" column.

b. Compensation Form (b): SALARIES AND WAGES EXEMPT - CONTRACT YEAR 1

The offeror shall submit a completed Compensation Form b for exempt personnel in the first contract year only. This form is required of the offeror proposed as prime and all proposed major subcontractors. In the "LABOR CATEGORY - Offeror's" column, list all labor classifications included in the proposal, by titles from the offeror's estimating system. The "Number of Proposed Personnel" is required for each row on the form containing a "LABOR CATEGORY - Offeror's". The "Proposed Average Labor Salary" is the Contract Year 1 labor costs divided by the number of personnel proposed for that labor category. The "Lowest Labor Salary" and "Highest Labor Salary" are the lowest and highest salaries included in the proposal for each labor classification listed under the "LABOR CATEGORY - Offeror's" column.

c. Compensation Form (c): FRINGE BENEFITS ANALYSIS OF COMPENSATION PACKAGE - Contract Year 1

A separate Form c shall be completed for Exempt, Non-Exempt Nonunion, and Non-Exempt Union direct labor. It should be noted that the minimum

hourly fringe benefits rate can not be less than the DOL specified minimum rate listed in the RFP under Section J for non-exempt employees.

d. Compensation Form (d): PERSONNEL AND FRINGE BENEFITS POLICIES – Contract Year 1

This form provides a standard format to disclose, by employee category, the application of personnel policies and fringe benefits which shall be in effect at the time of award. Although only brief explanations are desired, sufficient information is required to allow an evaluation and estimate of all potential costs which will arise upon award of the contract. Comments are required pertaining to all items listed below under the proper column, whether or not the policy is written. The established practice of the Offeror and applicability to this proposal shall be provided. If the items below are not applicable, so state. Items pertinent to the Offeror which are not identified must be included if cost recovery is anticipated.

PAST PERFORMANCE DATA

1. COSS Prime Contractor/Team Member:

2. COSS Annex Number that Prime Contractor/Team Member above will perform:

3. Referenced Contract Information:
   A. Name and Address of Customer

   B. Contract Number:
   C. Annual Value of Contract:
   D. Contract Type:
   E. Contract Performance Location:
   F. Period of Performance: From: To:
   G. Cognizant Contracting Officer:
   (If commercial, customers business manager)

   Name:
   Address:
   Telephone Number:
   Email Address:
   Time of day can be reached (Houston, TX cst.):

   H. Cognizant Technical Manager:

   Name:
   Address:
   Telephone Number:
   Email Address:
   Time of day can be reached (Houston, TX cst.):

4. Work performed on referenced contract:

5. How related project work correlates with COSS annex the Prime Contractor/Team Member will perform:

Note: Offerors are permitted to reformat this form to the extent required to provide adequate space to provide all required information.

PAST PERFORMANCE DATA

	Function Specific Experience			
Annex	Extensive	Substantial	Moderate	None
1. Administrative Support				
2. Maintenance And Repair				
3. Directed Services				
4. Operations				
5. Engineering				
6. Non-Routine Fix Price IDIQ				
7. Grounds Maintenance				
8. Information Technology				
9. Environmental Program				
10. Supply				
11. Property And Equipment				
12. Transportation				
13. Non-Routine Cost Reimbursable IDIQ				
14. Custodial				

Note: Offerors are permitted to reformat this form to the extent required to provide adequate space to provide required information.

PAST PERFORMANCE DATA

Performance Variances From Contract Baseline				
Variance Classifications (Mark classification with an "X" if applicable)				
Content	Cost	Schedule	Quality	Explain the nature, size, and cause of all identified variances:

Note: Offerors are permitted to reformat this form to the extent required to provide adequate space to explain all identified variances.

EXPERIENCE DATA

KEY PERSONNEL RESUME

Proposed Position Title_____

Proposed Annual Salary_____

Name_____

CURRENT POSITION:

Title_____

Time in Current Position_____

Annual Salary_____

Number of Personnel Directly Supervised in Current Position_____

Responsible for a Total Workforce of _____(Number of people)

Description and Scope of Current Job:

_____

_____

_____

_____

_____

_____

_____

*EMPLOYER REFERENCE
NAME AND PHONE NO.

*CUSTOMER REFERENCE
NAME AND PHONE NO.

NOTE: It is the offeror's responsibility to ensure that all references and their phone numbers are current and correct.

EXPERIENCE DATA

NAME: _____

WORK EXPERIENCE

*PAST 10 YEARS IN CHRONOLOGICAL ORDER

Date	Employer Reference Name and Phone No.	Customer Reference Name and Phone No.

Description and Scope of Job:

*Use separate page for each work period.

PERSONNEL AND FRINGE
BENEFITS POLICIES
BASIC_____, OPTION YR._____

NAME: _____

Education: College Degree(s) _____ _____ YES NO If yes, cite Degree(s)

Date Received _____

University _____

Major/Minor _____

Professional and/or Technical Training (list):

Type of Training	Where Received	Date

_____ has (has not) been contacted, is (is not) committed to the proposed position and has (has not) indicated a willingness to accept the salary proposed.

Brief statement of why the proposed individual is uniquely qualified for the proposed position and what percent of his total available time will be devoted to this program.

