

Facilities Maintenance Statement of Work

SECTION C

Statement of Work For Facility Support Services

At

**NASA
Dryden Flight Research Center**

Edwards Air Force Base

Edwards, California

December 1999

Facilities Maintenance Statement of Work

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INTRODUCTION

Purpose: The purpose of this document is to list and define contract requirements for facilities and infrastructure operation, preservation and improvement at the National Aeronautics and Space Administration's (NASA) Dryden Flight Research Center (DFRC).

Background: DFRC is NASA's premier installation for flight research and testing (see <http://www.dfrc.nasa.gov>). DFRC is located on Edwards Air Force Base in California at the western edge of the Mojave Desert, 80 miles north of metropolitan Los Angeles. DFRC is on approximately 880 acres of land leased from the United States Air Force approximately thirty miles northeast of Lancaster, California.

DFRC first opened in 1954. The original facility was one building and one hangar. There are now approximately 910,000 square feet of structural floor space at DFRC. Present-day facilities and infrastructure include office buildings, mobile/modular offices and labs, warehouses, aircraft hangars, computer rooms, industrial shops, laboratories, cafeteria, roads, parking lots, aircraft taxiways, aircraft staging areas, fences and storage containers. Associated equipment and utilities include water, irrigation systems, sewer, electric, diesel-electric generators, heating, ventilating, air conditioning, steam plant, natural gas, compressed air, fire alarm, hydrazine alarm, and storm drainage.

Contract Type: This contract is a hybrid contract made up of two portions; Firm Fixed Price (FFP) and Firm Fixed Price Indefinite Delivery Indefinite Quantity (FFPIDIQ). Identification of work type (FFP or FFPIDIQ) is provided with each paragraph title in this Statement of Work.

1. All Facilities Preventive Maintenance (PM), Predictive testing and Inspection (PT&I) janitorial, grounds care, management and administrative items, non-discretionary trouble calls and discretionary trouble calls shall be FFP work.
2. Facilities planning, design, inspection, construction, activation and work which exceeds the dollar threshold for trouble calls (i.e. discretionary trouble calls less than \$200 and non-discretionary less than \$500) shall be FFPIDIQ.

Scope: The work shall include all activities necessary to provide safe, efficient, cost effective facilities and infrastructure preservation, operation, planning, design, construction and activation services at DFRC. The contract also provides for contingency support services at Edwards Air Force Base. All of the work shall be done according to the guidelines set forth in NASA Handbook NHB 8831.2B and NHB 7320.1B. The majority of work is maintenance. Attachments to this document contain background and historical data that reflect typical work requirements. Definitions for Acronyms and Abbreviations used in this document can be found in Attachment C-01. Attachment C-13 is a list of Definitions for words or terms used in this document. Occasional augmentation may be required to accomplish the work e.g. subcontracts, temporary workers, overtime etc. The Customer shall not provide compensation to the

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Contractor for augmentation to achieve contract baseline requirements. Construction subcontracts may be subject to Davis Bacon Act requirements as determined by the Contracting Officer (CO).

Limitations: Work **NOT** to be performed under this contract include work on automotive vehicles; aircraft vehicles; communication cables; Air Field sweeping unless specifically directed by the CO; and the Space Shuttle Mate-De-mate Device (MDD), except for the MDD fire protection systems which the Contractor shall maintain. The Contractor shall not service, clean, move or dust typewriters, business machines, personal computers, or office equipment of similar nature.

End of Introduction

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1.0 GENERAL REQUIREMENTS

1.1 (FFP) Compliance: DFRC is a Federal facility. DFRC, it's Contractors and subcontractors shall comply with all federal, state and local laws. The most stringent law shall apply regardless of agency hierarchy. The Contractor shall reimburse the Customer for any fines and costs incurred due to noncompliance by the Contractor.

1.2 (FFP/FFPIDIQ) Data Assistance: The Contractor shall provide all data necessary to assist the Customer in the preparation of contracts, reports, studies and analysis related to facilities operation, planning, design, construction, activation and preservation.

1.3 (FFP) Data Compatibility: All correspondence, reports, plans, processes and contract related data shall be in electronic format. Plans and processes generated by the Contractor shall not contain Contractor's logo or name and shall not be Contractor specific unless specifically required by regulations and shall be suitable for follow-on contract use. All data and documents generated by the Contractor under this contract are Customer property. The Contractor shall archive electronic copies of all plans and processes. All requisite hard copy (signatures etc.) shall be followed with an electronic copy. Current customer software:

- Microsoft Windows 98 or NT
- Microsoft Office 97
- Claris FileMaker Pro 3.0 1c
- Autocad version 14
- Retrospect Remote 1.1
- Data archive capabilities
- Eudora Pro Email 4.1
- MAXIMO 3.0.2

1.4 (FFP) Drivers License: All Contractor and subcontractor employees that operate Customer vehicles or other vehicles on or off the facility shall hold a valid State driver's license and any other licenses which may be required. A DFRC Flight Line Drivers License is required to operate vehicles on the Air Force and DFRC flight line. Privately owned vehicles shall require a vehicle pass to gain access to Edwards Air Force Base. No Personal vehicles shall be allowed in the operations area of DFRC or Edwards Air Force Base. All Contractor owned vehicles shall be identifiable (signs) while operating on DFRC.

1.5 (FFP/FFPIDIQ) Project Closeout: Upon completion of all construction, maintenance, trouble shooting, or repair jobs, the Contractor shall perform functional tests. Upon request, the Contractor shall perform functional testing in the presence of the COTR or other designated DFRC personnel. The functional testing shall consist of operating all collateral and non-collateral equipment to ensure the equipment operates correctly. All discrepancies shall be reported to the COTR via e-mail within 8 working

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hours of discovery and then corrected by the Contractor. A DFRC form 125 (see Attachment C-37) shall be required to close all Facility Service Request (FSR's).

1.6 (FFP) Quality Control: DFRC is an International Standardization Organization (ISO) Certified Center. At this time, it is not required that the contractor be ISO Certified. The Contractor shall be Compliant with any DFRC ISO requirements. The Contractor shall establish, implement and maintain a proactive quality control program that incorporates the CMMS, industrial standards listed in attachment C-15 and quality elements of International Standardization Organization (ISO) 9001, Quality Systems Standards.

1.7 (FFP) Reference Material and Technical Documents: Publications and other pertinent documents required to perform the majority of work are listed in Attachment C-15. All available drawings, records, manufacturer's equipment manuals, Real Property Records, history files, and other available pertinent data will be turned over to the Contractor. The Contractor shall update these items to reflect all changes implemented before and during the contract period.

