Defense Logistics Agency (DLA)

Defense Contract Services Office (DCSO)

Building Control Systems/Utility Control Systems (BCS/UCS)

Sample Task Order
For
Elevator Systems/ Electrical & Lighting Systems (Building)/ HVAC + BAS + Utility Metering Systems/ Electrical Distribution (Site) Routine and Ad-Hoc Components

Needs to cover requirements at the following location(s):

DLA Headquarters Complex, Fort Belvoir, VA (HQC)

TABLE OF CONTENTS

TABLE OF CONTENTS 2

C.1 GENERAL BACKGROUND INFORMATION 8

C1.1 Description of Services/Introduction 8
C1.2 Background 8
C1.3 Objective(s) 9
C1.4 Definitions/Acronyms 9

C.2 GENERAL INFORMATION 10

C2.1 Contract Type 10
C2.2 Place of Performance 10
C2.3 Period of Performance 10
C2.4 Business Hours 10
C2.5 Identification Badges 11

C.3 GOVERNMENT INFORMATION 12

C3.1 COR 12
C3.2 Government Furnished Property, Equipment and Services 12

C.4 CONTRACTOR INFORMATION 14

C4.1 Key Personnel 14
C4.2 Phase In/Out Period 14
C4.3 Outgoing Transition Plan 15
C4.4 Program Management Support 15
C4.5 Post Award Conference/Periodic Progress Meetings 15
C4.6 Supervision of Contractor Employees 16
C4.7 Meeting Attendance 16
C4.8 Government Kick-Off Meeting 16
C4.9 Monthly Status Report (MSR) and Briefing 16
C4.10 Contractor Furnished Items and Services 17
C4.11 Personnel Security Requirements 17
C4.12 Citizenship 17
C4.13 Installation Security 18
C4.14 Physical Security 18

C4.15 Identification of Contractor Personnel 19
C.5 Quality Control 21
C5.1 Quality Control Program 21
C5.2 Quality Control Plan 21
C5.3 Quality Assurance 21
C5.4 Acceptable Performance Levels 22
C5.5 Quality Assurance Surveillance Plan (QASP) 22
C.6 SECURITY/CYBERSECURITY REQUIREMENTS 23
C6.1 Personnel Requirements ..... **Error! Bookmark not defined.**
C6.2 Privileged Access ..... **Error! Bookmark not defined.**
C6.3 Cybersecurity Strength Requirements ..... **Error! Bookmark not defined.**
C6.4 Cybersecurity Assurance Requirements ..... **Error! Bookmark not defined.**
C6.5 Tasks and Deliverables ..... **Error! Bookmark not defined.**
C6.6 System and Network Requirements ..... **Error! Bookmark not defined.**
C6.7 Information and Operational Technology Infrastructure Requirements **Error! Bookmark not defined.**
C6.8 Deliverables ..... **Error! Bookmark not defined.**
C6.9 Information Security ..... **Error! Bookmark not defined.**
C6.10 Privacy Act Information ..... **Error! Bookmark not defined.**
C6.11 Sensitive Information ..... **Error! Bookmark not defined.**
C.7 SPECIFIC TASKS AND DELIVERABLES 24
C7.1 Elevator Specific Tasks 24
C7.1.1 Requirements/Specifications 24
C7.1.2 General Scope and Location Breakdown 24
C7.1.3 Replacement, Modernization, Renovation 26
C7.1.4 As-Built Drawings 26
C7.1.5 Service Order /Calls 26
C7.1.6 Service Order/Call Categories 27
C7.1.7 Maintenance Program 28
C7.1.8 Lift Equipment System Tests 31
C7.1.9 Routine / Preventive Maintenance 31
C7.1.10 Service Order/Call Classification 32
C7.1.11 Software Maintenance (SM) 34
C7.1.12 Replacement Parts/Products 34

C7.1.13 Changes to Lift Equipment Systems 36
C7.1.14 Warranties 36
C7.1.15 Work Conflicts 36
C7.1.16 Signage 36
C7.1.17 Required Contractor Training and Certifications 37
C7.1.18 Deliveries 38
C7.2 Electrical and Lighting (Building) Systems Specific Tasks 38
C7.2.1 Requirements / Specifications 38
C7.2.2 General Scope and Location Breakdown 38
C7.2.3 Replacement, Modernization, Renovation 49
C7.2.4 As-Built Drawing 49
C7.2.5 Initial Site Assessment Survey 50
C7.2.6 Service Orders 51
C7.2.7 Service Order/Call Categories 51
C7.2.8 Operation and Maintenance Program 53
C7.2.9 Routine/Preventive Maintenance 54
C7.2.10 Proactive Facility Tours 55
C7.2.11 Facility Related Control Systems (FRCS) 56
C7.2.12 Operations Support 58
C7.2.13 Required Contractor Training and Certifications 58
C7.2.14 Contractor Personnel 58
C7.2.15 Building Operations 64
C7.2.16 Material 65
C7.2.17 Replacement Parts/Products 65
C3.2.18 Warranty 65
C7.2.19 Deliveries 66
C7.3 HVAC, BAS, and Utility Metering Specific Tasks 66
C7.3.1 Requirements/Specifications. 66
C7.3.2 General Scope and Location Breakdown. 67
C7.3.3 Replacement, Modernization, Renovation. 68
C7.3.4 As-built Drawings 68
C7.3.5 Initial Site Assessment Survey 69
C7.3.6 Service Orders 70
C7.3.7 Service Order/Call Categories 70

C7.3.8 Operation and Maintenance Program 72
C7.3.9 Routine/Preventive Maintenance 73
C7.3.10 Proactive Facility Tours 81
C7.3.11 HVAC Building Automation Controls 82
C7.3.12 Corrective Maintenance Service Order Proposals 83
C7.3.13 Building Operations 84
C7.3.14 Replacement Parts/Products 86
C7.3.15 Warranty 86
C7.3.16 Contractor Personnel 86
C7.3.17 Deliveries 93
C7.4 Electrical Distribution System (Site) Specific Tasks 93
C7.4.1 Requirements / Specifications 94
C7.4.2 General Scope and Location Breakdown 94
C7.4.3 Replacement, Modernization, Renovation 107
C7.4.4 As-Built Drawing 108
C7.4.5 Initial Site Assessment Survey 108
C7.4.6 Service Orders 109
C7.4.7 Service Order/Call Categories 110
C7.4.8 Operation and Maintenance Program 111
C7.4.9 Routine/Preventive Maintenance 112
C7.4.10 Proactive Facility Tours 114
C7.4.11 Site Utility Control Systems 115
C7.4.12 Corrective Maintenance Service Order Proposals 117
C7.4.13 Building Operations 117
C7.4.14 Replacement Parts/Products 118
C7.4.15 Equipment Warranty 118
C7.4.16 Contractor Personnel 118
C7.4.17 Deliveries 125
C7.5 Deliverable (s) 125
C7.5.1 Documentation and Records 125
C7.5.2 Monthly Progress Report 125
C7.5.3 Project Management 126
C7.6 Enterprise Business System (EBS) – Plant Maintenance 127
C8. APPLICABLE STANDARDS 128

C8.1 Site Requirements 128
C8.1.1 Facility Security Clearance 128
C8.1.2 Building Security 129
C8.1.3 Driving on HQC 130
C8.1.4 Parking 131
C8.1.5 Weapons on Center 131
C8.1.6 Key Control 131
C8.1.7 Escorted Areas 132
C8.1.8 Protection and Damage 132
C8.1.9 Cleanup 132
C8.1.10 Locating Underground Utilities 132
C8.1.11 Underground Storage Tanks 132
C8.1.12 Utility Outages 132
C8.1.13 Service Interruption 133
C8.2 Safety Requirements 133
C8.2.1 Safety Program 133
C8.2.2 Burning Permits 134
C8.2.3 Fire Alarm Disable Request 135
C8.2.4 Fire Protection and Prevention 135
C8.3 Environmental Compliance 135
C8.3.1 Environmental Requirements 135
C8.3.2 Environmental Protection Plan (EPP) 136
C8.3.3 Environmental Brief 136
C8.3.4 Environmental Coordinator 136
C8.4 Refrigerant 137
C8.4.1 Refrigerant Leak Rates 137
C8.4.2 Leak Rate Calculations 137
C8.4.3 Appliance Repair 138
C8.4.4 Leak Inspections 138
C8.4.5 Refrigerant Retrofit or Retirement Plans 139
C8.4.6 Chronically Leaking Appliances 139
C8.4.7 Recordkeeping and Reporting Requirements 139
C8.5 Potable Water Systems 140
C8.5.1 Drinking Water 140

C8.5.2 Storm Water Management 140
C8.6 Hazardous Waste 140
C8.6.1 Safety Requirements 141
C8.6.2 Safety Plan 141
C8.6.3 Facility Hazards and Accidents 141
C8.7 Electrical Safety 141
C8.7.1 Lock Out/Tag Out 142
C8.7.2 Fall Protection 142
C8.7.3 Confined Space Entry 142
C8.7.4 Labeling and Signage 142
C9 ATTACHMENTS AND FORMS 143
ATTACHMENT 1 – SITE SPECIFIC DEFINITIONS AND ACROYNMS 143
ATTACHMENT 2 – TECHNICAL REFERENCES & CODES 147
ATTACHMENT 3 – CAC PROCEDURES 149
ATTACHMENT 4 – TECHNICAL EXHIBIT LIST 150
ATTACHMENT 5 – DOCUMENTATION OF SERVICE FORM 151
ATTACHMENT 6 – PERFORMANCE REQUIREMENTS SUMMARY (PRS) 152
ATTACHMENT 7 – OPEN/CLOSED LOOP WATER LIMITS 157
ATTACHMENT 8 – INVENTORY LISTS 159

C.1 GENERAL BACKGROUND INFORMATION

C1.1 Description of Services/Introduction

C1.1.1 This is a non-personal services Task Order (TO) to provide and implement a comprehensive program for the operation, maintenance, repairs, service, testing, inspection, and certification of Elevator Systems, Electrical & Lighting Systems (Building), HVAC + BAS + Utility Metering Systems, Electrical Distribution Systems (Site), and Life Cycle Management Cyber Security at the following location:

- **DLA Headquarters Complex, Fort Belvoir, VA (HQC)**

C1.1.2 The prime contractor shall furnish all management, labor, supervision, tools, materials, equipment, incidental engineering, and transportation necessary to perform maintenance service work to meet or exceed general craft and industry standards, applicable laws, regulations, codes and Federal specifications for the buildings and structures identified within this document.

C1.2 Background

C1.2.1 The Defense Logistics Agency (DLA) is a United States (U.S.) Department of Defense (DoD) agency providing worldwide logistics support to the missions of the Military Departments and the Combatant Commands.

C1.2.2 DLA Installation Management (DM) is responsible for new construction (MILCON or Capital expenditures), System Maintenance of all Site equipment, and Facilities Related Control Systems (FRCS). DM serves as the functional and doctrinal proponent for all real property system requirements, policies, and procedures including industry standards, The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), United Facilities Criteria (UFC) and National Fire Protection Association (NFPA), National Electric Code (NEC), International Building Code (IBC), American Society of mechanical Engineers (ASME) code. Institute of Electrical and Electronic Engineers Code (IEEE), State and Local Codes, and Department of Defense (DoD) installation policy.

C1.2.3 The Defense Logistics Agency (DLA) McNamara Headquarters Complex (HQC), located on Fort Belvoir, Virginia, 8725 John J. Kingman Road, Fort Belvoir, VA 22060-0621, is a significant facility supporting the mission of the Warfighter. The HQC spans 75 acres and includes a 1.2 million square foot Headquarters Office Building. In addition to traditional office spaces, it houses several secure facilities, a cafeteria, a barbershop, a fitness center, two snack bars, three access gates, visitors control center, recreational building, irrigation well house, three story parking garage, CDC, out control structure, as well as material receiving and screening facility.

C1.2.4 This contract will encompass a wide array of Building Control Systems (BCS) and Utility Control System (UCS) equipment. These control systems ensure the proper function of the

systems to meet minimum efficiency and code related criteria. A control system (CS) as it pertains to Facility Related Control System (FRCS) can have many levels. The Equipment level can include multiple pieces of factory supplied equipment directly connected to create a manufacturer system to optimize efficiency. The Building Level consists of a building level controller(s), dedicated communication trunks (LON, BACnet, MODBUS, N2, other proprietary communications protocols), field level devices, sensors, actuators, or other devices.

C1.3 Objective(s)

C1.3.1 This TO PWS acquisition is intended to support Elevator Systems, Electrical & Lighting Systems (Building), HVAC + BAS + Utility Metering Systems, Electrical Distribution Systems (Site) equipment, FRCS requirements, and sustainment support for the DLA Headquarters at Ft. Belvoir, - These duties include, but are not limited to:

1. Day-to-day maintenance and sustainment for both equipment and FRCS.
2. Performing scheduled preventive, predictive maintenance, and asset management functions to ensure the long-term efficient operation of facility infrastructure.
3. Performing scheduled and unscheduled maintenance, repairs, and replacements as needed on infrastructure components.
4. Maintaining operations and maintenance & repair records for all infrastructure components in electronic format.
5. Maintaining the inventory and electronic inventory records for the consumable supplies needed for system sustainment and maintenance.
6. Information technical networking support (ITNS) of the systems includes but not limited to cybersecurity, networking, server and client administration, database management, and Information System Security Engineering (ISSE), cybersecurity/system administration for the FRCS.

C1.3.2 The operations will be performed to comply with all federal, state, and local laws and regulations. The services shall be provided in a safe, secure, effective, and efficient manner and shall meet the highest standards prevalent in industry.

C1.4 Definitions/Acronyms

C1.4.1 DEFINITIONS: Refer to Task Order ATTACHMENT 1: SITE SPECIFIC DEFINITIONS AND ACRONYMS and **IDIQ PWS ATTACHMENT 1: DEFINITONS AND ACRONYMS.**

C.2 GENERAL INFORMATION

C2.1 Contract Type

C2.1.1 The Government will award a Firm Fixed Price task order for routine and ad hoc work.

C2.2 Place of Performance

C2.2.1 The work to be performed under this TO shall be performed at Government facilities located on DLA, Andrew T. McNamara Headquarters Complex (HQC), 8725 John J. Kingman Road, Fort Belvoir, VA 22060-0621. Work may be performed at other location(s), when feasible and upon approval by the COR, work shall be performed at remote locations.

C2.3 Period of Performance

C2.3.1 The period of performance shall be for one (1) base year of 12 months and four (4) 12-month option years.

Base Year:	1 November 2025 – 31 October 2026
Option Year I:	1 November 2026 – 31 October 2027
Option Year II:	1 November 2027 – 31 October 2028
Option Year III:	1 November 2028 – 31 October 2029
Option Year IV:	1 November 2029 – 31 October 2030

C2.4 Business Hours

C2.4.1 The contractor shall conduct business between the hours of 06:00 A.M. through 06:00 P.M. Eastern Time, Monday through Friday, except Federal holidays or when Government facilities are closed due to emergencies, administrative closings or similar Government directed facility closings. See details in section C3 Specific Tasks and Deliverables.

Federal Holidays are as follows:

New Year's Day	1st day of January
Martin Luther King Jr.'s Birthday	3rd Monday of January
Presidents' Day	3rd Monday of February
Memorial Day	Last Monday of May
Juneteenth	19th Day of June
Independence Day	4th day of July
Labor Day	1st Monday of September
Columbus Day	2nd Monday of October
Veterans Day	11th day of November
Thanksgiving Day	4th Thursday of November
Christmas Day	25th day of December

C2.5 Identification Badges

C2.5.1 Contractor employees (including those of subcontractors) requiring physical access to the contractual place of performance and/or access to the DLA network/system for successful contract performance will be required to obtain a Common Access Card (CAC) prior to starting work. Lost or stolen CACs must be promptly reported by the Contractor to the KO or their authorized representative and to the appropriate Government security personnel. The Government will retain sole decisional authority on the issuance of a replacement CAC.

C.3 GOVERNMENT INFORMATION

C3.1 COR

The person whom the KO will designate by name or position title to act as intermediary between the Contractor and the KO on matters pertinent to this contract and be his/her authorized representative.

C3.2 Government Furnished Property, Equipment and Services

C3.2.1 All Government-furnished property (GFP) will be provided in accordance with FAR 52.245-1, and FAR 52.245-9. The Government will provide access to standard office-related Government Furnished Equipment/Information/Software (e.g., computers, office cubicle space with desk, cabinets and chair, network access, Command Access Card (CAC), CAC readers, phone service, database, office supplies, and networked printer capabilities) while working in Government spaces for the subject task order. Government property shall be used ONLY in the performance of this task order. The Contractor is accountable for all property provided by the Government and shall be responsible for the security and condition of said property. All GFP is the property of the U.S. Government and shall not be transferred to any individual, or agency, public or private without the express written approval of the Contracting Officer.

C3.2.2 The Contractor shall provide a method of tracking and managing GFP. Serialized items shall be annotated at the time of issue, with a signature of acknowledgement by the individual Contractor(s).

C3.2.3 Government personnel will determine property disposition, acquisitions, and final acceptance of deliveries of Government services/supplies.

C3.2.4 Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, items of Government property, that are removed from the installation/premises by the Contractor.

C3.2.5 Government telephones shall not be used for personal reasons, for any toll or long-distance calls unless authorized by the COR. Telephone access will be made available for the Contractor's use for local calls only. Long distance and toll calls require prior authorization by the COR and will be limited to credit cards only. Telephone billing will be monitored by the COR monthly. Unauthorized calls by the Contractor will be reported for resolution.

C3.2.6 As-built drawings and Operation and Maintenance (O&M) manuals will be made available for Contractor use during the term of the contract to the extent that these resources are available.

C3.2.7 The Government will provide the contractor with access to the EBS system via a computer terminal at HQC.

C3.2.8 The Government shall provide a two-way radio to all Maintenance Mechanics for use while in the HQC and shall be used to contact Maintenance personnel during normal duty hours.

C3.2.9 The Government shall furnish the utility services and existing electrical outlets, for use in the work to be performed under this contract.

C3.2.10 The Government shall furnish the contractor with office space and a Government owned computer in the A/B elevator penthouse.

C3.2.11 Refer to section C7 Specific Tasks and Deliverables for other details.

C.4 CONTRACTOR INFORMATION

C4.1 Key Personnel

C4.1.1 Certain experienced professional and/or technical personnel are essential for successful accomplishment of the work to be performed under this TO. These "Key Personnel" shall be identified by name within the Contractor's Task Order Proposal (TOP) and their qualifications shall be submitted with letters of commitment for evaluation during the source selection process. The Contractor agrees that such personnel shall not be removed or replaced within the performance of this contract unless the following measures are taken and fully documented in writing. See details in section C7 Specific Tasks and Deliverables.

C4.1.2 If the key personnel, for any reason, becomes or is expected to become unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the Contractor shall, subject to the concurrence of the Contracting Officer, promptly replace personnel with personnel who possess equal, or better, qualifications as the original employee.

C4.1.3 All requests for approval of substitutions hereunder must be in writing and provide a detailed explanation of the circumstances necessitating the proposed substitutions. The request shall contain the qualifications for the proposed substitute and any other information requested by the Contracting Officer. The Contracting Officer must concur in writing with the change.

C4.1.4 Key Personnel include the following: (refer to section C.7 Specific Tasks and Deliverables).

C4.1.5 Knowledge Skills and Abilities of other Personnel: Other personnel on the Task Order should have the following qualifications: (refer to section C.7 Specific Tasks and Deliverables).

C4.2 Phase In/Out Period

C4.2.1 To minimize any decreases in productivity and to prevent possible negative impacts on additional services, the Contractor shall have personnel on board, during the thirty (30) day phase in/ phase out periods. During the phase in period, the Contractor shall become familiar with performance requirements to commence full performance of services on the contract start date.

C4.2.2 The Contractor shall provide a plan 30 days after award. The Contractor shall coordinate with the Government in planning and implementing a complete transition to the Contractor's support model. The Contractor shall collaborate with the Government to develop and deliver an Incoming Transition Plan. The Government will designate a transition period for the incoming

Contractor to coordinate and work with the incumbent Contractor, if applicable. The transition plan shall include, but is not limited to the following:

1. Coordination with Government representatives.
2. Review, evaluation, and transition of current contract requirements.
3. Government-approved training and certification process.
4. Transfer of hardware warranties and software license.
5. Transfer of Government Furnished Equipment (GFE)
6. Coordinate with the Government to account for Government keys, ID/access cards, and security codes.

C4.3 Outgoing Transition Plan

C4.3.1 The Contractor shall provide an Outgoing Transition Plan a minimum of 60 days before the contract end date. The plan shall account for 30 days of outgoing transition for transitioning work from an active contract to a follow-on contract/order or Government entity. This transition may be to a government entity, another contractor or to the incumbent contractor under a new contract/order. In accordance with the Government-approved plan, the Contractor shall assist the Government in planning and implementing a complete transition from this Contract and/or orders issued under this Contract to a successful provider. This shall include formal coordination with Government staff and successor staff and management. This transition plan shall include, but is not limited to:

1. Coordination with Government representatives
2. Review, evaluation, and transition of current contract requirements
3. Transfer of hardware warranties and software licenses
4. Transfer of all necessary technical documentation
5. Transfer of Government Furnished Equipment (GFE)
6. Turn-in of all Government keys, ID/access cards, and passwords

C4.4 Program Management Support

C4.4.1 The Contractor shall provide complete program management support that fully integrates, manages, controls, and documents all phases of the PWS requirements. The Program Manager shall be the focal point for all issues involving execution of this Task Order and shall keep the Government fully informed, both verbally and in writing.

C4.5 Post Award Conference/Periodic Progress Meetings

C4.5.1 The Contractor shall attend any post award conference convened by the contracting activity or contract administration office IAW Federal Acquisition Regulation (FAR) Subpart 42.5(a) (b), Post Award Orientation. The Contracting Officer, CORs, and other Government personnel, as appropriate, may meet periodically with the Contractor to review the Contractor's

performance. At these meetings, the Contracting Officer or designated representative will apprise the Contractor of how the Government views the Contractor's performance and the Contractor shall apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

C4.6 Supervision of Contractor Employees

C4.6.1 The Government will not exercise any supervision or control over Contractor or Subcontractor employees while performing work under the contract. Such employees shall be accountable solely to the Contractor, not the Government. The Contractor, in turn, shall be accountable to the Government for Contractor or Subcontractor employees.

C4.7 Meeting Attendance

C4.7.1 The Contractor shall attend meetings, briefings, planning sessions, conferences, and events both locally and at remote locations. Guidance for Contractor travel can be found in FAR 31.205-46(a). All requests for travel shall be approved by the COR prior to incurring cost, as travel will be reimbursed IAW the FAR. The proposed travel shall include the anticipated costs for the travel for review by the COR. Requests for travel approval shall be prepared in a legible manner, include a description of proposed travel, a list of travelers with all proposed costs, the contract number, Contract Line-Item Number (CLIN), and be submitted to the COR at least 48 hours prior to travel.

C4.8 Government Kick-Off Meeting

C4.8.1 The Contractor shall participate in a Government-scheduled, Kick-Off Meeting after TO award. The purpose of this Kick-Off Meeting is to: (1) aid both the Government and Contractor personnel in achieving a clear and mutual understanding of all requirements; and (2) identify and resolve potential problems. The Contractor shall be prepared to discuss any issues requiring clarification. The Kick-Off Meeting shall include as a minimum: a program review, and personnel and physical security issues.

C4.9 Monthly Status Report (MSR) and Briefing

C4.9.1 The Contractor shall provide a MSR and briefing that analyzes the Task Order status and provides TO's accounting information. The MSR is due on the 15th of every month. The MSR shall include the following elements:

- A summary of work performed by each specific task area for the reporting period
- A summary of problems encountered and recommended solutions
- A summary of problems anticipated and preventive measures.
- A summary of training and certifications completed or outstanding

C4.10 Contractor Furnished Items and Services

C4.10.1 General. The Contractor shall furnish all supplies, equipment, facilities and services required to perform work under this contract that are not listed under Part 3 of this PWS.

C4.10.2 Contract and Task Order Management**.** The Contractor shall provide all management, administration, security, quality control, and all else required to ensure successful completion of the awarded Task Order.

C4.10.3 Personnel**.** The Contractor shall furnish adequate supervision, including an on-site Task Order Lead and the labor necessary to perform all services in an orderly, timely, and efficient manner. The Program Manager shall have the authority to act on behalf of the Contractor. The Contractor shall use qualified and experienced employees capable of achieving the goals established in the task order. All personnel shall maintain current qualifications and obtain all training required to meet mission requirements. Contractor personnel are employees of the Contractor and under its administrative control and supervision. The Contractor, through its personnel, shall perform the tasks ordered herein.

C4.10.4 Personal Services**.** The contractor shall select, supervise, and exercise control and direction over his employees under this contract. The Government will not exercise any supervision or control over the Contractor's employees in performance of contractual services under this contract. The Contractor shall ensure that no prohibited personal services (as described in FAR 37.104) are performed under this contract.

C4.10.5 Work Products**.** In advance of beginning work on specific work products, the Contractor's PM shall coordinate product timelines and format with the Primary COR and/or designated Government official in instances where this PWS or available guidance doesn't establish timelines or format. All Contractor work products shall first be submitted for review and approval by a Supporting COR and/or designated Government official.

C4.10.6 Refer to section C7 Specific Tasks and Deliverables for other details.

C4.11 Personnel Security Requirements

Most work to be performed under this requirement is unclassified, however, a security clearance may be required at some locations to allow unescorted access within certain buildings. Security clearance requirements will be further defined at the Task Order level. All Contractor personnel proposed to work on the network, or any IT capabilities/functions (at a minimum) will be required to have a Tier 1(T1), Tier 3 (T3), or Tier 5 (T5). See C8.1 Site Requirements for specific requirements.

C4.12 Citizenship

C.4.12.1 Each Contractor employee shall be a citizen of the United States of America, or an alien who has been lawfully admitted for permanent residence, or who presents evidence from the Immigration and Naturalization Service that employment will not affect his immigration status.

C4.13 Installation Security

C4.13.1 Contractor Security Regulations and Conduct. The Contractor or any visitors of the Contractor entering DoD locations to perform the contract requirements shall abide by all security regulations and may be subject to security inspections. Contractor personnel and property shall be subject to search and seizure upon entering, while on, and upon leaving the DoD locations pursuant to regulatory guidance.

C4.13.1.1 All Contractor personnel shall always conduct themselves IAW acceptable business decorum. The Contractor shall remove any individual from the site whose continued presence or employment on this contract is deemed by the KO or designee to be contrary to the public interest, adversely affect health, morale, welfare, or good order and discipline on the installation, or is inconsistent with the best interests of national security. IAW USC Title 18, Crimes and Criminal Procedure, Part I, Crimes, Chapter 67, Military and Navy, Section 1382, the Installation Commander has the authority to bar individuals from the host installation.

C4.13.1.2 In the event of a strike by Contractor personnel, the Contractor shall be responsible for the cost of any increased security as determined necessary by the Installation or DLA Site Commander/Director.

C4.13.1.3 The Contractor shall report immediately to the KO or designee any suspected, alleged, or actual criminal incidents IAW DLAI 5105 Reporting of Criminal Incidents.

C4.13.2 Contractor Vehicles. The Contractor shall register all Contractor vehicles used in performance of the contract requirements and ensure that Contractor employee vehicles to be driven on the host installation, to include motorcycles, are registered with the host installation security office and are in conformance with State and local regulations in effect at the time of registration and as long as employed by the Contractor. Evidence of a valid driver's license, vehicle registration card, and insurance are required for registration. Contractor employees shall maintain current registration and proof of insurance on all Privately-Owned Vehicles (POV) brought on host installation. The Contractor shall maintain current registration and proof of insurance on all Contractor-owned vehicles brought on the host installation.

C4.13.2.1 The Contractor and its employees shall abide by host installation parking regulations. All vehicles shall be parked in designated parking areas only. The Contractor and its employees shall conform to Federal, State and host installation driving regulations.

C4.14 Physical Security

C4.14.1 Contractor Control Access. The Contractor shall control access by locking or unlocking the areas or facilities used by the Contractor in the performance of the contract requirements. The Contractor shall lock all overhead doors, cages, vaults, warehouse doors, windows, and other areas for reasons of internal security before leaving an area unattended and prior to the conclusion of any working day.

C4.14.2 The Contractor shall operate under the site's approved security plan.

C4.14.3 In the event a Contractor area is found unsecured or there is an alarm response during non-duty hours, the Contractor's designated Point of Contact (POC) will be required to secure the area. The Contractor shall inform the KO or designee of the results of the alarm response. The Contractor shall report any facility security violations to the KO or designee within one (1) hour of discovery.

C4.14.4 Physical Security Reporting and Working Groups. Upon request of the KO or designee, the Contractor shall prepare and provide reports to update progress on all recommended corrective actions stemming from Government inspections or assessments conducted at the site (i.e., Security Program Review (SPR), OPSEC/INFOSEC inspections, Vulnerability Assessments (VA), DoD and DLA regulations or policies etc.)

C4.14.4.1 The Contractor's Security Specialist shall participate in working groups (i.e., Physical Security Anti-terrorism, Force Protection and OPSEC), if requested.

C4.14.5 Key Control. The Contractor shall establish and maintain a Key and Lock Control Program as part of their Physical Security SOP, IAW DLAM 5200.08 DLA Physical Security Manual. The Contractor shall safeguard keys provided by the Government. The Contractor shall designate in writing to the KO or designee a key custodian to manage the key control program by the start of full performance.

C4.14.5.1 The Contractor shall develop and maintain a roster of employees with key or lock access requirements for key control boxes or equivalent system IAW DLAM 5200.08 DLA Physical Security Manual. The Contractor shall provide the KO or designee updated rosters as information changes. At all times the Contractor shall keep all keys within the Key and Lock Control Program under continuous accountability and shall limit the number of individuals authorized to draw keys to the minimum required by security and operational requirements.

C4.14.5.2 The Contractor shall not duplicate keys or allow their use by unauthorized Contractor personnel. The Contractor shall report any deviation from these rules or lost keys to the KO or designee within one (1) hour after discovery of occurrence and submit a detailed written report by close of business (COB) the same working day. If lost keys are discovered at the end of the day, and it is not possible to submit a written report to the KO or designee by COB the same working day, the Contractor shall submit the report within two (2) hours of the beginning of business on the next working day. The Contractor shall reimburse the Government for all costs associated with replacing locks or re-keying as a result of key duplication or loss.