SECTION M

EVALUATION FACTORS FOR AWARD

M.1 EVALUATION OF OPTIONS (FAR 52.217-5)(JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of provision)

SECTION M - PART II

EVALUATION FACTORS FOR AWARD

1.0 GENERAL - The proposals will be evaluated by a Source Evaluation Board (SEB) in accordance with applicable regulations which include the FAR and the NASA FAR Supplement. The SEB will be supported by appropriate personnel in conducting the evaluation. The SEB will carry out the evaluation activities and report its findings to the Source Selection Authority (SSA), who is responsible for making the source selection decision.

2.0 SOURCE EVALUATION - Proposals will be evaluated in accordance with the following factors: Mission Suitability, Past Performance and Cost/Price. A brief description of each of these factors is set forth below. Only the Mission Suitability factor will be weighted and scored. The Government's intent regarding discussions with offerors in the competitive range is set forth in provision 52.215-1 (Alternate I) in Section L.

3.0 MISSION SUITABILITY FACTOR - The Mission Suitability factor and associated subfactors are used to assess the merit of the work or product proposed and the ability of the offeror to actually provide what is offered. Proposals will be evaluated and scored numerically based on the subfactors set forth in 3.1 below.

3.1 MISSION SUITABILITY SUBFACTORS

3.1.1 Subfactor: Safety and Health Plan

Under this subfactor, an evaluation will be made of the effectiveness of the offeror's proposed safety and health plan.

3.1.2 Subfactor: Plan for Small Business Subcontracting Goals

Under this subfactor, an evaluation will be made of the effectiveness of the offeror's proposed plan for achieving or surpassing NASA's small business subcontracting goals.

3.1.3 Subfactor: Management Approach

Under this subfactor, an evaluation will be made of the effectiveness of the offeror's proposed management plans (including Quality Control, Environmental Compliance, Phase-in (Transition), Labor Relations Plan), organizational approach and staffing. This evaluation will also include evaluation of the past performance, education, overall capability and commitment of proposed key personnel.

3.1.4 Subfactor: Technical Performance

Under this subfactor, an evaluation will be made of the offeror's demonstrated understanding of the requirements (at both the general level and annex level) and an evaluation will be made of the effectiveness and efficiency of the offeror's proposed customer support, dissemination of information, as well as other tools or systems the offeror proposes to use in order to enhance its ability to satisfy contract requirements.

Information provided in Volume IV of each offeror's proposal, such as resources, staffing, skill mix, and supervisor to employee ratios, will also be considered when assessing the offeror's understanding of the requirements.

3.2 RELATIVE IMPORTANCE OF SUBFACTORS

The Mission Suitability subfactors and their corresponding weights reflecting relative importance are listed below. These weights are intended to be used as a guideline in the source selection decision-making process.

Subfactor	Points
Safety and Health Plan	100
Plan for Small Business Subcontracting Goals	100
Management Approach	400
Technical Performance	400

4.0 PAST PERFORMANCE FACTOR

Past Performance indicates how well an offeror performed on earlier work and can be a significant indicator of how well it can be expected to perform the work at hand.

Offerors' Past Performance, including relevant experience will be evaluated separately by the SEB, but will not be numerically weighted and scored. The evaluation will be based on information provided by offerors in their proposals, as well as any other information obtained independently by the SEB. In accordance with FAR 15.305(a)(2)(iv), an offeror without a record of relevant past performance, or for whom information on past performance is not available, may not be evaluated favorably or unfavorably on past performance. In such event, an offeror with no discernable relevant experience and past performance will receive a neutral rating. The results of the Board's evaluation will be presented to the SSA for his/her consideration.

5.0 COST/PRICE FACTOR

5.1 Cost - This factor applies to the cost reimbursement portion of proposals. The Cost factor is that factor which indicates the validity, realism and adequacy of each cost proposal and the probable cost that will be incurred in the performance of this effort. The evaluation of the Cost factor will include an assessment of the cost of doing business with each offeror, predicted growth in proposed cost during the performance of the work, and the features of each offeror's situation that would cause its proposed effort to cost more or less than that of other offerors.

The SEB will evaluate proposed costs and establish the probable cost of doing business with each offeror; however, it will not use weighting and scoring in this area.

For purposes of proposal evaluation and source selection, the probable cost of the initial base period and the option periods will be considered under the Cost factor. The

cost of phase-in (if proposed) will be considered under the Cost factor but will not be included in the probable cost for selection purposes.

Mission Suitability points will be adjusted based on the percentage difference between proposed and probable costs as follows:

Proposed and Probable Cost Difference	Point Adjustment
+/-0 to 5 percent	0
+/-6 to 10 percent	-50
+/-11 to 15 percent	-100
+/-16 to 20 percent	-150
+/-21 to 30 percent	-200
+/-more than 30 percent	-300

5.2 Price -- The Government will perform a price analysis of the firm fixed price portions of all proposals received in accordance with FAR 15.404-1.

5.3 ID/IQ -- The Government will use a model to evaluate the ID/IQ work. This model will evaluate the impact of proposed rates, coefficient factors, and proposed fee against an estimated future set of ID/IQ requirements. An estimated amount will be developed using this model and the amount will be used for selection purposes only. This amount will not go into the contract, since the actual price for ID/IQ work will only be determinable when work is actually ordered.

The results of the Government's Cost/Price evaluation will be presented to the SSA for his/her consideration in making the source selection decision.

6.0 RELATIVE IMPORTANCE OF EVALUATION FACTORS - Of the evaluation factors identified above, Mission Suitability, and Past Performance, when combined, are approximately equal to Cost/Price.