1.8 (FFP) Responsibility: The Contractor shall demonstrate competency in the knowledge of safety, health and environmental regulation compliance and the association of those requirements to this contract. The Contractor shall ensure that all worker certifications and license requirements are identified and obtained before performing the regulated work. The Contractor shall demonstrate full competence in the execution of services required by the magnitude of this contract. The Contractor shall ensure all work conforms to latest recognized industrial standards and specifications. See attachment C-15

1.9 (FFP/FFPIDIQ) Response Time: The Contractor shall be available **On-call** at all times, i.e. 24 hours a day, seven days a week, 365 days a year including weekends and holidays. **Routine Facilities Work** shall be scheduled by the Contractor according to Customer priorities and research flight schedules. All **Routine Trouble Calls** shall be completed within seven (7) working days of receipt except for situations that adversely affect the work environment, which shall be completed within four (4) hours. If delays are encountered, the COTR shall approve any completion time extension request via e-mail. Extension requests may be necessary due to material or subcontracting issues etc. Routine trouble calls shall normally be accomplished during regular working hours, Monday through Friday. For **Urgent Trouble Calls**, the Contractor shall be on the job site and working within one (1) hour after receipt of the call during duty hours and during non-duty hours shall be on the job site and working within 2 hours. The Contractor shall work continuously to correct the problem so DFRC activities may continue/resume. The Contractor shall respond immediately to **Emergency Trouble Calls** as directed by the DFRC Incident Commander. During duty hours, the Contractor shall be on the job site and working within 20 minutes after receipt of an emergency trouble call and during non-duty hours shall be on the job site and working within 2 hours. The Contractor shall work continuously without interruption and shall arrest the emergency condition before departing the job site. See sections 7.14 and 7.15 for trouble call category descriptions. All FSR work and Trouble Call work performed within normal workday hours costing

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less than \$200 (including materials) shall be performed under the FFP portion of this contract. Work that cost more than \$500 shall be performed under the FFPIDIQ portion of this contract

1.10 (FFP) Safety, Health, and Environmental Requirements: Safety at DFRC and NASA is of paramount importance. The Contractor shall be responsible for the workplace safety and health of all work performed under this contract. The Contractor shall assert safety, health and environmental standards in the performance of this contract. The Contractor's goal shall be zero lost workdays due to on the job injuries or illness and zero fines, penalties or Notices of Violations (NOV) due to safety, health or environmental issues. The Contractor shall develop a written safety plan that contains at a minimum the elements of the Sample Safety Plan in Attachment C- 43. The Contractor shall submit the safety plan to the CO for approval from the DFRC Safety Office within 30 calendar days after award of contract. Notice to Proceed (NTP) shall not be issued before the Contractor's safety plan is approved. The Contractor shall meet with the CO, COTR and the DFRC Safety Office to develop a mutual understanding relative to administration of the approved Contractor's safety plan. The Contractor is subject to all applicable federal, state, and local laws, US Army Corps of Engineers Safety and Health Requirements Manual EM 358-1-1, DFRC regulations, ordinances, codes, and orders relating to safety, health and environmental. See Attachment C-17 for environmental management requirements.

1.11 (FFP) Scheduling: Scheduled services shall not be deferred or delayed unless directed by the COTR.

1.12 (FFP/FFPIDIQ) Services Required: Subject to the Contract Type cost limitations set forth in the Introduction, the Contractor shall provide (via on-site or subcontract resources): all labor, supervision, tools, materials, equipment, and transportation to operate, maintain, modify, and clean DFRC facilities and infrastructure. All work shall be completed to manufacturer's specifications and industry standards (see attachment C-15). See attachment C-04 for description of buildings and structures. Support services shall include:

Asbestos abatement and containment	Construction
Additions	Coordination
Air-conditioning	Customer Response
Alterations	Design
Analysis	Design Review
Assemble non-collateral Items	Diesel Generators & Water pumps
Budgeting	Digging
Building trades	Disposing
Carpentry	Drafting
New facilities equip. readiness review	Drainage
Compressed air systems	Electrical
Cleaning	Emergency Lighting
Compacting	Emergency and Disaster Response
Concrete	Energy Conservation

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Engineering Support Services	Predictive Testing & Inspection (PT&I)
Elevators	Preventive Maintenance (PM)
Equipment	Project Delivery
Facilities Maintenance	Project Management
Facilities Service Requests (FSR)	Purchasing
Fire Alarm Systems	Quality Assurance (QA)/Inspection
Fire Suppression Systems	Rehabilitation
Grading	Programmed Maintenance (PGM)
Grounds Care	Real Property Records
Heating	Record Keeping
Infrastructure Operations	Recycling
Inspection	Refuse Disposal
Installing	Remodeling
Insulating	Repairs
Investigations	Replacement of Obsolete Items (ROI)
Janitorial	Reporting
Landscaping	Roofing
Lead paint abatement	Salvaging/Excessing
Life Safety Systems	Scheduling
Maintenance	Sewer
Management	Signage
Minor construction	Space Shuttle Landing Support
Modification	Steam Plant Operations & Maintenance
Modifying	Steel fabrication
Moving Collateral Equipment	Support
Natural Gas	Trend Analyses
Overhead Cranes and Lifting devices	Trenching
Painting	Trouble Calls
Paving	Trouble shooting
Pest Control	Un-interruptable Pwr. Sup. Sys. (UPS)
Planning/estimating	Utilities
Plumbing	Ventilating
Pipe-fitting	Welding

1.13 (FFP) Staffing: The Contractor shall maintain adequate professional expertise, qualified staff and management to ensure work is completed as required. Only qualified workers shall perform the work. The work force shall not only meet any requisite training requirements, but they shall be able to demonstrate competence in all assigned tasks. The Contractor shall remove from the site any individual whose behavior is deemed by the CO or the COTR to be contrary to the public interest or inconsistent with the best interests of Government security.

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1.14 (FFP/FFPIDIQ) Supplies and Materials: Subject to the Contract Type cost limitations set forth in the Introduction, unless otherwise specified, Contractor supplies and materials shall be of industrial quality and most suitable type or grade for the respective work. The DFRC Safety Office shall preview and approve all chemical purchases.

1.15 (FFP) Uniforms: All Contractor trade and janitorial personnel shall wear Contractor furnished uniforms. The uniforms shall have patches on them that identify person's name, craft and company name and logo.

1.16 (FFP) Work Flow: The COTR shall approve all non-scheduled work.

1.17 (FFP/FFPIDIQ) Working Hours: DFRC's regular (normal) working hours are from 7:30 AM to 4:00 PM, Mondays through Fridays except (a) Federal holidays and (b) other days specifically designated by the CO/COTR. Traditionally the majority of work has been accomplished during regular working hours except for high voltage work, major HVAC, fire system and some janitorial (see paragraph 9.8). The Contractor may propose alternate work hours for efficiency; however, access to offices and secure facilities shall be solely at the discretion of the Customer. The Contractor shall work outside normal hours on tasks that disrupt DFRC operations, as directed by the COTR. Trouble calls may occur after normal work hours. The Contractor shall supply on-site after-hours trouble call support or, the Contractor shall provide a list to the COTR of personnel to be called for trouble call response after-hours' including weekends and holidays. Trouble Calls after regular working hours are received by security personnel who will call the Contractor's designated person. All work requirements above the FFP base price of the contract shall be covered under the FFPIDIQ portion of this contract.

1.18 Training and Education: The contractor shall ensure that contractor personnel have the skills to adapt to changing technology and to efficiently carry out this statement of work. The contractor shall conduct annual reviews of each employee position to identify required skills and compare them with the skills of assigned personnel. Skill shortages and training deficiencies shall be identified and documented by the contractor, then action taken to correct them. These reviews shall address all phases of facility services, including administrative skills, trades, and use of computers. The Customer is not responsible for training Contractor personnel. Some Customer provided training may be made available to the Contractor on a space available/standby basis only. See Attachment C-46 for list of Dryden onsite training.

End of 1.0

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2.0 GOVERNMENT FURNISHED PROPERTY AND SERVICES

2.1 Marking Customer's Property: The Contractor shall not label or mark the Customers property with the Contractors name or logo. The Contractor shall remove all names and logos of previous Facilities Maintenance contractors from all Customer property. Any Facilities Maintenance property that requires ready reference identification such as but not limited to; ladders, barricades, tool kits etc shall be labeled "DFRC Facilities Maintenance".