C4.15 Identification of Contractor Personnel

C4.15.1 The Homeland Security Presidential Directive 12 (HSPD-12) dated 27 September 2012 has established criteria for Contractors who require a Common Access Card (CAC) for either physical access to an installation or access to government information technology (IT) systems. The Government requires Personnel Security Investigations (PSI) to establish that applicants or incumbents, either employed by the Government or working for the Government under contract,

are suitable for the job and are eligible for a public trust or sensitive position. Upon favorable review and initiation of the PSI, Contractor personnel may be granted temporary access pending final adjudication of the PSI.

C4.15.2 A Contractor Investigative Request (CIR) form annotating the appropriate designation shall be submitted for each contract employee.

C.5 Quality Control

C5.1 Quality Control Program

C5.1.1 A Quality Control Program (QCP) shall be developed and implemented by the Contractor. The Contractor's QCP shall ensure Contract compliance, and act to ensure that potential problems with building services, equipment and systems are identified, documented, and resolved prior to failure. The Contractor shall create and implement data collection and analysis plans to continually monitor and improve efficiency in operations, resource consumption, environmental impact and tenant satisfaction. In the event the Government Quality Assurance Program identifies deficiencies the Contractor shall implement progressively responsive quality control measures commensurate with the severity of the Government's deficiencies. Deficiencies identified by the QCP or QASP shall be recorded in EBS.

C5.2 Quality Control Plan

C5.2.1 The "Quality Control Plan" (QC plan) is the Contractor's complete written system for identifying and correcting deficiencies and monitoring and improving efficiencies to continually improve the quality of services provided. Preparation of the QC plan is the responsibility of the Contractor and is due with the Contractor's proposal.

C5.2.2 The QC plan, revisions or updates shall be submitted for approval by the KO or designee. A review of the QC Plan can be initiated by direction of the CO or designee.

C5.2.3 The QC plan shall detail the Contractor's methods, frequencies, documentation, and remedies for ensuring that all aspects of contract work performed is of the highest quality. It shall describe procedures for correcting problems, data gathering, improving efficiencies, and addressing quality assurance findings by the Government. The Contractor shall further customize the QC plan to meet facility specific conditions. The QC plan shall describe the Contractor's overall approach, methods, roles and responsibilities relating to Quality Control of all areas of contract work including service calls, preventive maintenance/inspection schedules, and operating data collection and analysis. The revised QC plan is to be submitted for review and approval to the CO or designee within 30 calendar days of Contract start date.

C5.3 Quality Assurance

C5.3.1 The Government's role in quality assurance is to ensure that the Contractor is achieving the quality levels established in the operation and maintenance services contract and focuses on the Contractors' QC plan. The Government periodically validates the execution of the Contractor's QCP by reviewing such areas as the Contractor's inspection forms, service request logs, tenant reports, tenant satisfaction surveys, EBS surveys, and the timeliness of corrective actions.

C5.3.2 As part of the Government's quality assurance program, the Government may:

- Review and, if warranted, reject any reports or other submittals required from the Contractor.
- Review performance and service records, including monthly progress reports, BAS data, EBS data, and any computerized or hard copy records maintained by the Contractor documenting performance under this Contract, and require correction of any unsatisfactory conditions noted.
- Determine the adequacy of the Contractor's QCP and documentation and the overall success of this program. The Government shall order improvements, if it determines the program is insufficient or ineffective.

C5.3.3 Obtain tenant satisfaction and EBS survey information and require improvements in service based on such information to the extent such results correlate with deficiencies in Contract requirements.

C5.3.4 Conduct physical inspections of facility equipment and systems, including programs and files maintained on computers in Contractor onsite offices and work areas, and require correction of deficiencies noted.

C5.3.5 Perform inspections with Government personnel or independent third-party inspectors.

C5.4 Acceptable Performance Levels

C5.4.1 The following table identifies the Acceptable Performance Levels (APLs) for services required for Preventive and Remedial Maintenance as defined in this P W S . A **"Minor**" deficiency will be is defined as an error, occurrence, or actions that do not impact material support, (e.g., administrative, filing, typographical, e t c .) . A **"Significant**" error is defined as an error, occurrence, or action that results in a delay or re-works impacting material support.

C5.5 Quality Assurance Surveillance Plan (QASP)

C5.5.1 The Government will evaluate the Contractor's performance IAW the TO Quality Assurance Surveillance Plan (QASP) prepared by the Government. The Contractor's performance shall adhere to the metrics in the TO Performance Requirements Summary (PRS) (see attachment in IDIQ PWS).

C5.5.2 Contractor compliance with the performance standards will be tallied for Contractor Performance Assessment Reporting System (CPARS) reporting periods and the results of the data will be used to substantiate objective CPARS ratings of Contractor performance.

C5.5.3 Contractor's failure to meet or to demonstrate an attempt to meet performance metrics may result in the Government not exercising optional option year periods.

C.6 SECURITY/CYBERSECURITY REQUIREMENTS

See Section C.4 Security/Cybersecurity in the BASE PWS for specific Security/Cybersecurity Requirements.

C.7 SPECIFIC TASKS AND DELIVERABLES

C7.1 Elevator Specific Tasks

The contractor shall provide the expertise necessary to successfully execute the Vertical Lift/Elevator Service task order.

C7.1.1 Requirements/Specifications

C7.1.1.1 The Contractor shall provide all management, tools, supplies, parts, material, equipment, subcontractors, and labor necessary to maintain, repair, test or modify the elevators (to include equipment, safety devices, annunciators, computer and electronic systems, portable UPS devices, and Campus View Monitoring system) at The McNamara Headquarters Complex (HQC), Fort Belvoir, VA 8725 John J. Kingman Road, Fort Belvoir, VA 22060-6220 in a manner that will ensure continuous, reliable, and safe operation.

C7.1.2 General Scope and Location Breakdown

C7.1.2.1 The purpose of this task order is to maintain existing lift equipment, such as elevators and vertical lifts, located throughout the Headquarters, Defense Logistics Agency, Fort Belvoir site in good operating condition. Lift equipment, as used throughout this document, refers to elevators and vertical lifts installed in the McNamara Complex.

C7.1.2.2 The basis of all work defined herein is taken from the American Society of Mechanical Engineers (ASME), Chapter A17. The Scope of Work shall include two types of service orders/calls as follows:

- Routine/Preventive Maintenance of elevator and vertical lift equipment includes the routine inspection and testing to assure operability and reliability of active components in the event these components are called into service. Routine/preventive maintenance is scheduled maintenance and occurs during normal business hours.

- Non-Routine / Ad Hoc is all alterations or repairs or equipment replacement with an estimated material/non-direct labor value greater than an elevator discipline threshold of $50,000.01 (material and non-direct labor cost only) will be considered a Non-Routine/Ad Hoc repair and requires a separate Non-Routine/Ad-Hoc Task Order. The Government is responsible for funding all Non-Routine/Ad-Hoc Task orders above the elevator discipline threshold.

C7.1.2.3 The Inventory List in attachment section is provided to identify each building located on this installation containing lift equipment that will be serviced by this contract.

C7.1.2.4 This is a non-personal services contract to provide maintenance and repair on elevators at the Headquarters, Defense Logistics Agency, Fort Belvoir site. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the Contractor who, in turn is responsible to the Government. The Government will not control the methods used by the Contractor to perform the service requirements set forth in the PWS.

C7.1.2.5 The Contractor shall furnish all labor, supervision, tools, materials, equipment, transportation, and management necessary to provide inspection, testing, and maintenance of lift equipment on the Headquarters, Defense Logistics Agency, Fort Belvoir site.

C7.1.2.6 This contract will initially service 25 elevators and 1 vertical lift on the Site.

C7.1.2.7 With the ongoing effort of building consolidation and expansion, the Government reserves the right to ADD to or DELETE systems from the contract anytime during the period of the contract as the need arises.

C7.1.2.8 There are a total of 25 elevators spread across 9 elevator banks located in three different buildings on campus. Building 2462 is five stories and contains 16 passenger and 2 freight traction elevators. POD 10 is five stories and contains 6 passenger traction elevators. The parking garage is three stories and contains a single hydraulic passenger elevator with a capacity of 3,500 lb. The systems and equipment to be serviced under this contract include the following:

HQC, Dover Elevator = 16 Traflomatic IV, 3,500 LBS Passenger

HQC, Dover Elevator = 2 Traflomatic IV, 10,000 LBS Freight

POD 10 Swift Meridia HPV-900 5 = 3,500 LBS Passenger

POD 10 Swift Meridia HPV-900 1 = 5,000 LBS Freight

Parking Garage, Swift Meridia 1 = 3,500 LBS Passenger

Fitness Center, G & T Inc 2 = 750 LBS Wheelchair

Fitness Center, AEMA 2 = 750 LBS Wheelchair

C7.1.2.9 All work shall be performed by personnel specifically qualified and trained to work on lift equipment systems. See section C3.1.17 Required Contractor Training and Certifications, below for specific requirements for these individuals. All work shall be completed in accordance with the requirements specified herein.

C7.1.2.10 All workmanship shall meet the standards specified herein and shall be accomplished in conformance with approved and accepted standards of the industry; equipment manufacturers; all applicable Federal, State, and Local standards; and all applicable building and safety codes.

C7.1.2.11 When the Contractor completes work on a system or piece of equipment, that system or piece of equipment shall be free of missing components or defects that would prevent it from functioning as originally intended and designed. All repair or replacement work shall be carried to completion including operational checks and cleanup of the job site, except where otherwise noted or directed by the COR.

C7.1.2.12 Safety Hazards: The Contractor shall immediately notify the COR and the Building Manager of any recognized safety hazard that might adversely affect building occupants.

C7.1.3 Replacement, Modernization, Renovation

C7.1.3.1 During the terms of this contract, the Government may operate, repair, replace, renovate or improve equipment, systems, facilities, or components at the Governments expense by means not associated with this contract. All replaced improved, updated, modernized, or renovated equipment, facilities, components or systems shall be maintained by the Contractor at no additional cost to the Government unless such changes result in an increase or decrease in contract requirements.

C7.1.4 As-Built Drawings

C7.1.4.1 The Government will provide access to as-built drawings, manufacturer's requirements and other maintenance related documents and manuals as needed, after contract award. However, the Contractor is responsible for field verifications as well as accuracy of all government provided materials as requested by the Government. If while performing the work contained in this PWS the contractor constructs or installs any new structure or equipment, as-built drawings shall be provided to the Government prior to acceptance by the COR.

C7.1.4.2 The Government will provide access to network diagrams, export nodes, hardware software inventories and other related documents as needed from a recently performed OT inventory, after contract award. However, the Contractor is responsible for field verifications as well as accuracy of all government provided materials as requested by the Government. If while performing the work contained in this PWS the contractor constructs or installs any new structure or equipment, updated artifacts shall be provided to the Government prior to acceptance by the COR.

C7.1.5 Service Order /Calls

C7.1.5.1 A service order/call is defined as maintenance work which involves the repair or replacement of components which have failed or broken down and were discovered and requested by the Government. All service orders/calls (emergency, urgent or routine/preventive) with an estimated value less than the elevator discipline threshold each shall be included in the firm fixed price of the contract and included in the Routine/Preventive Maintenance. A service order/call (emergency, urgent or routine/preventive) with an estimated material value greater than the elevator discipline threshold will be considered a Non-Routine/Ad Hoc repair.

C7.1.6 Service Order/Call Categories

C7.1.6.1 The Contractor shall have adequate procedures for receiving and responding to service orders/calls 24 hours per day, seven days a week, including weekends and holidays. The Contractor shall provide primary and secondary local or toll-free telephone numbers for receipt of all service orders/calls. All telephone calls shall be answered by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. **Service orders/calls shall be considered received by the Contractor at the time and date the telephone call is placed by the COR.** The COR shall define the type of service order/call being made. The Contractor's response to service orders/calls shall depend on the type of service required as follows:

C7.1.6.2 Emergency Calls. The contractor shall respond to emergency repair calls and trapped calls via a Government provided radio within fifteen (15) minutes after notification during normal business hours and within one (1) hour after notification at times other than normal business hours. All emergency repair service orders/calls and maintenance work shall be included in the monthly contract cost and shall be accomplished in accordance with normal commercial practices using parts specified by the elevator manufacturer or items of equal or better quality. Downtime of the elevator will be kept to an absolute minimum. The contractor shall notify the COR of all projected downtime of the elevator, or its components, and the estimated time for repair. The contractor shall prepare and submit a written report within two (2) business days after the emergency repair to the COR. The report shall include the date and time of the service order/call, the location of the elevator, the repairs performed, and the name of the technician performing the repairs. Maximum allowable response times will be 15 minutes during working hours or 1 hour during non-working hours.

C7.1.6.3 Routine/Preventive Calls. A routine/preventive service order/call is a call other than an emergency or urgent call and is defined as a situation where a piece of equipment breaks or fails to perform as designed, but its services can be performed by another piece of equipment. Upon receiving a routine/preventive service order/call, the Contractor shall respond to the location as directed within one (1) hour after a call from the COR. The Contractor shall assess the condition of the affected piece of equipment and report back to the COR with the findings and proposed corrective actions. This service order/call may result in placing a piece of equipment out of service for a short period of time until the situation is corrected. The Contractor shall complete all necessary repairs to return the affected equipment to service in accordance with the requirements of this PWS.

C7.1.6.4 Service Order Reporting**.** All Service Orders shall document and capture minimally required information, including Service Order description, resolution information, timestamps, work notes, and other completion information, in accordance with provided training, guidance and standard operating procedures. Monthly reporting of the Service Order status shall include data on all types of maintenance, repairs, service calls (i.e., emergency, urgent, routine, overdue, and tenant complaints), and accounting of deferred, completed, and active Service Orders with estimated completion dates by type of work (i.e., repair and Service Orders) resulting from testing and inspections, and any equipment out of

service. All additional information requests made by the Government shall be responded to within one business day. All such requests shall be communicated to the Contractor with a detailed explanation of the information that is requested.

C7.1.6.5 Service Order Historical Data. Historical data reflects the type and number of service calls expected during the term of this contract; the counts are only an estimate. The Service Orders issued during the period mid-July 2016 through November 2024 for HQC were for emergency, routine, urgent and minor work service orders. HQC expects Service Orders to be typical of a facility of this type. The summary of historical data is listed below including the HQC enclave.

Average Routine Service Orders	25 per month or	300 per year
Average Emergency Service Orders	0.00 per month or	0.00 per year
Average Urgent Service Orders	0.17 per month or	2 per year

C7.1.7 Maintenance Program

C7.1.7.1 Operations and Maintenance Plan. Operations and Maintenance Plan shall be submitted within 90 days of the contract effective date. An outline of this plan shall be submitted with the Proposal. The plan shall describe the Contractor's strategies and practices to manage the following:

- Communication protocols
- Record keeping and documentation
- Operations and Maintenance database/software
- System criticality and work prioritization
- Standard Operating Procedures (SOPs)
- Manufacturer's manuals
- Preventive maintenance practices
- Corrective maintenance plan
- Troubleshooting and contingency plans

C7.1.7.2 This maintenance service contract shall require the systematic inspection and testing to verify proper system operation; detect incipient failures either before they occur or before they develop into major defects; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify any repairs required to bring all elevator and vertical lift equipment up to the manufacturer's operating standards to maintain a high degree of reliability.

C7.1.7.3 The Contractor shall perform maintenance, inspection, testing, and repairs as required by the Manufacturers and ASME A17. Monthly maintenance shall be performed during the first fifteen (15) working days of each month. The contractor elevator technician shall report to the COR before starting work. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of all maintenance and repair work requirements, as well as to permit tracking of all work in progress. The Contractor shall plan and schedule all work to ensure

that material, labor, tools and equipment are available to complete maintenance or repair work within the specified time limits and in accordance with the quality standards. The status of any work shall be provided within one (1) hour of the inquiry during regular work hours.

C7.1.7.4 The Contractor shall perform elevator rated speed test on an annual basis to assure that the equipment is meeting the targets specified by the manufacturer and shall make any corrections necessary to assure this. A copy of the Elevator Rated Speed Test report shall be submitted to the COR within seven (7) working days after completion of the test.

C7.1.7.5 The Contractor shall perform routine/preventive maintenance during each month on the elevators and annually on vertical lifts to ensure reliable and continuous safe operation. The maintenance work shall be performed in accordance with commercial practices manufacturer's specifications and shall be intended to maintain the elevators and vertical lift in safe and reliable operating condition until the next scheduled maintenance or inspection.

C7.1.7.6 The Contractor shall use a printed checklist for all inspections, routine/preventive maintenance, testing and all repairs, and shall submit a copy of the maintenance report at the time of each visit; reports of all other inspections and repairs must be submitted within five (5) days of the inspection or repair. The report shall identify each elevator, the location, maintenance work performed, repairs needed, date of inspection, name of inspector, and the overall condition of the elevator. If repairs require additional work considered over and above routine/preventive maintenance work, the Contractor shall, at that time, provide the COR with information as to the extent of the repairs and the length of time necessary to complete the repairs.

C3.1.7.7 The contractor shall prepare a proposed Joint Inspection Plan fifteen (15) days after the contractor receives notice of award for the purpose of identifying any pre-existing deficiencies with the elevator. The contractor and the COR together shall make a complete inspection of all the elevators and their components. No later than ten (10) days before commencement of services, the contractor shall prepare and submit to the COR a pre-existing deficiency report consisting of all observed pre-existing deficiencies noted during the joint inspection. If the contractor can correct any deficiency through normal routine/preventive maintenance procedures, the COR will direct that it be done as such. If routine/preventive maintenance procedures cannot be used to correct the deficiency, the Contractor shall prepare a proposal to accomplish the noted repairs as part of CLIN 0002 Non-Routine/Ad Hoc repairs and submit the proposal to the COR within five (5) days of the contract start date. The Contractor's Proposal shall contain three competitive quotes for all parts/material needed to complete the repair. In the event obtaining three competitive quotes is not practicable, the Contractor shall submit, in writing (as part of the task order proposal), documenting relevant reasons (e.g. market availability, sole source, etc.) why the submission of three competitive quotes was not performed. Proposals for Non-Routine/Ad Hoc work shall be constructed using a template provided by the Government. The Proposal shall be broken out to the task level, identifying both labor and materials associated with each task of the overall project. Any deficiencies found more than thirty (30) days after the contract start date shall not be considered pre-existing deficiencies and therefore shall be the responsibility of the contractor. Nothing in the pre-existing deficiencies shall diminish the Contractors' obligation to maintain any deficient item to the extent that it is safely operable.

C7.1.7.8 When inspection and/or testing determine that a part, component, or other piece of equipment requires replacement or repair, this work shall be completed under Routine/Preventive Maintenance.

C7.1.7.9 Transportation associated with moving from building to building on the Installation including the movement of testing apparatus, tools, and materials for all Routine/Preventive or Non-Routine/Ad Hoc work shall be included in the contract unit price (FFP) for the associated service.

C7.1.7.10 The Contractor shall schedule Routine/Preventive Maintenance. The Contractor shall submit a detailed Maintenance schedule to the COR for approval at least 10 working days prior to the start date of the services to be provided under this contract. The Routine/Preventive maintenance schedule shall conform to and include the following requirements:

- The schedule shall cover the entire term of the contract and shall include, for each lift equipment system listed in the attached Inventory List, the location (facility/building number) work to be performed (e.g., monthly PM); and the week of the month that Routine/Preventive maintenance will be performed.
- The schedule shall be in a format such that the completion of each inspection shall be indicated on the schedule showing date of service and the individual performing the service. This information shall be entered electronically on the schedule or form for documentation.
- Once the Contractor's Routine/Preventive maintenance schedule is approved, the Contractor shall perform PM inspections without further authorization by the COR.
- The Contractor shall strictly adhere to the scheduled PM dates to facilitate Government verification of work. If the Contractor finds it necessary to reschedule a PM, a written request shall be made to the COR detailing the reasons for the proposed change at least five (5) working days prior to the originally scheduled PM date. No scheduled PM dates shall be changed without the prior approval of the Government.
- The Government reserves the right to review the Contractor’s PM schedules at any time to confirm that PM is being conducted as scheduled.
- All repairs required because of PM inspections and testing shall be accomplished under Section C3.1.2.2.2, Routine/Preventative Maintenance, with the approval of the COR.

C7.1.7.11 The Contractor shall submit a List of Equipment Deficiencies noted during the PM inspections and testing, at least monthly, which are beyond the PWS for routine/preventive maintenance as described in this document. These reports shall provide a detailed description of identified deficiencies.

C7.1.7.12 The COR may issue a Service Order/Call Work Authorization for correction of the deficiencies noted.

C7.1.7.13 If at the time of the inspection or test the Contractor feels it would be more economical to make such repairs while conducting the inspection, such as while a valve is open for cleaning and inspection, the Contractor may notify the COR by phone of the defect and request a Service Order/Call Work Authorization to make the repair at that time. If the COR authorizes the work, the Contractor may proceed at that time.

C7.1.7.14 The Contractor shall complete and maintain a Routine/Preventive Maintenance Inspection Record for each item of equipment and system listed in attached inventory list. The Contractor shall maintain the completed forms in a history file throughout the term of the contract as defined in paragraph C.7.5.1 Documentation and Records, below.

C7.1.8 Lift Equipment System Tests

C7.1.8.1 The Contractor shall be responsible for all scheduling of the required tests and shall provide Testing Notification to the Government POC fifteen (15) days prior to any testing. Any safety test that is performed shall be done to minimize interference with normal government business.

C7.1.8.2 All elevator inspections, annual no load and pressure test, and five (5) years full load weight test; annual vertical lift testing shall be performed within three (3) months after the contract start date. The cost to perform these safety tests will be included in the price of the contract.

C7.1.8.3 All tests shall be performed in accordance with the ASME A17.7 (Safety Code for Elevators and Escalators), and ASME 17.1 and 17.2 (Inspectors Manual), and any of their most current revisions.

C7.1.8.4 The Contractor shall employ a third party, independent Licensed Elevator Inspector to conduct the required certification tests.

C7.1.8.5 A copy of the Elevator Inspection Report and Certifications shall be provided to the COR within seven (7) working days after inspection is completed.

C7.1.9 Routine / Preventive Maintenance

C7.1.9.1 This type of maintenance service includes all work necessary to diagnose equipment malfunctions and restore the equipment to normal operating condition. The Contractor shall submit a Service Order/Call Work Authorization form, (see Attachment 2), for ANY work that is done as Routine/Preventive Maintenance.

C7.1.9.2 For repairs being completed under this contract, all major system materials, parts, and components together with their installation shall conform to the requirements of the manufacturer and standard commercial practices.

C7.1.9.3 During Regular Working Hours: The COR will advise the Contractor by phone of any service order/call requests received during regular working hours as well as the service order/call classification based on the definitions provided in paragraph C2.5 Service Order/Call Classification below. The Contractor shall provide a written description of the problem or requested work, date and time received, location, classification, and other appropriate information on a Service Order/Call Work Authorization form (See Attachment 2). A copy of this form shall be forwarded to the COR for written approval. For routine service orders/calls as defined in Routine/Preventive Service Orders/Calls (see section C3.1.9.1), the Contractor shall obtain COR written approval prior to initiating work on the routine/preventive service order/call including the purchase of any required materials or components.

C7.1.9.4 There may be instances where the Contractor identifies Routine/Preventive Maintenance requirements because of inspection or testing activities. In these cases, the Contractor shall complete the Service Order/Call Work Authorization form and submit the completed form to the COR for approval prior to initiating any work on this Service Order/Call Work Authorization form.

C7.1.9.5 After Regular Working Hours: The Contractor shall receive service order/call requests directly from the COR after regular working hours, on weekends, and holidays. Calls received after normal working hours shall be classified by the Government in accordance with the definitions provided in paragraph C3.1.9, Service Order/Call Classification, below.

C7.1.9.6 For emergency service orders/calls, the Contractor shall be authorized under the direction of the COR, to make immediate required repairs to a lift system. The Contractor's authorization is limited to the amount initially discussed between the Contractor and the COR. If, in the opinion of the Contractor, initial costs set forth appear to be inadequate during repairs, contact the COR and provide a revised estimate of the projected costs for the repair. The Contractor shall not exceed the verbal cost limit set by the COR without authorization.

C7.1.9.7 Emergency repairs and their associated labor costs shall continue until completion of the repair. The duration of this service order/call classification continues regardless of the time of day. Upon completion of the emergency repair, the Contractor shall fill out and complete the Service Order/Call Work Authorization form. This form shall be submitted to the COR for approval. Maintain an approved copy of this form in the Contractor's record under the system that the repair was made to.

C7.1.10 Service Order/Call Classification

C7.1.10.1 Repair Service order/call classifications shall fall into one of two categories. The call classification shall be determined through the following definitions:

- Emergency Service Order/Calls: Service orders/calls will be classified as emergency at the discretion of the COR. Generally, emergency service order/calls will consist of correcting failures which constitute immediate danger to personnel, threaten to damage property, or threaten to disrupt activity operations and/or training missions. The Contractor shall respond to emergency repair service orders/calls and trapped calls. The contractor shall respond within two (2) hours at the location during normal business hours and within four (4) hours after notification at times other than normal business hours. Downtime of the elevator will be kept to an absolute minimum. The contractor shall notify the COR of all projected downtime of the elevator or its components, and the estimated time for repair. The contractor shall prepare and submit a written report to the COR within five (5) business days after the emergency repair. The report shall include the date and time of the service order/call, the location of the elevator, the repairs performed, and the name of the technician performing the repairs. These service orders/calls can occur at any time of the day or night.

- Routine/Preventive Service Calls: Service orders/calls will be classified as routine/preventive when the work does not qualify as an emergency service order/call. The COR will notify the Contractor by government provided radio or phone of repairs to be made from an inspection report or service order/call. The Contractor shall report to the work location, survey the repair and provide the COR with an estimated time to repair. The Contractor shall commence repair work immediately after notification from the COR. Downtime of the elevator will be kept to an absolute minimum. The Contractor shall notify the COR of all projected downtime for the elevator or its components, and the estimated time for repair. The Contractor shall prepare and submit a written report within two (2) business days after completion of routine/preventive repairs. These service calls will occur only during normal working hours.

C7.1.10.2 Completed Service Orders/Calls: Within one working day after completion of each service order/call, the Contractor shall add the following information to the Service Order/Call Work Authorization form and return to the COR with the following information:

- Description of completed work.
- Brief description of material and parts used, including quantities.
- Date and time work began.
- Date and time work was completed.
- Hours of labor (by trade) expended.
- Signature or initials of the Contractor's craftsman performing the work (or supervisor), indicating that the work has been completed.

C7.1.10.3 If the Contractor determines that repairs need to be performed off-site, the Contractor shall notify the COR in writing providing the make, model, serial number and estimated date for return of the equipment. The Contractor will begin repairs only after approval by the COR.

C7.1.10.4 The Contractor shall comply with all applicable laws, regulations and requirements regarding over-the-road permits. The Contractor shall be responsible for obtaining all necessary permits required to transport Government owned equipment to and/or from the repair facility.

C7.1.10.5 In the event of damage/wreckage to Government owned equipment during transportation, the Contractor shall be liable for the total cost of repairs and/or replacement of damaged or destroyed equipment.

C7.1.10.6 If repairs are more extensive, cost more than originally estimated, or are determined to exceed seventy (70) percent of the value of a new and identical piece of equipment, the Contractor shall obtain the approval of the COR before continuing work.

C7.1.11 Software Maintenance (SM)

C7.1.11.1 Software Maintenance includes patching of the firmware upgrades to the building level controllers, and software patches if applicable. This work will be completed by a DoD 8140 certified worker as defined under in the **IDIQ PWS under SECTION C.4 SECURITY/CYBERSECURITY**.

C7.1.12 Replacement Parts/Products

C7.1.12.1 The Contractor shall provide all equipment, materials, and services to perform the requirements of this contract.

C7.1.12.2 The Contractor shall use only new parts or parts which have been refurbished to "like new" condition which enable the part to function or operate at a level equal to or better than the specification of the original equipment. The invoice shall indicate if a "like new" part has been installed or used in the repair of the equipment.

C7.1.12.3 All materials and parts used in fulfillment of this contract will conform to accepted commercial standards and the manufacturer's requirements for materials or parts as defined throughout this Scope of Work. Materials and components that the Contractor plans to procure for storage and use during the life of the contract shall be submitted prior to procurement at the beginning of this contract. Likewise, any materials or components that are not to be purchased immediately but that may be used at some point during the life of this contract shall be submitted for approval at the beginning of this contract.

C7.1.12.4 If additional components or equipment becomes necessary during repair maintenance and these components have not been approved, submit proposed equipment or components for approval prior to procurement, time permitting.

C7.1.12.5 The part or piece of equipment shall comply with applicable Government, commercial, or industrial standards such as National Board of Underwriters or Underwriters' Laboratories, Inc., National Electrical Manufacturer's Association, American Society of Mechanical Engineers, etc.; and used in accordance with original design and manufacturer intent.

C7.1.12.6 If the original manufacturer has updated the quality of parts for current production, the parts supplied under this contract shall meet or exceed the updated quality of these parts. The Contractor shall retain the parts replaced for at least 30 working days after completion of the job and make these parts readily available for inspection by the COR upon request.

C7.1.12.7 When disputes arise concerning material, equipment, and components required for a service order/call; any material, equipment, and components already installed without prior Government approval shall, at no cost to the Government, be removed, replaced, and/or reworked by the Contractor so that compliance with the Government's requirements are satisfied.

C7.1.12.8 Manufacturer's descriptive data and certifications for all materials and equipment shall be submitted to the Government for approval prior to installation. Submittals for approval shall be delivered to the COR a minimum of 20 working days prior to use. Manufacturers' descriptive data and certificates shall include the name of the manufacturer, model number or other identifying information, and a catalog cut. Include information describing the performance, capacity, rating, and application/installation instructions of these materials and equipment which clearly illustrate that the proposed item meets all applicable standards and the required function for this part.

