

**STATEMENT OF WORK**

**FOR**

---

**MAINTENANCE, REPAIR, OPERATION AND MODIFICATION**

**OF**

**BUILDINGS, STRUCTURES, UTILITY SYSTEMS,**

**AND GROUNDS**

**AT THE**

**MIKE MONRONEY AERONAUTICAL CENTER**

**OKLAHOMA CITY, OKLAHOMA**

**May 14, 2007**

**REVISED**

**April 9, 2010**

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# STATEMENT OF WORK

## SECTION 1. GENERAL

**1.1 SCOPE OF WORK.** Except as provided in Section 3 and Section 4, the Contractor shall furnish labor, transportation, and tools to accomplish maintenance repair, operation, and modification to Government owned and leased facilities in accordance with the terms of this contract. Performance shall be according to the standards contained in Technical Exhibit 5: Objective Standards. The main functions include the maintenance, repair, operation, and modification of buildings, utility systems, structures, mechanical and electrical equipment systems, water treatment program, security systems, computers, elevators, pest control, fire suppression, fire detection systems, hazardous waste transfer, warehouse automation equipment, radio paging and/or communications devices, government owned scooters, and AOA ground equipment, exterior building lights and complete care of grounds to keep the MMAC complex in full operation to support its assigned mission. Contractor shall make every effort to comply with Executive Order 13423: Strengthening Federal Environmental, Energy and Transportation Management. Performance is limited by the size of the Contractor's staff, as authorized by the Government. Work defined herein is the target for total work. The Contractor agrees to use his best efforts to accomplish this work to the degree possible within resource restraints. Certain work as described is the responsibility of the Oklahoma City Airport Trust and is excluded from this contract. Revised July 1, 2008

**1.1.1 Additional Contracts.** The Government may award additional contracts to perform maintenance, repair, modification, operation, and construction work at the MMAC. It is not the intent that all work at the MMAC is done under this contract.

## **1.2 PERSONNEL.**

**1.2.1 Core Crew.** The Contractor shall have on duty to perform the work required under this contract the numbers and skills of personnel with the qualifications as noted for the maintenance, repair, modification, operation and preventive maintenance (PM) work. Prior to starting work at the MMAC, a resume, including experience, copies of current license(s) and other related information shall be submitted on each employee for approval by the COR. A current valid Oklahoma State Drivers License for all employees operating government vehicles is required.

### **Administrative Staff (12)**

a. Project Manager	1
b. Assistant Project Manager	3
c. Quality Control Specialist	1
d. Service Order Dispatcher	2
e. Secretary III	1
f. Engineering Technician IV (Planner/Estimator)	2
g. Environmental/Safety Management Specialist	1
h. PM Data Clerk (Revised Apr 9, 2010)	

**CCMS Section (12)**

a. CCMS Operator Leadman	1
b. CCMS Operator	4
c. CCMS Surveillance Operator	6
d. CCMS Surveillance Operator (Day Time )	1

**Dedicated Craft Personnel (11)**

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a. Elevator Mechanic Journeyman	1
b. Elevator Mechanic Helper	1
c. Pest Control Technician	0.5
d. Fire Suppression Technician	0.5
e. Supply Technician	2
f. Electronic Technician II (Fire Alarm System Mechanic)	2
g. Inventory Clerk	1
h. Water Treatment Plant Operator	1
i. Water Treatment Specialist	2

**Grounds Maintenance Crew (10)**

a. Grounds Maintenance Manager	1
b. Grounds Maintenance Leadman	1
d. Gardener	8

**Preventative Maintenance Section (17)**

a. Heating, Refrigeration & Air-conditioning Mechanic	6
b. Maintenance Trade Helper	7
c. Maintenance Electrician	2
d. Plumber, Maintenance	1
e. Boiler Mechanic/Pipe Fitter (one position identified as leadman)	1

**Support Work Section (9)**

a. Electrician	4
b. Carpenters (finish/partitions)	2
c. Painter	2
d. Maintenance Sheet Metal Worker (one position identified as leadman)	1

**Trouble Call/Operational Section (16)**

a. Heating, Refrigeration & Air-conditioning Mechanic	4
b. Maintenance Electrician	3
c. Plumber, Maintenance	1

d. Carpenter II (locks/hardware) New July 1, 2008	1
e. Electronic Technician, Maintenance II	3
f. Electronic Technician, Maintenance III	1
g. Boiler Mechanic/Pipe Fitter	1
h. General Maintenance Worker	2
<b>(three positions identified as leadman)</b>	

**Vehicle and Grounds Equipment Support (7)**

a. Grounds Support Equipment Mechanic - Leadman	1
b. Electric Vehicle/Equipment Mechanic (LSF)	2
c. Electric Vehicle/Equipment Mechanic (Base Maint.)	2
d. Ground Support Equipment Mechanic (AVN)	2

**Total Personnel 94**

**1.2.2 Personnel Qualifications.**

**1.2.2.1 Project Manager.** The Contractor shall provide an on-site project manager to be physically present during the hours of 0800 to 1630, Monday through Friday, except for Federal holidays. This individual shall be responsible for the overall management and coordination of this contract and shall act as the main point of contact with the Government. When any work is being performed at the Aeronautical Center during other than normal duty hours, the project manager or assistant project managers shall be on site, unless otherwise approved, in advance, by the Contracting Officer Representative (COR). When no scheduled or emergency maintenance or repair work is being performed and the MMAC is under normal operations under surveillance by on-site operators and the Central Control & Monitoring System (CCMS) control center, the manager and assistant managers are not required to be on-site at the MMAC. This would normally be on Sundays and holidays and after 1630 hours on weekdays. When the manager or assistant managers are not present at the MMAC, the CCMS control center operator will be the contact point for any problems or adjustments required for MMAC operations. The qualifications of the project manager will be reviewed and approved by the COR prior to starting any work under the contract. **The Project Manager shall have a Bachelor of Science in Engineering, (e.g., Civil, Electrical, Mechanical, Construction Management, etc.) or a Bachelor of Science in Business Administration from accredited university and/or college and have ten (10) years management experience in the operation, maintenance, and modification of a facility of not less than 3,000,000 square feet with the complexity of equipment and systems of the MMAC. Supervisory and/or management experience must have been at a responsible level such as the total facility or a major subtotal of the plant engineering operation organization.**

**1.2.2.2 Assistant Project Manager.** The Contractor shall provide assistant project manager(s) who shall, in the absence of the project manager, perform his duties as called for in paragraph 1.2.2.1. The project manager or one of the assistant project managers shall be on-site when any work other than normal building operations/surveillance is being performed at the Aeronautical Center, unless otherwise approved, in advance, by the COR. The technical qualifications of the assistant project manager will be reviewed and approved by the COR prior to the individual performing any duties as assistant manager. The assistant project managers shall have three (3)

years technical background experience at the journeymen level in plant maintenance, operation, and modification. The three years journeymen level experience must be in one of the craftsman and/or tradesman such as carpenter, electrician, electronic technical, HVAC technical, plumber and other types of operations and maintenance building trades. In addition to three (3) years management experience and/or position of supervisor in an element of plant maintenance, operation, modification of a facility of not less than 3,000,000 square feet with the complexity of equipment equal to that of the MMAC.

**1.2.2.3 Quality Control Specialist** develops and implements a Quality Control Program designed to ensure compliance with all contracts requirements and prepare reports. The QC Specialist shall have minimum of an Associate of Science Degree in a scientific field AND three (3) years of industry experience in collecting, evaluating and analyzing information in operation, maintenance, and modification of a facility or experience at a facility the size and complexity of the Aeronautical Center. Must have good communication skills and computer skills to be able to prepare clear concise reports. Revised July 1, 2008

**1.2.2.4 Service Order Dispatcher** receives, records, and distributes work orders to appropriate managers, craft personnel, and/or Government representatives upon customer's request for service. Records necessary information, such as name, routing symbol, telephone number, and specific nature of problem, repair needed, or services requested. Prepares work order and distributes to proper management or Government representative. Keeps an accurate record of trouble calls and work orders. May dispatch orders and/or relay messages and special instructions to craft personnel using radio or telephone equipment.

**1.2.2.5 Secretary III** performs varied clerical and secretarial duties requiring knowledge of office routine and an understanding of the organization, programs and procedures related to the work of the office.

**1.2.2.6 Engineering Tech IV (Planner/Estimator)**, plans, estimates, provides shop drawings and sketches and prepares materials request for routine and nonroutine support work order requirements using the Mean's Estimating Guide and other guidance from Government engineers, architects, and Facility Management Specialists (FMS's). Must have the ability to interpret construction drawings and specifications when necessary. Estimates must be within 10-percent of actual hours of work performed. Assignments may include both single and multi craft work. Electrical and Mechanical P/E's shall have individual current State of Oklahoma Journey Level License. All P/E's shall have 5 years experience at the journey level.

**1.2.2.7 Environmental/Safety Management Specialist** shall have oversight management of the Operations and Maintenance (O&M) contractors hazardous and non-hazardous waste/safety programs and will provided environmental and safety assessments for the Operational and Maintenance Division, AMP-300, hazardous and non-hazardous waste/safety programs. Minimum of an Associate of Science Degree in a scientific field such as (Occupational/Environmental Safety or Industrial Hygiene) or equivalent degree is required AND 5 years of environmental and safety compliance experience in an industrial setting the size and complexity of the MMAC. Revised July 1, 2007

1. Develops and implements environmental compliance, inspections and training programs for handling all waste materials, including spill prevention plan and satellite storages areas and Industrial/Hazardous Waste Water Treatment Facility.

2. Must have in-depth knowledge of federal, state, and local regulations as it pertains to Environmental and Safety compliance regulations.
3. Develops reviews and updates Standard Operations Procedures, manuals, contingency plans, checklist and other procedures for all areas of the all waste management programs.
4. Prepare technical reports on environmental issues and recommend corrective actions based on regulatory compliance.
5. Must have completed an approved 40-hour EPA certified Hazhopper Training Course in the last year.

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**1.2.2.8 CCMS Operators** shall have the ability to perform in the surveillance and operation of computer controlled Building operation HVAC systems for the size and complexity of the MMAC. CCMS Operators must be able to recognize the magnitude of a problem, the need for assistance, and accurately communicate this information. CCMS operators shall have a current State of Oklahoma Unlimited Journeymen Level Mechanical License, with three (3) years commercial HVAC experience or five (5) years equivalently experience in the operation of automated building environmental systems of the size and complexity of the MMAC. Revised July 1, 2008

**1.2.2.9 CCMS Surveillance Operators** shall have the ability to perform basic Install/repair/operations of pneumatic, electrical, electronic, computerized energy management systems, sensors and associated systems for the equipment that will be operated and checked for proper operation during surveillance. The CCMS surveillance operators shall have both a current Oklahoma State Second Class Boiler License and State of Oklahoma Unlimited Journeymen Level Mechanical License with three (3) years commercial HVAC experience in the size and complexity of the MMAC. Revised July 1, 2008

**1.2.2.10 CCMS Leadman** CCMS Leadman position shall meet both requirements of the CCMS Operators 1.2.2.8 and CCMS Surveillance Operators 1.2.2.9. Subject to the approval of the COR. Revised July 1, 2008

**1.2.2.11 Elevator Mechanic (Journeyman)** must have a current State of Oklahoma Elevator Mechanic License. Must have the ability to perform maintenance and adjustments with the ability to perform maintenance and repair of elevators and lifts, and shall have the ability to perform solid-state electronics troubleshooting, repair and replacement on microprocessor controlled/SCR drive traction elevators at a facility the size of the MMAC.

**1.2.2.12 Elevator Mechanic Helper** must have the ability to safely perform work on elevators and lifts.

**1.2.2.13 Pest Control Technician** - The pest control technician provides insect, animal, and bird control for the entire Aeronautical Center complex. The position requires a current General Pest Control License for the State of Oklahoma. The technician is responsible for developing a program to control pests and citing areas of likely infestation, and determining the proper control methods. Pest control personnel are responsible for mixing and spraying a variety of insecticides. They also bait and set traps in the performance of their duties. Pest control personnel are also responsible for maintaining the equipment used in the performance of their duties. Work is required inside and outside the various Aeronautical Center buildings. Physical demands and hazards are that normal to the trade. Insecticides and pesticides handled are toxic and explosive; therefore, all applicable safety

requirements must be strictly adhered to. Application of pesticides and insecticides must conform to all local, county, state and federal regulations. The pest control technician is required to maintain an activity log to indicate action taken in response to all pest control complaints.

**1.2.2.14 Fire Suppression Technician** must be certified by state or local ordinance in portable/fixed systems or automatic fire suppression systems. The technician shall have the ability to perform inspections and preventive maintenance on a facility the size of MMAC.

**1.2.2.15 Supply Technician** must have in-depth knowledge of inventory management systems and warehouse management procedures. Must be computer literate in various inventory systems and programs dealing with materials and supplies. Must be able to learn and utilize the FAA Archibus inventory work order program. Must have a detailed knowledge of inventory control policies and procedures, acquisition guidelines and the ability to analyze and evaluate information necessary to resolve problems related to management of inventory. Must have a broad knowledge of material receipt, storage; inventory control procedures and methods of controlling assigned inventory stock. Must be able to analysis stock levels in order to replenish stock based on demand and procurement lead times. Must have a working knowledge of parts, tools, equipment, and materials to support the daily operations of facilities and maintenance for an industrial complex. Must have 4 to 5 years of experience in inventory management systems. Must have and maintain a valid Oklahoma State Drivers License and must be able to complete the required FAA forklift operations training. The physical capability of walking, bending, stooping, pulling and lifting up to fifty (50) pounds. (Revised Apr 9, 2010)

**1.2.2.16 Electronic Technician II, Fire Alarm System Mechanic** shall have a current Oklahoma State Alarm License and shall have performed work on a facility the size and complexity of the MMAC.

**1.2.2.17 Inventory Clerk** assists in requisition, material receipt, and initial inspection for damages, storage and issuing of materials, parts, tools and equipment. Must have the ability and knowledge to conduct inventory audits and develop records. Verifies computations against physical count of stock and adjusts errors in computation or count. Must be able to learn and work with the FAA ARCHIBUS inventory work order program. Prepares reports of inventory balance, prices, and shortages. Pick and delivery of equipment, supplies and materials from vendors and supplies houses in the Oklahoma City Metro area. Must have and maintain a valid Oklahoma State Drivers License and must be able to complete the required FAA forklift operations training. The physical capability of walking, bending, stooping, pulling and lifting up to fifty (50) pounds. (Revised Apr 9, 2010)

**1.2.2.18 Water Treatment Plant Operator/Water Treatment Specialist** shall have the ability to operate waste water treatment plant, sludge processing, disposal equipment to control flow and processing of waste water, collect waste water samples using proper tools to conduct tests using appropriate testing equipment. Also, employee(s) shall have the ability to perform treatment of boiler feed water systems, cooling tower(s), and closed loop type systems installed at the Aeronautical Center. Employee(s) shall be responsible for the treatment, sampling, and testing of the above systems and recognize the need for necessary adjustment to maintain proper chemical balance to provide the required scale and corrosion protection for HVAC equipment and their auxiliary systems and components. Employee(s) shall maintain a daily record of the results of all tests and quantity of chemicals used. Must have a minimum of two years experience at a facility equal to or greater than the Mike Monroney Aeronautical Center. Must have, or be able to obtain, all operator and/or laboratory licenses required by the State of Oklahoma.

**1.2.2.19 Water Treatment Specialist** must have the ability to perform the treatment of boiler feed water, cooling towers and closed loop type systems such as those installed at the Aeronautical Center. This shall include the ability to treat, sample and test the above-mentioned systems and recognize the need for necessary adjustments to maintain the proper chemical balance to provide the protection for the HVAC systems and their auxiliary systems and components. Individual maintains a daily record of the results of all tests and the quantity of chemicals used. Must have, or be able to obtain, all operator and/or laboratory licenses required by the State of Oklahoma.