(See Section G and Section G Attachments of this contract)

End of 2.0

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3.0 MANAGEMENT

3.1 (FFP) Computerized Maintenance Management: DFRC's Computerized Maintenance Management System (CMMS) is MAXIMO®. MAXIMO® is a Project Software & Development, Inc. (PSDI) maintenance management software package (see attachment C-09). The Contractor shall use the CMMS to manage, schedule, track and record all DFRC maintenance requirements and costs related to maintenance and the contract. Data shall be updated on a real-time basis. All new equipment shall be tagged with CMMS bar code labels. Existing bar code labels shall be replaced if weathered or in a deteriorated condition. All equipment and facilities shall be entered in the CMMS. New CMMS equipment or facilities and infrastructure entries will result from Construction of Facilities (C of F) projects, Facility Service Requests, repairs, takeover of Air Force facilities etc. All fields shall be populated with the appropriate data. Upon installation of any new equipment or the discovery of missing data from existing equipment, the contractor shall update the CMMS with nameplate data, job plans, and PM schedules. The Contractor shall keep a record of every trouble call, in the CMMS database. Trouble call records shall be easily retrievable. Trouble call records, as a minimum shall include the following information:

- Date of call
- Time call received
- Building and room number
- Name of customer placing the trouble call
- Telephone number of customer placing the trouble call
- Nature of trouble call
- Designation as a Routine or Emergency
- Description of work initiated
- Status of work and completion information.

Trouble call records shall be similar to Facility Service Requests (FSR). See Attachment C-47 and C-48. The Contractor may use other computer systems for Contractor internal use if desired. The Customer data base software systems are under configuration control and therefore may be changed only by the Customer through the configuration control process. Only the Customer will be allowed to delete equipment records, job plans or change maintenance frequency information. See attachment C-08 for equipment entered in CMMS inventory.

3.2 (FFP) Contract Management and Administration: The Contractor shall manage the total work effort associated with the operations and all other services required to assure timely completion of the requirements in this contract. The requirements are a full range of management and administrative duties typically required by commercial businesses. These include but are not limited to: payroll, purchasing, human resources, planning, scheduling, cost accounting, safety, reporting, records, and quality control.

3.3 (FFP) Initial Work Schedule: The Contractor shall extract an initial work schedule from the CMMS. The schedule shall serve as the baseline schedule. Any changes to this schedule shall be discussed with and approved by the COTR. Orphaned work shall be scheduled in the CMMS as discovered.

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3.4 (FFP) Point of Contact: The Contractor shall assign a Site Manager to serve as a single Point of Contact (POC) for the CO and COTR. The Site Manager shall be on-site full time. The Site Manager shall be responsible for all Contractor activities under this contract and for the enforcement of all contract requirements. The Site Manager shall be empowered to make day to day decisions related to all on-site performance of this contract. That person shall serve as the focal point for all work and shall be responsible for the coordination of all on site activities. The Site Manager shall delegate a member of the on site staff as the Alternate Site Manager to assume authority during the primary Site Manager's absence from DFRC.

3.5 (FFP) Processes: The Contractor shall document all processes that are performed by the Contractor and make them available for review at the workplace and to the Customer. The processes shall document each position's duties, roles and responsibilities, points of contact, quality requirements etc. The process level of detail shall be sufficient to continue operation of the process by novice level or substitute personnel. All processes shall be completed and submitted to the COTR 6 Months after contract award. The COTR shall approve all process documents. All processes shall be kept current throughout the duration of the contract.

3.6 (FFP) Reliability Engineering: Reliability Centered Maintenance (RCM) is a maintenance strategy that incorporates a mix of preventive, predictive, reactive, and proactive maintenance to maximize operability and efficiency while minimizing life cycle costs. RCM shall be used at DFRC to maximize Customer resources. The Contractor shall fully implement an RCM program and strategies as described in Attachment C-39.

3.7 (FFP) Resources Management: The Contractor shall not use baseline maintenance resources (funds, labor, materials) to accomplish discretionary (FSR) work. The Contractor shall perform work on tasks and projects with approved and dedicated funds only. The Contractor shall generate and submit to the COTR and the Financial Management Officer (by the 10th of each month) an itemized Monthly Financial Report for all work directly from the CMMS. The report shall include:

- Total contract value to date, actual prices for the month with an estimate to the end of the month.
- Baseline funds received and spent by line item (accounting code).
- Work order funds received by work order number and type (FFP, FFPIDIQ, PM, FSR, PT&I, Janitorial etc.) with accounting code charged to.
- Bulk funds received and spent by bulk fund number.

Additional and unscheduled financial reporting may be required to satisfy Customer data call requirements.

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3.8 (FFP) Subcontracting: Should the Contractor choose subcontracting to accomplish work, the Contractor shall comply with Federal Acquisition Regulations (FAR) requirements. For efficiency purposes, the Contractor may use multiple Indefinite Delivery, Indefinite Quantity (IDIQ) subcontracts to accomplish the work. The Contractor shall require technical submittals from its suppliers and subcontractors, in accordance with the project drawings and specifications. If the subcontract is for non-baseline work, the Contractor shall review the proposals for conformance with project requirements and submit them for Customer approval. The Contractor shall file these submittals with the Service Request records in the Historical Files. See attachments C-38 and C-45.

3.9 (FFP) Work Processing: The Contractor shall use the CMMS to plan, estimate, and schedule all work. The Contractor shall use the CMMS to ensure that material, labor, and equipment are available to complete work requirements within the specified time limits and in conformance with quality standards. All requests shall be logged daily and entered into the CMMS. CMMS work control shall include trouble calls, recurring work Preventive Maintenance (PM) Predictive Testing and Inspection (PT&I) etc. and non-recurring work.

3.10 (FFP) Work Schedule and Plan: The Contractor shall monitor and plan work according to the existing CMMS schedule. All new work schedules resulting from new equipment installation shall be entered into the CMMS. The Contractor shall arrange work to cause the least interference with DFRC business and mission. Planned utility outages affecting any mission critical or critical system (as defined in the CMMS) shall have prior approval of the COTR. In cases where interference is unavoidable, the Contractor shall make every effort to minimize the impact. In no event shall the Contractor change the work schedules without notifying the COTR of the impending changes. The COTR will inform the Contractor of any schedule conflicts. The Contractor may modify the work schedule as appropriate. Any work schedule modification shall be approved by the COTR. Whenever non-essential services are scheduled on a holiday, such services shall be performed on the workday before or after the holiday. The intent of the Customer is to allow the Contractor to develop an optimal schedule and plan rather than to impose a rigid fixed schedule and plan which may not be appropriate or cost effective. In developing PM and other work schedules, the Contractor shall consider the following:

- 1) Contract requirements
- 2) Past Customer records
- 3) Contractor's own experience
- 4) Industry standards and guides

Then develop a program that produces the most appropriate and effective preservation of the equipment and operational efficiency.