C7.1.12.9 One potential exception to the requirement of submission of material and equipment for approval by the Government would be for Emergency Service Orders/Calls. If a situation of this nature occurs, the Contractor shall utilize materials and equipment that has been previously approved by the Government for similar systems on the Installation to the extent possible. If such components are not available, utilize components that, in the Contractors' experience, have a proven track record and is designed for the service within which it is to be installed. Submit information for this material or equipment to the COR after the fact for historical record.

C7.1.12.10 Replacement parts required in the performance of RM shall be invoiced to the Government in accordance with the terms and conditions set forth in this contract. Upon request by the COR, the Contractor shall be required to provide invoices and/or proof of pricing for the Contractor purchased part.

C7.1.12.11 Equipment lubricants and oils used in the performance of this contract shall be the same or equal to those recommended by the manufacturer's technical manuals or specifications.

C7.1.12.12 The Contractor is responsible for obtaining equipment maintenance service manuals that are not available from the Government. Any materials, components, or equipment that the Contractor purchases under this contract shall be provided with Operation and Maintenance Data

available from the manufacturer. The Contractor shall inspect, test, and maintain all systems and equipment as defined in ASME A17 and by the equipment manufacturer.

C7.1.12.13 During and at completion of work, debris shall not be permitted to spread unnecessarily into adjacent areas nor accumulate in the work area itself. All such debris, excess material, and parts shall be cleaned up and removed at the completion of the job and/or at the end of each workday if work is in progress.

C7.1.13 Changes to Lift Equipment Systems

C7.1.13.1 During the term of the contract, the Government may add, replace, renovate, or improve lift equipment systems at the Government's expense and by means not associated with this contract. Changes, replacements, or deletions which result in an increase or decrease in contract requirements will result in adjustments to the contract price and shall be coordinated through the Contracting Officer/Contract Specialist. A planned MILCON upgrade to the elevator system is in development and any changes will be coordinated through the Contracting Officer/Contract Specialist

C7.1.14 Warranties

C7.1.14.1 Equipment, components, and parts, other than that installed under this contract, shall not be removed or replaced or deficiencies corrected while still under warranty of the manufacturer or the installer without prior approval of the COR. The Contractor shall report all defects in material or workmanship, defective parts, or improper installation and adjustments found to the COR so that necessary corrective action may be taken. The Contractor shall be knowledgeable of the equipment, parts, and components that are covered by warranty and the duration of such warranties. Available warranty information will be furnished to the Contractor by the Government.

C7.1.15 Work Conflicts

C7.1.15.1 There may be other work occurring within or around various buildings that are included as part of this contract throughout the term of this contract. Other Contractors and / or Government personnel shall be engaged in similar and supporting work that will require close cooperation and coordination. If conflicts do occur with other Contractors that cannot be satisfactorily resolved, the matter shall be referred to the COR for resolution.

C7.1.16 Signage

C7.1.6.1 The Contractor shall be responsible for the installation and removal of signage as related to elevator service. When it becomes necessary to remove a piece of equipment from service for longer than one (1) hour, the contractor shall place **"OUT OF SERVICE"** signs at each landing or in each elevator that the equipment or system serve.

C7.1.17 Required Contractor Training and Certifications

C7.1.17.1 Contractor Personnel: Inspection, Testing, and Maintenance tasks shall be performed by craftsmen trained or qualified certified by appropriate federal and state regulatory agencies to meet federal and local certification requirements in maintenance and inspection of the lift equipment. Contractor personnel will be required to obtain T5 clearance based on the location access required.

C7.1.17.2 Journeymen Level Mechanics: The contractor shall provide journeyman level mechanics fully knowledgeable in all aspects of operation, maintenance, repair and troubleshooting of the equipment at Fort Belvoir.

C7.1.17.3 Certification: The Contractor shall provide resumes and certificates pertaining to the specific training completed by all contractor and subcontractor personnel performing work under this PWS; resumes and certificates shall be submitted with the contractor's quote, and within ten (10) days prior to replacement of personnel. The Contractor shall also provide certification for new employees not later than seven (7) days prior to that person beginning work under the terms of this contract. The Contractor shall ensure that all certificates of training, licenses, permits, and bonds are current and valid.

C7.1.17.4 8140 Certified Personnel. The DoD 8140, Information Assurance Workforce Improvement Programs requires training and certification for Cybersecurity duties performed. All contract employees performing cyber-IA functions shall meet the requirements in accordance with the provisions of the IDIQ Base Level PWS Section C.4 Security/Cybersecurity.

C7.1.17.5 Contractor personnel shall wear required Government furnished badge and be easily recognized. This may be accomplished by Contractor personnel wearing distinctive clothing bearing the name of the company and/or by wearing appropriate badges that contain the company name and employee's name.

C7.1.17.6 The Contractor shall not assign any of his employees to this contract who is an employee of the United States Government if the employment of that person would create a conflict of interest, nor shall the Contractor employ any person who is an employee of the Department of Defense, either military or civilian, if such employment would be contrary to the policies contained in Defense Logistics Agency Regulations (DLAR) 5500.1, STANDARDS OF CONDUCT.

C7.1.17.7 Contractor personnel shall comply with directives pertaining to operation of privately owned vehicles on the Installation and local instructions.

C7.1.17.8 The Contractor may be asked to remove persons who pose a threat to health, safety, or security at the Installation.

C7.1.17.9 Number of Employees: The Contractor shall always have available enough capable and qualified employees to enable the Contractor to properly, adequately, and safely perform all work required under the terms of this contract.

C7.1.17.10 The Contractor shall assure that Contractor personnel completely understand the requirements of this PWS. All Contractor service technicians must have sound mechanical aptitude and ability; must understand lift systems, both mechanically and electrically. They must have the ability to understand and comprehend technical manuals, drawings, diagrams and any other technical data supplied by various manufacturers. All Contractor service technicians must have a working knowledge of the types of equipment and systems included in this PWS.

C7.1.18 Deliveries

C7.1.18.1 All contractor deliveries shall initially be taken to Building 2480, Material Receiving and Screening Facility (MRSF) for off-loading and screening. The Government will visually inspect and screen the materials. The contractor is then responsible for loading the materials onto their vehicles and delivering the materials to their destination. The Contractor shall be responsible for the loading, transporting, and unloading of all equipment, materials and supplies to be used in performance of this PWS. Materials delivered to the site shall be inspected for damage, unloaded, and stored with a minimum of handling. Storage facilities shall be provided by the Contractor at the job site for maintaining materials at temperatures and conditions recommended by the manufacturer.

C7.2 Electrical and Lighting (Building) Systems Specific Tasks

The contractor shall provide the expertise necessary to successfully execute Electrical and Lighting Systems (Building) Service task order (TO)

C7.2.1 Requirements / Specifications

C7.2.1.1 The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform Electrical and Lighting Systems services under the Building Control System (BCS) effort as defined in this PWS except for those items specified as Government furnished property and services. The Contractor shall perform to the standards in this contract.

C7.2.2 General Scope and Location Breakdown

C7.2.2.1 The contractor shall provide all management, tools, equipment and personnel for the repair, replacement, installation services and construction/alteration services on all related electrical and lighting systems for all buildings, structures within the DLA, Andrew T. McNamara Headquarters Complex (HQC) 8725 John J. Kingman Road, Fort Belvoir, VA 22060-0621. Buildings at the HQC include but not limited to:

- BLDG 2420 Visitors Control Center (VCC)
- BLDG 2462 Andrew T. McNamara Headquarters Multi-story 1,100,000 square feet (SF)
- BLDG 2463 Gate 1 Access Control
- BLDG 2464 Gate 2 Access Control

- BLDG 2465 Gate 3 Access Control
- BLDG 2466 Recreational Building
- BLDG 2467 Irrigation Well House
- BLDG 2468 Child Development Center (CDC) 34, 000 SF
- BLDG 2469 Three Level Parking Garage building
- BLDG 2480 Material Receiving and Screening Facility (MRSF) 15,000 SF
- BLDG 2487 Outfall Control Structure

C7.2.2.2 The following are Remote Facilities within a 25-mile radius of the HQC: BLDG 802, 5,000 SF

- BLDG 1116, 23,768 SF
- BLDG 1414, 10,000 SF
- BLDG 1973, 10,800 SF
- BLDG 1976 10,800 SF
- BLDG 1977, 10,800 SF
- BLDG 1979, 10,800 SF
- Dulles West Office Building 9,643 SF
- Technical Equipment Inspection Facility 4,200 SF

C7.2.2.3 The HQC receives primary commercial power through dual incoming 34.5 KV underground feeder cables from the Fort Belvoir utility lines. Power is routed from the 34.5KV switchgear through the buss duct on the Lower Level to the nine (9) 34.5 KV Indoor Substations located on the lower level of the HQC. Power is reduced to 480 volts by 2,000-2500 KVA transformers and distributed through 480-volt buss duct power risers to panel boards in multiple electrical closets on each floor.

C7.2.2.4 The HQC has the following additional major electrical systems under the Electrical Distribution Systems Contract:

- Emergency Power Generator System (EPGS) Automatic Transfer Switches (ATS)
- Uninterrupted Power Supply Systems (UPS), Fire Detection Systems
- Access Control Barrier Systems

C7.2.2.5 The Contractor shall furnish all labor, supervision, tools, materials, equipment, incidental engineering, subcontracting, transportation, and management necessary to perform work in accordance with general craft, industry standards, applicable laws, regulations, codes, Federal Regulations, and HQC construction specifications. This work includes but is not limited to the following functional areas:

C7.2.2.5.1 General Electric: The General Electric includes all HQC Non-Security systems, including but not limited to, parking lots lights, electrical cables; electronic and communications

rooms equipment and all electrical systems:

- Operation, installation, maintenance, inspection, testing and repair of electrical equipment and associated systems with low voltage not >480 V.
- Assist other trades in operation, installation, maintenance, inspection, programming, testing, and repair of Fire Detection Systems.
- Operation, installation, maintenance, inspection, testing and repair of the Floating Fountain.
- Operation, installation, maintenance, inspection, testing and repair of utilities not >480 V.
- Service orders.

C7.2.2.5.2 General Electrical System Description: The primary commercial power for the HQC electrical system is routed through dual incoming 34.5 KV underground feeder cables from the Ft. Belvoir utility lines back to Humphrey's station and originating from local utility. Power is routed from the 34.5 KV switchgear through the underground duct banks to the nine (9) 34.5 KV Indoor Substations located on the Lower Level of the HQC. Power is reduced to 480 volts by 2,000-3000 KVA transformers and distributed through 480-volt buss duct, power risers to panel boards. Additional transformers reduce the voltage for panel boards as required.

- (8) types of distribution panel services: Regular Power, Emergency Power, Lighting Power, Emergency Lighting Power, Distribution, Emergency Distribution, Emergency Regular Power and Emergency Motor Control Center (EMCC). The panel designations start with RP, EPP, LP, ELP, DP, EDP, ERP, and EMCC. Normal panels have no back-up capability. Emergency panels have generator back-up.
- Twenty-nine (29) Automatic Transfer Switches in the 34.5 KV Indoor Substations serve the Emergency Power panels
- The Uninterruptible Power Supply (UPS) contains one (1) 750 KVA, three (3) 400 KVA parallel systems with associated batteries, automatic transfer switch, transformer, distribution panel, and control equipment.
- Five (5) emergency generators provide emergency power. The generators are connected to the Control and Paralleling Switchgear located in the Central Plant.

C7.2.2.6 The Contractor shall be responsible for operation of all HQC electrical and lighting components, equipment and systems, year-round, twenty-four (24) hours a day, seven days a week (including all federal holidays).

C7.2.2.7 The Contractor shall operate, maintain, inspect, replace and repair the electrical and lighting systems listed below, and the associated equipment listed in Attachment section:

- Automatic Door Openers
- Cable Tray System for Communications Capacitors
- Display case lighting

- Door chimes
- Exterior Street, convenience, and security lighting
- HQC Floating Fountain
- Electrical Rooms Distribution Panels
- Interior Lighting Fixtures
- Landscape lighting fixtures with lamps Lighting Control Contactors, Lighting fixtures and bulbs Office lamps, Photocells Powered Curtains Receptacles Security systems (Includes Portals)
- Site Lighting Poles
- Underfloor Duct Power System, for systems furniture
- Underfloor water detection systems, devices, and wiring
- Electric Heaters and Heat Trace Cable (**Note**: This is not an all-inclusive list)
- Specialty Equipment

C7.2.2.8 All systems shall be repaired or replaced as required to operate as originally intended and designed, and in a safe manner.

- Cracked, broken or missing receptacle and switch faceplates shall be replaced with new plates of the same/original color and size.
- Light fixture lenses and globes, which are damaged or missing, shall be replaced. All exterior and parking lots lighting shall also be maintained, including bulb replacement.
- Maintenance of occupants personally owned lamps, appliances, and equipment, is not the responsibility of the Contractor.
- All workmanship and materials shall conform to the National Fire Protection Association (NFPA) 70 National Electrical Code.

C7.2.2.9 In the performance of work under the contract, the Contractor may find that manholes (electrical and communication) may be full of water. The Contractor shall be required to pump the water out of the manholes for accomplishment of services and maintenance on an as-needed basis or as directed by the COR.

C7.2.2.10 Interior Electric. The Contractor shall inspect, replace, maintain, repair, modify and install interior electrical systems and components including: building low voltage (< 480 V) wiring, conduit and cable systems, fuses, circuit breakers, conductors, switches, receptacles, outlets, device plates, grounds, service equipment, electrical rooms control switchboards and consoles, electrical kitchen equipment, building ventilating fans, exhaust blowers, electrical heaters and similar types of equipment/systems in accordance with the National Electrical Code.

C7.2.2.11 Supplemental readings with portable recording or indication meters shall be taken as

directed by the COR to ensure all system elements are operating within their specified capacities. All required meters and test equipment shall be provided by the Contractor.

C7.2.2.12 Electrical materials and equipment utilized by the Contractor shall comply with existing codes of the National Fire Protection Association, American Safety Code, Underwriters Laboratory (UL) and the Bureau of Standards. Repairs shall be made in such a manner as to ensure a safe and reliable electrical system.

C7.2.2.13 All electrical work shall conform to the requirements of the most current National Electrical Code (NFPA 70) where applicable. The Contractor shall submit proof that materials which it proposes to furnish, conform to the standards set therein of testing organization(s). The label of the testing organization(s) shall be accepted as conforming to this requirement. In lieu of this label, the Contractor may submit a written certification from any national recognized testing agency, adequately equipped and competent to perform such services, that the item(s) has been tested and conforms to standards, including methods of test, of the above testing organization(s).

C7.2.2.14 The overall quality of the repair, including all materials, shall comply with applicable Federal specifications and be comparable to the original construction quality for the building or unit and shall be made in such a manner as to assure a safe and reliable electrical system.

C7.2.2.15 The Contractor shall coordinate its work plan with the customer receiving the services for all activities involved in the installation, maintenance, and repair of interior electrical systems.

C7.2.2.16 The Contractor shall read and interpret complex multi view drawings, sketches, wiring diagrams, manufacturer specifications, and other technical materials to isolate malfunctions in equipment or systems mentioned in the contract.

C7.2.2.17 The Contractor shall troubleshoot and repair equipment, systems and special purpose devices for which there are no operating or maintenance procedures or drawings, sketches, wiring diagrams, manufacturer specifications or other technical material. The Contractor shall provide for complete documentation of all necessary maintenance records.

C7.2.2.18 The Contractor shall have the ability to install, maintain and repair or replace all main disconnect devices, cables, wires, raceways, ducts, capacitors, regulators, grounding equipment, wall switches, conduits, receptacles, and, installed lighting fixtures and lamps as well as the parts and accessories necessary to distribute the electricity to the proper equipment. The Contractor's work shall include:

- Measuring, cutting threads, bending, assembling and installing conduits, inserting splices and connect wires to fixtures, outlets, switches, receptacles and power sources.
- Working from blueprints, wiring diagrams and/or sketches.
- Locating, diagnosing and repairing trouble occurring in power circuits, controls, switches, rheostats, thermostats, flow meters and stop controls.
- Use of test circuits and equipment and power analyzers, such as a Dranetz power

platform 4300, Ampere meters, Volt meters, Ohm meters as necessary for trouble shooting, maintenance and repair.

- Installing, maintaining and repairing or replacing a wide variety of electrical fixtures, tools, and appliances.
- Following maintenance schedules, instructions in Task Orders, performing inspections and providing maintenance services, diagnosing system or equipment malfunctions and repairing as necessary.
- Inspecting, testing, cleaning, repair or replacing, and adjusting electrical buzzer and bell circuits, light sockets, light fixtures, emergency light fixtures, emergency lights and emergency lighting systems, fan switches, office and heating appliances, rheostats, thermostats, electrical drills, grinders and other shop equipment. Light fixtures and lens shall be cleaned to include removal of bugs and debris when lamps are replaced or as requested by the COR.
- Install, test, maintain and repair or replace electric motors as directed by the COR. The Contractor shall only be required to provide power and make-up connections for electric motors used as part of mechanical systems such as pumps, air handlers and fans.
- Repair of all malfunctions and breakdowns in electrical wiring and controls in buildings, structures and facilities and underground wiring, fiber optic cabling, equipment and controls.
- Install and repair AC and DC electrical wiring systems and associated switches, low voltage (< = 480 V) distribution panels, light sockets, outlet boxes, outlets and light fixtures as required and special communication cables.

C7.2.2.19 Relamping and Lighting. The Contractor shall provide annual relamping services for the HQC Atrium lighting. The work shall include replacing all fluorescent tubes, ballasts, Light Emitting Diodes (LED) lamps, bulbs, incandescent bulbs, and effective parts. All other relamping services shall be provided by the Contractor daily to replace burned out lights or ballast on a continual basis. The Contractor shall be responsible for replacement of any burned-out lighting fixture lamps.

C7.2.2.19.2 The Contractor shall make daily tours to insure that at no one time no more than 5% of the lighting interior and exterior within the HQC are burned out.

C7.2.2.19.3 The HQC (Pods 1 – 9) system furniture lighting systems are currently maintained by others and is not required as part of this PWS. System furniture lighting systems within the POD 10 shall be maintained as described in this section of the PWS. All other request for burned-out lighting will be requested by individual Service Orders. In areas like the Atrium where the fixtures are not easily accessible, the Contractor may elect to do group relamping. Replacement lamps, bulbs, LEDs and components, shall be the same type, wattage, and voltage as that removed.

C7.2.2.19.4 A specialty lift is required for relamping the Atrium lights, rear entranceway ceiling lights, racquetball court lights and lower-level ceiling lights. The Contractor shall allow adequate equipment lead-time when developing the relamping schedule.

C7.2.2.19.5 Within fifteen (15) calendar days after award of contract, the Contractor shall submit to the COR for approval a relamping program work schedule. Between scheduled relamping services, the Contractor shall respond to service calls in accordance with the Section C3.2 "SERVICE ORDERS," for replacing light bulbs, LED's, tubes and other defective parts or components.

C7.2.2.19.6 Where the Contractor can identify upgraded lamps that will reduce energy consumption, a proposal should be submitted in writing to COR detailing the estimated energy savings, the cost of replacement lamps and the payback period.

C7.2.2.19.7 The Contractor shall accomplish lighting surveys per the direction of the COR to include candle power meter readings, the addition or removal of fluorescent tubes and incandescent bulbs to comply with current or revised governmental energy regulations and illumination requirements.

C7.2.2.20 Lightning Protection and Grounding Systems. The Contractor shall install, maintain, test, and repair or replace lightning protection and grounding systems in accordance with the national Electrical Code and applicable documents. These systems shall be tested upon request by the COR and every time lightning strikes, repairs or additions have been made to the system. The Contractor shall submit to the COR a Grounding Test Report after system testing.

C7.2.2.21 Shop Equipment. The Contractor shall install, maintain, and repair the electrical/electronic components, circuits, controls and all related parts to shop equipment. Shop equipment shall include all trade/craft machinery such as: machine shop equipment, woodworking equipment, welding equipment, and electric hand tools.

C7.2.2.22 Food Service Equipment. The Contractor shall install, maintain, and repair the electrical connections of food service equipment. Food service equipment includes cold storage boxes, electric stoves, electrical igniters on gas stoves, pizza ovens, dishwashers, deep-fat fryers, meat slicers, toasters, vegetable peelers, mixers, doughnut machines, ovens, dough proofing boxes, pie machines, meat cutting and processing equipment and food sealers.

C7.2.2.23 Miscellaneous Equipment and Services. The Contractor shall install, maintain, and repair a wide variety of miscellaneous electrical equipment.

C7.2.2.24 The Contractor shall furnish electrical support, including temporary connection of power to displays and exhibits for all special events.

C7.2.2.25 Exterior Electric. The Contractor shall install, maintain, and repair or replace exterior electrical systems up to and including 480 V. Due to the inherent hazards encountered in the maintenance and repair of electrical distribution systems and equipment, the Contractor shall ensure that all personnel performing work on these systems and equipment are qualified, trained and thoroughly familiar with the equipment and procedures to be followed:

C7.2.2.26 Personnel shall be trained and certified by the National Institute for Certification of

Engineering Technologists (NICET), National Electrical Testing Association (NETA) or an equivalent institute or association acceptable to the COR.

C7.2.2.27 The Contractor shall provide adequate, qualified personnel to perform systematic and periodic inspection, preventive maintenance, and repair of equipment.

C7.2.2.28 Power failures shall constitute an Emergency condition.

C7.2.2.29 The Contractor shall install, maintain, and repair or replace substations, underground electrical ducts/lines/cables, transformer vaults (below and aboveground), lightning protection systems and various exterior lighting systems and similar types of equipment.

C7.2.2.30 Upon completion of any maintenance work: The equipment and its components shall be clean and restored, with no missing or damaged parts.

C7.2.2.30.1 All components and parts shall be tightly fitted. All lubrication shall have been applied, and all fluid levels and types shall be in accordance with the manufacturer's instructions.

C7.2.2.30.2 The equipment shall operate within its design limitations.

C7.2.2.30.3 Contractor's work shall include high voltage splices when applicable, and maintenance and repair of all components and accessories related to major items.

C7.2.2.31 Underground Electrical Low Voltage Distribution System (<= 480 V). The Contractor shall install, maintain, locate, and repair or replace the complete underground distribution system including equipment such as cables, splices, potheads, terminations, air-break switches, high voltage fuses, duct banks, cutouts, transformers, conduit, and all other components required to maintain reliable electric service.

C7.2.2.31.1 The Contractor shall pump out water from manholes containing electric service and remove all debris.

C7.2.2.31.2.2 The Contractor shall paint switches, supporting structures and other ferrous material.

C7.2.2.31.3. The underground electrical low voltage distribution system (<= 480 V) shall be maintained in accordance with the National Electrical Code and applicable documents in Section C2.

C7.2.2.32 A test for gases and electrical leakage must be made prior to entering any manhole or confined space.

C7.2.2.32.1 The Contractor shall review OSHA safety procedures for "Confined Space Entry" and "Selection, Care and Use of Respiratory Protection". The Contractor shall provide ventilation within the manhole and ensure that exhaust from air compressors or generators are directed well

away from the manhole.

C7.2.2.32.2. Check existing grounding in all electrical rooms.

C7.2.2.32.3. All required maintenance and services shall be performed, all components cleaned, defects corrected, drain holes freed of obstructions, and all components operating as designed.

C7.2.2.33 Electrical Rooms Panels/Switching Ancillary Systems. The Contractor shall install, maintain, locate, operate, and repair or replace the complete electrical room panels and ancillary switching systems.

C7.2.2.33.1 The electrical rooms panels/switching ancillary systems shall be maintained in accordance with manufacturer's recommendations.

C7.2.2.33.2 The Contractor shall inspect, prepare and touch-up paint the substation enclosures annually and fully paint them every five (5) years.

C7.2.2.33.3 The COR may decrease allowable loads on system components as deemed necessary for continuity of service or protection of the system.

C7.2.2.34 The Contractor shall provide High Voltage Technicians certified by NETA when maintaining, installing, repairing, replacing, or troubleshooting 480 V systems or components. Refer to Section C3.2.13.3 of this PWS for the minimum qualifications for more details.

C7.2.2.35 Concrete used as a foundation base for metal structures and equipment must be visually checked at least annually.

C7.2.2.35.1.1 Cracks wider than one-eighth (1/8) inch shall be repaired and deteriorated concrete must be replaced.

C7.2.2.35.2 All connections, joints, fastening hardware, etc., shall be inspected and replaced or tightened as part of the annual PM required in Attachment PM Guide.

C7.2.2.36 Planned Outages. The Contractor shall schedule and coordinate all planned electrical outages with the COR.

C7.2.2.36.1 The COR will coordinate the planned electrical outage with the FACO's, and representatives of the tenants involved.

C7.2.2.36.2 The Contractor shall not undertake an outage until approval from the COR has been obtained.

C7.2.2.36.3 Power outages will not typically be possible during Government working hours and the Contractor may be required to accomplish the work during other than Government working hours.

C7.2.2.36.4 A Standard Operating Procedure (SOP) shall be prepared and submitted to the COR for approval, a minimum of two (2) days in advance of performing any work, detailing action to set up for preventative maintenance testing/inspections or repairs and to restore systems to normal operating conditions.

C7.2.2.36.5 The planned electrical outage shall be requested in accordance with Section C7.2.2.36 of this T.O. PWS.

C7.2.2.37 Unplanned Outages. The Contractor shall report system malfunctions and unplanned electrical outages to the COR immediately, day or night.

C7.2.2.37.1 Information as to scope, details, probable cause, required switching, time to restore service and time to complete repairs shall be reported to the COR as soon as the information is available.

C7.2.2.37.2 If the problem involves a substation or a switching station, details regarding operation of protective devices, malfunction or damage of equipment, involved meters, counters and indicators shall be reported to the COR. In the event of unplanned electrical outages, the Contractor shall take immediate steps to restore service as quickly as possible and to the maximum extent possible.

C7.2.2.38 During the base year of the contract, the Contractor will perform an ARC Flash study for the entire HQC, in accordance with the most recent NFPA 70 E, IEEE, and OSHA guidelines:

- The study will cover equipment such as switchboards, panel boards, industrial control panels, meter socket enclosures, and motor control centers.
- The Contractor shall ensure the current IEEE 1584 guide for Performing Arc-Flash Hazard Calculations will be the method used to perform the study.
- Completed electrical power system studies shall be submitted to the facility owner (COR) in electronic format using Adobe Acrobat.
- Any inadequacies shall be called to the attention of the COR and recommendations made for improvements as soon as they are identified.
- A single-line diagrams or complete electrical system drawing shall be maintained by the Contractor, at the central plant, each substation.
- Contractor will provide a digital and hard copy of the study to the COR.

- All systems shall be repaired or replaced as required to operate as originally intended and designed, and in a safe manner.
- All workmanship and materials shall conform to the National Fire Protection Association (NFPA) 70 National Electrical Code.

C7.2.2.39 HQC Floating Fountain. The Contractor shall maintain, inspect, replace, and repair the

HQC Floating Fountain and associated equipment listed below, and associated equipment listed in Attachment 8 inventory list. The Fountain is a Vertex Floating Fountain comprised of the following components:

- Fountain Assembly including flotation collar, submersible pump, submersible 25 hp pump motor, intake screen, electrical cable, piping and anchoring system, Light fixtures (6), Bulb number QOPAR56500WATT, Fountain Head (PODJET), Electrical Junction Box, Capacitive Motor Starter, Control Panel, Photocell and Time Clock.
- Maintenance of the Floating Fountain shall provide the same level of performance as designed.
- The quality of work accomplished shall meet the National Electrical Code, manufacturer's specifications, all requirements of this Performance Work Statement. The Contractor shall clean the intake screen and lights monthly.
    - Debris and aquatic growth shall be cleared from the intake screen.
    - Algae and sediment shall be wiped from the light lenses.
    - Light bulbs shall be replaced as necessary.
    - The fountainhead orifices shall be checked and cleared quarterly of mineral deposits that have built up and are restricting water flow.
    - All additional fountain components shall be cleaned as needed to maintain appearance.

C7.2.2.40 Fire Detection System Repairs (with other trades). The fire detection systems consist of an Edwards System technology IRC-3 FCC Life Safety System and Siemens XLS Fire Finder systems, including automatic alarms, manual alarms, transmitters, control panels, sprinkler alarms, flow switches, tampers and smoke detectors, beam detectors alarms.

C7.2.2.40.1 The Contractor shall assist with the fire suppression system testing in conjunction with the Fire and Mechanical Contractor’s quarterly preventive maintenance systems.

C7.2.2.40.2 Maintenance of the Fire Detection System shall be in accordance with National Electrical Code, manufacturer's specifications and NFPA 72 (National Fire Alarm Code) to provide the same level of performance and protection as designed.

C7.2.2.41 Government Working Hours: Government’s regular (normal) working hours are 6:00 AM to 7:00 PM, Monday through Friday except Federal Holidays or during declared incidents such as inclement weather.

C7.2.2.41.1 Contractor Working Hours: The Contractor shall have an appropriate number of qualified personnel on-site from 7:00 AM to 11:00 PM, Monday through Friday, unless directed otherwise in writing by the COR or the KO, or under special circumstances as discussed below. The Contractor shall also have qualified personnel available 24 hours per day, seven days per week for emergency work. The Contractor shall respond to emergency work in no more than one

(1) hour, except in cases where inclement weather causes a delay in the response time. Except for emergency work, work outside Contractor working hours requires the written approval of the Contracting Officer Representative (COR). Federal Holidays: New Year's Day, Inauguration Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day. The Contractor shall provide emergency work support on Federal Holidays. The Contractor shall report to work during Contractor working hours in the event Government personnel are on Administrative Furlough, unless otherwise directed by COR.

C7.2.2.41.2 The Contractor shall provide at least two Journeyman Electricians on-site from 7:00 AM to 3:30 PM when facilities are closed due to inclement weather.

C7.2.2.42 One Time Service (Base Year). Paint Electrical Rooms. The Contractor shall be responsible to paint all the mechanical rooms in the HQC one time to be completed before the end of the base year. There are approximately 32 Electrical rooms of various sizes which total approximately 15,000 square feet. The paint shall include all piping to mechanical equipment, pads and floors and shall conform to 29 CFR 1910.144 (Safety Color Code for Marking Physical Hazards). All piping shall be labeled according to ANSI A13-1. The color schemes to be field verified. The pipe finish shall be oil base type or of equal quality. The house keeping pads and floor finish shall be non-skid epoxy type finish.