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**1.2.2.20 Maintenance Trade Helper** shall have completed an approved trade school or must have the ability to perform work in the applicable trade.

**1.2.2.21 Gardener**, plans and executes small scale landscaping operations and maintains grounds and landscape. Works with assistant in preparing and grading terrain, applying fertilizers, seeding and sodding lawns, and transplanting shrubs and plants, and cultivates them, using gardening implements and power-operated equipment. Plants new and repairs established lawns, using seed mixtures and fertilizers recommended for particular soil type and lawn location. Locates and plants shrubs, trees, and flowers. Mows and trims lawn, using hand or power mower. Trims shrubs and cultivates gardens. Sprays trees and shrubs and applies supplemental liquid and dry nutrients to lawn, trees and shrubs. Cleans ground, using rakes, brooms, and hose. May dig trenches and install drain tiles. May repair concrete and asphalt walks and driveways.

**1.2.2.22 Ground Maintenance Manager**, must have extensive knowledge of principles and practices of grounds maintenance management, including knowledge of forestry, horticulture, and landscape design. The individual must have knowledge of materials, equipment, methods and practices essential to maintenance and construction of grounds facilities; and ability to plan, organize, coordinate, and direct activities of a well rounded grounds maintenance program. The grounds maintenance manager shall have three (3) years experience as a supervisor of grounds maintenance equal to the size and complexity of the MMAC.

**1.2.2.23 Grounds Maintenance – Leadman**, Grounds Maintenance leadman shall have three (3) years journeymen level experience in all phases of landscaping and grounds maintenance operations, providing technical guidance and instruction to gardeners and helpers. Revised July 1, 2008

**1.2.2.24 Mechanic (Grounds Maintenance Equipment)** must have four (4) experiences in maintain, repair, overhaul, and fine tune, and service manual and powered grounds maintenance equipment used at the Aeronautical Center. Included are: rotary mowers, trimmers, edgers, tractor and powered whirlwind or sickle bar type mowers, disks, harrows, sprinkler systems, spreaders, sprayers, clippings removal equipment, and blizzard recovery equipment. Grounds mechanic must have the ability and knowledge to perform limited preventive maintenance on electric/gas, **scooters**, carts and other off road vehicles. Revised July 1, 2008.

**1.2.2.25 Grounds Maintenance - Laborer** maintains grounds of industrial, commercial or public property. Performs one or more of the following: Cuts grass, using walking-type or riding mowers. Trim hedges and edges around walks, flowerbeds, and wells, using hedge trimmers, clippers and edging tools. Prunes shrubs and trees to shape and improve growth, using shears and

other handtools. Sprays lawn, shrubs, and trees with fertilizer and insecticide. Plants grass, flowers, trees, and shrubs. Waters lawn and shrubs, using hose or activating sprinkler system. Picks up and carts away leaves, paper or other litter. Removes snow from walks, driveways, roads, or walkways and other areas. Repairs and paints fences, gates, benches, tables, guardrails, and outbuildings. Assists in repair of roads, walks, buildings, and mechanical equipment. May clean comfort stations, office and workshop areas, and parking lots by sweeping, washing, mopping and polishing.

**1.2.2.26 Maintenance Mechanic** shall have the ability to perform work on computer-controlled equipment such as stacker cranes and forklifts similar to those used in this system.

**1.2.2.27 Plumber, Maintenance** shall have performed work on a facility the size and complexity of the MMAC and have a current State of Oklahoma Plumber License.

**1.2.2.28 Laborer, General** shall be physically and mentally capable of performing required lifting, sorting, hauling, cleaning, and other unskilled work as directed by Contractor supervisory personnel.

**1.2.2.29 Boiler Mechanic/Pipe Fitter** shall possess a current Oklahoma Department of Labor license to install, service, repair and maintain boilers at the size, or larger, than those installed at the MMAC.

**1.2.2.30 Electrician.** must have the ability to perform complete installation/repair/replacement of electrical systems on a facility the size and complexity of the MMAC. Must have demonstrated advance technical knowledge in solving complex problems related to existing electrical and new installations. Must be able to accurately interpret prints, schematics and manufactures technical documents. The electrician shall have a current Oklahoma State Unlimited Electrician Journeyman License and five (5) years journeymen experience. Revised July 1, 2008

**1.2.2.31 Carpenter (finish/partitions)** shall have the ability to perform the installation/repair of doors, finish work and movable partitions in a complex the size of the MMAC

**1.2.2.32 Painter** shall have the ability to perform in the preparation and painting of industrial surfaces in a complex of the size of the MMAC.

**1.2.2.33 Painter Helper** shall have the ability to assist in the preparation and painting of industrial surfaces.

**1.2.2.34 Maintenance Sheet Metal Worker** must have the ability to perform fabrication, installation, and maintenance repair and shall have performed work on a facility the size and complexity of the MMAC.

**1.2.2.35 Heating, Refrigeration & Air-conditioning Mechanic** the HVAC mechanic shall have a current State of Oklahoma Unlimited Journeymen Level Mechanical License, City of Oklahoma City Mechanical Journeymen License and Certification Requirements to comply with **(Section 608 of the Clean Air Act 40, CFR, Part 82.161 and FAA Order 1050.18)** and five (5) years journeymen experience. HVAC mechanic must have demonstrated advance technical knowledge in solving complex problems related to HVAC system and system components. Must be able to accurately interpret prints, schematics and manufactures technical documents and must have the

ability to perform the installation, overhaul and repair of HVAC systems and equipment of the size and type installed at the MMAC. Revised July 1, 2008

**1.2.2.36 Maintenance Electrician** shall have performed work on a facility the size and complexity of the MMAC. Must have the ability to perform complete repair and maintenance of electrical systems on a facility the size and complexity of the MMAC. Must have demonstrated advance technical knowledge in solving complex problems related to existing electrical and new installations. Must be able to accurately interpret prints, schematics and manufactures technical documents. The electrician shall have a current Oklahoma State Unlimited Electrician Journeyman License and five (5) years journeymen experience. Revised July 1, 2008

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~~**1.2.2.37 Plumber, Master** shall have a current Oklahoma State Master Plumber License and have performed work on a facility the size and complexity of the MMAC.~~

**1.2.2.38 Carpenter II** (locks/hardware): shall have three (3) years experience in performing installation and repair of metal and wood doors; installation and repair of all classifications of lock sets; mill work; fabricate and install counter tops, ceilings and walls; layout, install, and repair electronic intrusion devices; install, trouble-shoot and repair electronic opening devices, must maintain a State of Oklahoma locksmith license. New July 1, 2008

**1.2.2.39 Electronic Technician, Maintenance I**, must have the ability to perform complete maintenance for electronic systems and related automated systems, surveillance systems, and card entry systems, intercommunications systems, radio two-way communications systems (including repeaters and radio pagers), burglar alarms, CCTV systems, PA systems, audio-visual systems, and other electronic systems as required. Only Electronic Technicians directly involved in the repair and maintenance of VHF/UHF audio transmitting equipment are required to possess applicable industry certifications. Revised July 1, 2008

**1.2.2.40 Electronic Technician, Maintenance II**, applies comprehensive technical knowledge to solve complex problems by interpreting manufacturer's manuals or similar documents. Work requires familiarity with the interrelationships of circuits and judgment in planning work sequence and in selecting tools and testing instruments. Receives technical guidance, as required, from supervisor or higher-level technician, and work is reviewed for compliance with accepted practices. May provide technical guidance to lower level technicians. Must possess all applicable industry certifications. Revised July 1, 2008

**1.2.2.41 Electronics Technician, Maintenance III**, applies advanced technical knowledge to solve unusually complex problems that typically cannot be solved solely by referencing manufacturer's manuals or similar documents. Such problems include determining the location and density of circuitry, evaluating electromagnetic radiation, isolating malfunctions, and incorporating engineering changes. Work typically requires a detailed understanding of the interrelationship of circuits. Exercises independent judgment in performing such tasks as making circuit analyses, calculating waveforms, and tracing relationships in signal flow. Uses complex test instruments such as high frequency pulse generators, frequency synthesizers, distortion analyzers, and complex computer control equipment. Work may be reviewed by supervisor for general compliance with accepted practices. May provide technical guidance to lower level technicians. Must possess all applicable industry certifications. Revised July1, 2008

**1.2.2.42 Grounds Support Mechanic – Leadman Position** shall have five (5) years journeymen level experience in all phases of electric, diesel and gas powered equipment such as electric/gasoline forklifts, scooters, carts, flight line equipment, emergency building generators and other off road vehicles.

**1.2.2.43 Electric Vehicle/Equipment Mechanic (LSF/Base Maint. Equip.)** repairs to electric/gasoline forklifts, scooters, carts and other off road vehicles located in both the FAA Warehouse and BM Building. Diagnosis source of trouble, determines extent of repairs required, makes repairs, and performs scheduled and unscheduled maintenance to keep assigned powered and non-powered equipment in proper functional condition. Electric Vehicle Equipment Mechanic shall have four (4) years experience in all phases of Electromotive and Automotive operations.

**1.2.2.44 Grounds Support Equipment Mechanic (AVN Flight Line Equipment)** diagnoses malfunctions and repairs of ground support equipment (GSE), and additional equipment assigned to Aviation System Standards organization. The mechanic maintains grounding systems, determines extent of repairs, and make repairs and performs scheduled and unscheduled maintenance on GSE, inspects, tests and operates GSE to determine equipment serviceability and proper operations in addition to the repair and maintenance of building fixed emergency generators. The GSEM must have four (4) years experience at the journeymen mechanical level.

**1.2.2.45 Trouble Call/Operational Section: Leadmen Positions for HVAC, Electrician and Electronic Technicians (3)** All leadmen must be at the commercial and industrial journeymen level in **one** principal craft for five (5) years. 1.) The HVAC leadman must have a current State of Oklahoma Unlimited Journeymen Level Mechanical License, City of Oklahoma City Mechanical Journey License and Certification Requirements to comply with (Section 608 of the Clean Air Act 40, CFR, Part 82.161 and FAA Order 1050.18). 2.) The Electrician leadman must have a current Oklahoma State Electrical Contractors License. Revised July 1, 2008

**1.2.2.46 Preventative Maintenance Section: Leadmen** must be at the commercial and industrial journeymen level in one principal craft for five (5) years. 1.) The HVAC leadman must have a current State of Oklahoma Unlimited Journeymen Level Mechanical License, City of Oklahoma City Mechanical Journey License and Certification Requirements to comply with (Section 608 of the Clean Air Act 40, CFR, Part 82.161 and FAA Order 1050.18). 2.) The Electrician leadman must have a current Oklahoma State Electrical Contractors License

**1.2.2.47 Support Work Section: Leadmen Position** shall have commercial and industrial journeymen level for five (5) years and/or all appropriate current State of Oklahoma licenses requirements.

**1.2.3.48 General Maintenance Worker:** shall have three (3) years experience in performing general maintenance and repair of equipment and buildings requiring practical skill and knowledge of trades as painting, carpentry, masonry and plumbing. Work involves a variety installation and maintenance repair including concrete sidewalks and steps, repairing walls, ceilings, installation of floor and carpet tiles, repairing and replacing sinks, repairing of roofs, both interior and exterior and works with other trades as required. Revised July 1, 2008

**1.2.4.49 Prevention Maintenance Data Clerk.** Must have the ability to learn and work with the FAA ARCHIBUS Work Order Program. Enters PM data in the FAA Archibus work order program. Must be computer literate in Microsoft Office Word, Access, Excel and Power Point programs. Must have limited knowledge of the procedures and techniques involved in the Prevention Maintenance Program. Assists in all clerical aspects of Prevention Management Program and performs routine administrative functions. (Added Apr 9, 2010)

**1.2.3 Resource Utilization.** The Government may direct the Contractor to adjust the core crew in relation to changes in the work requirements.

**1.2.4 Contractor Employee Identification.** Each Contractor employee shall have and display a Government-furnished identifying badge, DOT F-1681.4 that shows the employee's full name and the expiration date of the contract. Contractor personnel shall wear uniforms, not provided by the Government, identifying them as Contractor employees, which will be not less than a shirt and pants.

**1.2.5 Increased or Additional Personnel Qualifications:** When the FAA requires increased or additional personnel qualifications for a specific labor category and previously qualified incumbent personnel do not possess the increased or additional qualification requirements, the incumbent personnel will be considered to be qualified, and may continue to occupy the labor category so long as they continue to occupy the same labor category under the current FAA O&M contract (DTFAAC-07-D-00040). For purposes of this section, "incumbent personnel" shall be considered to be those personnel occupying labor categories as of July 1, 2008. All substitute or newly placed personnel placed after this date must meet the personnel qualification requirements specified in the Statement of Work in effect at the time of their placement. (New July 1, 2008)

### **1.3 HOURS OF OPERATION.**

**1.3.1 Normal shop operations, maintenance, repair, and modification work** shall be done between the hours of 0800 and 1630, Monday through Friday. Normally, work will not be performed on Federal holidays. Occasionally, project requirements and emergency requirements may dictate work to be performed during other than normal duty hours as directed by the COR. Work performed outside of 0800 - 1630, Monday through Friday, will be coordinated in accordance with AC Order 1600.21F.

**1.3.2 Preventative maintenance (PM) work** shall be performed Tuesday through Saturday from 0700 - 1530. The Saturday work will be that which requires shutdown of buildings, systems, or equipment that will have a major impact on FAA operations. The PM crew working on Saturday will perform any emergency repairs to correct malfunctions that occur during the 0800 - 1630 workday that is within the skill level of the PM crewmembers.

**1.3.3 CCMS surveillance operators** shall provide 24 hour day coverage. Coverage shall include federal holidays.

**1.4 DISASTER RESPONSE WORK.** In the event Government property or equipment is damaged due to any circumstance or natural disaster and the COR determines emergency action is necessary to protect Government property, he/she may direct the Contractor to do emergency work to the extent necessary to protect Government property. The Contractor shall develop written emergency plans for

the above issues, and submit them to the COR for review, comments, and/or concurrence. These plans shall be submitted after contract award.

**1.5 "AS-BUILT" DRAWINGS.** The Contractor shall provide complete red line "AS-BUILT" drawings on all projects on which the Government provides a drawing. The "AS-BUILT" will be updated by the Contractor to show work performed and any approved changes made on the project. The completed "AS-BUILT" drawing shall be returned to the Government no more than 3 working days after project completion. Changes to the "AS-BUILT" will be "red-lined" by the Contractor.

**1.6 INTERFERENCE WITH FAA OPERATIONS.** The Contractor's Project Manager shall consult with the FMS and coordinate the work in such a manner as to interfere as little as possible with normal FAA operations. ~~The Contractor shall advise the trouble call desk when any building~~ equipment or system is taken off-line or brought back on-line. All equipment shut down shall be coordinated with the FMS and, in some cases, coordination and approval times will have to be approved days, weeks, or months in advance. The CCMS shall keep current status of all systems under its control and be able to provide information why any system is down.

**1.7 PROTECTION OF PROPERTY.** The Contractor shall protect all existing facilities and equipment and shall replace or repair any damage occurring to facilities, buildings, equipment, or grounds caused by the Contractor during the maintenance, repair, or modification work. All material issued to the Contractor is considered to be in good usable condition and the burden of proof of any malfunction of material is on the Contractor. Contractor must show that the defect could not have been caused by his installation.