End of 3.0

Facilities Maintenance Statement of Work

4.0 REPORTS

(Also see Attachment C-40 Data Requirements Description)

4.1 (FFP) Accident and Hazard Reporting: The Contractor shall report any accidents or hazardous conditions to the COTR within one hour and shall submit all reports, as required by clause 18-52.223-70, Safety and Health (quarterly Fiscal Year accident and lost time report) and a Contractor Monthly Accident Report (DFRC Form 34). The Contractor shall report to the COTR trouble call emergencies or items in need of prompt attention within one hour. Once an emergency has been stabilized, the Contractor shall not commence any corrective work until the DFRC Safety, Health, and Environmental Office and the COTR have finished their investigations. The Contractor shall report any conflict between requested work and safety requirements to the COTR for resolution before performing the work.

4.2 (FFP) Alarm Reports: The Contractor shall report in writing within 24 hours to the COTR and the DFRC Safety Office the reason for any emergency system activation. Reports shall include all alarms regardless of date or time of activation.

4.3 (FFP) Invoice: The contractor shall invoice the DFRC Code F Resources Office (mail stop D-2516) by the 10th of each month. All report data shall be generated directly from the CMMS and shall contain total contract value to date, actual prices for the month with an estimate to the end of the month.

4.4 (FFP) Performance Statistics: The Contractor shall submit to the COTR a Monthly Performance Statistics Report. All report data shall be generated directly from the CMMS. The Report shall include: Number of **trouble calls received**, number completed, average cost (labor, materials and overhead), average time per completed call and backlog amount. **PM's:** Number due, number completed, average cost (labor & materials), average time pre PM and backlog amount. **As-built Processing:** Number received, completed, and backlog amount. The report shall indicate the total backlog of all work in relation to the amount required. **Completed Work:** cost estimates versus actual costs, labor-hours scheduled versus labor-hours used, materials planned for versus materials used. **Emergency Trouble Calls** the number and type of emergency calls responded to each month and the number and cost of labor hours expended on each emergency response.

4.5 (FFP) Status: The Customer shall require status, or need to provide status on various aspects of this contract, issues or incidents. The Contractor shall participate in status meetings with the Customer upon request. Verbal or written status reports shall be provided when requested by the CO or COTR. Verbal status must be provided within one hour of the inquiry during regular working hours, and within four hours after regular working hours, written reports within 24 hours. Status of the Contractor's performance shall be reviewed between the 1st and 9th of each month prior to invoice preparation.

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4.6 (FFP) ROI (Replacement of Obsolete Items) Report: The Contractor shall develop a list of obsolete items and cost estimates to replace them one year in advance. The Contractor shall deliver the list of anticipated ROI projects to the COTR by 1, March of each year. See 7.12.

End of 4.0

Facilities Maintenance Statement of Work

5.0 RECORD KEEPING

5.1 (FFP) As-Built Drawings: The Contractor shall assume possession of existing as-built drawings and insure all as-built drawings depict the revised configuration of all DFRC facilities and infrastructure due to modifications performed under this contract. All changes shall be revised and recorded for any factor that causes change at DFRC. This includes building collateral equipment and some non-collateral equipment. Non-collateral equipment to exclude are items not fixed to the surface on which they rest unless otherwise requested by the COTR. Systems furniture partitions and walls shall be included on floor plans. The Contractor shall prepare the master as-built drawings using computer-automated drafting (currently Autocad 14). Red marked blueprints submitted by construction contractors used to update drawings to as-built shall become part of the Historical Files. All copies of as-built information shall be returned to the CO upon termination or expiration of the contract. Scanning is an approved means of entering information into the information bank. If scanning is used, the Contractor shall develop a process to review, clean up, and ensure accurate scales are incorporated into the drawings before adding to the master as-built drawings. Printed copies shall be made on velum and shall be of high enough quality to reproduce blueprints.

5.2 (FFP) As-Built Layers: The Contractor shall arrange as-built drawings in layers. As a minimum, the Contractor shall create a layer for each of the following:

<u>Facility Layers</u>	<u>Buildings and Structures Layers</u>	<u>Equipment Layers</u>
Site Plan	Foundation	Details and Seismic Anchoring
Contour Plan	Structural Components	
Sewer	Floor Plan (for every level)	
Water	Roof	
Fire Water	Electrical - less than or equal to 480 volts	
Storm Drainage	Electrical - more than 480 volts	
Compressed Air, gasses and Hydraulic Systems	Fire Alarm and Suppression	
Cryogenic Systems	Piping-Natural Gas, POL, Water, Sewer, Compressed Air, Hydraulics Systems, Steam and Chilled Water and Cryogenics	
Natural Gas	HVAC Systems, Controls, Duct Work, and Air Handling Units	
<u>Facility Layers</u>	<u>Buildings and Structures Layers</u>	<u>Equipment Layers</u>
POL	Asbestos	
Roads, Pavement, and Striping	Flooring Type (Carpet, Concrete, Vinyl, tile etc.)	

Facilities Maintenance Statement of Work

5.3 (FFP) As-Built Sub-Layer Groupings: The Contractor shall divide each layer into sub-groupings. The numbering process shall be consistent with the existing format.

5.4 (FFP) Emergency/Disaster Preparedness As-Built Drawings: One hard copy of utility as-built drawings shall be delivered to the DFRC Safety Office Disaster Preparedness Coordinator (Mail Stop D-2407) each Fiscal Quarter.

5.5 (FFP) Facilities Historical Database (NASA Real Property Data Base, NRPDB): The Contractor shall develop and maintain a complete inventory, in a computerized database, of all facilities, buildings, structures, improvements, and collateral equipment for planning, tracking, manipulating, and reporting real property information. The Web site for NRPDB is: <http://facility.hq.nasa.gov/NRPDB/> This inventory shall be referred to as the NRPDB and shall form an integral element of the CMMS. The Contractor shall structure and maintain this database as the primary source of information for the maintenance data base and real property reports. The Contractor shall keep the inventory current by including all acquisitions, disposals, and alterations. As a minimum the data base shall include: building name, type, building number, square footage, original construction cost, year built, and additions (area, cost, year), Current Replacement Value (CRV), equipment, construction materials, special systems and number of occupants. The Contractor shall use the database to generate all reports as required by the Customer and requested by the COTR. The Contractor shall modify the database when possible to meet requirements. When modifications are not possible, a supplemental database may be used to meet requirements.

5.6 (FFP) Real Property Records: The contractor shall provide a list and cost of equipment installed on all projects to the COTR. The information shall include the following as applicable: *project name*, building number, location, manufacturer, generic name; *machine identification*, brand name, model name, type, size or class, model number, serial number; *cost*, purchase date, date placed in service, expected year to replace, cost, asset number; *motors*, RPM, HP, serial number or other identification number; *other devices*, controls, accessories, components; and total amount of project cost to NASA; and signatures of individuals collecting the data and date individual signed-off on collection sheet.

End of 5.0

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6.0 COORDINATION

6.1 (FFP) Closures: Facilities, streets, walks, corridors, stairwells, elevators, and other facilities occupied and used by the Customer shall not be obstructed by the Contractor without prior written approval from the COTR. The Contractor shall inform all DFRC personnel impacted by the facility closure. The Contractor shall prepare a written notice of facility closure, to be distributed by the Contractor after approval by the COTR, to all DFRC managers and supervisors. The notice shall include a hazard analysis that lists impact(s) to DFRC and shutdown/startup procedures. The Contractor shall provide impacted personnel 72 hour advance notice for any facility closure. Where emergency conditions preclude the five-day advance notification the Contractor shall immediately notify the COTR. The Contractor shall not close or block emergency egress routes without prior approval from the DFRC Safety Office.