C7.2.3 Replacement, Modernization, Renovation

C7.2.3.1 During the term of this contract, the Government may operate, repair, replace, renovate, or improve equipment, systems, facilities, components, and fixtures at the Government's expense and through use of Government forces or by means not associated with this contract. All replaced, improved, updated, modernized, or renovated equipment, fixtures, facilities, components, and systems shall be maintained, operated and/or repaired by the Contractor at no additional cost to the Government unless such changes result in an increase or decrease in contract requirements. Changes, replacements, or deletions which result in an increase or decrease in contract requirements will result in adjustments to the contract price in accordance with the "FAR Clause 52.212-4 (c)", "CHANGES" clause. Additions or deletions to the performance work statement inventory which result in an increase or decrease in contract Operational or Preventive Maintenance requirements will result in adjustments to the contract prices in accordance with the prices set forth in the pricing schedule.

C7.2.4 As-Built Drawing

C7.2.4.1 As-built drawings and Operation and Maintenance (O&M) manuals will be made available for Contractor's use during the term of the contract to the extent that these resources are available. When the Contractor accomplishes work which requires the revision of system one-line drawings, scaled drawings or panel schedules the Contractor shall submit these revised applicable drawings pertaining to all work within the IDIQ task order (TO). All revisions shall be submitted to the COR five (5) days before the IDIQ task order POP expiration. The Government will withhold payment until receipt of these drawings. Modifications made by the Contractor will be annotated in red on the system one-line drawing or scaled drawings, and panel schedules.

C7.2.4.2 The Government will provide access to network diagrams, export nodes, hardware software inventories and other related documents as needed from a recently performed OT inventory, after contract award. However, the Contractor is responsible for field verifications as well as accuracy of all government provided materials as requested by the Government. If while performing the work contained in this PWS the contractor constructs or installs any new structure or equipment, updated artifacts shall be provided to the Government prior to acceptance by the COR.

C7.2.5 Initial Site Assessment Survey

C7.2.5.1 The Contractor shall provide an initial site assessment which will identify and document the existing Electrical and Lighting Systems and equipment, Facilities Related Control System (FRCS) and Meter System at HQC. This assessment will be conducted to account for the entire interior and exterior electrical distribution systems conditions. The entire assessment will be completed within the first 90 days of the award of the TO.

C7.2.5.2 The site assessment shall include inspection and testing of existing equipment to validate existing conditions prior to the contract. Those items will be specified in the TO PWS e.g., Automatic door openers, cable tray system for communication, display case lighting, door chimes, exterior street/convenience/security lighting, electric room panels and associated ancillary devices, site electric poles, interior lighting fixtures and office bulbs, landscape lighting with lamps lighting control contactors, photo cell powered curtain receptacles, underfloor duct power systems for system s furniture, and underfloor water detection systems and wiring, etc.

C7.2.5.3 Site Assessment Report. Upon completion of the evaluation, the Contractor shall provide a written report noting all identified discrepancies to include a cost estimate for repair/replacement.

C7.2.5.4 The report shall include:

- An introduction which indicates who conducted the assessment, where the assessment occurred, and the timeframe of the assessment.
- A scope which outlines details of what was assessed per the TO PWS.
- A personnel listing which provides names, qualifications, agency, company, phone and email information for assessment persons and stakeholders.
- A list of applicable documents used in the assessment.
- A facility overview which describes the type of structures assessed, and building specifics such as building numbers, floors, rooms or other information specified in the PWS.
- A description of existing systems by system name, system type, manufacturer, model, warrant information, status (mission capable or non-mission capable), OS details, interface details, software/firmware, hardware, physical security details, access control details, maintenance, and service information.
- A list of recommendations for existing items, systems, sub-systems, components, and security (cyber and physical) enhancements. The recommendation includes details about

remaining usability of existing infrastructure and upgrades/replacements recommended including any incremental transitions recommendation.
- A cost estimate for recommendations, design support and/or maintenance and sustainment support.
- A summary of existing cybersecurity posture and status such as existing documentation.

C7.2.6 Service Orders

C7.2.6.1 Service Orders (SOs) are requests for work to be performed. The Government will operate a Service Order Reception Desk to initially receive all SOs. The Service Order Reception Desk is organized to receive both telephonic and email requests for all Service Orders, to include those generated by the Contractor for maintenance and repair requirements identified during the performance of operations and preventative maintenance work. The Contractor shall submit these SOs to the KO or designee for approval within five (5) workdays of discovery, except Contractor originated Priority I Service Orders (C3.2.2.4 EMERGENCY (PRIORITY 1) SERVICE ORDERS (SO)) or where the Contractor determines it would be more economical to make such repairs while conducting the PM action, shall be submitted immediately.

C7.2.6.2 The Contractor shall maintain the ability and receive verbal, telephonic, and email SOs from the Government. The Contractor shall update the status of SO requests in Enterprise Business Systems. Once the work is completed, the Contractor shall close the SO with all applicable information and retain any hard copy documentation for a period of sixty (60) calendar days at which time they will submit it to the Government.

C7.2.6.3 Service Order Historical Data. Historical data reflects the type and number of service calls expected during the term of this contract, the counts are only an estimate. The Service Orders issued during the period mid-July 2018 through November 2020 for the HQC were for emergency, routine, urgent and minor work service orders. The HQC expects Service Orders to be typical of a facility of this type. The summary of historical data is listed below includes the HQC enclave.

Average Routine Service Orders	5.4 per month or	65 per year
Average Emergency Service Orders	1.00 per month or	12.00 per year
Average Urgent Service Orders	0.5 per month or	6 per year

C7.2.7 Service Order/Call Categories

C7.2.7.1 The Contractor shall have adequate procedures for receiving and responding to service calls 24 hours per day, seven days a week, including weekends and holidays. The Contractor shall provide primary and secondary local telephone numbers for receipt of all service calls. All telephone calls shall be answered by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. Service calls shall be considered received by the Contractor at the time and date the telephone call is placed by the Government Representative. This includes leaving a voice message on an answering machine. In the event the Government was unable to make live contact with the Contractor, the Contractor

shall make live voice contact with the Government Representative within one hour. The Government Representative shall define the type of service call being made. The Contractor's response to service calls shall depend on the type of service required as follows:

C7.2.7.2 Emergency (Priority 1) Service Orders. SOs are classified as Emergency (Priority 1) when immediate action is required to mitigate life threatening or serious injury hazards to personnel, prevent loss or damage to government property, to secure security of sensitive government property, to restore essential services including broken water pipes, gas or oil leaks, major air conditioning or heating problems, or any work considered by the KO or designee to be of an emergency nature. The Contractor shall receive Priority 1 work from the Government either verbally (e.g., telephone, face to face) or in writing via email. The Contractor shall perform work in this category in response to Priority 1 SOs within thirty (30) minutes after being notified during core hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within two hours of notification after core hours IAW C2.5.1.1 (Emergency Call Back (Beyond Core Coverage Hours)). The Contractor shall send qualified personnel to mitigate the emergency and evaluate, assess the required corrective action and provide that assessment to the KO or designee. The Contractor shall perform work continuously until the emergency condition is eliminated and service is restored. If the remaining work is uncomplicated and near completion, the Contractor shall complete the job under the initial Emergency SO.

C7.2.7.3 Emergency Call Back (Beyond Core Coverage Hours). On occasion, services shall be required to support an activation or exercise of contingency plans or emergency call back outside the Normal Working Hours described. Emergency call back requests are service requests where the work consists of correcting failures that constitute an immediate danger to personnel, property or any work considered by the KO or designee to be of an emergency nature. The Contractor shall provide to the KO or designee a Call Out Roster of personnel to contact for afterhours support. The Contractor shall respond to emergency call back service requests within 2 hours. The Contractor shall remain on the job until the emergency has been secured and adequate temporary repairs have been made. Permanent repair shall be governed by the repair provisions in this PWS. The Contractor shall provide a written account of any emergency call back; including costs incurred and plan for permanent correction of the problem, to the KO or designee no later than the morning of the next business day. If the emergency call back is expected to take more than two hours to resolve, the Contractor must get approval from the KO or designee.

C7.2.7.3 Urgent (Priority 2) Service Orders. SOs are classified as Urgent (Priority 2) when the situation could become an emergency or could significantly hinder performance of the installation activities' mission or the deficiency has command emphasis. The Contractor shall respond to Urgent SOs within 1 hour during normal core working hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within 3 hours outside of core working hours. The Contractor shall remain on the job until the urgent repairs have been made. Permanent repair shall be governed by the repair provisions in this PWS. Urgent SOs are those SOs where the work consists of correcting failures that interrupt or otherwise adversely impact either installation activities' mission or building occupant operations. Examples of these types of service requests include, extreme temperature complaints, any malfunctions to equipment that

affect the tenant's operations, or any work considered by the KO or designee to be of an urgent nature.

C7.2.7.4 Routine (Priority 3) Service Orders. SOs are classified as Routine (Priority 3) when the work does not pose an immediate threat to public health, safety, or property, or to the mission or operations conducted on the installation. The Contractor shall respond promptly to Routine Work Orders within two hours of notification. The Contractor shall begin work on Priority 3 SOs within five (5) working days of receiving the request. The Contractor shall immediately notify the KO or designee with a written extension request when the routine service call cannot be completed within the specified timeframe.

C7.2.7.5 Non-Routine / Ad Hoc Service Orders are all alterations or repairs or equipment replacement with an estimated material/non-direct labor value greater than an electrical discipline threshold of $3,000.01 (material and non-direct labor cost only) will be considered a Non-Routine/Ad Hoc repair and requires a separate Non-Routine/Ad-Hoc Task Order. The Government is responsible for funding all Non-Routine/Ad-Hoc Task orders above the electrical discipline threshold.

C7.2.8 Operation and Maintenance Program

C7.2.8.1 The Contractor shall furnish all labor, supervision, tools, materials, equipment, transportation, and management necessary to perform operation, maintenance, inspection, testing, and repairs as required by the equipment manufacturers and as described by this PWS. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of all maintenance and repair work requirements, as well as to permit tracking of all work in progress. The Contractor shall plan and schedule all work to ensure that material, labor, tools and equipment are available to complete maintenance or repair work within the specified time limits and in accordance with the quality standards.

C7.2.8.2 This operation and maintenance service contract shall require the systematic inspection and testing to verify proper system operation; detect incipient failures either before they occur or before they develop into major defects; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify any repairs required to bring lift equipment up to the manufacturer's operating standards to maintain a high degree of reliability.

C7.2.8.3 Operations and Maintenance Plan. Operations and Maintenance Plan shall be submitted within 90 days of contract effective date. An outline of this plan shall be submitted with the Proposal. The plan shall describe the Contractor's strategies and practices to manage the following:

- Communication protocols
- Record keeping and documentation
- Operations and Maintenance database/software
- System criticality and work prioritization
- Standard Operating Procedures (SOPs)
- Manufacturer's manuals
- Preventive maintenance practices

- Corrective maintenance plan
- Troubleshooting and contingency plans

C7.2.9 Routine/Preventive Maintenance

C7.2.9.1 Definition and Repair Limitations. The Contractor shall perform Preventive Maintenance (PM) work. PM is the recurring day-to-day periodic or scheduled work required to preserve or restore real property or equipment to such condition that it may be utilized for its designated purpose. PM includes inspection, cleaning, lubrication, adjustment, calibration, part and component replacement as required to minimize failure, breakdown, and deterioration of equipment, and the identification of any repairs required to ensure proper operation and bring equipment to manufacturer's operating standards. In addition to PM requirements, the Contractor shall complete any repair work identified during the performance of PM. All PM work and repairs identified as during performance of PM are considered routine work and is included in the firm-fixed price portion of the contract. The Contractor, at no additional cost to the Government, may increase the level or frequency of PM to minimize repair requirements.

C7.2.9.2 Standards, PM Checklists and Housekeeping. The Contractor shall perform PM at times to not disrupt government operations. The Contractor shall perform PM work using the requirements specified in the Preventative Maintenance Guide attachment (technical exhibit) and further referenced in directives, instructions and manuals listed in Checklist attachment (technical exhibit), terms including "check," "ensure," inspect," and "verify" shall mean to visually observe or measure, adjust, clean, maintain, repair or replace as required. The Contractor shall perform clean-up following PM, and provide housekeeping in mechanical and electrical rooms and other equipment areas as part of PM work or as directed by the COR.

C7.2.9.3 Reporting of PMs, deficiencies, and repairs. The Contractor shall record all work performed, including observed operating conditions, deficiencies detected and corrected, and quantities and types of material repaired or replaced, on the applicable PM checklist form. The PM checklist form shall be provided to the COR within two (2) business days following work completion. Deficiencies identified by the Contractor during PM performance shall also be recorded on the PM checklist form (service order) for the applicable piece of equipment or system component, be entered into EBS, and be reported in writing to the COR.

C7.2.9.4 Workmanship and Materials. All PM work shall be of Journeyman quality and all specified work items or checkpoints, servicing, repairs and reporting shall be performed completely, correctly, and neatly. All workmanship shall conform to the applicable requirements of Section C2 of this PWS and the PM checklists.

C7.2.9.5 Contractor's approved Annual and Monthly PM Schedule shall be entered by the Government into the EBS system. All PM work requiring a Government approved service outage, or service interruption shall be completed before the month of July annually. The COR will print PM Service Orders each month to the Contractor's LAN printer after the Contractor's Monthly PM Schedule is approved. PM work shall then be performed by the Contractor as authorization by the COR. All PM work shall be completed in accordance with the requirements

of the monthly schedule. All PM services shall be performed on the day scheduled in the approved monthly schedule or at the time specified in contract unless prior written approval is obtained from the COR. In the event future upgrades to the EBS system further automate the performance of PM using handheld computers and/or bar code scanners, the Contractor shall integrate these tools into the recurring workflow at no additional cost to the Government.

C7.2.9.6 Completed PMs. Within two (2) business days after completion of each PM, the Contractor's On-Site Supervisor shall sign the original PM work ticket, return the original PM work ticket to the COR, and update EBS with the following information:

- Append the PM work order notes with a description of the work completed, names of the craftsmen performing the work, and name of the supervisor certifying that the work is complete.
- Enter labor information using EBS time sheets for labor hours expended.
- Enter materials information for actual materials used.
- Add journal entries to note the date and time work was started.
- Change the status of the work order to closed.
- Enter remaining deficiencies and separately report these to the COR in writing.

C7.2.9.7 Calibration - Preventive Maintenance requirements that require testing of installed equipment with gauges, meters, and test equipment, the Contractor shall present evidence of calibration per NETA standards for any such meters to the COR at the time of request for scheduling of the PM (i.e., certificates of calibration). The Contractor shall perform calibration of main internal and external switchboard meters and all Kilowatt hour meters one (1) time during the base period of performance and once every four (4) years thereafter.

C7.2.9.8 Clean-up/restoration: The Contractor shall mop-up, vacuum or otherwise remove water resulting from overflowing fixtures, leaks, clogged drains, etc. as part of the repair. Walls, ceilings, and other structures, paved areas such as sidewalks and roads, grassed areas, etc., which are damaged by and/or removed to gain access to leaks, clogs, or other defects shall be restored by the Contractor to original condition.

C7.2.10 Proactive Facility Tours

C7.2.10.1 The Contractor shall tour major building systems, equipment, and anything requiring tours mandated by any acts, codes or regulations as contained in this PWS. To accomplish this objective the Contractor shall develop a Tour Plan and submit it to the COR or designee for approval, no later than end of Startup or transition phase. With the advent of technology and

innovation a “tour” is no longer exclusive to the physical walks. A tour shall be a part, or a combination of physical visits and automated systems. Tours are an opportunity to view equipment in different phases of operation, adjust, validate controls, verify set points, check efficiency, physical condition of mechanical space, and overall safety. It is not the intention of the Government to overly prescribe tour frequencies or methodologies; instead, the Contractor is expected to develop tours at frequencies and using methodologies that are of value to operations, inclusive of analytical decision making intended to optimize operations based on real time performance data.

C7.2.10.2 Proactive Facility Tour. The Contractor shall conduct periodic tours of the building to identify proactively and remedy any issues pertaining to tenant environmental comfort concerns. All findings noted during the tour shall be tracked and a Work Order shall be initiated for corrective action by the Contractor.

Minimum Tour Frequencies:

Tour hours – Daily/Weekly per PM Guide attached.

C7.2.10.3 Operator Logs and Tour Check Sheets. Contractor shall maintain Operating Logs and Tour Sheets as part of the data for major equipment. Documentation shall be completed at the time of tours. Information recorded in the logs shall be sufficient to track the operating hours and performance history of the equipment. Records shall be kept of tours and action items needed based upon tour discovery. As such, Operating Logs and Tour Sheets shall be a part of the Tour Plan, and a Tour Sheet shall be established for any space identified as requiring a tour. The Contractor shall upon request make the operating logs and tour sheets available for inspection by the COR or designee.

C7.2.10.3.1 A Tour Sheet shall contain at a minimum:

a. General space condition and annotate any discrepancies.
b. Identify broken/inoperable equipment and capture Service Order status.
c. Accurately reflect equipment inspected during the tour.
d. Capture operating data of identified equipment.
e. Status regarding operational parameters.

The Contractor shall submit to the COR, or designee, a proposed Operating Logs and Tour Sheets for approval prior to implementing the Tour Plan.

C7.2.11 Facility Related Control Systems (FRCS)

C7.2.11.1 The Contractor shall operate any FRCS according to the established sequence of operation for the BCS. The Contractor is responsible for notifying the COR or designee if a sequence of operations, equipment, or schedule is not operating as designed or is resulting in unnecessary energy use. The Contractor must have regular onsite expertise to perform basic daily adjustments, such as setpoint adjustments, while minimizing, documenting, and evaluating overrides without compromising the sequence of operations; overrides must be temporary and must revert to the established sequence of operations or the Contractor must propose permanent

changes to the COR. The Contractor must have onsite capability to operate the facility during any necessary emergency or manual operations of the system.

C7.2.11.2 The Contractor shall have an adequate level of FRCS expertise to maintain the control systems according to DLA requirements for security compliance, energy efficient building system operations, and tenant thermal comfort. The contractor must operate the FRCS to maintain the building electrical and lighting systems on site. Where the conditions/standards cannot be maintained, the Contractor shall notify the COR or designee and develop corrective action plans.

C7.2.11.3 The Contractor must have in-house expertise, or subcontract, for additional, specialized FRCS services, such as sequence of operation tuning, sensor calibration, and FRCS log review. If the Contractor does not have a manufacturer trained or equivalent FRCS operator onsite, the Contractor shall enter a subcontract, including regular scheduled support (not merely support on a contingency basis), and remote access (where available and subject to J6 IT governance security clearances and training), with a firm that has these skills.

C7.2.11.4 The Contractor shall monitor all FRCS for alarms. After hour alarms shall be routed to contractor phones as a phone text or as a monitored email. A FRCS alarm after Normal Working Hours that impacts the building operations must be corrected under emergency call back Work Order service and recorded in the EBS. The Contractor shall maintain the following minimum standards described below.

C7.2.11.5 FRCS and Upgrades: FRCS shall be maintained as designed. The Contractor shall perform maintenance required to ensure that all FRCS devices function properly, and repair or replace components that fail. The Contractor shall be responsible for FRCS software and firmware updates and security patches. The Contractor shall advise the KO or designee and coordinate FRCS vendor activities necessary to facilitate any upgrades the KO or designee deems necessary for the functionality and/or security of the FRCS over and above those necessary for standard system operations. The Government may upgrade or change control system software or reprogram control systems during the performance period of the Contract. If the Government provides operator level training and operator level documentation for the Contractor's use, the Contractor shall not claim additional payment for in-house services relating to the new or upgraded control software or systems programs.

C7.2.11.6 The Contractor shall not modify sequences of operation, control programs, or run systems manually without concurrence of the KO or their designee. Where sequence of operation changes is approved, the Contractor is required to provide accurate edits to the Sequence of Operation to document the changes made.

C7.2.11.7 Software Maintenance includes patching of the firmware upgrades to the building level controllers, and software patches if applicable. This work will be completed by a DoD 8140 certified worker as defined under in the **IDIQ PWS under SECTION C.4 SECURITY/CYBERSECURITY**.

C7.2.12 Operations Support

C7.2.12.1 During maintenance activities, the Contractor shall:

a. Provide a review of the system alarm conditions.
b. Report the alarm responses to the KO or Designee.
c. Provide graphic and programming changes to eliminate overrides, add new or subtract equipment to/from the system, including programming, graphics, updating local and server level software/firmware. All work described shall be completed by a DoD 8140 certified worker or subcontractor. In the event an instrument, control component, or controller fails during off-hours operation and these components or systems are deemed critical to the mission, the KO or designee will issue direction.

C7.2.13 Required Contractor Training and Certifications

C7.2.13.1 The Contractor shall describe how the workforce (management and labor) with the requisite knowledge, skills, abilities, and applicable licenses and certifications to perform the requirements will be trained and/or certifications/licenses obtain to perform PWS requirements and/or the validation of current training from review training records of personnel hired from the preceding contractor/contract. Licensing include but not limited to the following: Commonwealth of Virginia Class A Electrical Contractors License; Underwriters Laboratory (UL) UL 2050 certification, Fairfax County Business License; and Commonwealth of Virginia Master

C7.2.13.2 Electrician License. Copies of all certifications for Contractor employees shall be kept on-site and provided to the Government upon request. The Contractor shall provide to the KO or their designee documentation of the certificates of training, licenses, and permits for all new employees not later than seven business days prior to that person beginning work under the terms of this Contract.

C7.2.14 Contractor Personnel

C7.2.14.1 Inspection, Testing, and Maintenance tasks shall be performed by craftsmen trained or qualified certified by appropriate federal and state regulatory agencies to meet federal and local certification requirements in maintenance and inspection of the Electrical and Lighting Systems. Employees or subcontractors performing Contract work involving the operation, maintenance or repair, inspection, or testing of any piece of equipment or system shall be trained and possess the knowledge, experience and skills pertinent to the equipment or system as demonstrated by a current training certificate from an equipment manufacturer or a certificate by an organization acceptable to the KO. All personnel or sub-contractor personnel shall possess all certifications and licenses required by Federal, state and local jurisdictions for equipment that they shall be operating, maintaining, repairing, inspecting or testing. Contractor personnel will be required to obtain T5 clearance based on the location access required.

C7.2.14.2 Electrical Distribution Certifications. In addition to contractor licenses, the following individual licenses, certifications, or factory-trained manufacturer's representation must be held by the Contractor's employees or Contractor's subcontractor employees. The Contractor shall provide copies of certification documents for any new or replacement personnel to the COR at least five (5) calendar days prior to the new or replacement personnel beginning work.

C7.2.14.3 Certified High Voltage Technicians. The Contractor shall provide High Voltage Technicians certified by the International Electrical Testing Association (NETA), National Institute for Certification in Engineering Technologies (NICET), when performing tasks including new construction, preventive maintenance, repairs, replacement or connection of high voltage electrical equipment, switchgear, cables splices and terminations, and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the High and Low Voltage electrical equipment.

C7.2.14.4 Certified Edwards/NFPA Fire Alarm Technician and Siemens XLS system. The Contractor shall provide manufacturer (Edwards Systems Technology and Siemens XLS system) and NFPA certified Fire Alarm Technicians fully knowledgeable in all aspects of addresses, set points, alarm points, graphics, maintenance, repair, new construction, and programming of the Edwards' FCC IRC-3 Life Safety System and the Siemens XLS system, when performing tasks such as maintenance, repairs or connection of fire detection equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the fire Alarm Systems and its equipment.

C7.2.14.5 Certified Liebert UPS Technician. The Contractor shall provide manufacturer (Liebert) certified UPS Technicians fully knowledgeable in all aspects of operation, set points, alarm points, graphics, maintenance and programming of the Liebert UPS System when performing such tasks including preventive maintenance, repairs or connection of UPS equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the UPS equipment.

C7.2.14.6 Certified Caterpillar Emergency Diesel Generator Mechanic. The Contractor shall provide manufacturer (Caterpillar) certified Emergency Diesel Generator Mechanics fully knowledgeable in all aspects of maintenance, repair, and troubleshooting of the five (5) Caterpillar Emergency Diesel Generators when performing such tasks including preventive maintenance, repairs, or connection of emergency generator equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the Emergency Diesel Generators and systems.

C7.2.14.7 Certified ASCO Power Technologies ATS Technician. The Contractor shall provide manufacturer (ASCO) certified Automatic Transfer Switch Technicians fully

knowledgeable in all aspects of maintenance, repair, new additions/construction, and troubleshooting of the ATS' and Paralleling Switchgear. The Certified ATS Technician shall be used when performing Annual PM and for any required troubleshooting, repairs, additions to the system and new construction. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the ATS and Paralleling switch gear.

C7.2.14.8 Acetylene cutting, Welding or Electric Welding. The Contractor shall provide personnel certified in accordance with the National Board of Boiler and Pressure Vessel Inspection Code and Section VIII and IX of the ASME Boiler and Pressure Vessel Code when performing acetylene cutting, welding, or electric welding.

C7.2.14.9 Crown Factory. Trained technicians shall be provided for performing all aspects of programming, maintenance, and repairs of the Sound Masking and Paging system. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the Sound Masking and Paging system.

C7.2.14.10 8140 Certified Personnel. The DoD 8140, Information Assurance Workforce Improvement Programs requires training and certification for Cybersecurity duties performed. All contract employees performing cyber-IA functions shall meet the requirements in accordance with the provisions of the IDIQ Base Level PWS Section C.4 Security/Cybersecurity.

C7.2.14.11 Certain skilled, experienced, professional and/or technical personnel are essential for successful accomplishment of the work to be performed under this contract. These are defined as "key personnel" and are those persons whose resumes are submitted as part of the technical/business proposal for evaluation. The contractor shall use key personnel as identified in its proposal during the performance of this contract and will request contracting officer approval prior to any changes. Requests for approval of any changes shall be in writing with a detailed explanation of the circumstances necessitating the change. The request must contain a complete resume for the new key personnel and any other pertinent information, such as degrees, certifications, and work history. New key personnel must have qualifications that are equal to or higher than those being replaced. The contracting officer will evaluate the request and notify the contractor whether the requested change is acceptable to the Government.
The Contractor shall designate a Contract Project Manager in writing and provide the name and contact information to the CO. The Contract Project Manager is considered essential to the work being performed under this Contract.

C7.2.14.12 Contract Project Manager. The Contract Project Manager performs day-to-day management of overall contract support operations, possibly involving multiple projects and groups of personnel at multiple locations. Organizes, directs, and coordinates the planning and production of all contract support activities. Prepares integration design and detailed cost estimates for project implementation as well as actual on-site subcontractor direction and management during implementation. Directs trades and provides technical direction on site during implementation. Has the ability to read and interpret plans, blueprints, and specifications.

The ability/experience in estimating, soliciting proposals, and for managing complex operations, testing, construction, maintenance, repairs and alteration projects. This position is directly responsible for cost targets and schedule adherence.

C7.2.14.12.1 The Contract Project Manager shall possess at least five (5) years of recent ((within the past seven (7) years)) experience in the management and supervision of building mechanical operations and maintenance for buildings of the approximate size, complexity and characteristics of the buildings to be covered by this Contract. A detailed resume shall be submitted to the CO or their designee for approval prior to the assignment of the project manager to the Contract. Both new and replacement project managers shall meet these qualification standards. Minimally, the resume shall contain:

- The full name of the proposed project manager.
- A detailed description of the proposed project manager's employment history for the previous five years. The names and addresses of the companies for whom the proposed project manager worked for the past five years, along with the names and telephone numbers of the immediate supervisors.

C7.2.14.13 Facilities Supervisor (On-Site Supervisor) The On-Site Supervisor shall be an experienced Foreman Electrician and have a minimum of ten (10) years' experience as a licensed Master Electrician (or someone with master level electrical knowledge). The On-Site Supervisor shall possess at least five (5) years (within the past 10 years) experience as an electrical foreman. The On- Site supervisor shall be experienced in directing personnel and subcontractors responsible for the installation, operation, maintenance, and repair of electrical equipment, and the systems covered under this contract. The On-Site supervisor shall have five (5) years' experience in the operation of a large building's High/Low voltage electrical distribution systems with two or more main feeders, switchboards, Tie breakers, Emergency Generator Power Back-up Systems, UPS system, electrical systems

C7.2.14.13.1 On-Site Supervisor Resume: The On-Site Supervisor shall be the same individual designated in the Contractor's proposal. In the event the On-Site Supervisor is replaced, a detailed resume for any replacement On-Site Supervisor shall be submitted in writing to the COR and KO at least seven (7) days prior to appointment. The resume shall contain, at a minimum, the information specified below. The Government reserves the right to disapprove of replacement personnel who do not meet the qualification requirements of the position:

- The full name of the proposed On-Site Supervisor.
- A detailed description of his/her previous ten (10) years of employment.
- The names and addresses of the companies for whom the proposed On-Site Supervisor worked for during the past ten (10) years, along with the names and phone numbers of his/her immediate supervisor.

Copies of current licenses and certificates required for the performance under this contract. Copies of certificates of pertinent training for the past (10) years.

C7.2.14.14 Non-Key Personnel Labor Categories. The Contractor shall provide sufficient licensed or certified Journeymen Electricians, wireman, electrical apprentices, or other crafts

required for performance of this contract. The Journeymen electricians shall possess the necessary skills required to operate service, maintain, and respond to service orders associated with the equipment and systems covered under this contract.

C7.2.14.15 Journeyman Electricians. The Contractor shall provide sufficient Journeyman Electricians to perform preventive maintenance, service orders, minor work orders, and operations required by this contract. The Journeymen Electricians shall possess the following minimum experience in the operation and maintenance of the building electrical equipment and the systems covered under this contract.

- At least three (3) years of recent and within the last five (5) years' experience in the operation, maintenance of electrical components, equipment, and systems of a building approximately the same size and characteristics covered under this contract.
- A thorough understanding and knowledge of electrical system, emergency generator power, security systems, fire detection and suppression, heating, ventilation, air conditioning, and plumbing to facilitate professional/technical coordination with other building service Contractors.
- The ability to read and interpret plans, blueprints and specifications.