**1.8 SHOP OPERATIONS.** All equipment, except that listed in Technical Exhibit 4, issued to the Contractor shall be kept in operating condition by the Contractor. The Contractor shall perform all operator maintenance to all Government-furnished equipment issued to him. He shall keep assigned shop, building, compound, shed areas of the Base Maintenance building in a neat, safe condition and meet all Federal and State safety regulations pertaining to shop and work site operations.

**1.9 SALVAGE MATERIAL AND EQUIPMENT.** Salvage material and equipment will be inspected by the FMS and may be used for parts on future projects or declared surplus. The Contractor shall remove reusable material to a storage location at the MMAC as directed by the FMS.

**1.10 QUALITY CONTROL/QUALITY ASSURANCE.**

**1.10.1 Quality Control.** The Contractor shall establish a complete quality control program to assure the requirements of the contract are provided as specified. Copies of the Contractor's quality control program shall be provided to the COR. Updated copies that adapt the program to this contract must be provided to the COR on the contract start date and as changes occur. The program shall include, but not be limited to, the following:

**1.10.1.1** An inspection system covering the services stated in Technical Exhibit 1, Performance Requirements Summary. It must specify areas to be inspected on both a scheduled or unscheduled basis and the title of the individual who will do the inspection.

**1.10.1.2A** A method of identifying deficiencies in the quality of services performed before the level of performance is unacceptable.

**1.10.1.3** A file of all inspections conducted by the Contractor and the corrective action taken. This documentation shall be made available to the COR upon request.

**1.10.2** **Quality Assurance**. The Government will monitor the Contractor's performance under this contract using the quality assurance procedures specified in Technical Exhibit 1.

**1.10.3** **Performance Evaluation Meetings**. The Project Manager and COR shall meet as often as necessary to resolve any problems. Technical requirements of the contract shall be coordinated with the COR while normal day-to-day operations shall be coordinated with the assigned FMS.

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**1.10.4** **Housekeeping**. All work sites and work areas shall be cleaned daily and on completion of the job. All usable materials shall be returned and properly stored for stock. All non-usable materials shall be disposed of in accordance with proper guidelines, policies, and regulations. All building maintenance spaces shall be kept clean and free of debris and leaks.

**1.11** **SUBCONTRACTING**. The Contractor must provide a subcontracting program and have approval by the Contracting Officer and Contracting Officer's Representative prior to entering into subcontracts that support Facility Operations and Maintenance services. All sub-contracts must be in accordance with Acquisition Management System, paragraph 3.10.2.2, Subcontracts (Cost Reimbursement and Ceiling Priced Contracts) and paragraph 3.10.2.5 Competition in Subcontracting.

## STATEMENT OF WORK

### SECTION 2. DEFINITIONS AND ABBREVIATIONS

**2.1 DEFINITIONS AND ABBREVIATIONS.** The following special terms, phrases, and abbreviations are used in this Statement of Work (SOW):

**2.1.1 Actual Parts Manufacturer.** A manufacturer of equipment parts supplied direct to original equipment manufacturers for incorporating into the production equipment and/or resale as replacement parts. The original equipment manufacturer is the actual parts manufacturer for those parts produced solely by it.

**2.1.2 Advisory Documents.** Those directives, which the Contractor may use for information and guidance. They are not binding for compliance.

**2.1.3 Building Operations.** Operation of CCMS and physical surveillance of HVAC and auxiliary building equipment and systems at the MMAC.

**2.1.4 CCMS.** Central Control and Monitoring System, Johnson Control System for HVAC environmental controls and monitoring system installed in the Base Maintenance building, Room 122.

**2.1.5 Check.** Verify that status of item being checked is normal and correct and if not, to take appropriate action to affect a normal and correct status.

**2.1.6 Check List Forms.** Check List Forms (CLF) for equipment checked by surveillance and CCMS, and provided to the FMS as needed. (See Section 5.9.11, Work Tasks.)

**2.1.7 Contract Discrepancy Report (CDR).** A written document issued by the Contractor to the COR explaining why performance was unsatisfactory, how performance will be returned to satisfactory levels, and how recurrence of the problem will be prevented.

**2.1.8 Contracting Officer's Representative (COR).** The individual responsible for technical review and interpretation of contract requirements. Supervises the coordination of FMS functions.

**2.1.9 Defect.** Work requirements not completed on time. Unsatisfactory workmanship that does not conform to prescribed standards.

**2.1.10 Equipment Marking.** Building utility equipment may have a special numbering system. Most equipment has a nameplate with special number and data. These numbers will be used during communications pertaining to the building or equipment.

**2.1.11 HVAC.** Heating, ventilation, and air conditioning systems.

**2.1.12 Inspection.** Those actions taken by the Government to view closely and critically in order to ascertain quality or state, detect errors, or deviations from requirements and specifications.

**2.1.13 Mandatory Documents.** Means that the Contractor is required to perform the effort strictly in accordance with the method specified in the directives to meet the stated results of the directives.

**2.1.14 MMAC.** Mike Monroney Aeronautical Center or Aeronautical Center.

**2.1.15 Original Equipment Manufacturer.** The manufacturer of the complete production equipment whether assembled from parts of its own manufacturer or from parts or components furnished by other manufacturers or a combination of both.

**2.1.16 Overhaul.** The complete disassembly and reassemble of an item or any component part as per the manufacturers overhaul specifications. It includes cleaning and inspection for serviceability; replacement of each part that is beyond economical repair; reassemble, calibration, testing and inspection are to be performed as needed or required by the manufacturer.

**2.1.17 P-1.** This is a priority designator that places this project above all others. A project with a "P-1" designator is to be given necessary resources until completed. Response to a P-1 shall be within one (1) hour without delay even if other projects must be halted or delayed.

**2.1.18 Preventive Maintenance (PM).** That service performed by the Contractor on a scheduled basis, which is designed to keep the equipment/systems in proper operating condition. It includes a verification of proper tolerances (tightness, fluid levels, voltages, etc.), and adjustments or other actions as necessary and appropriate in accordance with the manufacturer's maintenance specifications and as authorized in specific PM work orders. The term also includes "inspection."

**2.1.19 Work Request Preventive Maintenance.** A PM work order is a document in brief outline form with the heading "P-M ORDER" issued for PM work to be performed. These work orders are issued periodically varying from weekly to annually. The work tasks ordered on these work orders are usually in an abbreviated form. In all cases the Contractor shall perform the indicated preventive work necessary to prevent undue wear or deterioration of the facility; or the necessary recharging, minor repairs, adjustments, or other work required to obtain the results desired from the facility; or report substantial damage, deterioration or other deficiencies for repair or correction by other means.

**2.1.20 Quality Assurance (QA).** Those actions taken by the Government to check maintenance and repair services to determine if they meet contract requirements.

**2.1.21 Facility Management Specialist (FMS).** The individual responsible for the Government surveillance of the work in accordance with the contract.

**2.1.22 Quality Control (QC).** Those actions taken by the Contractor to control the maintenance and repair services so they meet the requirements of the contract.

**2.1.23 Rebuilt Parts.** Parts that since last used have been dismantled and reconstructed as necessary; all internal parts cleaned and made free from rust and corrosion; all impaired, defective, or substantially worn parts restored to a sound condition or replaced with new, rebuilt, or unimpaired parts; and such other operations performed as are necessary to put the product in sound working condition.

**2.1.24 Repair.** That work necessary to restore an item to serviceable condition.

**2.1.25 Service.** The operation, maintenance, repair, and modification of the total Aeronautical Center's physical plant to support Aeronautical Center operations.

**2.1.26 Industrial Waste Treatment Plant (IWTP).** The Industrial Waste Water Treatment Plant receives industrial waste from the lift pump stations located throughout the MMAC.

**2.1.27 Government-Furnished Equipment (GFE).** Government owned equipment provided to the contractor for use in fulfilling the terms of the contract.

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**2.1.28 Government-Furnished Property (GFP).** All equipment, facilities and materials provided by the Government for the exclusive use of the contractor in fulfilling the terms of the contract.

## STATEMENT OF WORK

### SECTION 3. GOVERNMENT-FURNISHED PROPERTY AND SERVICES

**3.1 FACILITIES.** The Government shall provide at no cost to the Contractor, facilities for administrative use, shop space, vehicle parking, and storage space for supplies, materials, and equipment as set forth in Technical Exhibit 3: Facilities for Contractor Use. The Contractor shall be responsible for physical security and adequate routine maintenance of Government-furnished facilities.

**3.2 SUPPLIES AND MATERIALS.** The Government shall provide supplies and materials required to accomplish specified work. The government by request the Contractor to purchase labor, supplies and materials under a DIRECTIVE Program.

**3.3 EQUIPMENT.** AMP-300 will maintain the master copy of all Government-Furnished Equipment. Upon request a copy will be made available. (Revised Apr 9, 2010)

**3.3.1** The Contractor shall not remove any of the equipment or vehicles listed in Technical Exhibit 4 from the Aeronautical Center without written approval by the COR. No Government-furnished tools, materials, equipment, or supplies shall be removed from the MMAC.

**3.4 UTILITIES.** Water, sewage service, refuse collection, electricity, and heat shall be furnished by the Government for accomplishing work described in the SOW. The Government will provide one on-Center telephone for use by the Contractor at the Base Maintenance building. This telephone will not connect to telephones off the Aeronautical Center complex. The Contractor shall use Government-furnished utilities in a prudent manner consistent with current energy conservation policies.

**3.5 REFERENCES AND TECHNICAL DOCUMENTATION.** The Government will provide for the Contractors technical review the Government documents as listed in Section 6. Some items may have been added or deleted from the technical library. The Contractor is responsible for maintaining technical documents provided by the Government.

**3.6 TRANSPORTATION.** The Government shall furnish General Services Administration (GSA Leased vehicles) total of eight (8). Make and model of vehicles will be determined by the COR. Other types of transportation shall be furnished and listed in Government Furnished Equipment document. (Revised Apr 9, 2010)

## **STATEMENT OF WORK**

### **SECTION 4. CONTRACTOR-FURNISHED ITEMS**

**4.1 LABOR.** The Contractor shall provide all labor as called for in the SOW and additional labor required due to a change in the workload requirements as approved by the COR.

**4.2 OFF-BASE TELEPHONE.** If the Contractor requires a telephone to make off-Center calls, it shall be provided by the Contractor and shall be installed in a location approved by the COR.

**4.3 HAND TOOLS.** Hand tools are not GFE and shall not be furnished by the Government. The Contract employee shall provide all common hand tools related to individual craft/trades required to accomplish the workload. These hand tools shall be normal to the craft or trade and in the normal quantities and kinds used by the craft.

**4.4 TRANSPORTATION.** The Contractor shall use the COR's approved and Government supplied transportation to move equipment, tools, materials and personnel to the work site. If additional transportation is required it must be approved by the COR along with cost to be paid by the Government for the period the equipment will be used in support of this contract.

**4.5 CLEANING.** The Contractor shall be responsible for policing and cleaning all storage and shop space (either interior or exterior) assigned to him as set forth in Technical Exhibit 3 and parking areas designated for his use.

**4.6 SAFETY EQUIPMENT.** The Contractor shall furnish each employee safety equipment as necessary to comply with (but not limited to) FAA Order 3900.19, Aeronautical Center Order 3900.21B, and Department of Labor, Part 1910, Occupational Safety and Health Standards, all listed in Section 6.

**4.7 IDENTIFICATION BADGES.** The Government shall furnish each employee identification badges as specified in Section 1, paragraph 1.2.6.

**4.8 SPECIAL EQUIPMENT.** Any special equipment required but not provided by the Government shall be provided by the Contractor. The COR shall approve the type, cost and length of time for use. The Government shall reimburse the Contractor for rental costs.

**4.9 ADMINISTRATIVE SUPPORT EQUIPMENT.** Any administrative support equipment required but not provided by the government, i.e., office desk chairs, office machines, office computers, etc., shall be provided by the Contractor as submitted and approved by the COR as to type, cost and length of time for use if leased or rented. All equipment approved for purchase shall become the property of the Government and will be controlled as Government-issued property to the Contractor.

## **STATEMENT OF WORK**

### **SECTION 5. WORK TASKS**

**5.1 SCOPE.** The Contractor shall provide services for the maintenance, repair, operation and modification of facilities of the Aeronautical Center and off-site facilities leased to support the Aeronautical Center. Examples of the tasks are identified in the historical workload provided in Technical Exhibit 6: Historical Workload. Standards for these services are specified in Technical Exhibit 5: Objective Standards.

The Contractor shall also provide grounds maintenance services caring for lawns, shrubs, trees and areas leased by the Aeronautical Center. Blizzard recovery action is included in the tasks required by this contract. A more complete listing of tasks and conditions are in 5.12 below. Also, see Technical Exhibit 7: Grounds Maintenance Schedule with Technical Requirements.

**5.1.1 Preventive Maintenance Program (PM).** The Contractor shall be responsible for assuming complete control of the in-place PM system and equipment records. The PM system and equipment records will be updated as required by the Contractor so that it is a dynamic system that will sustain the installed equipment at the highest possible operational level using the latest state of the art methods and techniques to preclude premature failure of components, extend equipment life, keep equipment at design level of operation and efficiency and at the optimum cost.

**5.1.1.1** The computerized PM program covers each piece of equipment and schedules PM work to be done on an annual, semiannual, quarterly, monthly, and weekly basis. It provides and adjusts the level of maintenance based on FAA operations, equipment characteristics, age, repair and modification history data, operational environment, and the next scheduled major overhaul, renovation or replacement. Changes to the computer program, equipment, or system must be approved by the COR and will become the property of the FAA when the contract is completed. The computer program provides craft hours and costs, material lists and costs, and any other costs by building. The automated maintenance management system operates on computer hardware supplied by the FAA. The Contractor will have access, via terminals, into the computer and shall be responsible for keeping complete and accurate data on the PM program.

**5.1.1.2** The objective of PM is to reduce unscheduled downtime of equipment and maintain a high level of functioning equipment to enhance and support MMAC operations. Nothing in the contract should be interpreted to infer that the PM program takes less emphasis than any other aspect of the contract. If properly accomplished, PM will reduce the need for trouble calls and unscheduled maintenance/repair activities.

**5.1.1.3** The PM program will utilize a computer based schedule of PM functions that covers each piece of equipment and provide for adjustment in levels of maintenance based on FAA operations. The PM program will also record equipment information including but not limited to age, repair and modification history data, operational environment, and the next scheduled major overhaul/renovation or replacement. The data/information contained in the PM Program on system building equipment will be approved by the COR and will become the property of the FAA when the contract is completed. The computer program will provide craft hours and costs, material lists and costs, and other costs by building as to PM work performed. The automated maintenance

management system will operate on computer hardware supplied by the FAA. The Contractor will have access via terminals into the computer and will be responsible for keeping complete and accurate data on the PM program.

**5.1.1.4** Preventative Maintenance task must be closed and returned for review to the designated FMS within three (3) days after the onsite work is completed with the following listed information.

- a. Total craft hours used, broken down by each craft.
- b. Completed listing of materials used.
- c. Time and date onsite work completed.
- d. ~~Any special information regarding the work or problems encountered.~~

**5.1.1.5** Additional PM requirements relating to emergency generators are stated in 5.1.3 below.

**5.1.2 Repair Work.** The Contractor during the performance of scheduled PM identifies Work and repairs. This work and repairs will be accomplished as a part of the PM program. The Contractor will identify parts required, place orders through the appropriate process, and complete on the PM work order. If the parts cannot be obtained to be completed as a part of the Work Request for PM, action is to be taken by the Contractor to have a work order issued and the work scheduled on receipt of the parts.

**5.1.3 Emergency Generators.** Emergency generators in buildings will receive PM as called for on the PM work order. The PM will be performed by the Contractor. All work will be coordinated with appropriate FMS. All work done on this equipment will receive 100 percent inspection due to the critical nature of the equipment. Technical Exhibit 14 identifies model, type, size and locations of emergency generators.