6.2 (FFP) Utility Outages: The Contractor shall conduct utility outages in accordance with the Approval Levels chart below. The Contractor shall not perform utility outages without 72-hour advance written approval (see Section H, H.9). The Contractor shall inform all DFRC personnel impacted by utility outages. The Contractor shall prepare a written notice of utility outage to be distributed by the Contractor and approved by the COTR, to all DFRC managers and supervisors. Where emergency conditions preclude the 72-hour advance notification the Contractor shall immediately notify the COTR. The Contractor shall take necessary precautions and schedule work to minimize the number and duration of interruptions to utility and safety systems.

Approval Levels For Utility Outages, Facility Closures, and Digging Operations

Approval Levels

- 1- PM Only
- 2- PM, FM, FD
- 3- PM, Safety, FM, FD

Notification Levels

- 1- Security*, Building Manager, FM, FD, SH*
- 2- Security*, Building Manager*, FM, FD, FI, SH*, F*, Other Per PM

Notification Level	Approval Level 1	Approval Level 2	Approval Level 3
1	Per PM Discretion Only	X	
2			X

Approval Level 1
(Lower Hazards)

- Below 480V Power
- Fire Alarm Testing
- Domestic Water

Approval Level 2
(Moderate Hazards)

- Generators
- 480V Power

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- UPS/ 400HZ Systems and above
- Fire Alarm Systems Modifications
- NG Systems < 5PSI
- Fire Suppression
(wet type/ preaction)
- Elevators
- Nitrogen/ Hydrogen/ Helium/
Oxygen
- POL Systems
- Hazmat Systems
- Large Facility Closures
- Road Closures

Approval Level 3

(Severe Hazards)

- 12kv/ 35kv Systems
- Deluge Systems/ Gaseous Suppression
- NG Systems \geq 5 PSIG
- Blocked Egress Routes
- All other work

* Mandatory positive notification

End of 6.0

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7.0 MAINTENANCE

7.1 (FFP) Utility Operations and Maintenance: The Contractor shall operate, maintain, inspect, repair, and monitor all utility systems at DFRC. Monitoring shall include meter reading at locations and frequencies listed in attachment C-29. The meter readings shall be recorded and maintained in the CMMS. DFRC utilities are described in attachment C-49. Utilities include:

- Compressed Air
- Drainage/Storm
- Electricity
- Fire Water
- Fueling Station maintenance
- Gas
- Sewage
- Steam
- Potable Water

7.2 (FFPIDIQ) Condition Assessment Survey: The Contractor shall participate in Customer directed annual Condition Assessment Surveys. The Contractor shall make available to the Customer all facility services information. This includes accounting information, trend analysis, and unaccomplished maintenance work. The Contractor shall provide escorts for all survey team personnel. The COTR will determine the survey schedule.

7.3 (FFP) Energy Monitoring and Control Systems (EMCS): The Contractor shall monitor and operate, maintain and repair the Center's Energy Monitoring and Controls System (EMCS). The Contractor shall maintain the electrical and mechanical portion of the system, an off site Customer Contractor maintains the electronic portion of the system. The system is used for the surveillance, control, and regulation of HVAC and utility systems throughout DFRC. The system also detects abnormal conditions in equipment operations on a 24-hour per day, 7-day per week basis. The system includes panels, sensors, actuators, software, host computer, data and visual display terminals, consoles, networks, network drivers, network terminations, and other associated hardware. See attachment C-03.

7.4 (FFP/IDIQ) Emergency Response: The Contractor shall interrupt work if necessary and reassign the work force to support emergencies as directed by the NASA Incident Commander. Interrupted work shall be immediately rescheduled. The contractor shall record and report in the monthly Performance Statistics report (see Section 4.4) the number and type of emergency calls responded to each month and the number and cost of labor hours expended on each emergency response. Funding shall be subject to the Contract Type cost limitations set forth in the Introduction.

7.5 (FFP) Grounds Care: The Contractor shall perform the day to day cleaning and trimming of all right of ways, open fields, drainage ditches, parking lots, developed areas, and architecturally landscaped areas at DFRC. This does not include natural desert areas; the Contractor shall not enter natural desert areas without coordinating with the DFRC Safety Office.

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7.6 (FFP) Guidance: The Contractor shall use the NASA Facilities Maintenance Handbook, NHB 8831.2B, as a guide to perform maintenance. The Contractor shall inspect and maintain facilities so that as a minimum the following conditions do not occur:

- Abandoned-in-place conduit, pipes, and cables
- Carpet wear paths or ripples
- Debris on grounds or in mechanical areas
- Electrical or mechanical equipment not meeting codes
- Failed asphalt paving
- Leaking pump seals
- Leaking roofs
- Leaking steam traps
- Overheated motors or other electrical devices
- Pattern surface wear through to base material
- Peeling or flaking paint
- Rust stains or corrosion
- Spalling or scaling concrete
- Stained or broken ceiling tile
- Tripping hazards
- Unsecured, damaged, or deteriorated pipe insulation
- Worn or broken floor tile

7.7 Maintenance Items: Maintenance items are the Facility and its Collateral Equipment. The exact number and type of equipment to be maintained under this contract may not be fully represented in the following lists and attachments due to continuous mission requirements and the information dynamics between contract preparation and award time. The data in the attachments are presumed to be accurate within + or -5%. The Contractor shall support new equipment maintenance requirements up to a 5% increase within the total contract term. The following is a sample list of the maintenance items and requirements.

7.7.1 (FFP) Built-in Cranes Operations, Maintenance and Repair

- Crane Certification
- Preventive Maintenance
- Safety Inspections and Testing

See Attachment C-05

7.7.2 (FFP) Central Steam Plant Generation and Distribution Systems

- Boiler Overhaul
- Calibration
- Certification
- Operation Efficiency Standards
- Operational Emergencies

Facilities Maintenance Statement of Work

- Plant Operation
- Plant Reports and Logs
- Preventive Maintenance
- Repair Work
- Steam Distribution System
- Steam Generation
- Water Testing and Treatment

See Attachment C-06

7.7.3 (FFP) Elevator Maintenance and Repair

- Inspections, Testing, and Certification
- Periodic Five Year Inspection/Test
- Periodic Three Year Inspection and Test
- Preventive Maintenance

See Attachment C-16

7.7.4 (FFP) Fire Protection and Life Safety Systems Maintenance and Repair

- Acceptance Testing
- Automatic Sprinkler, Hose and Standpipe Systems
- Condition Assessment
- Dry And Wet Chemical Extinguishing Systems
- Fire Hydrants
- Flow Test
- Foam Extinguishing Systems
- Gaseous Extinguishing Systems
- Inspections
- Life Safety Systems
- Modifications
- Portable First Aid Fire Extinguishers
- Reporting System
- Securing Water
- Smoke Control Systems
- Test Equipment
- Testing

See Attachment C-20 and C-49

7.7.5 (FFP) General Facility Maintenance

- Buildings
- Carpentry
- Ceilings
- Damages Caused by Weather Conditions or Vandalism
- Doors
- Electrical
- Floors

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- - Food Service Equipment
 - Foundations
 - Frames
 - Freeze Protection
 - General Exterior Work
 - Locksmithing
 - Machining, Welding, and Metalworking
 - Maintenance and Repair
 - Masonry
 - Miscellaneous Mechanical
 - Painting
 - Piping Coding and Identification
 - Platforms
 - Plumbing
 - Predictive Testing & Inspection (PT&I)
 - Preventive Maintenance
 - Refrigerant Recycling
 - Re-lamping
 - Replacement, Modernization, Renovation
 - Reporting Equipment Deficiencies
 - Roofs
 - Security Fences
 - Seismic Bracing
 - Siding
 - Stairwells
 - Structures
 - Utility Outages and Facility Closures
 - Walls
 - Windows
- See Attachments C12, C-27, C-35 and C-36