C7.2.14.16 Building Controls System Integrator (Lighting). The Controls System Integrator (lighting) is responsible for the design, development, implementation, and/or integration of a DOD IA architecture, system, or system component for use within CE (computing environment), NE (network environment), and/or enclave environments in support of higher-ranking IA professionals. Must meet the Department of Defense Directive (DoDD) 8140.01, "Cyberspace Workforce Management and DoD 8570-M "Information Assurance Workforce Improvement Program" requirements for IAM (Information Assurance Manager) Level 1 or 2, and IAT (Information Assurance Technical) Level 2, or IASAE (Information Assurance System Architect and Engineer) Level 2. Experience: three (3) years of experience with complex software systems, to include: Systems Analysis, Systems Architecture, Systems/Equipment Support, Test and Evaluation, and Logistics support of C4ISR requirements. Specific experience: three (3) years of experience in Supervisory Control and Data Acquisition (SCADA) development.

C7.2.14.17 Administrative Assistant. The Contractor shall have qualified personnel to provide administrative support on-site eight hours a day from 07:00 AM to 3:30 PM. The Administrative Assistant shall possess the necessary skills to operate a computer using Excel, Word, and other software programs, and be familiar with the Contractor's work control processes, provide status of ongoing work to the COR, operation of EBS computer aided facility management system under the terms and conditions of this contract. The Administrative Assistant shall possess at least one (1) year (within the past three (3) Years) experience performing this type of work. Detailed resumes containing, as a minimum the information specified below must be submitted to the COR for approval at least five (5) business days prior to the assignment, re-assignment, or replacement of any non-key personnel employees to this contract:

- The full name of the proposed employee.
- A detailed description of employment for the most recent previous five (5) years.
- The names and addresses of the companies for whom the proposed employee worked for

during the past five (5) years, along with the names and phone numbers of the employee's immediate supervisor(s).

- The Contractor shall provide to the COR at least five (5) business days prior to the start of any replacement personnel requiring licensing or certification, copies of current licenses and certificates required for the performance under this contract.

C7.2.14.18 Service Order Dispatcher. This position receives, records, and distributes work orders to service crews upon customers' requests for service on articles or utilities purchased from wholesale or retail establishment or utility company, records information, such as name, address, article to be repaired, or service to be rendered, prepares work order and distributes to service crew, schedules service calls and dispatches service crew. The Service Order Dispatcher calls or writes the customer to ensure satisfactory performance of service, keeps record of service calls and work orders, may dispatch orders and relay messages and special instructions to mobile crews and other departments using radio or cellular telephone equipment.

C7.2.14.19 Identification of Contractor Employees. All contract personnel attending meetings, answering Government telephones, and working in other situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed.

C7.2.14.20 Staff Appearance. Contractor personnel shall present a neat appearance and be easily recognized. This shall be accomplished by wearing uniforms bearing the name of the company and employee name. Uniforms shall be regularly laundered, consistent among personnel classifications, and maintained presentable to tenant personnel during all working hours. All contractor service vehicles must be clearly identified with the company name.

C7.2.14.21 Escorting. Temporary contract employees who do not have favorable preliminary or final suitability determinations and need to work in non-public federally controlled space must be escorted. In those cases, the Contractor shall comply with the security clearance procedures for Escort Only Contractors. All uncleared contract employees shall be escorted in non-public space by a Government employee or another responsible cleared contract employee who is approved by the KO or designee. Other Government agencies shall have specific agency security requirements for their own space that shall only allow escort by Government employees or those designated by their agency. Government employees or approved cleared contract employees who provide escorts for uncleared contract employees shall always be within eyesight of the uncleared contract employees. The Contract Government escort shall watch uncleared employees and remain with uncleared contract employees for the entire time they are in non-public federally controlled space. Any security violation of escort requirements by a cleared and approved contract employee shall result in the immediate removal from the Contract of all contract employees involved, i.e., escorts and uncleared escorted contract employees. Also, violations of escort requirements by subcontract employees in accordance with security requirements shall be grounds for loss of facility access for those individuals or grounds for termination of Contract, or both.

C7.2.14.22 Standards of Conduct. The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking disciplinary action with respect to its employees, as necessary. The Contractor is responsible for ensuring that its employees do not disturb papers on desks, open desk drawers or cabinets, or use Government telephones, except as authorized. Each employee must adhere to standards of behavior that reflect favorably on his or her employer and the Federal Government. Smoking is only allowed in designated areas on the property and no smoking is allowed within the Facility.

C7.2.15 Building Operations

C7.2.15.1 Contractor Working Hours. The Contractor shall have an appropriate number of qualified personnel on-site from 7:00 AM to 11:00 PM, Monday through Friday, including weekends and holidays unless directed otherwise in writing by the COR. The Contractor shall also have qualified personnel available 24 hours per day, seven days per week for emergency work. The Contractor's Facilities Supervisor or Designee must be able available for emergency response during operating hours. The Contractor may be required to provide personnel for varying schedules to perform the requirements of the contract. The Contractor shall provide Contractor personnel, as required, at all other times to provide services, e.g., emergencies or scheduled after-hours work IAW C7.2.7.3; Emergency Call Back (Beyond Core Coverage Hours)Work Order Reception After Core Hours and; EMERGENCY (PRIORITY 1) SERVICE ORDERS (SO).

Utility Provider Information:
Electric: Dominion Power
Water & Sewer: American Water
Gas: Washington Gas
Fire Alarm: Johnson Controls

C7.2.15.2 Office Space. Government Furnished Facilities. The Government will provide the following rooms: 0632 and 0626 in BLDG 2462 (about 350 sq. ft. each) for contractor use. The Contractor shall assume responsibility and accountability of such facilities provided for contractor use and shall take adequate precautions to prevent fire hazards, safety hazards, odor, and vermin. Custodial services for Government furnished facilities shall be the responsibility of the Contractor and as a minimum shall be maintained at the same level as similar spaces occupied by the Government. The Contractor shall obtain written approval by the COR at least five (5) business days before making any modifications or alterations to any of the Government-furnished areas. Any modifications to Government Furnished facilities shall be at Contractor expense. At the completion of the contract, all areas shall be returned to the Government in the same condition as received, except for reasonable wear and tear.

C7.2.15.3 Utilities. The Government will make available, at no cost to the Contractor, electricity for Contractor connection in the vicinity of work areas. The Contractor shall instruct employees in utilities conservation practices. Information concerning the location of existing outlets may be obtained from the Government Representative. The Contractor shall be responsible for operating under conditions which preclude the waste of utilities.

C7.2.15.4 Equipment. For appropriate covered services, the Government will provide an office space with desk, chair, LAN connection, and telephone for Contractor use. Contractor personnel shall only use the provided office equipment for official business and in accordance with all sites administrative and security guidance. Use of Government communications devices require consent to monitoring. Contractor can utilize own equipment/communication but will not be able to access network.

C7.2.15.4.1 Any required computer or server hardware (i.e., PC, laptop) and peripherals (i.e. mouse, keyboard, monitor) and/or routing and switching equipment, used to provide DLA network connectivity, must be government-furnished and must be provided by DLA.

C7.2.16 Material

C7.2.16.1 The Contractor shall furnish all materials necessary, to include tools to perform the contract requirements and shall return to the Government the threshold of critical parts on hand at the termination of performance of these requirements. No inventory of the material returned to the Government will be taken at the termination of this contract. The Government is not responsible for lost or stolen tools or equipment. The Contractor shall furnish extensions from utility connections.

C7.2.16.2 The Contractor shall provide Personal Protective Equipment (PPE) and uniforms for its employees appropriate for the work to be performed (e.g., gloves, sleeves, coveralls, poles for high voltage personnel; respirators; safety boots; etc.). The Contractor shall calibrate and perform safety checks on all tools and equipment. The Contractor is responsible for obtaining equipment maintenance service manuals that are not available from the Government.

C7.2.17 Replacement Parts/Products

C7.2.17.1 All replacement units, parts, components, and materials to be used shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; shall comply with applicable Government, commercial, or industrial standards such as National Board of Underwriters or Underwriters' Laboratories, Inc., National Board of Fire Underwriters, National Fire Protection Association, National Electrical Manufacturer's Association, American Society of Mechanical Engineers, etc.; and used in accordance with original design and manufacturer intent. If the original manufacturer has updated the quality of parts for current production, parts supplied under this contract shall equal or exceed the updated quality.

C7.2.17.2 The Contractor shall keep on hand a 30-day supply of material for direct support of Electrical and Lighting Maintenance. Facilities maintenance parts should include but not limited to: Evaporated Cooler parts, filters, belts, etc. The Government reserves the right to request what parts need to be in reserve.

C3.2.18 Warranty

The Contractor shall furnish the Government upon completion of the project the standard warranty of the equipment offered by the manufacturer.

C7.2.18.1 If equipment or components are covered by a warranty, the Contractor shall not repair, replace, or otherwise correct defects in equipment under warranty without obtaining prior authorization from the COR.

C7.2.18.2 If a service order is received, the Contractor shall respond, troubleshoot, report defects in material or installation of equipment under warranty to the COR so that necessary action may be taken to exercise the provisions of the warranty or have the work performed by other means.

C7.2.18.3 The Contractor shall provide the COR with a copy of warranty information, documents and technical manuals related to equipment installed by the Contractor under the terms of this contract.

C7.2.18.4 The Contractor shall maintain all manufacturers' warranties for the Government.

- When performing repairs, the Contractor shall provide a ninety (90) day warranty on labor and one (1) year warranty for defects in materials.

- When performing new work, the Contractor shall provide a one (1) year warranty for all labor and materials.

- The Contractor shall also provide manufacturers' warranties in addition to the one (1) year Contractor's warranty.

C7.2.19 Deliveries

C7.2.19.1 All contractor deliveries shall initially be taken to Building 2480, Material Receiving and Screening Facility (MRSF) for off-loading and screening. The Government will visually inspect and screen the materials. The contractor is then responsible for loading the materials onto their vehicles and delivering the materials to their destination. The Contractor shall be responsible for the loading, transporting, and unloading of all equipment, materials and supplies to be used in performance of this PWS. Materials delivered to the site shall be inspected for damage, unloaded, and stored with a minimum of handling. Storage facilities shall be provided by the Contractor at the job site for maintaining materials at temperatures and conditions recommended by the manufacturer.

C7.3 HVAC, BAS, and Utility Metering Specific Tasks

C7.3.1 Requirements/Specifications.

The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform HVAC, BAS, and Utility Metering services under the Building Control System (BCS) effort as defined

in this PWS except for those items specified as Government furnished property and services. The Contractor shall perform to the standards in this contract.

C7.3.2 General Scope and Location Breakdown.

The contractor shall provide all management, tools, equipment and personnel for the repair, replacement, installation services and construction/alteration services on all related mechanical, refrigeration systems and equipment for all buildings, structures within the DLA, Andrew T. McNamara Headquarters Complex (HQC) 8725 John J. Kingman Road, Fort Belvoir, VA 22060-0621. Buildings at the HQC include but not limited to:

- BLDG 2420 Visitors Control Center (VCC)
- BLDG 2462 Andrew T. McNamara Headquarters Multi-story 1,100,000 square foot (SF)
- BLDG 2463 Gate 1 Access Control
- BLDG 2464 Gate 2 Access Control
- BLDG 2465 Gate 3 Access Control
- BLDG 2466 Recreational Building
- BLDG 2467 Irrigation Well House
- BLDG 2468 Child Development Center (CDC) 34, 000 SF
- BLDG 2469 Three Level Parking Garage building
- BLDG 2480 Material Receiving and Screening Facility (MRSF) 15,000 SF
- BLDG 2487 Outfall Control Structure

C7.3.2.1 The intent of this PWS is to perform the operations, maintenance, and repair of heating, air conditioning, and ventilation systems, include, but not limited to, chillers, boilers, radiators, refrigeration compressors, refrigeration units, water treatment, air ducts, split air conditioning, heat pumps and air handlers and such equipment located throughout the DLA Headquarters Complex, Fort Belvoir (HQC). Services include, but not are limited to, cleaning; plumbing, air balancing; monitoring and maintenance of Building Automation Systems, controls and monitoring equipment, restoration and de-contamination of HVAC systems or any combination; materials; tools; transportation; supervision and labor to perform all repairs; implementation and documentation of routine/preventative maintenance; and emergency service calls to ensure continual operations of all primary systems, air handling equipment, terminal units and associated Mechanical, HVAC and controls equipment.

C7.3.2.2 The PWS shall include three types of service as follows:

- Routine/Preventive Maintenance - the regularly scheduled and routine maintenance of the HVACR Systems to keep them running in exceptional operating condition and prevent any costly unplanned downtime from unexpected equipment failure. This work is covered under the CLIN for Mechanical Routine/Preventive Maintenance and Minor Repairs.

- Non-Routine/Ad Hoc - Maintenance is all alterations or repairs or equipment replacement

with an estimated material/non-direct labor value greater than a Mechanical discipline threshold of $100,000.01 (material and non-direct labor cost only) will be considered a Non-Routine/Ad Hoc repair and requires a separate Non-Routine/Ad-Hoc Task Order. The Government is responsible for funding all Non-Routine/Ad-Hoc Task orders above the Mechanical discipline threshold.

- Software Maintenance (SM) includes patching of the firmware upgrades to the building level controllers, and software patches if applicable. This work will be completed by a DoD 8140 certified worker as defined under Personnel Technical and Cyber Qualifications.

C7.3.3 Replacement, Modernization, Renovation.

C7.3.3.1 During the term of this contract, the Government may operate, repair, replace, renovate, or improve equipment, systems, facilities, components, and fixtures at the Government's expense and through use of Government forces or by means not associated with this contract.

C7.3.3.2 All replaced, improved, updated, modernized, or renovated equipment, fixtures, facilities, components, and systems shall be maintained, operated and/or repaired by the Contractor at no additional cost to the Government unless such changes result in an increase or decrease in contract requirements.

C7.3.3.3 Changes, replacements, or deletions which result in an increase or decrease in contract requirements will result in adjustments to the contract price in accordance with the "FAR Clause 52.212-4 (c)", "CHANGES" clause.

C7.3.3.4 Additions or deletions to the performance work statement inventory which result in an increase or decrease in contract Operational or Preventive Maintenance requirements will result in adjustments to the contract prices in accordance with the prices set forth in the pricing schedule.

C7.3.4 As-built Drawings

C7.3.4.1 As-built drawings and Operation and Maintenance (O&M) manuals will be made available for Contractor's use during the term of the contract to the extent that these resources are available. When the Contractor accomplishes work which requires the revision of system one-line drawings, scaled drawings or panel schedules the Contractor shall submit these revised applicable drawings pertaining to all work within the IDIQ task order (TO). All revisions shall be submitted to the COR five (5) days before the IDIQ task order POP expiration. The Government will withhold payment until receipt of these drawings. Modifications made by the Contractor will be annotated in red on the system one-line drawing or scaled drawings, and panel schedules.

C7.3.4.2 The Government will provide access to network diagrams, export nodes, hardware software inventories and other related documents as needed from a recently performed OT inventory, after contract award. However, the Contractor is responsible for field verifications as well as accuracy of all government provided materials as requested by the Government. If while

performing the work contained in this PWS the contractor constructs or installs any new structure or equipment, updated artifacts shall be provided to the Government prior to acceptance by the COR.

C7.3.5 Initial Site Assessment Survey

C7.3.5.1 The Contractor shall provide an initial site assessment which will identify and document the existing Mechanical and HVACR equipment, Facilities Related Control System (FRCS) and Meter System at HQC. This assessment will be conducted in two stages to account for heating and cooling season conditions. The first assessment will be completed within the first 45 days of the award of the TO. The second assessment will be completed no more than 45 days after transitioning to the heating or cooling season. The heating season begins in October and the cooling season begins in April.

C7.3.5.2 The site assessment shall include inspection and testing of existing equipment to validate existing conditions prior to the contract. Those items will be specified in the TO PWS e.g., HVAC and Refrigerant equipment status, FRCS status, meter system status, controls / cybersecurity approvals, and space temperatures compliance with DLAI 4170.11 for the appropriate occupancy.

C7.3.5.3 Site Assessment Report. Upon completion of the evaluation, the Contractor shall provide a written report noting all identified discrepancies to include a cost estimate for repair/replacement.

- The report shall include:
- An introduction which indicates who conducted the assessment, where the assessment occurred, and the timeframe of the assessment.
- A scope which outlines details of what was assessed per the TO PWS.
- A personnel listing which provides names, qualifications, agency, company, phone and email information for assessment persons and stakeholders.
- A list of applicable documents used in the assessment.
- A facility overview which describes the type of structures assessed, and building specifics such as building numbers, floors, rooms or other information specified in the PWS.
- A description of existing systems by system name, system type, manufacturer, model, warrant information, status (mission capable or non-mission capable), OS details, interface details, software/firmware, hardware, physical security details, access control details, maintenance, and service information.
- A list of recommendations for existing items, systems, sub-systems, components, and security (cyber and physical) enhancements. The recommendation includes details about the remaining usability of existing infrastructure and upgrades/replacements recommended including any incremental transitions recommendation.
- A cost estimate for recommendations, design support and/or maintenance and sustainment support.
- A summary of existing cybersecurity posture and status such as existing documentation.

C7.3.6 Service Orders

C7.3.6.1 Service Orders (SOs) are requests for work to be performed. The Government will operate a Service Order Reception Desk to initially receive all SOs. The Service Order Reception Desk is organized to receive both telephonic and email requests for all Service Orders, to include those generated by the Contractor for maintenance and repair requirements identified during the performance of operations and preventative maintenance work. The Contractor shall submit these SOs to the KO or designee for approval within five (5) workdays of discovery, except Contractor originated Priority I Service Orders (EMERGENCY (PRIORITY 1) SERVICE ORDERS (SO)) or where the Contractor determines it would be more economical to make such repairs while conducting the PM action, shall be submitted immediately.

C7.3.6.2 The Contractor shall maintain the ability and receive verbal, telephonic, and email SOs from the Government. The Contractor shall update the status of SO requests in Enterprise Business Systems. Once the work is completed, the Contractor shall close the SO with all applicable information and retain any hard copy documentation for a period of sixty (60) calendar days at which time they will submit it to the Government.

C7.3.6.3 Service Order Reporting. All Service Orders shall document and capture minimally required information, including Service Order description, resolution information, timestamps, work notes, and other completion information, in accordance with provided training, guidance and standard operating procedures. Monthly reporting of the Service Order status shall include data on all types of maintenance, repairs, service calls (i.e., emergency, urgent, routine, overdue, and tenant complaints), and accounting of deferred, completed, and active Service Orders with estimated completion dates by type of work (i.e., repair and Service Orders) resulting from testing and inspections, and any equipment out of service. All additional information requests made by the Government shall be responded by within one business day. All such requests shall be communicated to the Contractor with a detailed explanation of the information that is requested.

C7.3.6.4 Service Order Historical Data. Historical data reflects the type and number of service calls expected during the term of this contract, the counts are only an estimate. The Service Orders issued during the period mid-July 2016 through November 2024 for the HQC were for emergency, routine, urgent and minor work service orders. The HQC expects Service Orders to be typical of a facility of this type. The summary of historical data is listed below includes the HQC enclave.

Average Routine Service Orders	181 per month or	2172 per year
Average Emergency Service Orders	6.00 per month or	75.00 per year
Average Urgent Service Orders	2.6 per month or	31.2 per year

C7.3.7 Service Order/Call Categories

C7.3.7.1 The Contractor shall have adequate procedures for receiving and responding to service calls 24 hours per day, seven days a week, including weekends and holidays. The Contractor shall provide primary and secondary local telephone numbers for receipt of all service calls. All

telephone calls shall be answered by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. Service calls shall be considered received by the Contractor at the time and date the telephone call is placed by the Government Representative. This includes leaving a voice message on an answering machine. In the event the Government was unable to make live contact with the Contractor, the Contractor shall make live voice contact with the Government Representative within one hour. The Government Representative shall define the type of service call being made. The Contractor's response to service calls shall depend on the type of service required as follows:

C7.3.7.2 Emergency (Priority 1) Service Orders. SOs are classified as Emergency (Priority 1) when immediate action is required to mitigate life threatening or serious injury hazards to personnel, prevent loss or damage to government property, to secure security of sensitive government property, to restore essential services including broken water pipes, gas or oil leaks, major air conditioning or heating problems, or any work considered by the KO or designee to be of an emergency nature. The Contractor shall receive Priority 1 work from the Government either verbally (e.g., telephone, face to face) or in writing via email. The Contractor shall perform work in this category in response to Priority 1 SOs within thirty (30) minutes after being notified during core hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within two hours of notification after core hours IAW C7.3.7.3 (Emergency Call Back (Beyond Core Coverage Hours)). The Contractor shall send qualified personnel to mitigate the emergency and evaluate, assess the required corrective action and provide that assessment to the KO or designee. The Contractor shall perform work continuously until the emergency condition is eliminated and service is restored. If the remaining work is uncomplicated and near completion, the Contractor shall complete the job under the initial Emergency SO.

C7.3.7.3 Emergency Call Back (Beyond Core Coverage Hours). On occasion, services shall be required to support an activation or exercise of contingency plans or emergency call back outside the Normal Working Hours described. Emergency call back requests are service requests where the work consists of correcting failures that constitute an immediate danger to personnel, property or any work considered by the KO or designee to be of an emergency nature. The Contractor shall provide to the KO or designee a Call Out Roster of personnel to contact for afterhours support. The Contractor shall respond to emergency call back service requests within 2 hours. The Contractor shall remain on the job until the emergency has been secured and adequate temporary repairs have been made. Permanent repair shall be governed by the repair provisions in this PWS. The Contractor shall provide a written account of any emergency call back; including costs incurred and plan for permanent correction of the problem, to the KO or designee no later than the morning of the next business day. If the emergency call back is expected to take more than two hours to resolve, the Contractor must get approval from the KO or designee.

C7.3.7.3 Urgent (Priority 2) Service Orders. SOs are classified as Urgent (Priority 2) when the situation could become an emergency or could significantly hinder performance of the installation activities' mission, or the deficiency has command emphasis. The Contractor shall respond to Urgent SOs within 1 hour during normal core working hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within 3 hours outside of core working hours. The Contractor shall remain on the job until the urgent repairs have been made.

Permanent repair shall be governed by the repair provisions in this PWS. Urgent SOs are those SOs where the work consists of correcting failures that interrupt or otherwise adversely impact either installation activities' mission or building occupant operations. Examples of these types of service requests include, extreme temperature complaints, any malfunctions to equipment that affect the tenant's operations, or any work considered by the KO or designee to be of an urgent nature.

C7.3.7.4 Routine (Priority 3) Service Orders. SOs are classified as Routine (Priority 3) when the work does not pose an immediate threat to public health, safety, or property, or to the mission or operations conducted on the installation. The Contractor shall respond promptly to Routine Work Orders within two hours of notification. The Contractor shall begin work on Priority 3 SOs within five (5) working days of receiving the request. The Contractor shall immediately notify the KO or designee with a written extension request when the routine service call cannot be completed within the specified timeframe.

C7.3.8 Operation and Maintenance Program

C7.3.8.1 The Contractor shall furnish all labor, supervision, tools, materials, equipment, transportation, and management necessary to perform operation, maintenance, inspection, testing, and repairs as required by the equipment manufacturers and as described by this PWS. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of all maintenance and repair work requirements, as well as to permit tracking of all work in progress. The Contractor shall plan and schedule all work to ensure that material, labor, tools and equipment are available to complete maintenance or repair work within the specified time limits and in accordance with the quality standards.

C7.3.8.2 This operation and maintenance service contract shall require the systematic inspection and testing to verify proper system operation; detect incipient failures either before they occur or before they develop into major defects; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify any repairs required to bring lift equipment up to the manufacturer's operating standards to maintain a high degree of reliability.

C7.3.8.3 Operations and Maintenance Plan. Operations and Maintenance Plan shall be submitted within 90 days of contract effective date. An outline of this plan shall be submitted with the Proposal. The plan shall describe the Contractor's strategies and practices to manage the following:

- Communication protocols
- Record keeping and documentation
- Operations and Maintenance database/software
- System criticality and work prioritization
- Standard Operating Procedures (SOPs)
- Manufacturer's manuals
- Preventive maintenance practices
- Corrective maintenance plan
- Troubleshooting and contingency plans

C7.3.9 Routine/Preventive Maintenance

C7.3.9.1 The Contractor shall perform Routine/Preventive maintenance (PM), which includes, but is not limited to greasing, oiling, adding refrigerant, changing filters, cleaning, adjusting, replacing belts, and replacing of other expendable items. It also includes scheduled work on items of equipment or systems required to provide continuing operation, to preclude unnecessary breakdowns and to prolong the life of equipment or systems. Such work must be performed without disruption to the building occupants' operations during their normal business hours. Disruptive work must be performed during other than normal building hours.

C7.3.9.2 The contractor shall perform all operations and preventive maintenance requirements in accordance with manufacturer recommendations as provided in the manufacturer's operation and maintenance manuals. If no manufacturer manual is available, then refer to Technical Exhibit D Preventive Maintenance Guide for minimum requirements. The contractor shall maintain a complete library of all documents pertaining to the preventive maintenance of the equipment always located on the HQC and have it available for Government review.

C7.3.9.3 Operation, Preventive Maintenance, and testing programs shall be based off the following:

- Manufacturer's Recommendations
- Instruction Manuals
- Minimum Requirements of this PWS
- Authority Having Jurisdiction

C7.3.9.4 The Contractor shall use KO or designee approved printed checklists for all inspections, PM, testing and repairs. The contractor shall submit a copy of the PM report at the time of each visit; reports of all other inspections and repairs must be submitted within five (5) days of the inspection or repair. The report shall identify each piece of equipment, the location, maintenance work performed, repairs needed, date of inspection, name of inspector, and the overall condition of the equipment. If repairs require additional work considered over and above routine maintenance work, the Contractor shall, at that time, provide the Government Representative with information as to the extent of the repairs and the length of time necessary to complete the repairs.

C7.3.9.5 Plumbing. Plumbing work shall include maintenance and repair of the plumbing systems and fixtures throughout the HQC Complex to include building and infrastructure responsible to DLA. This shall include but not limited to all the buildings listed in section C7.3.2.

C7.3.9.5.1 When repaired, plumbing systems and fixtures shall be free flowing, in good, safe operating condition, free of leaks and drips. Domestic water lines shall be maintained from and include the service cut-off box or fifty (50) feet beyond the outside of the building to and including any tap or plumbing fixture. Waste and sewage lines (including all lines twelve (12)

inches in diameter and smaller) shall be maintained from a point fifty (50) feet beyond the outside of the building to and including any drain or plumbing fixture.

C7.3.9.5.2 Natural gas lines shall be maintained from and including the cut-off valve at the pressure regulator to and including the appliance, heater, or water heater connection. All work shall meet the workmanship and material requirements of ANSI A40.8-55, National Plumbing Code, BOCA Basic Plumbing Code, and all applicable Federal, State and Local codes.

C7.3.9.6 Clean-up/restoration. The Contractor shall mop-up, vacuum or otherwise remove water resulting from overflowing fixtures, leaks, clogged drains, etc. as part of the repair. Walls, ceilings, and other structures, paved areas such as sidewalks and roads, grassed areas, etc., which are damaged by and/or removed to gain access to leaks, clogs, or other defects shall be restored by the Contractor to original condition.

C7.3.9.7 Plumbing Fixtures. All sinks, tubs, taps, toilets, basins, and faucets, lavatories, showers, drain lines, soap dispensers, etc. shall be free of leaks and drips, operate properly, drain freely, and be free of excessive dripping, cracks, and coloration. All fixtures and components thereof that cannot be repaired shall be replaced with fixtures that are in strict compliance with the most current version of ANSI A40.8-55, National Plumbing Code, BOCA Basic Plumbing Code, and all applicable Federal, state, and local codes.

C7.3.9.7.1 Building 2420 VCC has one Domestic Water heater (DWH) located in Mechanical room 104. Building 2462 McNamara POD 1-9 water has 4 DWH's and are in pod 5 of the building. Building 2462 McNamara POD 10 has 2 DWH's and are in pod 10 mechanical room. Building 2468 CDC has 2 DWH's which are in mechanical room #113. All DWH's shall be operated, repaired and/or replaced as specified for water heaters of the same type and usage.

C7.3.9.8 Eyewash Stations. The Contractor shall maintain, repair and or replace all Emergency Eyewash Stations. Eyewash stations shall be free of leaks and shall be maintained and operate in accordance with the manufacturer's design specifications. All damaged and worn component parts shall be replaced. The fountains shall be tested for function and documented monthly.

C3.3.9.9 Drinking Fountains. The Contractor shall maintain, repair, and replace all water fountains and their component parts. Fountains shall be free of leaks and shall operate in accordance with the manufacturer's design specifications. All damaged and worn component parts shall be replaced. Replacement fountains or component equal to or better in quality, size, and capacity to that being replaced. Fountains shall be firmly secured to support structures, and free of movement and vibration. Fountains shall provide chilled drinking water at 50 degrees Fahrenheit or per manufacturer's specifications.

C7.3.9.10 Freeze Protection. During periods of predicted freezing temperatures, the Contractor shall ensure that all exposed pipes, joints, elbows, valves, faucets, and all other plumbing related materials/equipment are properly protected from damage. The Contractor shall assume full responsibility of any damages caused by Contractor negligence.

C7.3.9.11 Pipefitting. The Contractor shall perform pipefitting tasks such as repairing, replacing, or connecting gas, water, oil, air, or hydraulic piping and components. The Contractor's personnel performing acetylene cutting, welding, or electric welding in central heating plants shall be certified in accordance with the National Board of Boiler and Pressure Vessel Inspection Code and Section VIII and IX of the ASME Boiler and Pressure Vessel Code.

C7.3.9.12 Storm Drainage System. The Contractor shall inspect, maintain, repair, or replace all sewage, roof drains, catch basins, open storm drains manholes and culverts as well as all system related components needed to make up the complete system.

C7.3.9.12.1 The Contractor shall include a schedule of catch basin cleaning, rooting, and flushing the storm drain system in the Annual Work Schedule and Monthly Work Schedules. The plan shall include marked-up utility maps depicting work locations. The Contractor shall clean all roof drains, catch basins, and open storm drains, including culverts twice each year, once in June and once in December.