**5.1.4 Modifications.** The Contractor shall make modifications to buildings, equipment, facilities, and systems upon receipt of a Work Request for Support. The Government will not specify a date for the Contractor to commence work; however, it will specify an expected completion date on the work order. Under unusual circumstances, the Government may find it necessary to specify a start-work date (see 1.6: Interference with FAA Operations). The end of the workday is considered to be 1630 hours. The completed work request folder and all required information shall be delivered to the appropriate FMS within three work days after completion. The work request shall be annotated with the date work was completed and have attached a complete list of materials used and the number of hours used by craft category. (See Technical Exhibit 8, Work Request for Support).

**5.1.4.1 Work Request for Support:** Project requirements will be issued on a Work Request for Support. These projects will meet requirements for modification, additions, and special repairs to the Aeronautical Center buildings, equipment, and facilities. The work request will denote the work required. It will include a listing of the estimated materials required, and the standards, specifications, and drawings or sketches to be followed. Special requirements for coordination or time schedule for performance of work will be noted. The date the work is to be completed will be stated. Work called for may require multi-crafts.

**5.1.5 Maintenance and Repair.** The Contractor shall perform maintenance and repair to buildings, equipment, facilities, and systems upon receipt of a Work Request for Operational. The Government will not specify a date for the Contractor to commence work; however, it will specify an expected completion date on the work order. Under unusual circumstances, the Government may find it necessary to specify a start-work date (see 1.6). The end of a workday is considered to be 1630 hours. The completed work request folder and all required information will be delivered to the appropriate FMS within three work days after the job is completed. Information to be noted on the work request is date completed, materials used, and total hours of each craft used. (See Technical Exhibit 9, Work Request Operational)

**5.1.5.1 Work Request for Operational.** Project requirements will be issued on Work Request for Operational. ~~These projects will meet requirements for repairs to Aeronautical Center buildings, equipment, and facilities that have required the ordering of materials or that the scope of work is such that it is not a work request for trouble call.~~ The work request will denote the work required and may contain a listing of the materials required and standards, specifications, and drawings or sketches to be followed. Special requirements for coordination or time work can be performed will be noted. The date the work is to be completed will be stated. Work called for may require multi-crafts.

**5.1.6 Work Request for Trouble Call.** The Contractor shall perform maintenance and repairs to buildings, equipment, facilities and systems upon receipt of a Work Request for Trouble Call. The types of trouble calls are lighting, mechanical, HVAC, plumbing, electrical, structural, locks, door hardware, security systems, security cameras, fire alarm systems, and communication repeaters, and miscellaneous items that do not fall precisely in these categories but are required to keep the Aeronautical Center facilities operational. The Contractor shall start work without any delay on P-1 trouble calls and continue work as feasible until the problem is resolved and/ or corrected and as directed by appropriate FMS. Information recorded on the Trouble Call is the date completed, materials used, and total hours of each craft used. (See Technical Exhibit 10: Work Request for Trouble Call)

Trouble calls relating to emergency problems (where continued operation without correction would cause undue expense or inconvenience to the Government) shall be accomplished expeditiously with temporary repair or provisions made where appropriate. Overtime requirements must be approved by the COR before it is accomplished. Items of this nature include (but are not limited to) leaks, utility outages, and lack of physical security. In most cases, at least temporary repair or provisions shall be made the same day as the trouble call.

**5.1.6.1 Work Request for Trouble Call.** Work request for trouble call will be issued as received at the trouble call desk. These work orders will be for repairs to Aeronautical Center buildings, equipment, and facilities. When the trouble call is of an urgent nature, it will be marked P-1.

**5.2 SHOP EQUIPMENT.** The Contractor shall clean, adjust, and perform required maintenance to all shop equipment and tools (in accordance with manufacturer's recommendations) issued by the Government.

**5.3 REPORTS.** The Contractor shall provide information concerning the status of work orders that have been issued but not completed. The Contractor shall complete, as directed, reports as noted in Technical Exhibit 12: Reports. One-time reports may be required for special problems and to provide information to management. Each work order is considered a report and is not deemed completed

until each item of information has been completed on the form. Any question by the Contractor as to how to complete the work order form will be answered by the FMS.

**5.3.1 CFC (Chlorofluorocarbons) Tracking Program.** Comply with all ASHRAE and EPA Directives in regard to CFC management. Maintain an approved CFC tracking program for the purpose of required reporting and CFC inventories. A monthly report of CFC usage shall be required and furnished to the COR.

**5.4 PARTS AND MATERIALS.** The Government will provide all parts and materials to support work order requirements. When the Contractor determines that materials, parts, or supplies are required they shall provide the information to the appropriate FMS.

1. Vendor and/or Source
2. Part number and/or Description of item
3. Quality needed
4. Unit Cost

The Government may provide the part and or supplies or request the Contractor to purchase the materials and be reimbursed as specified in the contract under a DIRECTIVE Program. The Contractor shall return excess materials and parts not used on the job, and place in storage at locations as directed by the FMS. Material and equipment deemed scrap with salvage value shall be disposed of in accordance with FAA Order, 4650.21C on FAA Form 4800-6, Report of Excess Property. All other materials and equipment classified as debris and as directed by the appropriate FMS shall be placed in building dumpsters.

**5.5 CONTINGENCY PLANS.** The Contractor shall provide the required support for the Aeronautical Center contingency plans as called for in Technical Exhibit 11: Contingency Plans.

**5.6 HAZARDOUS MATERIAL HANDLING.** The contractor shall develop an Environmental Management Program to ensure the proper tracking and handling of hazardous and universal waste that complies with all Federal, State and Local ordinances and regulations.

**5.6.1 Work Description.** The Contractor shall provide assistance as directed by the COR or FMS to Environmental and Safety Staff, AMP-100 in the transportation and handling of hazardous waste at the Aeronautical Center.

**5.6.2 Transportation and Handling.** The Contractor shall transport hazardous and universal waste to the appropriate site in accordance with an approved Environmental Management Program that complies with all Federal, State and Local ordinances and regulations. The contractor will be required in emergency situations directed by the COR or COTR to assist the Environmental and Safety Staff, AMP-100, in containment and clean up of spills.

**5.6.3 Training Requirements.** All Contractor personnel performing duties involving the management of hazardous waste material shall have received appropriate training prior to being assigned to such duties.

**5.6.3.1 Mandatory training is as follows:**

Forklift Operator

HAZCOM: Waste material may include solvents, fuels, acids, caustics, oils, etc. in accordance with 29 CFR 1912.1200.

HAZWOPER: Level 2 First Responder in accordance with 29 CFR 1910.120.

Hazardous Waste Generator Training in accordance with 40 CFR 265.16.

**5.7 RADIO COMMUNICATION.** The Government will supply the Contractor radios that are to be utilized in building operations. These hand-carried radios will interface with the CCMS control room and the Security Office.

**5.8 BUILDING OPERATIONS (B.O.) AND SURVEILLANCE (S).** To be performed as called for in the building operation instructions and Technical Exhibit 13, Central Control & Monitoring System (CCMS). The building operation instructions and CCMS operations will be updated and changed by the Contractor whenever equipment is replaced, added or changed and operational consideration require changed HVAC or systems support. The Contractor shall start up and place in normal operation all equipment in buildings at the MMAC as directed by the COR. The Contractor shall shut down and leave in proper shutdown condition all equipment in buildings at the MMAC when so directed by the COR. All systems such as gas, electric, water, sewage, HVAC and fire sprinkler system in, connected to, or serving buildings or facilities are included as equipment to be operated under this contract. All operations shall maximize energy efficiency while maintaining building comfort.

**5.8.1** Surveillance must be made of buildings heating, air conditioning, and auxiliary equipment at the MMAC continuously by the CCMS or Surveillance operator or both.

**5.8.2** Surveillance operations shall be in accordance with the building operating manuals. These manuals shall be updated and changed by the Contractor and approved by the Government when equipment is added, replaced, removed, or operating requirements change. The CCMS operator will also provide continuous surveillance on building equipment and space through the Metasys system on building that are so equipped.

**5.8.3** The starting, stopping, and operation of building equipment shall be in accordance with the building operating manual and the CCMS will also provide starting, stopping, and operation of some building equipment.

**5.8.4** The operation checklist shall be performed the number of times as called for by each shift. The first shift is from 0000 through 0800, the second shift is from 0800 through 1600, and the third shift is 1600 through 2400. Equipment under CCMS control and surveillance shall be checked and recorded by the CCMS operator.

**5.8.5** The other duties calling for housekeeping and reporting procedure shall be performed as called out in the building operation manual.

**5.8.6** All buildings and structures require building operations surveillance. A list of buildings is in Technical Exhibit 2, Buildings and Antenna Sites at the MMAC.

**5.8.6.1** The operation of the buildings shall be complete. It includes the operation of all the equipment listed in the Building Operation Manuals; however, it also includes operations of all doors, windows, room thermostats, mixing boxes, exhaust fans, vents, hatches, openings, or any other appurtenances which affect the environmental conditions of the buildings. The equipment listed in these manuals is the equipment installed as of the date of the manual. It may have been changed since that date or it may be changed, modified, or added to, during the period of the contract. Copies of the building operations manual are on file at the Base Maintenance building. A copy will be issued to the Contractor.

**5.9 ADDITIONAL DUTIES.** In addition to the duties listed previously and in the Building Operation Manuals, the Contractor shall perform the following in conjunction with those already listed.

**5.9.1** Observe established security requirements for locking of doors, notification of entering buildings, notification of exiting buildings, maintaining radio contact with the FAA security office, and other security regulations.

**5.9.2** Start, stop, and adjust building equipment to operate within its capabilities and to obtain output desired from its operation.

**5.9.3** Report to the CCMS operator any equipment that does not operate properly. This notification shall be made verbally within 5 minutes of its observation and confirmed in writing before the end of the shift. The written notification shall be at the CCMS control room at the beginning of each working day. The CCMS operator on duty shall confirm notification of non-operational equipment occurring during any shifts verbally with the FMS upon their arrival at the beginning of the next regular day shift.

**5.9.4** Provide personnel to conduct equipment (and related utility plant) shutdown and startup before, during, and after equipment repair, replacement, servicing, and any other emergency.

**5.9.5** Shut down equipment immediately when necessary to prevent damage, which would be caused by its continued operation.

**5.9.6** Maintain building interior temperatures as specified by the operational manuals providing such limits fall within the capability of the equipment. All equipment and respective temperatures shall be operated within the scope of indoor air quality and energy management guidelines.

**5.9.7** Make necessary adjustments to heating, ventilating, and air conditioning equipment when buildings are not occupied to effect energy saving as provided by the operating manuals.

**5.9.8** Make adjustments to heating, ventilation, and air conditioning equipment to condition limited spaces and areas where Government employees might be working at night or on weekends/holidays and when severe weather or other activities require special attention.

**5.9.9** Respond to trouble calls of improper temperature or other conditions resulting from equipment failure or improper operation. Make necessary adjustments or corrections if within the equipment capability or report the discrepancy immediately to the FMS.

**5.9.10** Enter date, time of entry and exit, general condition of equipment, adjustments and other actions taken upon each visit to a building boiler room or equipment room/area where such logbooks are maintained.

**5.9.11** Design and submit, for approval by the COR, Checklist Forms (CLF) for operation of each building or facility. The forms shall show, as a minimum, date, time of day, operator's time, items checked, readings recorded, adjustments made, notifications made, housekeeping performed and other items and remarks as necessary for the intended purpose. Insofar as possible these forms shall parallel the Operating Checkout List (OC-OL) included in the Operating Manual for each building and include any provisions for any changes in equipment that may have been omitted from this manual or any equipment additions or changes that may have been made after the manual was written. A master type form is suggested on which the particular items peculiar to each building would be typed. Entries shall be made on these forms in accordance with the checks/shift for each shift number (1, 2, or 3) as shown in the OC-OL. The forms shall be completed and presented to the FMS on a daily basis.

**5.9.12** Performs minor lubrication, repairs and adjustments where specified by operation manuals. Adjusts pump and valve packing to stop or limit leakage, tighten nuts and bolts to prevent leakage; however, reports such actions to the FMS and does not do anything which might cause damage to the equipment.

**5.9.13** Make anticipatory adjustments to doors, fresh air dampers, temperature controls and other equipment to prevent wind, rain, freezing, or other damage to building and facilities.

**5.9.14** Maintain tags or labels on all major equipment listed as being: operable but out of service and give reason; or inoperable and give reason. These tags or labels shall also list dates of action and operator's name who took the action in addition to the use of lockout and tag out procedures.

**5.9.15** In case of unscheduled power outages, the operators on duty immediately check to see if the emergency electric generators have started and are operating. If they are not operating the operators make prudent and timely attempts to start the generators and monitor their continued operation. If the generators will not start, the operators immediately notify the appropriate officials by established procedures.

**5.9.16** The Contractor shall make reports as required to provide information on the work required on each piece of defective equipment. Reports may be requested on special projects, equipment, or critical incidents.

**5.9.17** The Contractor may be required to make special reports on equipment, condition or status as required to support FAA operations. These reports will be of a special nature and infrequent.

**5.10 SURVEILLANCE.** Two surveillance operators shall be on duty during all hours other than 0800 to 1630 hours Monday through Saturday. Also, two surveillance operators shall be on duty 24 hours a day on Federal holidays unless otherwise directed by the COR. Surveillance operations include monitoring of buildings, utility systems, structures, mechanical and electrical equipment and systems, roads, streets, parking lots, exterior lighting, and other facilities of the Mike Monroney Aeronautical Center complex, for items of an emergency nature.

**5.10.1** Report items of an emergency nature immediately upon discovery to the CCMS Operator.

**5.10.2** The Contractor shall design and present a plan for making these emergency notifications. This plan shall be submitted by the Contractor to the COR for approval.

**5.10.3** The intent of this specification is not to require any additional personnel above that required to operate the buildings; however, since these personnel will be continually on the premises, they are required to remain alert and perceptive and appropriately notify the proper agencies of any emergency condition that they might discover.

**5.10.4 Day Time CCMS Surveillance Operator.** One surveillance operators shall be on duty from 0800 to 1600 hours Monday through Friday, except for Federal Holidays unless otherwise directed by the COR. Surveillance operations to include starting and stopping all HVAC equipment, monitoring of buildings, utility systems, structures, mechanical and electrical equipment and systems at the Mike Monroney Aeronautical Center complex.

**5.10.5** Examples of items requiring action includes but are not limited to, the following:

Forced entry to buildings	Excessive building system leaks
Presence of intruders	Excessive building structure leaks
Questionable occupancy	Power outages
Fire Gas leaks	Smoke
Excessive high temperatures	Escaping fumes
Severe weather conditions	

**5.11 FAA Logistics Center.** The Contractor shall provide all management, supervision and technicians necessary for the repair, overhaul and preventative maintenance of Warehouse forklifts, scooters, and other types of Warehouse lifting equipment at Monroney Aeronautical Center and other leased facilities as directed by the COR. Additional equipment and satellite shop offices may be added as directed by the COR. The equipment is located at the Mike Monroney Aeronautical Center, FAA LSF Warehouse building and leased facilities.

**5.11.1 LSF Vehicle/Lifting Equipment.** The Contractor shall be responsible for complete repair and maintenance of the following equipment: Additional equipment may be added as directed by the COR.

- 5.11.1.1** Forty-Nine (49) forklifts, chargers and batteries.
- 5.11.1.2** Twenty-five (25) picking platforms.
- 5.11.1.3** Thirty-nine (39) electrical scooters.
- 5.11.1.4** Three (3) high lifts work platforms.
- 5.11.1.5** Thirteen (13) walk behind lift forks.
- 5.11.1.6** One (1) powered pallet jack.
- 5.11.1.7** Sixteen (16) non-powered pallet jack.