7.7.6 (FFP) Generators and Fire Pumps

- Operation and Maintenance
 - Repair
- See Attachment C-19

7.7.7 (FFP) Grounds Maintenance and Repair

- Airfield Tow-ways, Ramps and Aprons
- Cultivation and Mulching of Shrubs, flowerbeds and Planters
- Edging
- Grass Cutting
- Grounds Care
- Herbicide Management

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-
- Landscape Irrigation
- New and Replacement Shrubs and Trees
- Pavement Sweeping
- Roads, Streets, and Parking Areas
- Shrub Pruning
- Shrubbery
- Snow and Ice removal
- Sodding
- Sweeping
- Trash and Litter Collection and Disposal
- Trees

See Attachments C-22, C-24, C44 and C-51

7.7.8 (FFP) Heating, Ventilation, Air Conditioning, Refrigeration, Control Air Systems and Unfired Pressure Vessels Maintenance and Repair

- Air Cooled Condensers
- Air Handling Systems
- Balancing Chilled and Condenser Water Systems
- Cabinets and Hardware
- Certification of Unfired Pressure Vessels
- Chemical Treatment of Chilled Water Distribution Systems
- Cleaning and Flushing
- Compressor Replacement
- Compressors
- Condensate Drains, Pans, Piping, Traps
- Controllers
- Cooling Tower Water Treatment and Control
- Cooling Towers
- Dehumidification Units and Systems
- EMCS Operation, Maintenance and Repair
- Equipment Operations
- Evaporative Coolers
- Exhaust Air and Ventilating Systems
- Filter Maintenance
- Fire and Safety Hazards
- Insulation
- Maintenance and Repair
- Piping
- Portable Chiller System
- Preventive Maintenance
- Pump Units
- Refrigerant and Oil Systems
- Standby Air Compressor

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- - Support Systems
 - Tanks
 - Temperature Exchange Units
 - Test Requirements
 - Two Pipe Cooling/Heating Water Distribution Systems
 - Vacuum Pump Units and Systems
 - Valves
 - Ventilating Equipment and Systems
 - Water Coolers
 - Water Softeners
 - Window and Through-the-Wall Type Air Conditioning Units
 - Wiring, Electrical Control Circuits, Systems
- See Attachments C-06, C-07, C-10, C-11 and C-23

7.7.9 (FFP) High and Low Voltage Electrical Distribution Systems Maintenance and Repair

- Buss Bars and Copper Works
 - Electrical Equipment
 - Electrical Work
 - Emergency Power Generation
 - Meter Reading
 - Motor Generators
 - Power and Exterior Lighting
 - Preventive Maintenance (PM) Program
 - Primary Substations
 - Secondary Equipment
 - Substation Relays and Metering
 - Uninterruptable Power Supply (UPS)
- See Attachments C-35, C-36 and C-49

7.7.10 (FFP) Pest Control

- Animal Control
- Bee Hives
- Carcass Disposal
- Filth Fly Control
- Mosquito and Biting Fly Control
- Notification of Actual or Potential Pest Problems
- Nuisance Pest Control
- Operation of Pyrotechnic and Scare Devices
- Ornamental and Turf Pest Control
- Pesticide Use
- Re-treatment Requests (Callbacks)
- Rodent Control

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- Scheduled Weed Control
- Structural Pest Control
- Unscheduled Miscellaneous Pest Control
- Use Approval

See Attachments C-17, C-33 and C-34

7.7.11 (FFP) Potable Water Distribution System Maintenance and Repair

- Cleanouts
- Meters
- Pressure Regulators
- Pumps
- Reservoirs

See Attachment C-49

7.7.12 (FFP) Roads, Surfaced Areas and Signage Maintenance and Repair

- Bituminous Pavements
- Bituminous Shoulders
- Clearing
- Earth Shoulders
- Earth Surfaces
- Inspections
- Miscellaneous Surfaces
- New or Replacement
- Pavement Markings
- Pavements
- Removal and Replacement of Pipe Culverts
- Repair and/or Refurbishment
- Scheduled Grading Services
- Shoulders
- Signs
- Soil Aggregate Surfaces
- Soil-Aggregate Shoulders
- Storm Drainage Systems
- Striping
- Unscheduled Grading Services

See Attachment C-41

7.8 (FFP) Predictive Testing & Inspection: The CMMS predictive testing and inspection schedule shall consist of periodic monitoring tasks that enable the Contractor to predict failure of selected facilities and infrastructure items. As a minimum, the Contractor shall use the following six types of predictive testing in concert with the Government furnished Mastertrend® software to evaluate equipment status: Infrared, Ultrasound, Motor Current analysis, Battery Impedance, Wear Particle Analysis, and Vibration Analysis. The Contractor shall complete all minor equipment repairs costing

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\$200 or less that are identified through the PT&I process. The Contractor shall submit a Facility Service Request for FFPIDIQ work if the estimated repair cost exceeds \$200. The Contractor shall complete and maintain a CMMS PT&I record for each item and system that PT&I is performed on. The Contractor shall also maintain a copy of the

record in the facility history file. The Contractor shall date stamp or mark all replacement items such as filters, belts, etc. with the replacement date. See Attachment C-35

7.9 (FFP) Preventive Maintenance: Preventive maintenance tasks shall be performed according to CMMS schedules. See Attachment C-27, C-36

7.10 (FFP) Programmed Maintenance: The Contractor shall perform programmed maintenance tasks that have time intervals over one year. The Contractor shall ensure that the CMMS has scheduled the tasks throughout the year to minimize impact.

7.11 (FFP) Repair: Each month the Contractor shall develop a list of anticipated repairs with estimates of facility items that are about to fail. The list shall be submitted by the 1st of each month with the Monthly Performance Statistics Report to the COTR. The Customer will review and approve the repair and replacement projects based on information provided by the Contractor.

7.12 (FFP/FFPIDIQ Replacement of Obsolete Items (ROI): The Contractor shall develop a list of obsolete items and cost estimates to replace the obsolete items. The Contractor shall consider energy efficiency along with parts availability when developing this list. The Customer will review the information provided by the Contractor. The Contractor shall develop this list along with supporting information, and initiate, track and record the work using the CMMS. The Contractor shall not initiate replacement work until obtaining written approval from the COTR. See Energy Conservation paragraph 7.16.2 below. See ROI reporting requirements in Section G.

7.13 (FFP/FFPIDIQ) Service Requests: The trouble call mechanism is for minor repairs and emergencies only. All non-maintenance work is discretionary work that is desired by a DFRC resident and is classified as Facility Service Request work. A caller requesting discretionary work shall be directed to submit a Facility Service Request. Facility Service Request work costing \$200 or less shall be completed and charged to the contract FFP baseline funding. Work costing more than \$200 shall be considered FFPIDIQ work and shall require a Facilities Service Requests and approved customer funding. Each Facility Service Request shall be approved by the COTR before funding or work is committed. The Contractor shall perform discretionary work designated by an approved Facility Service Request (FSR) only. FSRs will generally be minor construction and rehabilitation projects, the major portion of which will range between \$500 and \$25,000 but shall not exceed \$500,000. The Contractor shall maintain project files of all documentation relating to each project, including, but not limited to: correspondence, purchase orders, subcontracts, certified payroll records, payments, submittals, test and

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inspection reports, and shop drawings. The Contractor shall furnish supporting technical documents such as shop drawings, vendors' literature, and specifications in accordance with the Facilities Service Request, when not supplied by the Customer. See paragraph 1.5 for project closeout requirements.