C7.3.9.12.2 The Contractor shall clean all manholes four times each year. The catch basins, manholes, culverts, roof drains and open storm drains shall be cleared of all foreign material to allow for the free flow of water.

C7.3.9.12.3 The Contractor shall perform rooting and flushing of 1/4 of the storm drains on an annual basis. The mains shall be rooted and flushed to ensure free flow of water. The Contractor shall remove all foreign materials from storm drain manholes on an annual basis. Access lids for storm drains, i.e. manhole covers and grates, shall be maintained in place.

C7.3.9.13 Grease Traps. The Contractor shall inspect, clean, and maintain repair or replace the grease traps in the cafeteria, flag mess kitchens, and the CDC kitchen monthly.

C7.3.9.14 Domestic Water Testing. The Contractor shall test domestic water for chemical, biological and particulates. At minimum, the water shall be tested annually in building 2462 and building 2468 or as requested by the COR or as required by the local Federal, State or DOD regulations. The testing shall include all building listed in PWS. The testing shall include a full spectrum test for lead and other metal and biological contaminates or as required by the local Federal, State or DOD regulations. In building 2462, one sample shall be collected and tested from the fourth floor of each pod (POD 1-10). In building 2468 one sample shall be collected and tested at the last room of each wing. The test results shall be submitted no more than Fifteen (15) days after the start of the contract or option year.

C7.3.9.15 Valve Exercise. All critical valves shall be exercised at a minimum of once per year.

C7.3.9.16 Boiler Systems. The Contractor shall maintain a Boiler Operator, on staff to perform daily operation, and subcontract with a factory authorized “Qualified Boiler Maintenance” Company to perform boiler maintenance and testing.

C7.3.9.16.1 The Contractor shall maintain heating systems and related auxiliary equipment, boilers, boiler feed pumps, condensate return pumps, water pretreatment equipment, such as

water softeners, and all other related equipment. This may include solar heating equipment or other applications. All equipment shall be maintained to meet operational requirements except when off-line. All scheduled maintenance shall include a visual inspection of all components to ensure proper operation and to check for leaks or other deficiencies.

C7.3.9.16.2 If it is determined that damage has occurred from improper maintenance or chemical treatment or any parts/components/units, the Contractor shall be responsible for repairing or replacing necessary parts/components/units at no additional cost to the government.

C7.3.9.16.3 The Contractor shall operate and maintain the boiler systems to preserve the safety of personnel, the protection of the property, and the comfort of the tenants. The intent is to operate as efficiently as possible while protecting all assets from freezing conditions. Boiler operations shall be logged daily while in operation. The Contractor shall be familiar with the requirements of the local Air Quality Management District (AQMD) and shall ensure operating permits for boilers, and all other emissions producing equipment regulated by the AQMD are up-to-date and have copies available for the KO or designee. Operating readings shall be logged daily and posted during boiler operation.

C7.3.9.16.4 Testing and Inspecting. The Contractor shall provide boiler inspections, including internal and external (operating) inspections and tests described in part 2 of the National Board Inspection Code (NBIC) dated as current at the time of this solicitation. The operating or external inspection shall be done during the heating season while the boiler is under load. The internal testing shall be performed in the off season. Details on what the Contractor shall do to get the boiler ready for inspection prior to the inspector's arrival shall be determined between the Contractor and the inspection contractor. All boilers and unfired pressure vessels shall be inspected as per the NBIC. Where the NBIC in any States limit or exempt federally controlled/ owned pressure vessels from inspection requirements, those limits or exemptions are null and shall not be considered applicable. Inspections shall be performed by inspectors certified by the National Board of Boiler and Pressure Vessel Inspectors, who shall be employed by an independent firm specializing in boiler and unfired pressure vessel inspections. The Contractor shall implement boiler shutdown and summer lay-up procedures to protect the boilers from corrosion during the off-season. A combustion (flue gas) analysis shall be performed annually at the beginning of each heating season on all fossil fueled boilers. This test helps the Contractor adjust the boiler to its optimum efficiency. A report that includes the manufacturer's efficiency rating by design shall be provided to the COR within ten business days of the test that shows the readings before any adjustments are made. A follow-up report shall be provided to the COR within ten business days after any adjustments are made to document compliance.

C7.3.9.16.5 Boiler Systems Reporting. Daily logs of the boiler shall be annotated by the Contractor on an approved boiler log and kept at the boiler. After the third-party inspection of a boiler, the Contractor shall have the inspector complete a KO or designee approved Inspection Report Form for each boiler inspected. All inspections and tests shall also be scheduled and annotated in EBS and reported in the monthly report.

C3.3.9.17 Air Distribution Equipment. The Contractor's proposed maintenance plan shall include all the building equipment associated with the air distribution systems up to and

including the final discharge of air into occupied spaces. At a minimum, the maintenance plan shall include applying lubricants, sealing filter racks against bypass air flow, cleaning fan housings, fans, coils, dampers, air diffuser/grilles, air handling unit (AHU) sections, and equipment rooms, and replacing consumable parts or components. Filter MERV ratings for AHUs, and similar air distribution assets will be recorded in the asset record for the equipment asset. Filter change PMs will be directly associated with the air handler or other air distribution equipment.

C7.3.9.17.1 The Contractor shall operate air distribution systems in accordance with their design and the approved sequence of operations and any other requirements within this Contract. The Contractor shall follow ASHRAE 202-2103 (Commissioning Process for Buildings and Systems) or later versions, if superseded, when operating this type of equipment. The Contractor shall be responsible for making immediate adjustments or corrections that fall within the proposed maintenance plan, generated Service Orders and any other requirements under this PWS. The Contractor shall make recommendations and perform adjustments to controls, adjust BAS settings, correct set points, and restore equipment to automatic operation as approved by the COR or designee. The Contractor shall identify all alarm points with originating point identification information (device ID, point number, description) to manipulate the system to monitor conditions, track and trend operational criteria. The Contractor shall make every reasonable effort to protect all assets regarding air distribution systems and associated equipment listed in this Contract from freezing conditions.

C7.3.9.18 Filters. The Contractor shall use high-efficiency air filters when replacing the filters with air handlers and other equipment that use air filtration. The Contractor shall only use air filters with known Minimum Efficiency Reporting Value (MERV), as defined in the ANSI/ASHRAE Standard 52.2. The Contractor shall replace air filters with the air filters that have MERV 13 value unless the filter significantly reduces design air flow and deviates from manufacturer recommendations. The contractor shall report to KO or designee if filters other than MERV 13 are used.

C7.3.9.19 Testing and Inspection. The Contractor shall ensure that air distribution components operate on a system level per the design intent and sequence of operations by testing and inspecting the units. The testing of the air distribution system shall also include the integration with other equipment in the building including chillers, boilers, variable air volume system components, fans, ductwork, and air intakes.

C7.3.9.20 Air Distribution Equipment Reporting. The Contractor shall report and enter in EBS all activities performed with respect to the air distribution system and its components, including filter MERV ratings of installed filters, in the appropriate EBS Service Orders.

C7.3.9.21 Chiller Systems. The Contractor shall use the manufacturer's recommended maintenance procedures, or if data is not available use Technical Exbibit D – PM Checklists or other industry standard approved by the COR. The contractor shall submit his final plan for chiller maintenance to the COR or designee for approval within 60 days of the contract award date. Maintenance shall be accomplished by the chiller manufacturer's authorized service technician.

C7.3.9.21.1 The Contractor shall operate the chiller systems according to established operational standards with manufacturer's guides, industry standards or as otherwise directed by the COR or designee. The intent is to operate as efficiently as possible while protecting all assets. Chillers shall be logged daily while in operation utilizing a COR approved chiller log.

C7.3.9.22 Testing and Inspection - Nondestructive Chiller Tube Analysis (Eddy Current) Chillers with tube and shell heat exchangers, both evaporator and condenser, shall have an eddy current test performed every three years. The test shall be performed by a Level II technician, certified by the American Society for Nondestructive Testing, per SNT-TC-1A - Personnel Qualification and Certification in Nondestructive Testing/Inspection. The test shall be performed in accordance with current American Society of Mechanical Engineers standards.

C7.3.9.23 Oil Analysis. Submit a sample of the compressor oil to the chiller manufacturer's authorized laboratory for comprehensives analysis annually. Analysis shall determine system moisture content, acid level and wear metal content of the oil. Provide oil analysis results to the COR or designee.

C7.3.9.24 Vibration Analysis. Perform vibration analysis in accordance with manufacturer's recommendations annually. A baseline trend shall be established, charted, and compared with the manufacturer's specifications. This trend chart shall be provided to COR or designee. Technicians must have Level 2 certification for such test.

C7.3.9.25 Pictures. The Contractor shall take pictures of the tubes, tube sheets and end plates of water-cooled chillers with tube and shell heat exchangers immediately after the removal of the end plates prior to brushing the tubes and again after the brushing of the tubes. These pictures shall be uploaded into EBS. The Contractor shall notify the COR or designee at least five business days prior to the removal of the end plates so that The Government can observe the condition of the tubes right after the removal of the end plates. All inspections and tests shall also be scheduled and annotated. The contractor shall provide the KO or designee with two copies of the written nondestructive chiller tube analysis report within 14 business days of the test. The report shall include findings and recommendations. The Contractor shall document the report by uploading it into EBS.

C7.3.9.26 Chiller Systems Reporting. Daily logs of the chiller(s) shall be annotated on an approved chiller log and kept at the chiller or the onsite Contractor's office and uploaded into EBS. With low pressure chillers daily logs shall include purge run times and pump out times. Logs are to be included in the monthly report.

C7.3.9.27 Cooling Towers. The Contractor shall ensure proper maintenance of the equipment by inhibiting and removing mineral scale, corrosion, bacterial contamination, and general fouling of the water and by physically cleaning the tower on a regular basis. The Contractor shall use the manufacturer's recommended maintenance procedures, or a combination of both if the method is submitted to the COR or designee for prior review and approval.

C7.3.9.28 Testing and Inspection. The Contractor shall test the water in accordance with the HVAC water treatment section C7.3.9.31 of this contract. All equipment associated with the cooling tower shall be checked for proper operation and free of scale, corrosion and other contamination affecting performance of the tower. Testing must include vibration cutout switch where installed.

C7.3.9.29 Cooling Towers Reporting. All maintenance and all service calls associated with cooling towers shall be reported in EBS and the monthly report. The Contractor shall advise the KO immediately if it is not operating properly or is offline for any reason.

C7.3.9.30 Cooling Tower Water Management. Contractor shall develop a cooling tower maintenance program and plan in accordance with ANSI/ASHRAE Standard 188.

C7.3.9.31 HVAC Water Treatment. The Contractor shall implement an effective HVAC water maintenance plan as part of a comprehensive HVAC equipment maintenance program. This plan shall include the methods, procedures, references, and industry standards that the Contractor has elected to use to execute the maintenance plan. The plan shall also detail procedures, special tools and equipment, treatment procedures, chemicals and water chemistry criteria, preventive maintenance and testing frequencies, and anticipated schedules for shutdown, start up, and cleaning.

C7.3.9.32 The Contractor shall control corrosion, scale, algae, and bacterial growth in all HVAC assets and systems throughout the building. The Contractor shall be responsible for compliance with all applicable local sanitation requirements, discharge regulations, district air quality regulations, and other environmental laws and regulations. The scope of this work extends to related safety equipment (e.g., emergency eyewash stations), all of which shall be maintained in accordance with all applicable OSHA standards.

C7.3.9.33 HVAC Water Treatment Plan. The Contractor shall prepare a comprehensive water treatment plan that includes operating, cleaning, maintenance, corrosion monitoring, seasonal equipment layups, water treatment for both open and close loops and reporting on all related actions and analysis. The plan shall be specifically detailed to provide the COR or designee a quality assurance guide by which to assess the operating, maintaining, testing and reporting of all activities associated with the HVAC water systems. The Contractor shall provide all equipment, chemicals, and services (including application) required to control corrosion, scale, algae, and bacterial growth in all HVAC equipment and systems throughout the building. All equipment installed for water treatment and corrosion monitoring shall be conveyed to the Government at the end of the Contract. This Plan will be submitted to the KO or designee within 60 days of Contract start date.

C7.3.9.34 Testing and Inspection. The Contractor shall establish water treatment and testing frequencies that give an accurate and regular indication of whether the maintenance performed is adequately keeping the HVAC system water within the limits established in the HVAC Water Management Plan. The Contractor shall perform a comprehensive initial water treatment analysis (laboratory analysis) within 30 calendar days of the Contract award to assist in developing the

HVAC Water Management Plan. This initial analysis shall establish a baseline and shall be used to inform and validate the effectiveness of the Contractor's Plan.

- The testing frequencies shall be established by the Plan based on manufacturer's recommendations with input from the COR and the facility management staff.
- A qualified independent water treatment specialist shall be engaged to draw a set of water samples at a frequency established by the Plan and as agreed to by the KO or designee. Tests shall be performed as described in the water treatment plan and test results uploaded in EBS as an attachment to the Service Order.
- All samples shall be analyzed and a monthly report containing all pertinent information, relative to the conditions found, shall be submitted to the KO or designee with the monthly progress report.
- In facilities where makeup water is metered, makeup water quantities used shall be tracked and reported. Types and quantities of chemicals used shall be tracked in EBS and reported on also in the monthly progress report.
- If testing results are outside of established parameters in the Plan, the Contractor shall immediately investigate the cause of the deficiency and implement corrective action to restore the system to established parameters. The Contractor shall immediately notify the KO, or designee of the situation, explain the cause of the non-compliance condition and the actions taken to remedy the problem.
- After corrective action has been implemented, the Contractor shall perform a second test to verify that the system is operating within established parameters.
- All testing and retesting results shall be entered into EBS by the Contractor.
- Glycol-water solutions in all building systems shall be tested monthly to determine the percentage of glycol. The glycol water solution in all building systems shall be tested annually for pH, reserve alkalinity, inhibitor levels, and degree of contamination. If testing results indicate that glycol or additives must be added to maintain proper chemistry, then the Contractor shall be responsible for glycol or additives additions. If the test results indicate full replacement is necessary, then the Government shall be responsible for all associated costs. The test results must be documented in EBS.

C7.3.9.35 Legionella Testing. The contract shall perform Legionella culture testing each month, while the system is in operation. Testing shall be performed using a CDC-ELITE Laboratory. Samples shall be collected and submitted by the contractor.

C7.3.9.36 Utility Meter Reading, Calibration, and Maintenance. The Contractor shall read and record all HQC complex water and natural gas meters once per month. The readings shall be on the 1st of each month or the next business day if the 1st falls on a weekend or holiday. The Contractor shall submit the readings to the COR within two (2) days after reading. Any deficiencies in the meters shall be reported with the readings. The Contractor shall provide the form the meter readings will be recorded on prior to contract start for approval by the KO.

C7.3.9.36.1 The contractor shall perform maintenance and calibration of main, sub internal and external water meters annually or calibrated and maintained in accordance with the requirements in the PWS, Preventive Maintenance Guides. The contractor shall perform maintenance and

calibration of main, sub internal and external natural gas meters annually or calibrated and maintained in accordance with the requirements in the PWS, Preventive Maintenance Guides.

C7.3.9.37 Kitchen Appliances, Kitchen Equipment, Laundry Equipment, Exhaust, Ventilation, and Hoods. The Contractor shall perform service call/order, routine/preventive maintenance, repair, calibration/adjustment and alteration services on the kitchen appliances, kitchen equipment, laundry equipment, exhaust, ventilation equipment, hoods, related fire suppression equipment and panels, and dishwashing equipment listed in Inventory to be provided after award.

C7.3.9.38 Specialized Equipment. The Contractor shall perform service orders/calls, routine/preventive maintenance, repair, of all specialized equipment approved through the reasonable accommodation process. The reasonable accommodation specialized equipment shall include but not limited to personal space heaters, vaporizers, humidifiers, fans, air scrubbers and air purifiers. The contractor shall maintain a current inventory of all items.

C7.3.9.39 One Time Service (Base Year). Paint Mechanical Rooms. The Contractor shall be responsible to paint all the mechanical rooms in the HQC one time to be completed before the end of the base year. There are approximately 32 mechanical rooms of various sizes which total approximately 15,000 square feet. The paint shall include all piping on mechanical equipment, pads and floors and shall conform to 29 CFR 1910.144 (Safety Color Code for Marking Physical Hazards). All piping shall be labeled according to ANSI A13-1. The color schemes to be field verified. The pipe finish shall be oil base type or of equal quality. The house keeping pads and floor finish shall be non-skid epoxy type finish.

C7.3.10 Proactive Facility Tours

C7.3.10.1 The Contractor shall tour major building systems, equipment, and anything requiring tours mandated by any acts, codes or regulations as contained in this PWS. To accomplish this objective the Contractor shall develop a Tour Plan and submit it to the COR or designee for approval, no later than end of Startup or transition phase. With the advent of technology and innovation a “tour” is no longer exclusive to the physical walks. A tour shall be a part, or a combination of physical visits and automated systems. Tours are an opportunity to view equipment in different phases of operation, adjust, validate controls, verify set points, check efficiency, physical condition of mechanical space, and overall safety. It is not the intention of the Government to overly prescribe tour frequencies or methodologies; instead, the Contractor is expected to develop tours at frequencies and using methodologies that are of value to operations, inclusive of analytical decision making intended to optimize operations based on real time performance data.

C7.3.10.2 Proactive Facility Tours
The Contractor shall conduct periodic tours of the building to identify proactively and remedy any issues pertaining to tenant environmental comfort concerns. All findings noted during the tour shall be tracked and a Work Order shall be initiated for corrective action by the Contractor.

C7.3.10.3 Minimum Tour Frequencies

C7.3.10.3.1 Daily: Major HVAC equipment (when in operation), including boilers, chillers, cooling towers, and air handler rooms

C7.3.10.3.2 Weekly: Distributed HVAC equipment including package units and external condensers, pumps, motors, and condensate drip pans. Incorporate moisture control tours to prevent building damage, minimize mold contamination, illuminate leaks, and reduce health risks related to moisture.

C7.3.10.4 Operator Logs and Tour Check Sheets

C7.3.10.4.1 Contractor shall maintain Operating Logs and Tour Sheets as part of the data for major equipment. Documentation shall be completed at the time of the tours. The information recorded in the logs shall be sufficient to track the operating hours and performance history of the equipment. Records shall be kept of tours and action items needed based upon tour discovery. As such, Operating Logs and Tour Sheets shall be a part of the Tour Plan, and a Tour Sheet shall be established for any space identified as requiring a tour. The Contractor shall upon request make the operating logs and tour sheets available for inspection by the COR or designee.

C7.3.10.4.2 A Tour Sheet shall contain at a minimum:

a. General space condition and annotate any discrepancies.
b. Identify broken/inoperable equipment and capture Service Order status.
c. Accurately reflect equipment inspected during tour.
d. Capture operating data on identified equipment.
e. Status regarding operational parameters.

C7.3.10.4.3 The Contractor shall submit to the COR, or designee, a proposed Operating Logs and Tour Sheets for approval prior to implementing the Tour Plan.

C7.3.11 HVAC Building Automation Controls

C7.3.11.1 The Contractor shall operate systems according to the established sequence of operation for the BAS. The Contractor is responsible for notifying the COR or designee if a sequence of operations, equipment, or schedule is not operating as designed or is resulting in unnecessary energy use. The Contractor must have regular onsite expertise to perform basic daily adjustments, such as setpoint adjustments, while minimizing, documenting, and evaluating overrides without compromising the sequence of operations; overrides must be temporary and must revert to the established sequence of operations, or the Contractor must propose permanent changes to the COR. The Contractor must have onsite capability to operate the facility during any necessary emergency or manual operations of the system.

C7.3.11.2 The Contractor shall have an adequate level of BAS expertise to maintain the control systems according to DLA requirements for security compliance, energy efficient building system operations, and tenant thermal comfort. The contractor must operate the BAS to maintain the temperature requirements in 7.3.13.3, Temperature- Heating/Cooling; where these conditions

cannot be maintained, the Contractor shall notify the COR or designee and develop corrective action plans.

C7.3.11.3 The Contractor must have in-house expertise, or subcontract, for additional, specialized BAS services, such as sequence of operation tuning, sensor calibration, and BAS log review. If the Contractor does not have a manufacturer trained or equivalent BAS operator onsite, the Contractor shall enter a subcontract, including regular scheduled support (not merely support on a contingency basis), and remote access (where available and subject to J6 IT governance security clearances and training), with a firm that has these skills.

C7.3.11.4 The Contractor shall monitor the BAS for alarms. After hour alarms shall be routed to contractor phones as a phone text or as a monitored email. A BAS alarm after Normal Working Hours that impacts the building operations must be corrected under emergency call back Work Order service and recorded in EBS. The Contractor shall maintain the following minimum standards described below.

C7.3.11.5 BAS Control Systems and Upgrades

C7.3.11.5.1 BAS Control Systems shall be maintained as designed. The Contractor shall perform maintenance required to ensure that all BAS devices function properly, and repair or replace components that fail. The Contractor shall be responsible for BAS software and firmware updates and security patches. The Contractor shall advise the KO or designee and coordinate BAS vendor activities necessary to facilitate any upgrades the KO or designee deems necessary for the functionality and/or security of the BAS over and above those necessary for standard system operations. The Government may upgrade or change control system software or reprogram control systems during the performance period of the Contract. If the Government provides operator level training and operator level documentation for the Contractor's use, the Contractor shall not claim additional payment for in-house services relating to the new or upgraded control software or systems programs.

C7.3.11.5.2 The Contractor shall not modify sequences of operation, control programs, or run systems manually without concurrence of the KO or their designee. Where sequence of operation changes are approved, the Contractor is required to provide accurate edits to the Sequence of Operation to document the changes made.

C7.3.11.6 BAS Control Systems Reporting
Deficiencies in the BAS system operations shall be identified by BAS trending or Contractor's tours. All deficiencies shall be reported to the KO or designee immediately and documented and included in the monthly report. BAS alarms logs shall be included in the monthly report to show that they are being addressed.

C7.3.12 Corrective M**aintenance Service Order Proposals**

C7.3.12.1 Corrective Maintenance Service Orders (SO) proposals shall identify a deficiency and provide a recommended solution. The technical scope and price proposal shall be submitted

to the Government with sufficient detail and supporting documentation per contract requirements.

C7.3.12.2 The Contractor shall complete all the required information on the service order form and submit a firm fixed price proposal to the Contracting Officer (KO) or designated representative. The Contractor shall submit an electronic copy of the SO to the Government for review and approval. The Government will review the proposal and upon approval, the KO will generate a Notice-to-Proceed (NTP) for the specific task. The Contractor shall not proceed with any repairs prior to written notification from the KO. SOs must be approved by the KO

C7.3.13 Building Operations

C7.3.13.1 The Contractor shall provide on-site personnel, 24 hours per day, 7-days a week, including weekdays and federal holidays. The Contractor's Facilities Supervisor or Designee must be able available for emergency response during operating hours. The Contractor may be required to provide personnel for varying schedules to perform the requirements of the contract. The Contractor shall provide Contractor personnel, as required, at all other times to provide services, e.g., emergencies or scheduled after-hours work IAW C7.3.7.3; Emergency Call Back (Beyond Core Coverage Hours)Work Order Reception After Core Hours and; EMERGENCY (PRIORITY 1) SERVICE ORDERS (SO).

C7.3.13.2 Building Automation System. During normal working hours, ventilation shall be maintained in accordance with the latest guidelines from ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality. The Contractor's responsibility to comply with these requirements is limited by the capacity of the building's HVAC equipment, Building Automation System (BAS), and outside environmental conditions. The BAS/BMS should be operated to maximize energy efficiency.

C7.3.13.3 Temperature- Heating/Cooling. The contractor shall comply with energy conservation practices and shall be responsible for conserving energy to the maximum extent possible. The contractor will be required to adjust thermostats seasonally to reduce energy usage. The contractor shall operate all equipment and systems in an energy efficient manner and in accordance with each manufacturer's recommendations. During normal working hours, temperature controls shall be set to maintain space temperatures in accordance with the latest edition of DLAI 4170.11. During non-working hours heating temperature shall be set no higher than 55-degree Fahrenheit and air-conditioning shall be set no lower than 85-degree Fahrenheit. Temperature levels stipulated by the Government are subject to change based on nationwide energy policies.

Utility Provider Information:
Electric: Dominion Power
Water & Sewer: American Water
Gas: Washington Gas
Fire Alarm: Johnson Controls

C7.3.13.4 Office Space. Government Furnished Facilities. The Government will provide room HQC 0605 (177 SF) and room HQC 0607 (157 SF) for a total of 334 SF and room 3394 in the HQC POD 10 (140 SF). The Government will provide two (2) six feet by eight-foot (48 SF) cubicles in Room 0605 for the Project Manager and the Administrative Assistant. The Government will provide storage space for tools, equipment or supplies in mechanical room HQC 0550 in the HQC and B1393 in POD 10. There are no storage rooms for use in building 2468 (CDC). The Contractor shall assume responsibility and accountability of such facilities provided for his/her use and shall take adequate precautions to prevent fire hazards, safety hazards, odor, and vermin. The cost of any repairs caused by negligence or abuse by the Contractor, or his employees shall be the responsibility of the Contractor. Custodial services for Government furnished facilities shall be the responsibility of the Contractor and as a minimum shall be maintained at the same level as similar spaces occupied by the Government. The Contractor shall obtain written approval by the COR before making any modifications or alterations to any of these areas. Any modifications to Government furnished facilities shall be at the Contractor's expense. At the completion of the contract all areas shall be returned to the Government in the same condition as received, except for reasonable wear and tear. These facilities shall only be used for the performance of this PWS.

C7.3.13.5 Utilities. The Government will make available, at no cost to the Contractor, electricity for Contractor connection in the vicinity of work areas. The Contractor shall instruct employees in utilities conservation practices. Information concerning the location of existing outlets may be obtained from the Government Representative. The Contractor shall be responsible for operating under conditions which preclude the waste of utilities.

C7.3.13.6 Equipment. For appropriately covered services, the Government will provide an office space with desk, chair, LAN connection, and telephone for Contractor use. Contractor personnel shall only use the office equipment provided for official business and in accordance with all sites' administrative and security guidance. Use of Government communications devices requires consent to monitoring. Contractors can utilize their own equipment/communication but will not be able to access the network. Any required computer or server hardware (i.e., PC, laptop) and peripherals (i.e. mouse, keyboard, monitor) and/or routing and switching equipment, used to provide DLA network connectivity, must be government-furnished and must be provided by DLA.

C7.3.13.7 Material. The Contractor shall furnish all materials necessary, to include tools to perform the contract requirements and shall return to the Government the threshold of critical parts on hand at the termination of performance of these requirements. No inventory of the material returned to the Government will be taken at the termination of this contract. The Government is not responsible for lost or stolen tools or equipment. The Contractor shall furnish extensions from utility connections. The Contractor shall provide Personal Protective Equipment (PPE) and uniforms for its employees appropriate for the work to be performed (e.g., gloves, sleeves, coveralls, poles for high voltage personnel; respirators; safety boots; etc.). The Contractor shall calibrate and perform safety checks on all tools and equipment. The Contractor is responsible for obtaining equipment maintenance service manuals that are not available from the Government.

C7.3.14 Replacement Parts/Products

C7.3.14.1 All replacement units, parts, components, and materials to be used shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; shall comply with applicable Government, commercial, or industrial standards such as National Board of Underwriters or Underwriters' Laboratories, Inc., National Board of Fire Underwriters, National Fire Protection Association, National Electrical Manufacturer's Association, American Society of Mechanical Engineers, etc.; and used in accordance with original design and manufacturer intent. If the original manufacturer has updated the quality of parts for current production, the parts supplied under this contract shall equal or exceed the updated quality.

C7.3.14.2 Refrigerants, parts, and maintenance materials delivered to the post are to be new and unused. Reclaimed refrigerants are not to be delivered to posts. Reclaimed refrigerants within post compounds are to be retained and stored and may be used if not contaminated. Ensure all refrigerants are handled by licensed personnel. Provide copies of current handler certification and refrigerant amounts removed/added/leaked to Fort DPW Environmental Office, prior to the start of work. All refrigerant vessels must be properly labeled, and the labels must be free from damage.

C7.3.14.3 The Contractor shall keep on hand a 30-day supply of material for direct support of HVAC Maintenance. Facilities maintenance parts should include but not limited to: Evaporated Cooler parts, filters, belts, etc. The Government reserves the right to request what parts need to be in reserve.

C7.3.15 Warranty

The Contractor shall furnish the Government upon completion of the project the standard warranty of the equipment offered by the manufacturer.

C7.3.16 Contractor Personnel

C7.3.16.1 Inspection, Testing, and Maintenance tasks shall be performed by craftsmen trained or qualified certified by appropriate federal and state regulatory agencies to meet federal and local certification requirements in maintenance and inspection of the HVAC equipment.
Employees or subcontractors performing Contract work involving the operation, maintenance or repair, inspection, or testing of any piece of equipment or system shall be trained and possess the knowledge, experience and skills pertinent to the equipment or system as demonstrated by a current training certificate from an equipment manufacturer or a certificate by an organization acceptable to the KO. All personnel or sub-contractor personnel shall possess all certifications and licenses required by Federal, state and local jurisdictions for equipment that they shall be operating, maintaining, repairing, inspecting or testing. Contractor personnel will be required to obtain T5 clearance based on the location access required.

C7.3.16.2 Staffing Plan. A Staffing Plan shall for the Facilities shall be submitted within 30 days of contract effective date. The staffing plan shall describe how the contractor plans to staff the contract with the appropriate staffing levels and type of personnel to meet the requirements of this PWS. The plan shall include the following elements:

- Organizational chart
- Job classifications and descriptions
- Experience and competency requirements
- Primary job responsibilities
- Staffing levels
- Staff schedules and "on call" coverage
- Personnel costs

C7.3.16.3 Required Contractor Training and Certifications. The Contractor shall describe how the workforce (management and labor) with the requisite knowledge, skills, abilities, and applicable licenses and certifications to perform the requirements will be trained and/or certifications/licenses obtain to perform PWS requirements and/or the validation of current training from review training records of personnel hired from the preceding contractor/contract. Copies of all certifications for Contractor employees shall be kept on-site and provided to the Government upon request. The Contractor shall provide to the KO or their designee documentation of the certificates of training, licenses, and permits for all new employees not later than seven business days prior to that person beginning work under the terms of this Contract.