**5.11.2 LSF Warehouse Equipment.** The Contractor shall response to the equipment listed below as a Priority One work request for trouble call to ensure all appropriate utilities are available for proper operational. Additional automation equipment may be added as directed by the COR.  
Revised July 1, 2008

**5.11.2.1** Eleven (11) insptack foam in-place stations.

**5.11.2.2** Eight (8) automatic strapping machines.

**5.11.2.3** Five (5) automatic pallet shrink-wrapping machines.

**5.11.2.4** LSF Computer Room UPS.

**5.11.3 Maintenance Requirement.** All work shall be performed in accordance with the SOW, Section 5, Work Tasks. The COR, or his designated Facility Management Specialist (FMS), will determine acceptability of work.

**5.12 GROUNDS MAINTENANCE SERVICES.** The Contractor shall provide grounds maintenance services for the fertilizing, watering and spraying of lawns, trees, shrubs, flowers, and indoor plants, as well as the mowing of lawns, grading, filling and conditioning of areas required for lawns and the removal of cuttings and trash all of which is to constitute proper grounds maintenance. The Contractor shall also provide snow/ice and blizzard recovery services. (See Technical Exhibit 7: Grounds Maintenance Schedule with Technical Requirements.)

**5.12.1 Lawns: Watering, fertilizing, and fine cutting.** The Aeronautical Center grounds consist of approximately 35 acres of lawns to be watered, fertilized and fine cut, located as shown on the contract drawings. This includes curb edging and trimming next to trees, buildings and other objects.

**5.12.2 Rough cutting.** All grounds that are not maintained by fine cutting will require periodic rough cutting. No fertilizer or water is required of rough-cut acres.

**5.12.3 Trees, shrubs, indoor plants, and flowers.** The Aeronautical Center grounds contain a considerable amount of trees, shrubs, indoor plants, and flowers that are included under this contract. The Contractor shall maintain and replace as needed.

**5.12.4 Future planning.** The Contractor project manager shall consult with the COR concerning future planning, design, and maintenance of the grounds of the Aeronautical Center as needed.

**5.12.5 Work Schedule.** The work can be accomplished during regular working hours except as outlined below:

**5.12.5.1** Safety of Aeronautical Center personnel and protection of private and Government property shall be given primary consideration at all times. For this reason, grounds maintenance operations that are likely to involve hazards to either shall be scheduled before 8:00 a.m. or after 4:30 p.m., Monday through Friday.

**5.12.5.2** Sprinklers and/or sprinkling systems shall be operated from 5:00 p.m. until

7:00 a.m., Monday through Friday, and at any hour on Saturday and Sunday. Due to shift changes and other operational conditions, the COR may direct that watering to any area be stopped for a stated period.

**5.12.5.3** All equipment used at night shall be properly lighted as required by Oklahoma State Law.

**5.12.5.4** All slow-moving vehicles used at any hour on streets shall display the standard triangular slow-moving vehicle emblem.

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**5.12.6 Special Reports.** The Contractor's Project Manager shall make special reports, studies, inspections, and attend such conferences and meetings in the capacity of technical advisor as requested in writing by the Government. Such meetings will be restricted to the Oklahoma City limits and no more than four per year. The Project Manager shall have knowledge of the latest developments in ground operations and reports on conferences and seminars that will provide improvements in the ground maintenance at the Aeronautical Center. The Contractor will provide all information required for special pesticide and herbicide reports.

**5.12.7 Notification and Responsibility.** The Contractor shall notify the appropriate FMS prior to excavation, spraying, fumigation, or any other operations affecting their property, health, or safety. The Contractor shall be responsible for any damages resulting from his failure to make such notifications. All dangerous areas of work shall be barricaded and marked with traffic flashers.

**5.13 Flight Line Maintenance Support.** The Contractor shall provide all management, supervision and technicians necessary for the repair, overhaul and preventative maintenance of Aviation Systems Standards (AVN's) forklifts, scooters and flight line equipment. Occasionally (e.g. in the absence of an authorized government employee) the Contractor may be required to dispense fuel for vehicles used on official government business upon request of the COR. Additional equipment may be added as directed by the COR. The equipment is located at the Mike Monroney Aeronautical Center, Air Operations Area F, Hangars 8 and 9.  
(Revised December 1, 2008)

**5.13.1 AVN Flight Line Equipment to be Maintained.** The Contractor shall be responsible for complete repair and maintenance of the following equipment.

- 5.13.1.1 Eight (8) Tugs
- 5.13.1.2 Five (5) Forklifts
- 5.13.1.3 Sixteen (16) Scooters
- 5.13.1.4 Three (3) Flush Units
- 5.13.1.5 One (1) Portable Air Compressor
- 5.13.1.6 Two (2) Sweepers
- 5.13.1.7 Three (3) Scrubbers
- 5.13.1.8 Ten (10) Portable A.C Units
- 5.13.1.9 Three (3) Portable Vacuum Cleaners
- 5.13.1.10 Three (3) Cabin Pressure Units
- 5.13.1.11 Six (6) Power Units for Aircraft
- 5.13.1.12 Twelve (12) Fox cart AC/DC Power Units for Aircraft
- 5.13.1.13 Two (2) Hydraulic Test Units
- 5.13.1.14 One (1) CO2 Fill Unit

- 5.13.1.15 Three (3) N2 Carts
- 5.13.1.16 Four (4) Sky Jack Cranes
- 5.13.1.17 Two (2) Cranes
- 5.13.1.18 One (1) Boom Lift
- 5.13.1.19 One (1) Power Washer

**5.13.2 MMAC Building Emergency Generators.** The Contractor shall be responsible for repair and preventive maintenance of the following equipment. Additional equipment may be added as directed by the COR. Technical Exhibit 14 identifies model, type, size and locations of emergency generators.

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5.13.2.1 Fifteen (14) Diesel powered generators.

5.13.2.2 Sixteen (16) Natural Gas Powered Generators.

**5.14 Base Maintenance Automotive Shop.** The Contractor shall provide all management, supervision and technicians necessary for the repair, overhaul and preventative maintenance of forklifts, off road vehicles, scooters and other fixed or non-powered equipment at Monroney Aeronautical Center and other leased facilities as directed by the COR. Additional equipment may be added as directed by the COR.

**5.14.1 BM Vehicle/Lifting Equipment To Be Maintained.** The Contractor shall be responsible for complete repair and maintenance of the following equipment:

- 5.14.1.1 Twelve (12) Forklifts
- 5.14.1.2 One (1) Truck with lift bucket
- 5.14.1.3 Four (4) Portable gas powered generators
- 5.14.1.4 Four (4) Gas powered trash pumps
- 5.14.1.5 One (1) Portable lifting cane
- 5.14.1.6 One (1) Tractor (**diesel**)
- 5.14.1.7 One Hundred and 5 (105) Gas scooters
- 5.14.1.8 Twenty (20) Electric scooters
- 5.14.1.9 One (1) Lincoln welding portable gas
- 5.14.1.10 One (1) Trailer mounted gas generator (20-KW)
- 5.14.1.11 One (1) Tug (**diesel**)
- 5.14.1.12 One (1) Trailer mounted air compressor

**5.15 Asbestos Abatement Support.** The Contractor shall be responsible for de-energizing utilities and stored energies for removal of Asbestos Containing Material (ACM) and Presumed ACM, in support of Operations and Maintenance Division, AMP-300, NON-Friable type abatement projects. The Environmental, Safety and Emergency Management Division shall be responsible for determining the state of the area for friable and/or non-friable materials. Standard LO/TO processes will be used. All personnel entering the area will be responsible to maintain the integrity of the LO/TO process. The Contractor will re-energize the equipment once the abatement project has been completed. Revised July 1, 2008

## STATEMENT OF WORK

### SECTION 6. APPLICABLE REGULATIONS AND MANUALS

**6.1 APPLICABLE REGULATIONS AND MANUALS.** Documents applicable to this SOW are listed below. The Contractor shall follow these documents during work performance. The Government will make available the listed publications that may be in the Base Maintenance Technical Library. Some items have been deleted and others added so this is not a complete listing but an example of the type information available. These documents shall be maintained by the Contractor.

**6.2 FAA REGULATIONS.**

- a. FAA Order 3900.19A, July 20, 1982, Occupational Safety.
- b. Aeronautical Center Order 3900.21E, August 17, 1990, Occupational Safety.

**6.3 DEPARTMENT OF LABOR.** Code of Federal Regulation Chapter 29, Part 1910, Occupational Safety and Health Standards (29 C.F.R. 1910).

**6.4 MAINTENANCE, REPAIR, OPERATIONS, AND PARTS CATALOGUES, BOOKS, LISTS AND MANUALS.**

- ANF-1 Building - Operating Manual
- ANF-2 Prints
- AOS Prints, Mechanical Maintenance & Operations Manual
- ARB - ARB & STB York Chillers (filed in STB)
- ARB – Triplex Elevators
- ARSR 1 Prints, Mechanical Maintenance & Operations Manual
- ARSR 3, Prints, Mechanical Maintenance & Operations Manual
- ARSR 4, Prints, Electrical and Mechanical O & M Manual
- ARSR 7, Prints, Mechanical and O & M Manual
- ASR 8, Prints, Mechanical and O & M Manual
- ASR 9, O & M Electrical Manual
- ASR 9, O & M HVAC Manual
- AT, Trane A/C Unit (roof)
- ATCBI, Prints, O & M Manual
- BMGS, Prints, O & M Manual
- Building 6, Prints, O & M Manual
- CAMI, Computer Rm Mods Operations & Maintenance Manual
- CAMI, Cooling Tower Controls
- CAMI, Emergency Generator Information
- CAMI, Hydronic Systems Operations & Maintenance Manual
- CAMI, Low Temp Cooling Tower Book
- CAMI, Submittal – Electrical - #22 Buss Duct Riser
- ESS, Chiller replacement

ESS, Instruction Book – Cooling Tower - Pumps  
ESS, Replace cooling tower, O & G Manual  
Flight Inspection Building, Manual - Phase I - Renovation, Mech. & Maint. Manual  
Flight Inspection Building, O & M Manual - West Wing  
Flight Inspection Building, Submittal - Mechanical-Boiler-Control Replacement, also for ANF2, FS, ANF1 and AT buildings  
FPS 66, Prints, O & M Manual  
GNAS, Prints, O & M Manual

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Hanger 8 Building - O & M - Room 116

Hanger 8 Building -Emergency light fixtures - Hanger 8, 9, 10

Hanger 8 Building- Hanger 8 East Building

Hanger 9 Building - Cooling Towers O & M Manual

Headquarters Building - Auditorium Sound and Video O & M

Headquarters Building - Chillers - Manual

Headquarters Building - Electrical O & M

Headquarters Building - Escalators Phase II (3)

Headquarters Building - Fire Alarm Manual

Headquarters Building - O & M for Carrier Equipment, Also ANF2

Headquarters Building - Operating & Maintenance Manual - Also for #B-2 Raised Floor

Headquarters Building - Submittal - AHU in Cafeteria (See ANF-2 #1 Combined)

LSTC, Prints, O & M Manual

Registry Building, Prints, Mechanical and O & M Manual

RMM, Prints, Mechanical, O & M Manual

RMM –HVAC, Chiller, VAVs, Pumps, and Controls

RMM – High Voltage Extension

SSF, Prints, Mechanical, O & M Manual

TDWR 1, Prints, Mechanical, O & M Manual

TDWR 2, Prints, Mechanical, O & M Manual

TPS, Prints, Electrical, Plumbing, O & M Manual

TSF – Electrical, Mechanical, Plumbing, Fire Alarm O&M Manuals

Industrial Waste Treatment Plant, Prints, Electrical, Plumbing, O & M Manual

Miscellaneous:

Warranty File

Fire Alarm O & M with Wiring Diagram

Quad Alpha user guide input module Modax 500A Radio Paging

Multi-Purpose Building - Mechanical Manual

Multi-Purpose Building - O & M Manual - Boiler Feed Water Sys. Chillers

Multi-Purpose Building - Mechanical & Electrical detail - #148 Computer room

Multi-Purpose Building - Installation of Cooling Supply - #148 Computer room

RTF Building - Operating Manual

RTF Building - O & M Manual - Room 9 Modifications

Special Purpose Building - Mechanical Operations & Maintenance Manual

Special Purpose Building - Fire Suppression Operations & Maintenance Manual

Special Purpose Building - Electrical Operations & Maintenance Manual

Systems Training Building – O & M Manual – Host Computer site

Systems Training Building - STB and ARB York Chillers  
 Systems Training Building - HVAC Operations & Maintenance Manual  
 Warehouse Building - Drinking Fountain Warranty - Area B  
 Warehouse Building - Boiler Room - Water Treatment Modification  
 Warehouse Building – Liebert Deluxe System (3) O&M Manuals  
 Warehouse Building – Overhead Door Co. wiring diagrams for series ERL,  
 EL,GH,FL,4RDB.  
 Warehouse Building – AAF Dust Collectors Arestall model AR service manual

## 6.5 TECHNICAL LIBRARY INDEX (LOCATION: AUTOMATED WAREHOUSE)

LA120 User Guide (Digital)	comp. Room
LanTech "Q" series 300 stretch wrap machine maintenance manual	shop
Lan Tech Lan Wrapper "T" series Owners Guide	shop
LorTec Power Systems, Inc.	shop
Marsh Electric Tape Dispensing Machine Service and Parts Manual	shop
Raymond #1 PM Book	shop
Raymond #2 PM Book	shop
Raymond #3 PM Book	shop
Raymond #4 PM Book	shop
Raymond Installation/Operators Manual	shop
Raymond O/M Manual	shop
Raymond O/M Manual	shop
Raymond Parts Manual Part 1	shop
Raymond Parts Manual Part 2	shop
SPG 8050 Through 8072 Matrix Printers Service Manual	shop
Tandem Multi-Page Display Terminal T16/6530 O/M Manual	shop
Tandem Printer Option: 6530 Terminal Installation & Operation Guide	comp. room
Technical Specification Volume 1	shop
Technical Specification Volume 2	shop
Tekscan 7010 Terminal Technical Manual (Teklogix)	shop
Tekscan 8010 Terminal Technical Manual (Teklogix)	shop
<u>Warehouse Automation Manuals (Property of Logistics Support Facility (LSF):</u>	
Battery Handling System Parts & Service Manual Auto.Transfer Carriage Model ATC 30	
Better Pack 755 Electronic Tape Machine (Parts List)	
Black Box Corporation Code Operated Switch (4 port, 8 port 05-88 Service Manual)	
Clark Technical, Service, and Parts Manual	
Fairbanks Scales Instruction Manual 6200 Series Floor Scale Platform Model 23-6230B	
Fairbanks Scales Operating Manual Digital Indicator Model H90-5200	
Genesis Semi Automatic Poly Propylene Strapping Machine manual	
InstaPak Model 970 Troubleshooting Flow Charts	
InstaPak Model 970 Users Guide	

InstaPak Container Return Program  
Intermec 3400 Bar Code Label Printer Maintenance Manual  
Intermec 3400 Bar Code Label Printer Users Manual  
Intermec 8640 Series Thermal Transfer Printer Manual  
Intermec 9512/9550 Transaction Manager User's Manual  
Intermec Data Communications Reference Manual

Warehouse Automation Manuals (continued)