7.14 (FFP) Scope of Work Changes: The Contractor shall insure that all work is done according to approved drawings and specifications. Service request scope changes shall not be allowed unless approved by the COTR. Work shall not begin on the additional scope until written COTR approval has been received and additional funds applied. The Contractor shall report construction problems or design deficiencies encountered as soon as discovered to the COTR. The COTR will make any rulings necessary.

7.15 (FFP/FFPIDIQ) Trouble Calls: The Contractor shall address items that break or are damaged unexpectedly. The Contractor shall maintain a Trouble Call Center, take trouble calls and Service Requests via telephone from occupants of DFRC then initiate, track, and record the work using the CMMS. This category of work is comprised of three types of calls: routine calls, urgent calls, and emergency calls. If the trouble call is an **Emergency**, the Contractor shall respond immediately within the response times stated herein. **Urgent** trouble calls are not emergency trouble calls but are calls that require action to prevent interruption of work. Urgent project requirements are not emergencies and shall require the COTR's approval to move the work ahead of other work. **Routine** trouble calls are not discretionary work, but are minor problems dealing with existing facilities and services that are too small to be estimated and are generally responded to by grouping according to craft and location, and do not reasonably require detailed job planning. The limit for trouble calls is \$500 total cost including materials, equipment and labor. If, following investigation of a trouble call, the Contractor determines that the work exceeds that of the cost limitations for Trouble Calls, the Contractor shall contact the COTR and obtain an approved Facility Service Request and perform the required work as a **Repair** or as **Replacement of Obsolete items**. The Contractor shall perform **Call Backs** to inform customers of service status i.e. proposed solution, progress, and expected completion date/time. See Attachment C-47 and C-48. This work is subject to the Contract Type cost limitations set forth in the Introduction.

7.16 Special Maintenance Requirements Section (Subject to the Contract Type cost limitations set forth in the Introduction)

7.16.1 (FFP) Asbestos Management: The Contractor shall maintain on the CMMS all records of known or suspected Asbestos Containing Materials (ACM) and shall document their locations on as-built drawings within 30 calendar days of detecting and validating the existence of the ACM. The Contractor shall perform an annual inspection of the ACM in conjunction with the annual Facility Condition Assessment. The Contractor shall note in the CMMS and report to the COTR within 24 hours any ACM damage that may be a potential hazard and require remedial attention. In the course of performing other work, the Contractor shall make note in the CMMS on a daily basis any work generated and performed based on ACM observations. All work shall be performed in accordance with

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protective and emergency medical procedures prescribed in the DFRC Safety Plan. The work shall be initiated, tracked and recorded by the Contractor using the CMMS. See attachment C-02 for asbestos sample locations. See attachment C-17 for environmental requirements.

7.16.2 (FFP) Energy Conservation: Under the work element “Replacement of Obsolete Items” (ROI) paragraph 7.12 above, the Contractor shall only replace equipment with modern energy efficient equipment in compliance with Executive Order 13123 “Greening the Customer Through Efficient Energy Management”. The Contractor shall reduce operating hours of space heating systems, cooling systems, ventilation systems, equipment, and machines where possible. The Contractor's technicians shall adjust space temperature and humidity set points when buildings are not occupied and/or environmentally sensitive equipment is off. The Contractor shall install and maintain setback controls where necessary. The Contractor shall effectively install insulation and vapor barriers on ceilings, walls, floors, and roofs to reduce heat conduction. When performing roof replacements, the Contractor shall install reflective roof surfaces to reduce solar heat gain through roofs. The Contractor shall install operable, storm, and multiple glazed windows to reduce heat conduction and thermal radiation through glazing areas. The Contractor shall use exterior shading, interior shading, airflow windows, tinted glazing, and reflective films at glazing areas to reduce solar heat gain. The Contractor shall seal vertical shafts and stairwells, caulk and weather strip doors and windows, and install revolving doors or construct vestibules to reduce infiltration.

7.16.3 (FFP) Mission Critical Systems: The Contractor shall insure no Mission Critical items listed in Attachment C-12 fail to perform as required. Mission Critical items shall have resource priority. The COTR shall be verbally notified of Mission Critical failures as soon as possible. A written Mission Critical Failure report shall be submitted to the COTR within 48 hours.

7.16.4 (FFP) Polychlorinated Biphenyls (PCB's): Only one Polychlorinated Biphenyl (PCB) transformer (< 50 ppm) remains at Dryden. Few PCB light ballast remain at DFRC due to an energy efficiency project. Any ballast manufactured before 1979 can be presumed to contain PCB and shall be managed and disposed of in accordance with all applicable regulations. Ballast manufactured after 1979 are marked with a “CONTAINS NO PCB's” statement. If statement is missing, a manufactured date is stamped into the casing. See attachment C-17 for environmental requirements.

7.16.5 (FFP) Lead Paint Abatement: The Contractor shall comply with the requirements of the Dryden Pollution Prevention Plan for Lead Paint Abatement (see attachment C-28 for lead paint locations). See attachment C-17 for environmental requirements.

End of 7.0

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8.0 FACILITIES PLANNING, DESIGN, CONSTRUCTION MANAGEMENT AND ACTIVATION

All items in this subsection are subject to the contract type cost limitations set forth in the Introduction.

8.1 General: The Contractor shall provide planning and design support services, construction procurement services, construction management services, and activation and post-construction period services. The contractor shall use advances in management practices (Best Practices) which optimize facility planning, budgeting, design, and construction. For this subsection, the allowable scope is construction projects costing less than \$500,000. See paragraph 1.5 for project closeout requirements. Historical data for projects and support requirements are listed in attachment C-51.

8.2 (FFPIDIQ) Planning and Design Support Services: The Contractors shall help the Customer in the planning process to develop sufficient information with which the Customer can address risk and decide to commit resources to maximize the chance for a successful project. The Contractor shall attend planning meetings and provide information regarding siting requirements and existing utilities. The Contractor shall prepare conceptual scopes and estimates and provide information to help evaluate alternatives. The Contractor shall provide technical support to help produce complete and technically correct Design Packages for construction projects. The Contractor shall provide constructability and maintainability reviews of design packages. Design Packages consist of construction drawings, specifications and a cost estimate. Drawings shall be prepared in electronic CAD format, AUTOCAD V.14. Specifications shall be prepared in the SPECSINTACT (Customer furnished) format. The Contractor shall provide minor design services (projects with design effort costs of less than \$2500) to develop complete design packages that are technically correct and timely. Major design projects (projects where design costs exceed \$2500) will be performed by Architect-Engineering contractors or by Government staff. The Contractor shall provide support to the Customer for Major Design Project Packages, including drawings, surveying and cost estimates. The Customer shall approve all design packages.