C7.3.16.3.1 HVAC Certifications

All HVAC personnel designated to operate, maintain, or repair, or any combination of HVAC equipment or systems shall possess one or more of the following certifications:

- North American Technician Excellence (NATE) HVAC Service Technician Certification
- HVAC Excellence Professional Level Certification
- UA Star HVAC Mastery Certification
- All HVAC personnel designated, to operate, maintain, and or repair, or any combination of HVAC equipment or systems shall maintain a minimum of 16 hours of continuing education per year from either NATE, HVAC Excellence, or UA Star recognized provider program. The Contractor shall submit written certification annually to the CO or designee.

C7.3.16.3.2 8140 Certified Personnel

The DoD 8140, Information Assurance Workforce Improvement Programs requires training and certification for Cybersecurity duties performed. All contract employees performing cyber-IA functions shall meet the requirements in accordance with the provisions of the IDIQ Base Level PWS Section C.4 Security/Cybersecurity.

C7.3.16.3.3. Key Personnel.

Certain skilled, experienced, professional and/or technical personnel are essential for successful accomplishment of the work to be performed under this contract. These are defined as "key personnel" and are those persons whose resumes are submitted as part of the technical/business proposal for evaluation. The contractor shall use key personnel as identified in its proposal during the performance of this contract and will request contracting officer approval prior to any changes. Requests for approval of any changes shall be in writing with a detailed explanation of the circumstances necessitating the change. The request must contain a complete resume for the new key personnel and any other pertinent information, such as degrees, certifications, and work history. New key personnel must have qualifications that are equal to or higher than those being replaced. The contracting officer will evaluate the request and notify the contractor whether the requested change is acceptable to the Government. The Contractor shall designate a Contract Project Manager in writing and provide the name and contact information to the CO. The Contract Project Manager is considered essential to the work being performed under this Contract.

C7.3.16.3.4 Contract Project Manager.
The Contract Project Manager performs day-to-day management of overall contract support operations, possibly involving multiple projects and groups of personnel at multiple locations. Organizes, directs, and coordinates the planning and production of all contract support activities. Prepares integration design and detailed cost estimates for project implementation as well as actual on-site subcontractor direction and management during implementation. Directs trades and provides technical direction on site during implementation. This position is directly responsible for cost targets and schedule adherence. The Contract Project Manager shall possess at least five years of recent (within the past seven years) experience in the management and supervision of building mechanical operations and maintenance for buildings of the approximate size, complexity and characteristics of the buildings to be covered by this Contract. A detailed resume shall be submitted to the CO or their designee for approval prior to the assignment of the project manager to the Contract. Both new and replacement project managers shall meet these qualification standards. Minimally, the resume shall contain:

- The full name of the proposed project manager.
- A detailed description of the proposed project manager’s employment history for the previous five years. The names and addresses of the companies for whom the proposed project manager worked for the past five years, along with the names and telephone numbers of the immediate supervisors.

C7.3.16.3.5 Facilities Supervisor.
Supervises and trains building and facilities maintenance staff. Oversees installation, inspections, repairs, trouble shooting and daily maintenance of buildings and infrastructures. Responsible for keeping buildings and facilities in compliance with applicable installation and environmental regulations to comply with environmental, health, and safety policies. Familiar with standard installation support concepts, practices, and procedures. Rely on experience and judgment to plan and accomplish goals. Performs safety and occupational health management, surveillance, inspections, and safety program enforcement for Contractor facilities operations. The Facilities Supervisor shall possess at least five years of recent (within the past seven years) experience in the management and supervision of building mechanical operations and maintenance for

buildings of the approximate size, complexity and characteristics of the buildings to be covered by this Contract. A detailed resume shall be submitted to the KO or their designee for approval prior to the assignment of the project manager to the Contract. Both new and replacement project managers shall meet these qualification standards. Minimally, the resume shall contain:

- The full name of the proposed Facilities Supervisor
- A detailed description of the proposed Facilities Supervisor employment history for the previous five years. The names and addresses of the companies for whom the proposed Facilities Supervisor worked for the past five years, along with the names and telephone numbers of the immediate supervisors.

C7.3.16.4 Non-Key Personnel Labor Categories.
The Government anticipates the need for additional non-key personnel labor categories in performance of the contract. The labor categories identified in this section do not prohibit the Contractor from using different labor categories or from combining labor categories, provided they are compliant with Department of Labor position descriptions. Offerors shall utilize personnel as required for the performance of contract requirements. The Government envisions some or all the following positions that may be necessary for the performance of the requirements. Some, all, or alternate positions may be utilized.

C7.3.16.4.1 Facilities Team Lead(s).
Responsible for overseeing day-to-day planning, implementation and problem-solving of a team in the performance of the team's assignment. In addition to managing the activities of the team, Team Leaders also perform a variety of work in the functions they are leading.

C7.3.16.4.2 Electrician.
Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy. Work involves most of the following: installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications, locating and diagnosing trouble in the electrical system or equipment, working standard computations relating to load requirements of wiring or electrical equipment, and using a variety of electrician's hand tools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience acquired through a formal apprenticeship or equivalent training and experience.

C7.3.16.4.3 General Maintenance Worker.
Performs general maintenance and repair of equipment and buildings requiring practical skill and knowledge (but not proficiency) in such trades as painting, carpentry, plumbing, masonry, and electrical work. Work involves a variety of the following duties: replacing electrical receptacles, wires, switches, fixtures, and motors, using plaster or compound to patch minor holes and cracks in walls and ceilings, repairing or replacing sinks, water coolers, and toilets painting structures and equipment; repairing or replacing concrete floors, steps, and sidewalks, replacing damaged paneling and floor tiles, hanging doors and installing door locks, replacing broken window panes, and performing general maintenance on equipment and machinery. Excluded are a. Craft workers included in a formal apprenticeship or progression program based on training and

experience; b. Skilled craft workers required to demonstrate proficiency in one or more trades; c. Workers performing simple maintenance duties not requiring practical skill and knowledge of a trade (e.g., changing light bulbs and replacing faucet washers).

C7.3.16.4.4 Laborer.
Perform tasks that require mainly physical abilities and effort involving little or no specialized skill or prior work experience. The following tasks are typical of this occupation: loads and unloads trucks, and other conveyances, moves supplies and materials to proper location by wheelbarrow or hand truck; stacks materials for storage or binning, collects refuse and salvageable materials, maintains grounds of industrial, commercial or public property such as buildings, camp and picnic grounds, parks, playgrounds, greenhouses, and athletic fields, cuts grass, and digs, fills, and tamps earth excavations, Levels ground using pick, shovel, tamper and rake, shovels concrete and snow; cleans culverts and ditches, cuts tree and brush; operates power lawnmowers, moves and arranges heavy pieces of office and household furniture, equipment, and appliance, moves heavy pieces of automotive, medical engineering, and other types of machinery and equipment, spreads sand and salt on icy roads and walkways, and picks up leaves and trash.

C7.3.16.4.5 Heating, Ventilation, and Air Conditioning (HVAC) Mechanic.
Installs, services and repairs environmental-control systems in residences, office buildings, and other establishments, utilizing knowledge of refrigeration theory, pipefitting and structural layout, mounts compressor and condenser units on platform or floor, using hand tools, following blueprints or engineering specifications, fabricates, assembles and installs ductwork and chassis parts, using portable metalworking tools and welding equipment, and installs evaporator unit in chassis or in air-duct system, using hand tools. Also cuts and bends tubing to correct length and shape, using cutting and bending equipment and tools, cuts and threads pipe, using machine-threading or hand-threading equipment, joins tubing or pipes to various refrigerating units by means of sleeves, couplings or unions, and solders joints, using torch, forming complete circuit for refrigerant, installs expansion and discharge valves in circuit. Connects motors, compressors, temperature controls, humidity controls, and circulating ventilation fans to control panels and connects control panels to power source; installs air and water filters in completed installation, injects small amounts of refrigerant into compressor to test systems and adds Freon gas to build up prescribed operating pressure. Observes pressure and vacuum gauges and adjusts controls to ensure proper operation, tests joints and connections for gas leaks, using gauges or soap-and-water solution, wraps pipes in insulation batting and secures them in place with cement or wire bands, replaces defective breaker controls, thermostats, switches, fuses and electrical wiring to repair installed units, may install, repair and service all air conditioners. Must hold appropriate EPA certifications for handling of refrigerants.

C7.3.16.4.6 HVACR Controls Technician
Monitor and adjust the full range of heating, cooling, ventilation, and refrigeration equipment by means of an energy management control system as well as hands-on work; writes, modifies, codes, analyzes, enhances and debugs Building Control Systems (BCS) / Utility Control Systems (UCS), FRCS computer control software programming, and trains others in the use of controls software programming; set up, troubleshoot, repair, test and calibrate electronic components for BCS / UCS computer control. Support technicians shall be knowledgeable and certified to

perform work on the systems they support. This includes, but is not limited to; LON, MODBUS, BACnet, Metasys, and Tridium. This includes all associated Cybersecurity requirements including but not limited to certifications such as 8140, and specific IT LEVEL II certifications.

C7.3.16.4.7 Controls System Integrator
The Controls System Integrator is responsible for the design, development, implementation, and/or integration of a DOD IA architecture, system, or system component for use within CE (computing environment), NE (network environment), and/or enclave environments in support of higher-ranking IA professionals. Must meet the Department of Defense Directive (DoDD) 8140.01, "Cyberspace Workforce Management and DoD 8570-M "Information Assurance Workforce Improvement Program" requirements for IAM (Information Assurance Manager) Level 1 or 2, and IAT (Information Assurance Technical) Level 2, or IASAE (Information Assurance System Architect and Engineer) Level 2.
Experience: three (3) years of experience with complex software systems, to include: Systems Analysis, Systems Architecture, Systems/Equipment Support, Test and Evaluation, and Logistics support of C4ISR requirements. Specific experience: three (3) years of experience in Supervisory Control and Data Acquisition (SCADA) development.

C7.3.16.4.8 Pipefitter (Maintenance)
The Pipefitter, Maintenance installs or repairs water, steam, gas or other types of pipes and pipefitting. Work involves most of the following: laying out work and measuring to locate position of pipe from drawings or other written specifications, cutting various sizes of pipe to correct lengths with chisel and hammer, oxyacetylene torch or pipe cutting machines, threading pipe with stocks and dies. This person is responsible for bending pipes by hand-driven or power-driven machines, assembling pipe with couplings and fastening pipes to hangers, making standard shop computations relating to pressures, flow and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the Maintenance Pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.

C7.3.16.4.9 Boiler Tender
Tends one or more boilers to produce steam or high-temperature water for use in an establishment, fires boiler, observes and interprets readings on gauges, meters, and charts which register various aspects of boiler operation, adjusts controls to insure safe and efficient boiler operation and to meet demands for steam or high-temperature water. May also do one or more of the following: maintain a log in which various aspects of boiler operation are recorded; clean, oil, make minor repairs or assist in repair to boiler room equipment; and following prescribed methods, treat boiler water with chemicals and analyze boiler water for such things as acidity, causticity, and alkalinity. Must obtain and maintain a letter of competency from a licensed Boiler Tender Company before filling this position.

C7.3.16.4.10 Welder, Combination, Maintenance
Welds metal components together to fabricate or repair products, such as machine parts, plant equipment, mobile homes, motors and generators, according to layouts, blueprints or work orders, using brazing and a variety of arc and gas welding equipment. Welds metal parts

together, using both gas welding or brazing and any combination of arc welding processes, performs related tasks such as thermal cutting and grinding, repairs broken or cracked parts, fills holes and increases size of metal parts, positions and clamps together components of fabricated metal products preparatory to welding. May locate and repair cracks in industrial engine cylinder heads, using inspection equipment and gas torch, may perform repairs only and be required to pass employer performance tests or standard tests to meet certification standards of governmental agencies or professional and technical associations.

C7.3.16.4.11 Sheet-Metal Worker, Maintenance
The Sheet-Metal Worker, Maintenance fabricates, installs and maintains in good repair the sheet-metal equipment and fixtures (such as machine guards, grease pans, shelves, lockers, tanks, ventilators, chutes, ducts, metal roofing) of an establishment. Work involves most of the following: planning and laying out all types of sheet-metal maintenance work from blueprints, models, or other specifications, setting up and operating all available types of sheet-metal working machines, using a variety of hand tools in cutting, bending, forming, shaping, fitting and assembling, and installing sheet-metal articles as required. In general, the work of the maintenance sheet-metal worker requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

C7.3.16.4.12 Administrative Assistant
In addition to secretarial duties (filing, taking phone calls, scheduling appointments, making travel arrangements), this position will provide administrative support to executive staff with office management responsibilities to include budgeting, personnel records and payroll. The Administrative Assistant may be required to work independently on projects requiring research and preparation of briefing charts and other presentation materials.

C7.3.16.4.13 Service Order Dispatcher
This position receives, records, and distributes work orders to service crews upon customers' requests for service on articles or utilities purchased from wholesale or retail establishment or utility company, records information, such as name, address, article to be repaired, or service to be rendered, prepares work order and distributes to service crew, schedules service calls and dispatches service crew. The Service Order Dispatcher calls or writes the customer to ensure satisfactory performance of service, keeps record of service calls and work orders, may dispatch orders and relay messages and special instructions to mobile crews and other departments using radio or cellular telephone equipment.

C7.3.16.5 Identification of Contractor Employees. All contract personnel attending meetings, answering Government telephones, and working in other situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed.

C7.3.16.6 Staff Appearance. Contractor personnel shall present a neat appearance and be easily recognized. This shall be accomplished by wearing uniforms bearing the name of the company and employee name. Uniforms shall be regularly laundered, consistent among personnel

classifications, and maintained presentable to tenant personnel during all working hours. All contractor service vehicles must be clearly identified with the company name.

C7.3.16.7 Escorting. Temporary contract employees who do not have favorable preliminary or final suitability determinations and need to work in non-public federally controlled space must be escorted. In those cases, the Contractor shall comply with the security clearance procedures for Escort Only Contractors. All uncleared contract employees shall be escorted in non-public space by a Government employee or another responsible cleared contract employee who is approved by the KO or designee. Other Government agencies shall have specific agency security requirements for their own space that shall only allow escort by Government employees or those designated by their agency. Government employees or approved cleared contract employees who provide escorts for uncleared contract employees shall always be within the eyesight of the uncleared contract employees. The Contract Government escort shall watch uncleared employees and remain with uncleared contract employees for the entire time they are in non-public federally controlled space. Any security violation of escort requirements by a cleared and approved contract employee shall result in the immediate removal from the Contract of all contract employees involved, i.e., escorts and uncleared escorted contract employees. Also, violations of escort requirements by subcontract employees in accordance with security requirements shall be grounds for loss of facility access for those individuals or grounds for termination of Contract, or both.

C7.3.16.8 Standards of Conduct. The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking disciplinary action with respect to its employees, as necessary. The Contractor is responsible for ensuring that its employees do not disturb papers on desks, open desk drawers or cabinets, or use Government telephones, except as authorized. Each employee must adhere to standards of behavior that reflect favorably on his or her employer and the Federal Government. Smoking is only allowed in designated areas on the property and no smoking is allowed within the Facility.

C7.3.17 Deliveries

C7.3.17.1 All contractor deliveries shall initially be taken to Building 2480, material Receiving and Screening Facility (MRSF) for off-loading and screening. The Government will visually inspect and screen the materials. The contractor is then responsible for loading the materials onto their vehicles and delivering the materials to their destination. The Contractor shall be responsible for the loading, transporting, and unloading of all equipment, materials and supplies to be used in performance of this PWS. Materials delivered to the site shall be inspected for damage, unloaded, and stored with a minimum of handling. Storage facilities shall be provided by the Contractor at the job site for maintaining materials at temperatures and conditions recommended by the manufacturer.

C7.4 Electrical Distribution System (Site) Specific Tasks

The contractor shall provide the expertise necessary to successfully execute Electrical Distribution Systems (Site) Service task order (TO)

C7.4.1 Requirements / Specifications

C7.4.1.1 The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform Site Electrical Distribution Systems services under the Building Control System (BCS) effort as defined in this PWS except for those items specified as Government furnished property and services. The Contractor shall perform to the standards in this contract.

C7.4.2 General Scope and Location Breakdown

C7.4.2.1 The contractor shall provide all management, tools, equipment and personnel for the repair, replacement, installation services and construction/alteration services on all related mechanical, refrigeration systems and equipment for all buildings, structures within the DLA, Andrew T. McNamara Headquarters Complex (HQC) 8725 John J. Kingman Road, Fort Belvoir, VA 22060-0621. Buildings at HQC include but are not limited to:

- BLDG 2420 Visitors Control Center (VCC)
- BLDG 2462 Andrew T. McNamara Headquarters Multi-story 1,100,000 square feet (SF)
- BLDG 2463 Gate 1 Access Control
- BLDG 2464 Gate 2 Access Control
- BLDG 2465 Gate 3 Access Control
- BLDG 2466 Recreational Building
- BLDG 2467 Irrigation Well House
- BLDG 2468 Child Development Center (CDC) 34, 000 SF
- BLDG 2469 Three Level Parking Garage building
- BLDG 2480 Material Receiving and Screening Facility (MRSF) 15,000 SF
- BLDG 2487 Outfall Control Structure

C7.4.2.2 The following are Remote Facilities within a 25-mile radius of the HQC: BLDG 802, 5,000 SF

- BLDG 1116, 23,768 SF
- BLDG 1414, 10,000 SF
- BLDG 1973, 10,800 SF
- BLDG 1976 10,800 SF
- BLDG 1977, 10,800 SF
- BLDG 1979, 10,800 SF
- Dulles West Office Building 9,643 SF
- Technical Equipment Inspection Facility 4,200 SF

C7.4.2.3 The HQC receives primary commercial power through dual incoming 34.5 KV underground feeder cables from the Fort Belvoir utility lines. Power is routed from the 34.5KV switchgear through the buss duct on the Lower Level to the nine (9) 34.5 KV Indoor Substations located on the lower level of the HQC. Power is reduced to 480 volts by 2,000-2500 KVA transformers and distributed through 480-volt buss duct power risers to panel boards in multiple electrical closets on each floor.

C7.4.2.4 The HQC has the following additional major electrical systems:

- Emergency Power Generator System (EPGS) Automatic Transfer Switches (ATS)
- Uninterrupted Power Supply Systems (UPS), Fire Detection Systems
- Access Control Barrier Systems

C7.4.2.5 The Contractor shall furnish all labor, supervision, tools, materials, equipment, incidental engineering, subcontracting, transportation, and management necessary to perform work in accordance with general craft, industry standards, applicable laws, regulations, codes, Federal Regulations, and HQC construction specifications. This work includes but is not limited to the following functional areas:

C7.4.2.6 General Electric: The General Electric includes all HQC Non-Security systems, including but not limited to, Plant systems, substations and associated equipment; electrical cables; electronic and communications manholes; duct system; transformers; circuit breakers; voltage regulator; capacitor; interior and exterior electrical distribution system and component (including both overhead and underground equipment).

- Operation, installation, maintenance, inspection, testing and repair of utilities.
- Operation, installation, maintenance, inspection, testing and repair of electrical equipment and associated systems.
- Operation, installation, maintenance, inspection, programming, testing and repair of Emergency Generators, Underground Storage Tank fuel monitoring system, Paralleling gear, Automatic Transfer Switches and Uninterruptible Power Supply (UPS) Systems.

C7.4.2.6.1 General System Description. The primary commercial power for the HQC electrical system is routed through dual incoming 34.5 KV underground feeder cables from the Ft. Belvoir utility lines back to Humphrey's station and originating from local utility. Power is routed from the 34.5 KV switchgear through the underground duct banks to the nine (9) 34.5 KV Indoor Substations located on the Lower Level of the HQC. Power is reduced to 480 volts by 2,000-3000 KVA transformers and distributed through 480-volt buss duct, power risers to panel boards. Additional transformers reduce the voltage for panel boards as required.

C7.4.2.6.2 There are eight (8) types of distribution panel services: Regular Power, Emergency Power, Lighting Power, Emergency Lighting Power, Distribution, Emergency Distribution, Emergency Regular Power and Emergency Motor Control Center (EMCC). The panel designations start with RP, EPP, LP, ELP, DP, EDP, ERP, and EMCC. Normal panels have no back-up capability. Emergency panels have generator back-up.

C7.4.2.6.3 Twenty-nine (29) Automatic Transfer Switches in the 34.5 KV Indoor Substations serve the Emergency Power panels.

C7.4.2.6.4 The Uninterruptible Power Supply (UPS) contains one (1) 750 KVA, three (3) 400 KVA parallel systems with associated batteries, automatic transfer switch, transformer, distribution panel, and control equipment.

C7.4.2.6.5 Five (5) emergency generators provide emergency power. The generators are connected to the Control and Paralleling Switchgear located in the Central Plant.

C7.4.2.6.6 The Contractor shall be responsible for operation of all HQC electrical components, equipment and systems, year-round, twenty-four (24) hours a day, seven days a week (including all federal holidays).

C7.4.2.6.7 The Contractor shall operate, maintain, inspect, replace and repair the electrical plants and systems listed below, and the associated equipment listed in Attachment C8 inventory list.

C7.4.2.6.8 The site electrical distribution systems include all:

- 34.5 KV Indoor Substations
- 34.5 KV Outdoor Switchgear
- Access Control Barriers systems
- Automatic Transfer Switches (ATS)
- Auxiliary and emergency generators Bus Duct Plug-in Switches
- Bus Duct Power Risers
- Circuit breakers
- Disconnect Switches
- Dry Type Transformers Duct systems
- Electric and communication manholes Electrical cable Emergency Generators Enclosed Circuit Breakers
- Fire detection systems pump ATS
- Generator Control & Paralleling Switchgear
- Interior and exterior electrical distribution systems and components (including both overhead and underground equipment)
- Motor Control Centers Motor Starters Panel
- Substations and associated equipment,
- Surge Suppression Panels Switch Boards Switches Transformers and Voltage Regulators
- Underfloor Duct Power System, EPG Underground storage tank (UST) fuel monitoring system, and UPS units, **note**: (This is not an all-inclusive list)

C7.4.2.6.9 All systems shall be repaired or replaced as required to operate as originally intended and designed, and in a safe manner.

C7.4.2.6.10 All workmanship and materials shall conform to the National Fire Protection Association (NFPA) 70 National Electrical Code.

C7.4.2.6.11 In the performance of work under the contract, the Contractor may find that manholes (electrical and communication) may be full of water. The Contractor shall be required to pump the water out of the manholes for accomplishment of services and maintenance on an as-needed basis or as directed by the COR.

C7.4.2.6.12 Interior Electric. The Contractor shall inspect, replace, maintain, repair, modify and install interior electrical distribution systems and components including: wiring, conduit and cable systems, fuses, circuit breakers, conductors, switches, receptacles, outlets, device plates, grounds, service equipment, motor control centers, control switchboards and consoles, electrical kitchen equipment, building ventilating fans, exhaust blowers, electrical heaters and similar types of equipment/systems in accordance with the National Electrical Code.

C7.4.2.6.13 Supplemental readings with portable recording or indication meters shall be taken as directed by the COR to ensure all system elements are operating within their specified capacities. All required meters and test equipment shall be provided by the Contractor.

C7.4.2.6.14 Electrical materials and equipment utilized by the Contractor shall comply with existing codes of the National Fire Protection Association, American Safety Code, Underwriters Laboratory (UL) and the Bureau of Standards. Repairs shall be made in such a manner as to ensure a safe and reliable electrical system.

C7.4.2.6.15 All electrical work shall conform to the requirements of the most current National Electrical Code (NFPA 70) where applicable. The Contractor shall submit proof that materials which it proposes to furnish, conform to the standards set therein of testing organization(s). The label of the testing organization(s) shall be accepted as conforming to this requirement. In lieu of this label, the Contractor may submit a written certification from any national recognized testing agency, adequately equipped and competent to perform such services, that the item(s) has been tested and conforms to standards, including methods of test, of the above testing organization(s).

C7.4.2.6.16 The overall quality of the repair, including all materials, shall comply with applicable Federal specifications and be comparable to the original construction quality for the building or unit and shall be made in such a manner as to assure a safe and reliable electrical system.

C7.4.2.6.17 The Contractor shall coordinate its work plan with the customer receiving the services for all activities involved in the installation, maintenance, and repair of interior electrical systems.

C7.4.2.6.18 The Contractor shall read and interpret complex multi view drawings, sketches, wiring diagrams, manufacturer specifications, and other technical materials to isolate malfunctions in equipment or systems mentioned in the contract.

C7.4.2.6.19 The Contractor shall troubleshoot and repair equipment, systems and special purpose devices for which there are no operating or maintenance procedures or drawings, sketches, wiring diagrams, manufacturer specifications or other technical material. The Contractor shall provide for complete documentation of all necessary maintenance records.

C7.4.2.6.20 The Contractor shall have the ability to install, maintain and repair or replace all main disconnect devices, cables, wires, raceways, ducts, capacitors, regulators, grounding equipment, as well as the parts and accessories necessary to distribute the electricity to the proper equipment. The Contractor's work shall include:

- Measuring, cutting threads, bending, assembling and installing conduits, inserting splices and connect wires to fixtures, outlets, switches, receptacles and power sources.
- Working from blueprints, wiring diagrams and/or sketches.
- Locating, diagnosing and repairing trouble occurring in power circuits, controls, switches, rheostats, thermostats, flow meters and stop controls.
- Use of test circuits and equipment and power analyzers, such as a Dranetz power platform 4300, Ampere meters, Volt meters, Ohm meters as necessary for trouble shooting, maintenance and repair.
- Installing, maintaining and repairing or replacing a wide variety of electrical fixtures, tools, and appliances.
- Following maintenance schedules, instructions in Task Orders, performing inspections and providing maintenance services, diagnosing system or equipment malfunctions and repairing as necessary.
- Inspecting, testing, cleaning, repair or replacing, and adjusting electrical buzzer and bell circuits, light sockets, light fixtures, emergency light fixtures, emergency lights and emergency lighting systems, fan switches, office and heating appliances, rheostats, thermostats, electrical drills, grinders and other shop equipment. Light fixtures and lens shall be cleaned to include removal of bugs and debris when lamps are replaced or as requested by the COR.
- Install, test, maintain and repair or replace electric motors as directed by the COR. The Contractor shall only be required to provide power and make-up connections for electric motors used as part of mechanical systems such as pumps, air handlers and fans.
- Repair of all malfunctions and breakdowns in electrical wiring and controls in buildings, structures and facilities and underground wiring, fiber optic cabling, equipment and controls.
- Install and repair AC and DC electrical wiring systems and associated switches, distribution panels, light sockets, outlet boxes, outlets and light fixtures as required and special communication cables.
- A specialty lift is required for relamping the Atrium lights, rear entranceway ceiling lights, racquetball court lights and lower-level ceiling lights. The Contractor shall allow adequate equipment lead-time when developing the relamping schedule.

- Within fifteen (15) calendar days after award of contract, the Contractor shall submit to the COR for approval a relamping program work schedule. Between scheduled relamping services, the Contractor shall respond to service calls in accordance with the Section C2.17 "SERVICE ORDERS," for replacing light bulbs, LED's, tubes and other defective parts or components.
- Where the Contractor can identify upgraded lamps that will reduce energy consumption, a proposal should be submitted in writing to COR detailing the estimated energy savings, the cost of the replacement lamps and the payback period.
- The Contractor shall accomplish lighting surveys per the direction of the COR to include candle power meter readings, the addition or removal of fluorescent tubes and incandescent bulbs to comply with current or revised governmental energy regulations and illumination requirements.

C7.4.2.6.21 Lightning Protection and Grounding Systems. The Contractor shall install, maintain, test, and repair or replace lightning protection and grounding systems in accordance with the national Electrical Code and applicable documents. These systems shall be tested upon request by the COR and every time lightning strikes, repairs or additions have been made to the system. The Contractor shall submit to the COR a Grounding Test Report after system testing.

C7.4.2.6.22 Shop Equipment. The Contractor shall install, maintain, and repair the electrical/electronic components, circuits, controls and all related parts to shop equipment. Shop equipment shall include all trade/craft machinery such as machine shop equipment, woodworking equipment, welding equipment, and electric hand tools.

C7.4.2.6.23 Miscellaneous Equipment and Services. The Contractor shall install, maintain, and repair a wide variety of miscellaneous electrical equipment.

C7.4.2.6.24 The Contractor shall furnish electrical support, including temporary connection of power to displays and exhibits for all special events.

C7.4.2.6.25 Exterior Electric. The Contractor shall install, maintain, and repair or replace exterior electrical systems up to and including 35KV. Due to the inherent hazards encountered in the maintenance and repair of electrical distribution systems and equipment, the Contractor shall ensure that all personnel performing work on these systems and equipment are qualified, trained and thoroughly familiar with the equipment and procedures to be followed.

C7.4.2.6.26 Personnel shall be trained and certified by the National Institute for Certification of Engineering Technologists (NICET), National Electrical Testing Association (NETA) or an equivalent institute or association acceptable to the COR.

C7.4.2.6.27 The Contractor shall provide adequate, qualified personnel to perform systematic and periodic inspection, preventive maintenance, and repair of equipment.

C7.4.2.6.28 Power failures shall constitute an Emergency condition.

C7.4.2.6.29 The Contractor shall perform all work as required to maintain continuous electrical service twenty- four 24 hours a day, three hundred sixty-five 365 days a year.

C7.4.2.6.30 The Contractor shall install, maintain, and repair or replace substations, underground electrical ducts/lines/cables, transformer vaults (below and aboveground), lightning protection systems and various exterior lighting systems and similar types of equipment.

C7.4.2.6.31 Upon completion of any maintenance work, the Contractor shall install, maintain, and repair or replace substations, underground electrical ducts/lines/cables, transformer vaults (below and aboveground), lightning protection systems and various exterior lighting systems and similar types of equipment. Upon completion of any maintenance work:

- The equipment and its components shall be clean and restored, with no missing or damaged parts.
- All components and parts shall be tightly fitted. All lubrication shall have been applied, and all fluid levels and types shall be in accordance with the manufacturer's instructions.
- The equipment shall operate within its design limitations.
- Contractor's work shall include high voltage splices when applicable, and maintenance and repair of all components and accessories related to major items.