Lantech LAN-Wrapper T-Series Owners Guide Model STPSD  
Lantech Q Series 300 Stretch Wrap Machine Operators & Maintenance Manual  
NDC Micro 70 Wire Guidance for OE-35 Order Selectors Repair & Parts Manual  
Portec Pathfinder Maintenance Manual Book 1  
Portec Pathfinder Maintenance Manual Book 2  
Sealed Air Instapack 808/870 Foam Packing Systems Users Guide  
Sealed Air Instapack Systems Service Manual Models 715, 750, 760 Systems  
Sealed Air Recommendations for Safe Use & Handling of Instapak Foam-in-Place Chemicals  
Sealed Air Versa Packer Operation & Maintenance Guide  
Toledo 2096, 2196 Digital Scale Book, Technical Manual & Parts Catalog  
Toledo 8510 Stainless Steel M-P Digital Indicator Tech Manual & Parts Catalog  
Yale Models YTN/3YTN Battery Charger Operating & Maintenance Manual  
Yale OS 030 BB and SS 030 BB Parts Manual 1468  
Yale OS/SS 030 BB Maintenance Manual 1469

**6.6 MANUALS: ELECTRIC/HEAT AND AIR (LOCATION: ELECTRICAL SHOP)**

Carrier Hermetic Centrifugal Chiller O & M  
Carrier Literature  
Continental Boilers Service Manual  
Honeywell Flame Guard Manual  
Nalco Boiler Repair System Program  
O & M CAMI, Heat and Air Units  
O & M Iron Fireman Boilers  
O & M Mechanical, CAMI and Base Maintenance  
O & M Special Purpose Building-Mechanical  
Single and Multi Stage Compressors - York service bulletins  
Trane O & M Manual (chillers) Air Traffic  
Warehouse Chiller Units  
York Chillers, ARB, STB  
York O & M Flight Standard Liquid Chiller  
York O & M Hangar 8 Liquid Chiller  
York Turbo Pak Liquid Chiller

**6.7 TECHNICAL AND EQUIPMENT MANUALS (LOCATION: ELECTRONICS SHOP)**

CCTV Source Incorporated  
Dranetz Service - Universal Disturbance Analyzer  
Johnson Control Technical and Operation Manual  
Liebert Technical Manuals  
VICON Technical Manual

**6.8 TECHNICAL MANUALS (LOCATION: O & M CONTRACTOR'S OFFICE)**

Asbestos in Buildings, Facilities, and Industry  
Asbestos O & M Manual  
Controlling ACM in Buildings  
Toxicology Handbook

**6.9 ONE SET OF BUILDING PRINTS FOR ELECTRICAL, MECHANICAL AND UTILITIES FOR LISTED BUILDINGS AND FACILITIES.**

Academy Headquarters	Flight Inspection and Additions
Air Navigation Facilities No. 1 (ANF-1)	TSF Building
Air Navigation Facilities No. 2 (ANF-2)	GNAS Training Facility
Air Traffic Building	General Office Building
Altitude/Environmental Test Chamber: CAMI	Hangar 8
ARSR 1D	Hangar 9
ARSR 3	Hangar 10
ARSR 4	Hazardous Waste Storage Building
ASDE 3 Instrument Landing System	Headquarters Building
ASR 9 Mode-S	
ATCBI	Multi-Purpose Building (MPB)
Aviation Records Building	MPB, Computer Rm Circuits
Base Maintenance Building	RFI
Base Maintenance General Storage	Radar Antenna Lab
Building 6/Flight Standards	Radar Training Facility
Building K	Registry Building
Building L	Special Purpose Building
Child Care Center	Thomas P. Stafford Building
Civil Aeromedical Institute Building (CAMI)	Systems Training Building, Floor Plan
Emergency Lighting, ANF-1	Systems Training Building, Mech
Emergency Lighting, ANF-2	TSI Building
Emergency Lighting, Academy	Logistics Support Facility (LSF)
Emergency Lighting, Air Traffic	LSF (Mechanical)
Emergency Lighting, Flight Standards	TDWR 1
Environmental Support System Building	TDWR 2
VOR 700	MMAC Johnson Control Prints
VTD	MMAC Paging System Prints
MMAC Snow Removal Plan	MMAC Rusco Prints

MMAC CCTV Prints  
MMAC Fire Extinguisher Locations

MMAC Simplex Prints  
MMAC Utility Prints

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## TECHNICAL EXHIBIT 1

### T1. PERFORMANCE REQUIREMENTS SUMMARY

**T1.1 PURPOSE.** The purpose of this exhibit is to list the contract requirements considered most critical to acceptable contract performance.

**T1.1.1** A key to facility operations is the reaction time and effective modifications and repairs that are made to keep a facility in a condition to meet current functional requirements. These must be coordinated and effected to keep operational delays to a minimum. The effort of such facility support must be measured by the impact of any loss or delay to the operation the system supports. The Contractor must use every resource available, and the most professional workmanship, guidance, coordination, and supervision to complete work orders. The Government will prioritize all work.

**T1.1.2** All work is subject to evaluation using quality assurance practices, principles and techniques. All unsatisfactory work will be corrected. Random sampling techniques will be in accordance with Military Standard 105D Sampling Techniques.

**T1.2 QUALITY ASSURANCE PROCEDURES.** The Government's primary quality assurance procedures are based on random sampling of contract performance. Contract performance will be monitored periodically (i.e., daily, and weekly).

**T1.3 CRITERIA FOR EVALUATION** of Contractor performance is as follows:

**T1.3.1 Performance of Work**

- a. Timeliness/Responsiveness
- b. Quality of work produced
- c. Manpower utilization
- d. Materials utilization

**T3.1.2 Project Management**

- a. Management performance
- b. Staffing
- c. Subcontractor utilization and management

**T3.1.3 Business Management**

- a. **Business operations**
  1. Overall management
  2. Property control
  3. Reports and procedures
  4. Contract compliance
  5. Security

- b. Procurement**
    - 1. Purchasing and subcontracting
    - 2. Acquisition preference program
  
  - c. Personnel**
    - 1. Personnel administration
    - 2. Labor relations
    - 3. Equal employment opportunity
- 

**T3.1.4 Cost Control.** The Contractor's control of cost is important and will be evaluated. Rating in this area will not be assigned relative importance weights as in the other three areas but will cause an adjustment (increase or decrease) in the rating derived from the other areas.

**TABLE I**

**ADJECTIVE PERFORMANCE GRADE**

<b>ADJECTIVE PERFORMANCE GRADE</b>	<b>DESCRIPTION</b>	<b>RANGE OF PERFORMANCE POINTS</b>
	The Contractor's performance exceeds	
Excellent	Standard by a substantial margin. The monitor can cite few areas for improvement, all of which are minor.	96 – 100
Very Good	The Contractor's performance exceeds standard. Although there may be several areas for improvement, these are more than offset by better performance in other areas.	86 - 95
Good	The Contractor's performance is standard. Areas for improvement are approximately offset by better performance in other areas.	76 – 85
Fair	The Contractor's performance is less than standard. Although there are areas of good-or-better performance, these are more than offset by lower rated performance in other areas.	66 - 75
Poor	The Contractor's performance is less than standard by a substantial margin. The monitor can cite many areas for improvement, which are not offset by better performance in other areas. Less satisfactory performance would be unacceptable.	60 - 65
Unsatisfactory*	The Contractor's performance is below minimum acceptable standards. Results are inadequate and require prompt remedial action. Significant deficiencies.	Below 59

\*Any factor/subfactor receiving a grade of unsatisfactory will be assigned zero performance points for purposes of calculating the award fee amount.

**TABLE 2**

**AWARD FEE CONVERSION CHART**

This chart is for use in converting weighted performance points into percentages of the available award fee pool.

Weighted Performance		Points Percentage of Available Award Fee	
<b>Excellent</b>	100	100.0	Percent
	99	100.0	
	98	100.0	
	97	100.0	
	96	100.0	
<b>Very Good</b>	95	97.5	
	94	95.0	
	93	92.5	
	92	90.0	
	91	87.5	
	90	85.0	
	89	82.5	
	88	80.0	
<b>Good</b>	87	77.5	
	86	75.0	
	85	72.5	
	84	70.0	
	83	67.5	
	82	65.0	
	81	62.5	
	80	60.0	
<b>Fair</b>	79	57.5	
	78	55.0	
	77	52.5	
	76	50.0	
	75	47.5	
	74	45.0	
	73	42.5	
	72	40.0	
<b>Poor</b>	71	37.5	
	70	35.0	
	69	32.5	
	68	30.0	
	67	27.5	
	66	25.0	
	65	22.5	
	64	20.0	
	63	17.5	
	62	15.0	
	61	12.5	
	60	10.0	
	Below 59 is Unsatisfactory		

## TECHNICAL EXHIBIT 2

### T2. LIST OF BUILDINGS AND ANTENNA SITES AT THE MMAC

#### T2.1 BUILDINGS AND ANTENNA SITES.

<i>(AOS) Modular Administrative Building *</i>	<i>Headquarters Building*</i>
<i>Academy Headquarters Building*</i>	Industrial Waste Treatment Plant
<i>Air Navigation Facility (ANF-1) No. 1*</i>	ILS Training Facility
<i>Air Navigation Facility (ANF-2) No. 2*</i>	<i>Landing System Training Complex*</i>
<i>Air Traffic Building*</i>	Building (Mark 1D)
ARSR-1D Training Facility	Building (Mark 1E)
ARSR-3 Radar Test	Mark (Mark 1F)
ARSR-3 Tower Equipment Building	Mark 20 Annex
ARSR-4	Mark 20 Building
ASDE-3	Line Maintenance Building
ASR-7 Lab & Equipment Building	<i>Logistics Support Facility (LSF)*</i>
ASR-8 Training Lab	Material Storage Building
ASR-9 MODE-S	<i>Multi-Purpose Building*</i>
ATCBI Complex (four bldgs)	<i>Program Support Facility*</i>
<i>Aviation Records Building (ARB)*</i>	Radar Antenna Lab
<i>Base Maintenance Building*</i>	<i>Radar Training Facility (RTF)*</i>
Base Maintenance Storage	<i>Registry Building*</i>
Child Care Center	RFI Building
<i>Civil Aeromedical Institute (CAMI)*</i>	RTF UPS Battery Storage
Credit Union Building (Building K)	<i>Special Purpose Building*</i>
Digital Remote Switching Building	Storage Building (Building 50)
Double Wide Trailer	Storage Shed (Flight Line Maint. Shed)
EA Book Store (Building L)	Storage Shed (Flight Line Shed 1)
ESS Building	Storage Shed (Flight Line Shed 2)
<i>Flight Inspection Building*</i>	Storage Shed (Flight Line Shed 3)
<i>Flight Standards Building*</i>	Storage Shed (Flight Line Shed 4)
Fork Lift Station ½	<i>Systems Support Facility*</i>
FPS-66 Trailer	<i>Systems Training Annex *</i>
General Office Building	<i>Systems Training Building*</i>
<i>GNAS Building*</i>	<i>TDWR-1*</i>
Grounds Maintenance Building	<i>TDWR-2 Building*</i>
Guard Stations (north/south)	<i>Technical Support Facility*</i>
<i>Hangar 8*</i>	<i>Thomas P. Stafford Building*</i>
<i>Hangar 9*</i>	TSI Lab
Hangar 10	VOR 700 Building
Hazardous Waste Storage Facility	<i>VOR/TACAN/DME Training Facility*</i>

*\*Indicates CCMS Control. All buildings receive surveillance. Aeronautical Center maps may be obtained on request*

**T2.2** The FAA occupied buildings at the MMAC shown in this exhibit are approximately 3,000,000 gross square feet. The land area is approximately 1,200 acres.

**T2.3** Off-site facilities leased to support the Aeronautical Center will be identified by the COR.

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**TECHNICAL EXHIBIT 3**

**T3. FACILITIES FOR CONTRACTOR USE**

<u>BUILDING AVAILABLE</u>	<u>TYPE AREA</u>	<u>APPROXIMATE SQUARE FEET</u>
Base Maintenance	Office & CCMS& BM Shop & Shed & BM Automotive Shop	500 11,000 3,100
Warehouse/LM Maintenance Area	Office	5,000
Grounds Maintenance	Office, Shop & Shed	15,000
Industrial Waste Treatment Plant	Waste Treatment	5,000

The Government will furnish water, heat, electricity, sewage refuse services, and other utilities to the Contractor.

## **TECHNICAL EXHIBIT 4**

### **T4. GOVERNMENT-FURNISHED EQUIPMENT**

**T4.1** All equipment, in the shop area furnished to the Contractor, which is fixed to the building, is assigned for the Contractor's use. All non-fixed Government equipment will be issued to the Contractor as Government furnished equipment. Copy of the master document for all Government Furnished Equipment will be maintained in the AMP-300 Administration Division files. *Revised April 5, 2010*

**T4.2** The Contractor will be directed to purchase, lease, or rent tools and/or equipment not available but required for project completions. The cost of purchase, rental, and/or lease will be approved by the COR for the length of time required. In the case of purchase the equipment and/or tool becomes Government property and will be placed on appropriate records and hand receipt(s).

**T4.3** The Government Furnished Equipment will be inventory semi-annual by the Contractor. Copies will be provided to the Contracting Officer and AMP-300 COTR. The Contractor shall be accountable for equipment issued under this contract. *Revised April 5, 2010*

## **TECHNICAL EXHIBIT 5**

### **T5. OBJECTIVE STANDARDS**

**T5.1 THESE SPECIFICATIONS DEFINE THE QUALITY** of maintenance, repair, and modification work to be accomplished under this contract. Where a Government specification is not directed, the Contractor shall perform all work to meet customs, standards and practices of the trade.

**T5.2 PROTECTION OF PROPERTY**. The Contractor shall protect all existing work that is to remain in place and shall replace or repair any damage occurring to existing facilities, equipment, buildings, and grounds due to the Contractor's work or actions.

**T5.3 FAA OPERATIONS**. The Contractor shall consult with the Government and shall coordinate assigned work in such a manner as to interfere as little as possible with normal functions of the MMAC. The Contractor shall also coordinate assigned work with other Contractors performing work in and around the worksite and building.

**T5.4 OTHER SPECIFICATIONS**. When reference is made to specifications, such as Federal Specifications, American Society for Testing Materials (ASTM) or American Association of State Highway Officials (AASHO), or others, the latest edition shall be used.

**T5.5 "AS-BUILT" DRAWINGS**. The Contractor shall redline, update, and return the drawings of the work performed to the FMS.

**T5.6 CONTRACTOR CLEANUP**. All work areas shall be cleaned after a project is completed.

**T5.7 NATIONAL ELECTRICAL CODE**. All electrical installation shall fully comply with the latest published requirements of the National Electrical Code.

**T5.8 DUCT WORK**. All heating, air-conditioning, and ventilation ductwork shall be in accordance with Sheet Metal and Air Conditioning Contractors National Association (SMACNA) manual and requirements.

**T5.9 SHOP EQUIPMENT**. Shop equipment shall be maintained in accordance with the manufacturer's instructions.

**T5.10 WELDING**. All welding shall be done by employees certified by the American Welding Society, "Standard Qualifications Procedure," to perform the type work required. The equipment shall be of a type (heli-arc, gas, and electric) that will produce proper and satisfactory welds. Joint surfaces shall be free from fins and tears. Finish members shall be true-to-line and free from twists, bends, and open joints. The technique of welding employed, the appearance and quality of welds made, and the methods of correcting defective work shall conform to the requirements of the American Society of Mechanical Engineers, boiler and

Pressure Vessel Code, Section IX, Welding and Brazing Qualifications. No welding will be performed without an approved welding permit as called for in Technical Exhibit 5, Attachment 1.

**T5.11 CONTINGENCY PLANS.** The Contractor shall provide support for the "FAA Emergency Readiness Plan" as called for in Technical Exhibit 11.