8.3 (FFPIDIQ) Construction Procurement and Construction Period Services: The Contractor shall deliver completed construction projects that are useable for the intended purpose and delivered as planned. Construction Procurement and Construction Period Services include:

- Preparation of construction bid packages
- Requesting price proposals or bids
- Awarding contracts for construction
- Administering or managing construction contracts.
- Build, modify, and rehabilitate facilities
- Coordinating utility outages
- Reviewing construction contractors' submittals
- Facilitating personnel and material access
- Reviewing contractors' safety plans and hazard analyses
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Facilities Maintenance Statement of Work

- Providing similar related activities that support construction field activity

8.4 (FFPIDIQ) Activation and Post-Construction Period Services: Activation and post-construction period services include:

- Bar-coding Equipment
- Documentation of the as-built condition
- Completion of items not in the construction contract
- Connecting utilities to the user's furniture and equipment
- Facility Acceptance Inspection
- Installing fire extinguishers
- Installing seismic braces for equipment
- Labeling utilities, doors and other items
- Installing room number signs
- Testing fire alarm systems
- Adjusting HVAC systems
- O&M Manuals
- Executing similar activities related to move-in, start-up and activation

When requested, the Contractor shall provide Activation and Post-Construction Period Services for the Customers construction projects. See paragraph C-3.1 for CMMS requirements.

End of 8.0

Facilities Maintenance Statement of Work

9.0 JANITORIAL

9.1 (FFP) Access: The Contractor shall not omit the cleaning of any area due to locked entrances. Key service is available upon request through the DFRC Security Branch. The Contractor shall return on the last effective date of this contract all keys obtained by Contractor personnel for the performance of the contract and shall submit to the COTR a signed receipt for their return. See paragraph 9.5 below regarding Restricted Areas.

9.2 (FFP) Electro Static Discharge Requirements (ESD): The Contractor shall comply with the requirements of NASA Standard 8739.7 Chapter 7 regarding training and care of floors in ESD areas. Buildings 4801 (SR-71 Sim. Lab only), 4838 (1st & 2nd floor), 4840 (1st & 2nd floor), 4800 rooms 1115, 1105 require anti-static floor care products.

9.3 (FFP) Protection of Government Property: The Contractor shall take **special** care to protect Government property from damage or disfigurement. This includes furniture, walls, ceilings, floors, baseboards, and other surfaces from materials not intended for use on that surface. 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, if necessary. The Contractor shall, in Contractor-furnished refuse containers, remove dust, dirt, and debris. The Contractor shall move furniture, equipment or other items as necessary to facilitate cleaning operations. After cleaning has been completed, the Contractor shall replace all moved furniture, equipment, or other items. The Contractor shall not stack or place furniture on top of other furniture for the convenience of accomplishing any cleaning function.

9.4 (FFP) Required Janitorial Services

- Special Event Clean Up
- Clean up of Blood and Bodily Fluids
- Cleaning and Refilling Dispensers (soap/towel)
- Cleaning Curtains and Blinds
- Cleaning Drinking Fountains and Sinks
- Cleaning Exterior Glass
- Cleaning Glass in Entry Ways
- Cleaning HVAC Registers and Vents
- Cleaning Interior Window Glass
- Cleaning Light Fixtures
- Cleaning Mirrors
- Cleaning Miscellaneous Glass
- Cleaning Rest Room Floors
- Cleaning Sand Urns, Ash Cans, and Trays
- Cleaning Showers
- Cleaning Sinks and Washbowls
- Cleaning Under Raised Floors
- Damp Mopping
- Doors and Roto Gates

Facilities Maintenance Statement of Work

- Dry Cleaning Curtains
- Emptying Waste Containers
- Finishing
- Floor Walk-Off Mats
- Furniture and Chalkboards
- General Floor Cleaning
- Hand Rails
- High Dusting
- Low Dusting
- Recyclables Collection
- Rest Room Cleaning
- Shampooing Carpets
- Spot Cleaning Rest Room Walls and Ceilings
- Spot Cleaning
- Spray Buffing
- Stripping Finish
- Sweeping
- Toilet Cleaning
- Urinal Clearing
- Vacuuming

See attachment C-25 and C-26

9.5 (FFP) Restricted Areas: Upon award of contract the Contractor will be provided with a list of restricted areas. The listed areas shall be cleaned in the presence of the occupants unless authorized otherwise by the responsible occupant. The Contractor shall clean these areas between 7:30 AM and 4:00 PM or as agreed to with the responsible occupant.

9.6 (FFP) Scheduling: The Contractor shall use the CMMS schedule of janitorial services to keep DFRC facilities listed in Attachment C-26 clean at all times in accordance with requirements set fourth in Attachment C-25 Janitorial Schedule of Services. When scheduled services performed twice weekly or less frequently fall on a holiday, alternate dates shall be specified.

9.7 (FFP) Work After 4:00 PM: The Contractor shall use the Open Room Request form shown in Attachment C-30 for obtaining customer signatures authorizing room access for cleaning after 4:00 PM. The forms shall be maintained by the Contractor and be made available to the COTR upon request.

9.8 (FFP) Work Hours: Unless specified otherwise, the Contractor shall perform janitorial services between 7:30 AM and 12:00 midnight, five days per week, Monday through Friday.

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9.9 (FFP) Work Site Clean-up: The Contractor shall keep all supplies, equipment, tools, and machines out of traffic lanes or other areas where they might create a hazard. At the end of each work period, the Contractor shall secure all supplies, equipment machines, and tools in closets or other areas provided for this purpose. At the completion of work each day, the Contractor shall dispose of any cloths, mops, brushes containing a residue of combustible material subject to spontaneous ignition or combustion in a container which has been approved by the DFRC Safety Office. The Contractor shall dispose of cleaning solutions in accordance with DFRC Chemical Management Handbook guidelines.

End of 9.0

Facilities Maintenance Statement of Work

10.0 SPECIAL REQUIREMENTS

10.1 (FFPIDIQ) Air Force Flight Test Center (AFFTC) Support: An agreement exists with AFFTC for DFRC to provide contingency support for facilities maintenance and minor construction. All contingency support will be paid for with Air Force Funding.

10.2 (FFP/FFPIDIQ) Emergency and Disaster Response Support: The Contractor shall respond to all emergencies and disasters at DFRC as directed by the DFRC Incident Commander. The Contractor shall respond to all support requests on a 24-hour, seven (7) day per week basis. The Contractor shall provide qualified labor, supervision, and management necessary to support the DFRC Damage and Utility Control Team (DUCT Team) and a 12 person Urban Search and Rescue (USAR) team. DFRC will provide the USAR training. USAR training will require 192 hours of initial training per person and 96 hours annual refresher training per person. Personnel assigned to the USAR team shall pass a medical examination initially and annually to determine physical fitness before participating on the team or in training. Requirements are described in the Dryden Emergency Preparedness Plan (DCP-S-035) and the Emergency Preparedness Earthquake Plan (DCP-S-042). The services under the USAR requirement will be FFPIDIQ work. The DUCT team and USAR Support Team shall work in close coordination with the Head of the DFRC Safety Office or the designated DFRC Incident Commander in emergency or disaster situations.

10.3 (FFPIDIQ) Special Event Support: At infrequent and unpredictable intervals, the Contractor shall respond to the requirements of special Flight or Host/Guest operations. The Contractor shall provide personnel, materials and tools (usually with short notice) to support special programs. Tasks will consist of, but not be limited to, modifications alterations, and construction to facilities and equipment, installation and removal of temporary power cables, lights, platforms, barriers, portable toilets, trash receptacles, signs, fences, and barricades. This may also include maintaining and operating generators. The Contractor shall work during non-duty hours if necessary when requested by the COTR.

End of 10.0