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**TECHNICAL EXHIBIT 6**

**T6. HISTORICAL WORKLOAD**

**T6.1 THE HISTORICAL WORKLOAD FOR WORK REQUEST FOR TROUBLE CALL, OPERATIONAL, SUPPORT AND PM ARE LISTED TO DENOTE THE SCOPE OF WORK FOR FY-02, FY-03, FY-04 and FY-05.**

	FY-02	FY-03	FY-04	FY-05
	Total Work Request			
Work Request for Trouble Call	8204	8075	7601	7545
Work Request for Operational	389	449	450	364
Work Request for Support	557	520	499	393
Work Request for Preventive Maintenance	10,622	10,201	10,044	*19,293

**T.6.2** Total work request for trouble, operational, support and preventive maintenance craft hours are available for review at the Base Maintenance Building.

\* Preventive Maintenance task under the new PM Program.

## TECHNICAL EXHIBIT 7

### **T7. GROUNDS MAINTENANCE SCHEDULE WITH TECHNICAL REQUIREMENTS**

**T7.1 MOWING, including edging and sweeping, fine cut areas.** Rotary mowers with rear discharge may be used on fine cut areas. Under no circumstances is a Flail Mower to be used on fine cut areas. Rotary blades are to be sharpened to insure a smooth cut. Before a fine cut area is to be mowed, it shall be policed to insure that the area is free from objects that could be struck by mowers. Each mowing operation is to include mowing, trimming, and removal of all clippings to reflect an appearance suitable for a public facility. These operations are to be done consecutively and simultaneously with each area, as noted on the drawings, completed as a project. All grass clippings are to be removed from the sidewalks and streets, and shall not be left overnight. Clippings shall not be swept onto the turf. All sidewalks, curbs and other concrete edges shall be edged and trimmed with a mechanical type edger in conjunction with each mowing. Soil sterilization as approved by the COR may be used around buildings and fence lines. All cuttings are to be removed from fine cut areas in conjunction with each mowing.

**T7.2 MOWING, rough-cut.** Rough cut mowing shall be performed on such grounds that are not programmed to be fertilized, watered and fine cut. Whirlwind or sickle bar type mowers may be used for this purpose. Tractor powered whirlwind mowers shall be equipped with "Chain Main" protective guards. The Contractor shall keep litter removed from the rough-cut areas.

**T7.3 WATERING fine cut areas.** Areas shown as fine cut on the drawings shall receive water as ordered by the COR. All watering operations are to be continuously monitored to prevent water from striking buildings, parked vehicles, and streets, to prevent excessive ground penetration adjacent to buildings and to prevent any damage that might result from this operation. The Contractor shall prepare a watering schedule for approval by the COR before actual application is made. The Contractor shall monitor and repair and maintain the existing underground sprinkler system, keeping the system in good repair and operating condition at all times. The sprinkler system is to be purged with an air compressor before freezing weather.

**T7.4 GENERAL MAINTENANCE,** including but not restricted to fertilizing, mulching, and watering of (1) trees, outdoor shrubbery, perennial and annual growth plants located in beds and planters, (2) trees and shrubs not located in beds, and (3) indoor plants and planters.

**T7.4.1** The Contractor shall provide services to care for all indoor plants and shall replace such plants in the event of damage, loss, or if growth eliminates their use for the intended decorative effect.

**T7.4.2** The trees, shrubs, flowers, indoor plants, and planter boxes shall be fertilized in accordance with standard practices for proper growth and health of the plants and as approved by the COR. The soil in the planter boxes shall be fertilized and rejuvenated as required for proper growth and health of plants. Planter boxes that contain perennial shrubs will be fertilized as needed. All trees, flowers, shrubs, indoor plants, and lawns shall be sprayed in accordance with accepted practices for the

necessary control of plant fungus and insects. Neutralizing cleaning solution shall be used on all equipment used to spray both herbicides and insecticides.

**T7.4.3** The loss of any tree, evergreen shrubs, or perennial plants due to disease, insects, drought, or other causes shall require replacement with a like species. Any proposed substitution shall be approved in writing prior to planting. Trees shall be pruned, trimmed, or shaped as required, fertilized and sprayed. An approved tree maintenance program shall be followed.

**T7.4.4** The Contractor shall keep all crushed rock areas at the Aeronautical Center free of all vegetation, trash, and debris.

**T7.5 FERTILIZING, fine cut areas.**

**T7.5.1** The Contractor shall provide for application of fertilizer from April through August on all fine cut areas as need and coordinated with the COR.

**T7.5.2** The Contractor shall replace any grass damaged by fertilizer imbalance. When requested, the Contractor shall take soil samples from the grounds and have them tested by a certified testing laboratory.

**T7.6 WEED, CRAB GRASS, AND DISEASE CONTROL, fine cut areas (Pre-emergent treatment and Post-emergent treatment).** The Contractor shall perform treatment for broadleaf and narrow leaf (grassy) weed control on fine cut areas as ordered. Precautions shall be taken to insure that there is no discoloring of the grass or damage to other plants. In the fall, a pre-emergent is to be applied, followed in the early spring with a non-selective non-soil sterilent post-emergent. If weeds appear after verticutting and top dressing, a post emergent is to be applied for broadleaf weeds. The selective post-emergent is to be repeated if necessary. The pre-emergent shall be applied in a granulated form. The post-emergent shall be applied with a spray boom and pump calibrated to receive even rates of distribution. A record shall be kept of consumption to insure proper rates. Rates of application for these chemicals are not specified but they must be sufficient to obtain control above 95% for any given square yard taken as a test area for determination of effectiveness. The Contractor shall coordinate scheduling of fall and spring treatment with the COR, to assure that the same areas that receive fall treatment will also be followed with the specified spring treatment. Post-emergent herbicides are to be applied after crab grass has germinated. Air temperature is to be 80 degrees F. or higher. Weed control in turf areas will be accomplished in accordance with in Oklahoma Extension Fact Sheet #2652 as issued in cooperation with the U.S. Department of Agriculture. The type of turf, weed, herbicide, rate of application and suggested time of application are to be followed. Treatment will be provided April through October for the control of all types of weeds in turf areas.

**T7.7 WEED AND GRASS CONTROL, graveled areas.** The Contractor shall treat crushed rock areas at the Aeronautical Center with soil sterilent as requested by the COR. The treatment shall not stain or discolor the rock, be corrosive to materials, or toxic to humans or animals. The materials used in this treatment shall be approved by the COR, prior to its use. All areas shall be treated except those inside fenced transformer vaults serving the buildings. The transformer stations serving the electrical mechanical cable field shall be treated as necessary and when requested. Areas treated under this service must remain free of all plant growth for one year or be retreated as necessary for this purpose.

**T7.8 WEED AND GRASS REMOVAL.** Weeds and grass may need to be removed from certain areas for the protection of Government property. This work will be accomplished when authorized by the COR. This requires application of an approved post-emergent non-selective weed and grass killer that is not conducted by plants and that deactivates on contact with soil. It shall be used in areas where soil sterilant may cause damage to other plants. The Contractor shall cut and remove large weeds and grass before the chemical is applied.

**T7.9 GRASS REPLACEMENT (Stolonization, Sodding, Seeding).** When ordered by the COR, the Contractor shall repair or replace lawns that have been damaged as a result of conversion of use by new construction, by repair of utility lines, or by other causes. These areas shall be disked, graded, roto-tilled, stolonized, sodded or seeded, as required and fertilized and watered in accordance with accepted practices until such times as that portion of the grounds can be accepted under the regular maintenance of lawns as set out above. This includes shaded areas where insufficient sunlight prevents Bermuda grass from growing. These areas shall be seeded with Kentucky 31 Fescue or with the latest recommended seed by the Oklahoma State University Agronomy Department.

**T7.10 IRRIGATION HEAD REPAIR/REPLACEMENT.** Government owned irrigation heads shall be repaired or replaced as necessary to maintain a completely operative condition.

**T7.11 PIPING REPLACEMENT, with fittings 1/2" to 3" inclusive.** ABS pipe is not to be used or reused if removed from existing system. All new pipe and fittings shall be PVC schedule 40, Class 200. All ditches shall be cushioned with two inches of masonry grade sand. All pipes shall be covered with four inches of masonry grade sand before backfilling. Backfill shall consist of approved treated topsoil to within four inches of finish grade. Finished grade shall be obtained with replaced turf and top dressing.

**T7.12 GATE VALVE REPAIR, or replacement, 3/4" to 3" inclusive.** Valve shall be repaired to a completely operative (like new) condition or replaced with a new valve when necessary and ordered by the COR. Backfill and finished grading shall be accomplished in accordance with that specified in Section C, paragraph 12.

**T7.13 SNOW AND ICE REMOVAL.** During winter months the Contractor shall remove all snow and ice from sidewalks, which may accumulate during the day. Snow and ice removal crews must be on the grounds no later than 3:00 a.m. for removal of snow and ice that forms or accumulates during the night. Walkways and building entrances shall be cleared by no later than 6:00 a.m. Rubber blades shall be used on snowplows. The wheel spacing on snowplows shall not exceed the width of the sidewalk. The Contractor shall spread masonry sand on the areas of sidewalks that are dangerously slick using a sand spreader for even distribution. The Contractor shall supply and spread a sufficient amount of calcium chloride or approved equal, to the Aeronautical Center sidewalks as required to keep walks and entrances free of ice. Additional chemical application shall be provided as required. The crews shall remain on the grounds until 4:30 p.m. or as approved by the COR. De-icing material must not kill grass or harm concrete.

## **7.14 BLIZZARD RECOVERY.**

**T7.14.1** When ordered by the COR, the Contractor shall remove snow and ice from parking lots, paved storage areas, docks, drives, and other designated areas as required for the operation of the Aeronautical Center. The Contractor shall make available and operate equipment as necessary to accomplish snow removal. The FAA will provide the Contractor with a Blizzard Recovery Plan, which will show the priority of operations. The plan will be in written form and will include a drawing with sequences of actions required. This plan may be changed due to operations consideration.

**T7.14.2** The Contractor shall provide a truck and self-powered utility spreader equal to Model "P" Highway Equipment Company as part of the hot sand application. The hot sand will be spread by the unit using a controlled variable width.

**T7.15 SNOW FENCE.** Contractor shall install, remove and repair Government-furnished snow fence as required for snow drift control in parking and other areas of the Aeronautical Center. Locations for installation of the fence will be furnished at the appropriate time by the COR. Government-furnished material will consist of sufficient snow fence in 50-foot lengths and 6 feet, 1.12 pound/foot steel posts. Material such as tie wire, braces, anchors and guy wire necessary to support and hold fence up right in 75 mile per hour winds shall also be furnished by the Government. The Contractor shall pick up the Government-furnished material from Government controlled storage areas and replace material after all requirements are complete. Fence shall be installed in straight lines in a neat workmanlike manner.

## **7.16 GROUNDS CLEAN UP.**

**T7.16.1** The Contractor shall keep all exterior areas of the Aeronautical Center clean and free from wastepaper and other litter at all times. This shall include removing tree leaves and other litter from exterior basement stairwells (including boiler room entrances) and the Multi-Purpose inner courtyard. Drains shall be free of trash and operative at all times. Weeds and grass shall be removed and not permitted to grow in cracks, joints, and holes of all paved areas at the Aeronautical Center. A soil sterilent is not acceptable for this purpose because it may damage trees, grass, and other plants.

**T7.16.2** All discarded wooden shipping pallets shall be picked up daily and disposed of in empty in trash containers located at the Aeronautical Center.

**T7.16.3** Remove bird droppings, mud, dirt, or any other litter from sidewalks as necessary. Remove tree limbs and any other plant growth as necessary to maintain free, safe passage on sidewalks and building entrances and to facilitate safe vision for drivers of vehicles at street intersections and parking lot access and interior passage at all times. All tree limbs, grass trimmings, and other debris generated by performance of grounds maintenance work shall be removed and hauled by the Contractor off the Aeronautical Center property. Inspection and work by the Contractor on the grounds clean up service shall be performed daily, Monday through Friday.

**T7.17 CLEAN STORM SEWER CATCH BASINS.** The Contractor shall remove all trash and other debris from inside storm sewer and drainage catch basins when required for proper flow and requested by the COR.

**T7.18 TREES, replacement as needed.** The Contractor shall replace trees that are damaged by wind or natural causes, damaged by unknown causes such as unreported vehicular contact or vandalism that need to be removed because of age or excessive size or other reason.

**T7.19 SHRUBS, replacement as needed.** The Contractor shall replace shrubs for any of the reasons stated above. Planting shall be done in accordance with the best acceptable methods and the Contractor shall be responsible for the continued life, growth and health of each new shrub.

**T7.20 VERTICUTTING, fine cut areas.** Verticutting is to be performed on the fine cut areas when requested by the COR. Work shall be done during a period after the first of January and prior to the first of June unless otherwise directed or approved by the COR. Verticutting equipment shall be designed for the intended purpose. Complete verticutting operation shall consist of a minimum of two passes over entire area with verticutting equipment. Each pass shall be perpendicular to the other. The entire area shall be swept clean of all thatch, trash, and debris following each pass of the verticutting equipment.

**T7.21 MMAC Perimeter Security Fencing.** The contractor shall inspect and make all repairs to perimeter security fencing. All security fencing shall be maintained in accordance with FAA Order 1600.69B, Chapter 3, Section 2. Security fence lines with graveled areas to prevent wash outs shall be kept free of all vegetation, debris and trash. The contractor shall ensure that the 20-foot clean zone is maintained free of all trees, shrubs, debris, and trash and mowed by either fine or rough cutting. Revise July 1, 2008

## **TECHNICAL EXHIBIT 8**

### **T8. MODIFICATION - WORK REQUEST SUPPORT**

**T8.1 WORK ORDER REQUEST.** The Contractor will be issued Work Request for Support for modifications to buildings, equipment, facilities, and systems at the Aeronautical Center. Prior to issue to the Contractor, the work request will be issued a number that will be used to identify and control the work. The work required will be outlined, along with standards, specifications, and drawings, to identify the quality and scope of work. An estimate of the labor and materials will be provided prior to the work request being issued. The scope of work cannot be changed unless approved by a FMS, in which case the labor estimate will be adjusted for the change. No modification work is to be performed by the Contractor unless covered by a valid work request.

**T8.1.1** All modification work request issued shall contain, by an attachment to the work request, total hours by craft to be utilized for each function in the Contractor's performance of a work request. These hours will be an estimate by skills (mechanical, electrical, carpentry, paint, and miscellaneous labor) utilizing the Means Man-hours Standards estimating publications as a baseline minimum estimate when applicable. Estimates will be made by qualified estimators based on their own experience and expertise, and taking into consideration special conditions and other factors that must be included to make a reasonable man-hour estimate in conjunction with the Means Man-hours Standards publications. All materials lists for each work order shall also be attached.

**T8.1.2** Reference estimate books: Means Man-hour Standards System, and books published by R. S. Means Company.

**T8.2 MATERIALS.** Government-furnished materials will be issued at different locations at the Aeronautical Center. The Contractor shall transport the materials to the work site. After the work order is completed, the Contractor shall return all excess materials to the Government, and the excess shall be placed at different locations at the Aeronautical Center as directed by the FMS.

**T8.3 START AND COMPLETION TIMES.** Unless otherwise noted on the work request, the Contractor shall start work on a work request to complete the onsite work by 1630 on the completion date specified on the work order.

**T8.4 WORK ORDER INFORMATION BY CONTRACTOR.** The Contractor shall return the original work request within three (3) workdays after the onsite work is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information regarding the work or problems encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for work order projects.

**T8.5 WORK REQUEST FOR SUPPORT**. See Attachment 1 to Technical Exhibit 8.

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# ATTACHMENT ONE

ARCHIBUS/FM

## Work Requests



WORK REQUEST FORM

<b>Requester:</b>	<b>Phone:</b>	<b>Extension:</b>	<b>Department:</b>
Building - Floor - Room		Location:	
Priority Number		Assignment Order	
Make Requested:		Type of Request:	
Date to Perform:		Priority Request:	
Est. Description Code:		Is to Complete:	
Priority Request Code:		Priority Level:	
Request:		Request Status:	
Request Type:		Work Request Type:	OS&P
Priority Description:		Completed:	Yes No

**Craftsperson's Notes:**

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**Materials Used:**

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<b>Emp. Name:</b>	<b>Trade:</b>	<b>Hours:</b>	<b>Date:</b>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

## TECHNICAL EXHIBIT 9

### **T9. WORK REQUEST FOR OPERATIONAL**

**T9.1 THE CONTRACTOR WILL BE ISSUED AN WORK REQUEST FOR OPERATIONAL** for the maintenance and repair of buildings, equipment, facilities, and systems at the Aeronautical Center.

Prior to issue to the Contractor, the work order will be issued a number that will be used to identify and control the work request. The work required will be outlined, along with standards, specifications, drawings, and sketches to denote the quality and scope of work when applicable. The project shall be completed by the date listed on the work request. The scope of work of the work request cannot be changed unless approved by the FMS. No maintenance and repair work is to be performed by the Contractor unless covered by a valid work request. When the work called for is completed, the original work order shall be returned to the FMS.

**T9.1.1** All operational work request issued will contain, by an attachment to the work request total hours by craft to be utilized for each function in the Contractor's performance of the work. These hours will be estimated by skills (mechanical, electrical, carpentry, paint, and miscellaneous labor) utilizing the Means Man-hours Standards estimating publications as a baseline minimum estimate when applicable. Estimates will be made by qualified estimators based on their own experience and expertise, and taking into consideration special conditions and other factors that must be included to make a reasonable man-hour estimate in conjunction with the Means Man-hours Standards publications. All materials lists for each work order shall also be attached.

**T9.2 MATERIALS.** Government furnished materials will be issued at different locations at the Aeronautical Center. The Contractor shall transport the materials to the work site. After the work request is completed, the Contractor shall return the excess to storage at various locations as directed by the FMS.

**T9.3 START AND COMPLETION TIMES.** Unless otherwise noted on the work request, the Contractor shall start work on an Work Request for Operational to complete the onsite work by 1630 hours on the completion date specified on the work request.

**T9.4 WORK REQUEST INFORMATION BY CONTRACTOR.** The Contractor shall return the original work request within 3 workdays after the onsite work is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information regarding the work or problems encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work order will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for work order projects.

**T9.5 WORK REQUEST FOR OPERATIONAL.** See Attachment 1 to Technical Exhibit 9.

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# ATTACHMENT ONE

ARCHIBUS/FM

## Work Requests



### Work Request Code:

Requestor: Phone: Division: Department:

Bldg - Floor - Room:

Location:

Primary Trade:

Equipment Code:

Date Requested:

Time Requested:

Date To Perform:

Time To Perform:

Est. Completion Date:

Date Completed:

Activity Project Code:

Activity Log:

Priority:

Current Status:

Problem Type:

Work Request Type: OP

Problem Description:

Completed: Yes No

Craftsperson's Notes:

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Materials Used:

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Emp. Name:

Trade:

Hours:

Date:

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## **TECHNICAL EXHIBIT 10**

### **T10. WORK REQUEST FOR TROUBLE CALL**

**T10.1 THE CONTRACTOR WILL BE ISSUED A WORK REQUEST TROUBLE CALL** for the repair and adjustment of fixtures, buildings, equipment, systems, and facilities at the Aeronautical Center. Prior to issue to the Contractor, the work order will be issued a number that will be used to identify and control the work request.

**T10.2 MATERIALS**. Government furnished materials may be issued at different locations. The Contractor will transport the material to the work site. After the work order is completed, all excess material shall be placed in storage at different locations by the Contractor as directed by the FMS.

**T10.3 TIME OF WORK**. Work request, work shall be performed from 0800 to 1630 hours, Monday through Friday. No work will be done on weekends or Federal holidays, except in emergencies and/or directed by the appropriate FMS. The Contractor shall start work without any delay on P-1 trouble calls and continue work as feasible until the problem is resolved and/ or corrected and as directed by appropriate FMS.

**T10.4 START AND COMPLETION TIMES**. Routine work request for trouble calls will be completed by the Contractor and return to the government by 16:30 on the fourth day of work. The first day of issue from the Government will not count as part of the work request time line. The Contractor may convert trouble calls to Work Request for Operational with approval and coordinated with the appropriate FMS.

**T10.5 WORK ORDER INFORMATION BY CONTRACTOR**. The Contractor shall return the original work request for trouble call back to the government is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information or problems the Contractor encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry and the correct entry made above or beside the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for each work request. All information recorded will be done in a clear, concise and legible manor.

**T10.6 TROUBLE CALL WORK ORDERS**. If materials are required to perform the work request for trouble calls that cannot be issued onsite, the FMS shall be advised without delay. A work request

for operational will be issued and materials can be obtained by the government or the Contractor as directed. Start and stop times of work due to need for materials will be noted on the work request.

**T10.7 WORK REQUEST FOR TROUBLE CALL WORK.** See Attachment 1 to Technical Exhibit 10.

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# ATTACHMENT ONE

ARCHIBUS/FM

## Work Requests



### Work Request Code:

Requestor:	Project: 405-100-0000	Division:	Department:
Whtg - Floor - Room:	Location:		
Primary Trade:	Equipment Code:		
Date Requested:	Time Requested:		
Date To Perform:	Time To Perform:		
Est. Completion Date:	Date Completed:		
Activity Project Code:	Activity Log:		
Priority:	Current Status:		
Problem Type:	Work Request Type:	TL	
Problem Description:	Completed:	Yes	No

### Craftsperson's Notes:

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### Materials Used:

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Emp. Name: Trade: Hours: Date:

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## **TECHNICAL EXHIBIT 11**

### **T11. CONTINGENCY PLANS**

**T11.1** The Contractor shall provide support to the Aeronautical Center operations for the "Federal Aviation Administration (FAA) Emergency Operations Plan and Mike Monroney Aeronautical center Center (MMAC) Continuity of Operations (COOP) Plan.' This includes drills and exercises of the plans. Revised July 1, 2008

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**T11.2** The "FAA Emergency *Operations Plan and the MMAC COOP Plan*" is in support of the Department of Transportation (DOT) and Department of Defense (DOD) in time of war, national emergencies, and major disasters. The Contractor's responsibilities in support of these plans are listed.

**T11.2.1** Provide four (4) personnel to support the Aeronautical Center Emergency Operating Facility. A Facility Management Specialist (FMS) will serve as a member of the Emergency Operating Facility Staff, and act as the liaison between the staff and the Contractor.

**T11.2.2** Provide six (6) personnel to serve as the MMAC Community Emergency Response Team.

**T11.2.3** Provide a supervisor for 24-hour coverage to provide over-sight of Contractor's employees. Such individual shall be familiar with the FAA Emergency Readiness Levels and Security Conditions listed in the FAA Emergency Operations Plan.

**T11.2.4** Provide personnel to conduct utility and building equipment shutdown and startup during and after an emergency.

**T11.2.5** In the event of a bomb threat, the Contractor shall provide personnel to search all Contractor assigned space including offices, shops, storage areas, compounds, equipment/ boiler rooms, pipe chases, areas of responsibility in the FAALC Warehouse building, and other areas identified by the COR.

**T11.2.6** Provide an updated copy of the Contractors' Emergency Operation Plan or applicable Standard Operating Procedures to AMP-300 annually, no later than January 31<sup>st</sup>.

## **TECHNICAL EXHIBIT 12**

### **T12. REPORTS**

**T12.1** The Contractor shall make reports as required to provide information on the work performed on each piece of equipment, including materials, employee hours, and parts required. This will normally be done on the work order form, but may be requested on special projects, equipment or critical incidents.

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**T12.2** The Contractor shall provide complete mileage/hour readings on all vehicles provided by the Government. This report shall be made each month.

**T12.3** The Contractor is required to make daily and special reports on equipment, condition or status as required to support FAA operations.

**T12.4** A complete report shall be furnished for all individuals performing work for the Contractor at the MMAC under this contract. The listing shall be by name, classification, project on which work performed, if work order - the work order number and number of hours worked, starting times and ending times of work during the 24 hours.

**T12.5** The Contractor shall provide a daily status report on all individual craft and multi-craft support work orders by work order number, estimated man-hours, man-hours used, scheduled completion date, status of work orders, and necessary comments.

**T12.6** The Contractor shall provide a weekly status report on all operational work orders by work order number, building, and brief description of task, issued date, status of work order, scheduled completion date and necessary comments.

**T12.7** The Contractor shall provide a daily status report on all trouble call work orders by work order number, building, brief description of task, requestor, status of work order and necessary comments.

**T12.8** The Contractor shall provide a Water Treatment Report on all treated systems monthly to the FMS. Revised July 1, 2008

## **TECHNICAL EXHIBIT 13**

### **T13. CENTRAL CONTROL AND MONITORING SYSTEM (CCMS)**

**T13.1 SCOPE OF WORK.** The Contractor shall provide necessary management, supervision, labor, material, tools and test equipment to accomplish the following with regard to the CCMS and auxiliary systems defined herein:

- a. Inspection
- b. Calibration
- c. Scheduled maintenance
- d. Non-destructive base line testing
- e. Repairs
- f. Onsite operations
- g. Scheduled tours
- h. Logging
- i. Computerized reporting
- j. Modifications, additions and changes to the hardware and software of the system.

**T13.1** The Contractor shall assist the appropriate FMS in establishing Aeronautical Center policies and procedures for energy mandates and energy conservation measures as outlined in Energy Policy Order 1053.1A.

**T13.2 OPERATION.** CCMS Operations is operated twenty-four hour, seven day a week by qualified individuals who can start, stop, adjust, call-up data and information under CCMS control, understand HVAC operations and able to contact onsite surveillance operator and direct them to check problems reflected by the CCMS. Take required action against unsafe conditions, detect equipment failures or malfunctions and provide comfort conditions during all building occupancy hours. All CCMS and controlled systems shall be operated at the highest level of efficiency possible within the equipment limits. HVAC systems shall be operated to maximize energy conservation while maintaining building comfort.

**T13.2.1** Whenever controlled space temperature during scheduled run time hours rises above 78° F., operate building cooling systems to maintain temperatures between 70° F. and 78° F. Lower temperatures are permissible when obtained without utilizing cooling systems. Areas are not to go above 85° F. during unoccupied times. When controlled space temperatures during scheduled run times drop below 70° F., operate building heating systems to maintain those temperatures between 70° F. and 78° F., and not less than 60° F. during unoccupied times. Adjustments to these settings may be necessary as special environmental requirements dictate, or as otherwise directed by the FMS.

**T13.2.2** Maximum outside air is to be used instead of the building cooling system to cool the buildings.

**T13.3 REPAIRS.** Effect prompt repairs when any CCMS device fails.

**T13.4 CONTROL CENTER OPERATIONS.** The CCMS operator shall be the contact point for trouble calls when the trouble call desk in the Base Maintenance Building is not staffed.

**T13.4.1** The CCMS operator shall conduct computer reviews and printouts of all controlled and monitored equipment in accordance with the building operating manuals, and provide logs, CLFs and pertinent information to the appropriate FMS personnel for review.

**T13.5 NON-DESTRUCTIVE BASE LINE TESTING.** The Contractor shall perform diagnostic software checks and troubleshooting to computers, printers, CRTs, micro-processors, lines, cables, equipment and other CCMS systems in accordance with the manufacturer's recommendations or as directed by the COR. When published guides to diagnostics are not available, the Contractor shall formulate and submit a plan to the COR for approval that shall accomplish the same results.

**T13.5.1** All temperature control devices on CCMS shall be checked along with other control devices for proper operations and calibration.

**T13.6 CCMS MALFUNCTIONS.** Any time any part of the CCMS is not operational or is malfunctioning, the facts as to systems down, time went down, when repairs will be effected, and impact on HVAC/Environmental systems, shall be reported to the FMS.

**T13.7 CCMS CONTROL ROOM.** The CCMS control room shall be kept in good order and kept clean. No materials or substances will be allowed in the area that might effect any CCMS equipment.

**T13.8 CCMS TELEPHONE.** A Government on-base telephone will be provided in the CCMS control room. This phone shall be utilized for coordination of operations. When emergency off-base calls are required, other than the AMP-300 Management and/or appropriate FMS, the CCMS operator must made this calls through the MMAC Operations Center.

**T13.9 CCMS RADIO.** A radio station will be in the CCMS control room that can contact the Security Guards and the surveillance operator. This radio shall be utilized for coordination of operation.

**T13.10 CCMS EQUIPMENT.** The Contractor shall operate, maintain and repair all CCMS equipment, including but not limited to controls, controlled devices, auxiliary equipment, HVAC /Environmental computer controls and monitoring systems.

**T.13.11 SCHEDULED CCMS MAINTENANCE.** Scheduled maintenance procedures shall be executed and documented for building controls, onsite monitoring points and building automation.

**T13.12 CCMS SYSTEM.** Johnson Control METASYS System.

**T13.12.1 Software/Hardware.**

Metasys Revision 12.04  
HVAC PRO Revision 8.07

GX91000 Version 7.04  
40 NCM's, 392 DSC's, 21 FPU's and over 12,500 points monitoring and supporting  
equipment and points.

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**Technical Exhibit 14**

**T.14 Building Emergency Generators**

**Revised 3/19/10**

<b>BUILDING LOCATIONS</b>	<b>BUILDING #</b>	<b>KW SIZE</b>	<b>TYPE OF FUEL</b>	<b>MANUFACTURE</b>
HQ's	1	125	Diesel	ONAN
WAREHOUSE #1	2	75	Diesel	CAT
AT/ACAD	3	80	Diesel	ONAN
ANF-1/BLDG-6	5	80	Diesel	KOHLER
HNG-8/9	9	150	Diesel	KOHLER
ARB	22	285	Diesel	CAT
STB	23	125	Diesel	KOHLER
MPB #1	24	258	Diesel	KOHLER
RTF	25	45	Diesel	KOHLER
TPS	27	750	Diesel	KOHLER
REG	29	125	Diesel	KOHLER
RFI	194	45	Diesel	ONAN
GNAS	195	25	Diesel	KOHLER
VTD	204	50	Diesel	ONAN

<b>BUILDING LOCATIONSs</b>	<b>BUILDING #</b>	<b>KW SIZE</b>	<b>TYPE OF FUEL</b>	<b>MANUFACTURE</b>
WAREHOUSE #2	2	125	NATURAL GAS	OLYMPIAN
ANF-2	12	45	NATURAL GAS	KOHLER
CAMI #1	13	150	NATURAL GAS	CUMMINGS
BM	15	100	NATURAL GAS	ONAN
WHSE #3	24	500	NATURAL GAS	ONAN
ESS	152	230	NATURAL GAS	KOHLER
HW	207	18	NATURAL GAS	KOHLER
DRS	214	35	NATURAL GAS	KOHLER
TSF	215	100	NATURAL GAS	ONAN
RSF	217	20	NATURAL GAS	ONAN
ARS-11	219	16	NATURAL GAS	KOHLER
NETS	228	20	NATURAL GAS	CUMMINGS
SF	229	215	NATURAL GAS	CUMMINGS
SCC	230	350	NATURAL GAS	CUMMINGS
PTSF	232	30	NATURAL GAS	KOHLER
REG#2	29	150	NATURAL GAS	OYLMPIAN