C7.4.2.6.32 Underground Electrical Distribution System. The Contractor shall install, maintain, locate, and repair or replace the complete underground distribution system including equipment such as cables, splices, potheads, terminations, air-break switches, high voltage fuses, duct banks, cutouts, transformers, conduit, and all other components required to maintain reliable electric service.

C7.4.2.6.32.1 The Contractor shall pump out water from manholes containing electric service and remove all debris.

C7.4.2.6.32.2 The Contractor shall paint switches, supporting structures and other ferrous material.

C7.4.2.6.32.3 The underground electrical distribution system shall be maintained in accordance with the National Electrical Code and applicable documents.

C7.4.2.6.33 A test for gases and electrical leakage must be made prior to entering any manhole or confined space.

C7.4.2.6.33.1 The Contractor shall review OSHA safety procedures for "Confined Space Entry" and "Selection, Care and Use of Respiratory Protection". The Contractor shall provide ventilation within the manhole and ensure that exhaust from air compressors or generators are directed well away from the manhole.

C7.4.2.6.33.2 Check existing grounding.

C7.4.2.6.33.3 All required maintenance and services shall be performed, all components cleaned, defects corrected, drain holes freed of obstructions, and all components operating as designed.

C7.4.2.6.34 Substations/Switching Station Systems. The Contractor shall install, maintain, locate, operate, and repair or replace the complete substation and switching station systems including: potential and current transformers, protective relays, ground fault protection, air break switches, high voltage fuses, circuit breakers, substation power transformers, batteries, current and voltage meters, kilowatt hour meters, tap changers, bus bars and structure bars, grounds, lightning arrestors, lightning masts, insulators, bushings, voltage regulators and other components not listed.

C7.4.2.6.34.1 The substation and switching stations shall be maintained in accordance with manufacturer's recommendations.

C7.4.2.6.34.2 The Contractor shall inspect, prepare and touch-up paint the substation enclosures annually and fully paint them every five (5) years.

C7.4.2.6.35 The Contractor shall read and record data from all meters, counters and indicators in each high voltage substation or switching station (e.g. ammeters, voltmeters, kilowatt hour meter, tap changer/voltage regulator, oil temperature indicator, winding temperature indicator, oil level indicator, overcurrent relay indicator, etc.). Meter readings shall be accomplished in accordance with manufacturer's standards.

C7.4.2.6.35.1 Any unusual condition, power outage or indication of an automatic breaker operation shall be immediately reported to the COR along with a recommendation to correct the condition.

C7.4.2.6.35.2 The Contractor shall submit monthly Substation Operation Reports to the COR within five (5) business days after the start of the month.

C7.4.2.6.35.3 Supplemental readings with portable recording or indicating meters shall be taken as directed by the COR to ensure all system elements are operating within their specified capacities.

C7.4.2.6.35.4 The substation circuit load shall be included in the monthly Substation Operation Report.

C7.4.2.6.36 The Contractor shall review all readings, and shall make any additional readings necessary, to ensure that substation transformers, transmission lines, voltage regulators, circuit breakers and distribution circuits are operating within their rated capacity. Rated capacity shall be in accordance with the equipment nameplate or manufacturer's data. The COR may decrease allowable loads on system components as deemed necessary for continuity of service or protection of the system.

C7.4.2.6.37 Structure maintenance for outdoor substations is not needed unless rust appears.

C7.4.2.6.37.1 If rust appears, the structure should be spot painted.

C7.4.2.6.37.2 If rust covers more than five (5) percent of visible surfaces, the entire structure shall be painted.

C7.4.2.6.37.3 All rust must be removed before painting. Indoor substations are not galvanized and must be painted for preservation.

C7.4.2.6.38 The Contractor shall provide High Voltage Technicians certified by NETA when maintaining, installing, repairing, replacing, or troubleshooting high voltage systems or components. Refer to Section C3.2.13.3 of this PWS for the minimum qualifications.

C7.4.2.6.39 Concrete used as a foundation base for metal structures and equipment must be visually checked at least annually.

C7.4.2.6.39.1 Cracks wider than one-eighth (1/8) inch shall be repaired and deteriorated concrete must be replaced.

C7.4.2.6.39.2 All connections, joints, fastening hardware, etc., shall be inspected and replaced or tightened as part of the annual PM requirements.

C7.4.2.6.40 Planned Outages. The Contractor shall schedule and coordinate all planned electrical outages with the COR.

C7.4.2.6.40.1 The COR will coordinate the planned electrical outage with the FACO's, and representatives of the tenants involved.

C7.4.2.6.40.2 The Contractor shall not undertake an outage until approval from the COR has been obtained.

C7.4.2.6.40.3 Power outages will not typically be possible during Government working hours and the Contractor may be required to accomplish the work during other than Government working hours.

C7.4.2.6.40.4 A Standard Operating Procedure (SOP) shall be prepared and submitted to the COR for approval, a minimum of two (2) days in advance of performing any work, detailing action to set up for preventative maintenance testing/inspections or repairs and to restore systems to normal operating conditions.

C7.4.2.6.40.5 The planned electrical outage shall be requested in accordance with Section C4.1.11 of this PWS.

C7.4.2.6.41 Unplanned Outages. The Contractor shall report system malfunctions and unplanned electrical outages to the COR immediately, day or night.

C7.4.2.6.41.1 Information as to scope, details, probable cause, required switching, time to restore service and time to complete repairs shall be reported to the COR as soon as the information is available.

C7.4.2.6.41.2 If the problem involves a substation or a switching station, details regarding operation of protective devices, malfunction or damage of equipment, meters, counters and indicators shall be reported to the COR. In the event of unplanned electrical outages, the Contractor shall take immediate steps to restore service as quickly as possible and to the maximum extent possible.

C7.4.2.6.42 During the base year of the contract, the Contractor will perform an ARC Flash study for the entire HQC, in accordance with the most recent NFPA 70 E, IEEE, and OSHA guidelines.

C7.4.2.6.42.1 The study will cover equipment such as switchboards, panel boards, industrial control panels, meter socket enclosures, and motor control centers.

C7.4.2.6.42.2 The Contractor shall ensure the current IEEE 1584 guide for Performing Arc-Flash Hazard Calculations will be the method used to perform the study.

C7.4.2.6.42.3 Completed electrical power system studies shall be submitted to the facility owner (COR) in electronic format using Adobe Acrobat.

C7.4.2.6.42.4 Any inadequacies shall be called to the attention of the COR and recommendations made for improvements as soon as they are identified.

C7.4.2.6.42.5 A single-line diagrams or complete electrical system drawing shall be maintained by the Contractor, at the central plant, at each substation.

C7.4.2.6.42.6 Contractor will provide a digital and hard copy of the study to the COR.

C7.4.2.7 - Emergency Generators

C7.4.2.7.1 The Contractor shall operate, maintain, inspect and repair the five emergency diesel generators. The generators are connected to the Control and Paralleling Switchgear located in 34.5 KV electrical central plant.

C7.4.2.7.2 The generator sets are Caterpillar (4) 800 KW (1) 900 KW diesel electric generator sets. Each generator set contains an eight (8)-cylinder engine, generator, radiator, dual starter, four (4) batteries, battery charger, water jacket heater, day tank, and enclosure.

C7.4.2.7.3 The Emergency Generator Control and Paralleling Switchgear is designed to automatically supply and control emergency power for distribution designated building loads in the event of normal power failure.

C7.4.2.7.4 The Contractor shall inspect and perform the required emergency generator maintenance requirements in accordance with Preventative Maintenance Guide attachment (technical exhibit), as well as manufacturer's recommended preventive maintenance. These requirements include weekly, semi-annual, annual, triennial operation, preventive maintenance, in accordance with Fort Belvoir Environmental Office and the Virginia Department of Environmental Quality (DEQ), Title V air permit requirements.

C7.4.2.7.5 The Contractor shall maintain operating logs and files on each of the five (5) emergency generators. Operating hours, times, temperatures, and pressures shall be annotated in the log. A log of electrical system outages, including time, duration, and details of outages, shall be maintained daily and submitted monthly to the COR within five (5) business days after the start of the month. All logs and files shall remain the property of the Government. The logs and files shall be submitted to the COR upon contract completion or termination.

C7.4.2.7.6 The Contractor shall maintain the operating log in each generator enclosure. The log shall, at a minimum, provide the date and duration of the exercise period, load carried, condition of equipment, and name of the operator. Standing Operating Procedures (SOPs) shall be mounted and maintained on the wall near each generator. The SOP shall detail steps to start, run, load, and secure the generator under both normal and emergency conditions. The Contractor shall prepare and update the SOP as required.

C7.4.2.7.7 The Contractor shall monitor and record the quantity and water content of generator fuel contained in the underground storage tank weekly and shall submit a written report of the findings to the COR within five (5) business days after the reading.

C7.4.2.7.8 The Contractor shall prepare and fully paint the emergency diesel engine generator exhaust pipes and mufflers on an annual basis with the proper heat-resistant paint. The generator and housing shall be touch up painted annually and fully painted every five (5) years.

C7.4.2.7.9 The Contractor shall operate, maintain, and repair the underground storage tank and fuel monitoring system and the fuel polishing system using State of Virginia certified technicians.

C7.4.2.7.10 The Contractor shall provide Technician certified by the manufacturer when performing PM, or repairs of the emergency diesel generator systems and components. Refer to Section C7.4.16.3.6 of this PWS.

C7.4.2.8 Uninterruptable Power Supply (UPS)

C7.4.2.8.1 The Uninterruptible Power Supply (UPS) System consist of a Liebert Series 600, two (2) 600 KVA UPS, and three (3) Liebert 400 KVA Parallel units. The UPS provides uninterrupted power to certain critical system until alternate power can be obtained from the emergency generators. Reliable performance of the UPS is critical to the mission of the HQC tenants.

C7.4.2.8.2 The Contractor shall maintain, inspect, replace and repair the UPS Systems and associated equipment listed below and UPS-related equipment contained in Attachment C8 inventory list. Battery replacement is considered Ad Hoc/IDIQ work.

- UPS Modules
- Redundant System Control Cabinets Maintenance By-Pass Switch
- 3-Breakers Battery Disconnect Switches Battery Junction Boxes Batteries sealed cells Distribution panel and Main breakers
- 750 KVA Transformers
- 500 KVA Transformer

C7.4.2.8.3 Maintenance of the UPS units shall be in accordance with manufacturers' recommendations to provide the same level of performance and reliability as designed. The quality of work accomplished shall meet all applicable NFPA standards, manufacturer's specifications, and applicable documents listed in this T.O. PWS.

C7.4.2.8.4 The Contractor shall provide the manufacturer's scheduled software and firmware upgrades to the Uninterruptible Power Supply System at no additional cost to the Government.

C7.4.2.8.5 The Contractor shall provide Technicians certified by the manufacturer when programming, performing PM, installing, repairing, replacing, or connecting the UPS system and components. Refer to Section C3.4.15.3.5 of this PWS for the minimum qualifications.

C7.4.2.8.6 The Contractor shall notify the COR before performing any preventive maintenance or repairs to the UPS. Immediately upon completion of the preventive maintenance or repairs, the Contractor shall report to the COR that the work is complete.

C7.4.2.9 – Fire Detection System (Fire Pump ATS)

C7.4.2.9.1 The fire detection systems consist of an Edwards System technology IRC-3 FCC Life Safety System and Siemens XLS Fire Finder systems, including automatic alarms, manual alarms, transmitters, control panels, sprinkler alarms, flow switches, tampers and smoke detectors, beam detectors alarms.

C7.4.2.9.2 The Contractor shall operate, maintain, inspect, replace, and repair the Fire Pump ATS's, and help with the fire suppression system testing in conjunction with the Fire and Mechanical Contractor's quarterly preventive maintenance systems.

C7.4.2.9.3 Maintenance of the Fire Detection System shall be in accordance with the National Electrical Code, manufacturer's specifications and NFPA 72 (National Fire Alarm Code) to provide the same level of performance and protection as designed.

C7.4.2.10 – Utility Meter Reading

C7.4.2.10.1 The Contractor shall read and record the HQC electric meters once per day between the hours of 7:30 AM and 9:00 AM or as requested by the COR.

C7.4.2.10.1.1 The Contractor shall record kilowatt-hours (KWH) daily and all other substation readings and provide a monthly report to the COR at the end of each month.

C7.4.2.10.1.2 The Contractor shall develop and maintain a report capable of tracking monthly KWH and Peak usage from all HQC electrical meters.

C7.4.2.10.1.3 The Contractor shall provide the form that the meter readings will be recorded on for initial approval by the COR.

C7.4.2.10.1.4 The Contractor shall submit the kilowatt-hour readings to the COR each week after reading and include all other readings. Any deficiencies in the daily meters' readings shall be reported with the readings to the COR within two hours.

C7.4.2.11 Ad Hoc/IDIQ Work: Ad Hoc or Indefinite Delivery Indefinite Quantity (IDIQ) work items include alterations or repairs or equipment replacement with an estimated material/non-direct labor value greater than an Electrical discipline threshold of $3,000.01 (material and non-direct labor cost only) will be considered a Non-Routine/Ad Hoc repair and requires a separate Non-Routine/Ad-Hoc Task Order. The Government is responsible for funding all Non-Routine/Ad-Hoc Task orders above the Electrical discipline threshold.

C7.4.2.12 Government Working Hours. Government's regular (normal) working hours are 6:00 AM to 7:00 PM, Monday through Friday except Federal Holidays or during declared incidents such as inclement weather.

C7.4.2.13 Contractor Working Hours. The Contractor shall have an appropriate number of qualified personnel on-site from 7:00 AM to 11:00 PM, Monday through Friday, unless directed otherwise in writing by the COR or the KO, or under special circumstances as discussed below. The Contractor shall also have qualified personnel available 24 hours per day, seven days per week for emergency work. The Contractor shall respond to emergency work in no more than one (1) hour, except in cases where inclement weather causes a delay in the response time. Except for emergency work, work outside Contractor working hours requires the written approval of the Contracting Officer Representative (COR).

C7.4.2.14 Federal Holidays: New Year's Day, Inauguration Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day. The Contractor shall provide emergency work support on Federal Holidays.

C7.4.2.15 The Contractor shall report to work during Contractor working hours in the event Government personnel are on Administrative Furlough, unless otherwise directed by COR.

C7.4.2.16 The Contractor shall provide at least two Journeyman Electricians on-site from 7:00 AM to 3:30 PM when facilities are closed due to inclement weather.

C7.4.2.17 Government Quality Assurance (QA). All work performed under this contract is subject to Government inspection when the Contractor tender's acceptance. All findings of unsatisfactory or non-performed work will be administered in accordance with the Government's Quality Assurance program as described in this PWS. Findings of unsatisfactory or non-performed work shall be documented and issued to the Contractor as Quality Deficiency Service Orders. All costs associated with rework (including correction of Quality Deficiency Service orders) are the responsibility of the Contractor. The Government reserves the right to choose the inspection methods to be used in implementing its Quality Assurance program and to vary the inspection methods utilized during the work without notice to the Contractor. The Government is the governing authority in all disputes regarding Quality Assurance.

C7.4.2.18 The PWS shall include three types of service as follows:

- Routine/Preventive Maintenance - the regularly scheduled and routine maintenance of the Site Electrical Distribution Systems to keep them running in exceptional operating conditions and prevent any costly unplanned downtime from unexpected equipment failure. This work is covered under CLIN 0001 Routine/Preventive Maintenance and Minor Repairs.
- Non-Routine/Ad Hoc - Maintenance, repair, equipment replacement, alteration work requirements beyond the scope of the services performed under the CLIN 001 Routine/Preventive Maintenance Alterations, Minor Repairs, and Equipment Replacement and corresponding option CLIN(s). This work is over $3000.01 and requires a Task Order to be issued by the Contracting office for work to commence.
- Software Maintenance (SM) includes patching of the firmware upgrades to the building level controllers, and software patches if applicable. This work will be completed by a DoD 8140 certified worker as defined under Personnel Technical and Cyber Qualifications.

C7.4.3 Replacement, Modernization, Renovation

C7.4.3.1 During the term of this contract, the Government may operate, repair, replace, renovate, or improve equipment, systems, facilities, components, and fixtures at the Government's expense and through use of Government forces or by means not associated with this contract. All replaced, improved, updated, modernized, or renovated equipment, fixtures, facilities, components, and systems shall be maintained, operated and/or repaired by the Contractor at no additional cost to the Government unless such changes result in an increase or decrease in contract requirements. Changes, replacements, or deletions which result in an increase or decrease in contract requirements will result in adjustments to the contract price in accordance with the "FAR Clause 52.212-4 (c)", "CHANGES" clause. Additions or deletions to the performance work statement inventory which result in an increase or decrease in contract Operational or Preventive Maintenance requirements will result in adjustments to the contract prices in accordance with the prices set forth in the pricing schedule.

C7.4.4 As-Built Drawing

C7.4.4.1 As-built drawings and Operation and Maintenance (O&M) manuals will be made available for Contractor's use during the term of the contract to the extent that these resources are available. When the Contractor accomplishes work which requires the revision of system one-line drawings, scaled drawings or panel schedules the Contractor shall submit these revised applicable drawings pertaining to all work within the IDIQ task order (TO). All revisions shall be submitted to the COR five (5) days before the IDIQ task order POP expiration. The Government will withhold payment until receipt of these drawings. Modifications made by the Contractor will be annotated in red on the system one-line drawing or scaled drawings, and panel schedules.

C7.4.4.2 The Government will provide access to network diagrams, export nodes, hardware software inventories and other related documents as needed from a recently performed OT inventory, after contract award. However, the Contractor is responsible for field verifications as well as accuracy of all government provided materials as requested by the Government. If while performing the work contained in this PWS the contractor constructs or installs any new structure or equipment, updated artifacts shall be provided to the Government prior to acceptance by the COR.

C7.4.5 Initial Site Assessment Survey

C7.4.5.1 The Contractor shall provide an initial site assessment which will identify and document the existing Mechanical and HVACR equipment, Facilities Related Control System (FRCS) and Meter System at HQC. This assessment will be conducted in two stages to account for heating and cooling season conditions. The first assessment will be completed within the first 45 days of the award of the TO. The second assessment will be completed no more than 45 days after transitioning to the heating or cooling season. The heating season begins in October, and the cooling season begins in April.

C7.4.5.2 The site assessment shall include inspection and testing of existing equipment to validate existing conditions prior to the contract. Those items will be specified in the TO PWS e.g., HVAC and Refrigerant equipment status, FRCS status, meter system status, controls / cybersecurity approvals, and space temperatures compliance with DLAI 4170.11 for the appropriate occupancy.

C7.4.5.3 Site Assessment Report

Upon completion of the evaluation, the Contractor shall provide a written report noting all identified discrepancies to include a cost estimate for repair/replacement.

- The report shall include:
- An introduction which indicates who conducted the assessment, where the assessment occurred, and the timeframe of the assessment.
- A scope which outlines details of what was assessed per the TO PWS.
- A personnel listing which provides names, qualifications, agency, company, phone and email information for assessment persons and stakeholders.
- A list of applicable documents used in the assessment.
- A facility overview which describes the type of structures assessed, and building

specifics such as building numbers, floors, rooms or other information specified in the PWS.

- A description of existing systems by system name, system type, manufacturer, model, warrant information, status (mission capable or non-mission capable), OS details, interface details, software/firmware, hardware, physical security details, access control details, maintenance, and service information.
- A list of recommendations for existing items, systems, sub-systems, components, and security (cyber and physical) enhancements. The recommendation includes details about the remaining usability of existing infrastructure and upgrades/replacements recommended including any incremental transitions recommendation.
- A cost estimate for recommendations, design support and/or maintenance and sustainment support.
- A summary of existing cybersecurity posture and status such as existing documentation.

C7.4.6 Service Orders

C7.4.6.1 Service Orders (SOs) are requests for work to be performed. The Government will operate a Service Order Reception Desk to initially receive all SOs. The Service Order Reception Desk is organized to receive both telephonic and email requests for all Service Orders, to include those generated by the Contractor for maintenance and repair requirements identified during the performance of operations and preventative maintenance work. The Contractor shall submit these SOs to the KO or designee for approval within five (5) workdays of discovery, except Contractor originated Priority I Service Orders (EMERGENCY (PRIORITY 1) SERVICE ORDERS (SO)) or where the Contractor determines it would be more economical to make such repairs while conducting the PM action, shall be submitted immediately.

C7.4.6.2 The Contractor shall maintain the ability and receive verbal, telephonic, and email SOs from the Government. The Contractor shall update the status of SO requests in Enterprise Business Systems. Once the work is completed, the Contractor shall close the SO with all applicable information and retain any hard copy documentation for a period of sixty (60) calendar days at which time they will submit it to the Government.

C7.4.6.3 Service Order Reporting
All Service Orders shall document and capture minimally required information, including Service Order description, resolution information, timestamps, work notes, and other completion information, in accordance with provided training, guidance and standard operating procedures. Monthly reporting of the Service Order status shall include data on all types of maintenance, repairs, service calls (i.e., emergency, urgent, routine, overdue, and tenant complaints), and accounting of deferred, completed, and active Service Orders with estimated completion dates by type of work (i.e., repair and Service Orders) resulting from testing and inspections, and any equipment out of service. All additional information requests made by the Government shall be responded to within one business day. All such requests shall be communicated to the Contractor with a detailed explanation of the information that is requested.

C7.4.6.4 Service Order Historical Data. Historical data reflects the type and number of service calls expected during the term of this contract; the counts are only an estimate. The Service

Orders issued during the period mid-July 2018 through November 2020 for the HQC were for emergency, routine, urgent and minor work service orders. HQC expects Service Orders to be typical of a facility of this type. The summary of historical data is listed below including the HQC enclave.

Average Routine Service Orders	5.4 per month or	65 per year
Average Emergency Service Orders	1.00 per month or	12.00 per year
Average Urgent Service Orders	0.5 per month or	6 per year

C7.4.7 Service Order/Call Categories

The Contractor shall have adequate procedures for receiving and responding to service calls 24 hours per day, seven days a week, including weekends and holidays. The Contractor shall provide primary and secondary local telephone numbers for receipt of all service calls. All telephone calls shall be answered by an individual fully familiar with the Contractor's work control procedures and the terms and conditions of this contract. Service calls shall be considered received by the Contractor at the time and date the telephone call is placed by the Government Representative. This includes leaving a voice message on an answering machine. In the event the Government was unable to make live contact with the Contractor, the Contractor shall make live voice contact with the Government Representative within one hour. The Government Representative shall define the type of service call being made. The Contractor's response to service calls shall depend on the type of service required as follows:

C7.4.7.1 Emergency (Priority 1) Service Orders

SOs are classified as Emergency (Priority 1) when immediate action is required to mitigate life threatening or serious injury hazards to personnel, prevent loss or damage to government property, to secure security of sensitive government property, to restore essential services including broken water pipes, gas or oil leaks, major air conditioning or heating problems, or any work considered by the KO or designee to be of an emergency nature. The Contractor shall receive Priority 1 work from the Government either verbally (e.g., telephone, face to face) or in writing via email. The Contractor shall perform work in this category in response to Priority 1 SOs within thirty (30) minutes after being notified during core hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within two hours of notification after core hours IAW C7.4.7.2 (Emergency Call Back (Beyond Core Coverage Hours)). The Contractor shall send qualified personnel to mitigate the emergency and evaluate, assess the required corrective action and provide that assessment to the KO or designee. The Contractor shall perform work continuously until the emergency condition is eliminated and service is restored. If the remaining work is uncomplicated and near completion, the Contractor shall complete the job under the initial Emergency SO.

C7.4.7.2 Emergency Call Back (Beyond Core Coverage Hours)

On occasion, services shall be required to support an activation or exercise of contingency plans or emergency call back outside the Normal Working Hours described. Emergency call back

requests are service requests where the work consists of correcting failures that constitute an immediate danger to personnel, property or any work considered by the KO or designee to be of an emergency nature. The Contractor shall provide to the KO or designee a Call Out Roster of personnel to contact for afterhours support. The Contractor shall respond to emergency call back service requests within 2 hours. The Contractor shall remain on the job until the emergency has been secured, and adequate temporary repairs have been made. Permanent repair shall be governed by the repair provisions in this PWS. The Contractor shall provide a written account of any emergency call back; including costs incurred and plan for permanent correction of the problem, to the KO or designee no later than the morning of the next business day. If the emergency callback is expected to take more than two hours to resolve, the Contractor must get approval from the KO or designee.

C7.4.7.3 Urgent (Priority 2) Service Orders

SOs are classified as Urgent (Priority 2) when the situation could become an emergency or could significantly hinder performance of the installation activities' mission or the deficiency has command emphasis. The Contractor shall respond to Urgent SOs within 1 hour during normal core working hours (0600 to 1800 hours, Monday through Friday; 0600 to 2359 hours weekends) and within 3 hours outside of core working hours. The Contractor shall remain on the job until the urgent repairs have been made. Permanent repair shall be governed by the repair provisions in this PWS. Urgent SOs are those SOs where the work consists of correcting failures that interrupt or otherwise adversely impact either installation activities' mission or building occupant operations. Examples of these types of service requests include extreme temperature complaints, any malfunctions to equipment that affect the tenant's operations, or any work considered by the KO or designee to be of an urgent nature.

C7.4.7.4 Routine (Priority 3) Service Orders

SOs are classified as Routine (Priority 3) when the work does not pose an immediate threat to public health, safety, or property, or to the mission or operations conducted on the installation. The Contractor shall respond promptly to Routine Work Orders within two hours of notification. The Contractor shall begin work on Priority 3 SOs within five (5) working days of receiving the request. The Contractor shall immediately notify the KO or designee with a written extension request when the routine service call cannot be completed within the specified timeframe.

C7.4.8 Operation and Maintenance Program

C7.4.8.1 The Contractor shall furnish all labor, supervision, tools, tools, materials, equipment, transportation, and management necessary to perform operation, maintenance, inspection, testing, and repairs as required by the equipment manufacturers and as described by this PWS. The Contractor shall implement all necessary work control procedures to ensure timely accomplishment of all maintenance and repair work requirements, as well as to permit tracking of all work in progress. The Contractor shall plan and schedule all work to ensure that material, labor, tools and equipment are available to complete maintenance or repair work within the specified time limits and in accordance with the quality standards.

C7.4.8.2 This operation and maintenance service contract shall require the systematic inspection and testing to verify proper system operation; detect incipient failures either before they occur or before they develop into major defects; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify any repairs required to bring lift equipment up to the manufacturer's operating standards to maintain a high degree of reliability.

C7.4.8.3 Operations and Maintenance Plan. Operations and Maintenance Plan shall be submitted within 90 days of the contract effective date. An outline of this plan shall be submitted with the Proposal. The plan shall describe the Contractor's strategies and practices to manage the following:

- Communication protocols
- Record keeping and documentation
- Operations and Maintenance database/software
- System criticality and work prioritization
- Standard Operating Procedures (SOPs)
- Manufacturer's manuals
- Preventive maintenance practices
- Corrective maintenance plan
- Troubleshooting and contingency plans

C7.4.9 Routine/Preventive Maintenance

C7.4.9.1 Definition and Repair Limitations. The Contractor shall perform Preventive Maintenance (PM) work. PM is the recurring day-to-day periodic or scheduled work required to preserve or restore real property or equipment to such conditions that it may be utilized for its designated purpose. PM includes inspection, cleaning, lubrication, adjustment, calibration, part and component replacement as required to minimize failure, breakdown, and deterioration of equipment, and the identification of any repairs required to ensure proper operation and bring equipment to manufacturer's operating standards. In addition to PM requirements, the Contractor shall complete any repair work identified during the performance of PM. All PM work and repairs identified as during performance of PM are considered routine work and are included in the firm-fixed price portion of the contract. The Contractor, at no additional cost to the Government, may increase the level or frequency of PM to minimize repair requirements.

C7.4.9.2 Standards, PM Checklists and Housekeeping. The Contractor shall perform PM at times to not disrupt government operations. The Contractor shall perform PM work using the requirements specified in the Preventative Maintenance Guide attachment (Attachment 4 - technical exhibit) and further referenced in directives, instructions and manuals listed in Checklist attachment (Attachment 4 - technical exhibit), terms including "check," "ensure," inspect," and "verify" shall mean to visually observe or measure, adjust, clean, maintain, repair or replace as required. The Contractor shall perform clean-up following PM, and provide housekeeping in mechanical and electrical rooms and other equipment areas as part of PM work or as directed by the COR.

C7.4.9.3 Reporting of PMs, deficiencies, and repairs. The Contractor shall record all work performed, including observed operating conditions, deficiencies detected and corrected, and quantities and types of material repaired or replaced, on the applicable PM checklist form. The PM checklist form shall be provided to the COR within two (2) business days following work completion. Deficiencies identified by the Contractor during PM performance shall also be recorded on the PM checklist form (service order) for the applicable piece of equipment or system component, be entered into EBS, and be reported in writing to the COR.

C7.4.9.4 Workmanship and Materials. All PM work shall be of Journeyman quality and all specified work items or checkpoints, servicing, repairs and reporting shall be performed completely, correctly, and neatly. All workmanship shall conform to the applicable requirements of Section C7, attachment 2 of this PWS, and the PM checklists.

C7.4.9.5 Contractor's approved Annual and Monthly PM Schedule shall be entered by the Government into the EBS system. All PM work requiring a Government approved service outage, or service interruption shall be completed before the month of July annually. The COR will print PM Service Orders each month to the Contractor's LAN printer after the Contractor's Monthly PM Schedule is approved. PM work shall then be performed by the Contractor as authorization by the COR. All PM work shall be completed in accordance with the requirements of the monthly schedule. All PM services shall be performed on the day scheduled in the approved monthly schedule or at the time specified in contract unless prior written approval is obtained from the COR. In the event future upgrades to the EBS system further automate the performance of PM using handheld computers and/or bar code scanners, the Contractor shall integrate these tools into the recurring workflow at no additional cost to the Government.

C7.4.9.6 Completed PMs. Within two (2) business days after completion of each PM, the Contractor's On-Site Supervisor shall sign the original PM work ticket, return the original PM work ticket to the COR, and update EBS with the following information:

- Append the PM work order notes with a description of the work completed, names of the craftsmen performing the work, and name of the supervisor certifying that the work is complete.
- Enter labor information using EBS time sheets for labor hours expended.
- Enter materials information for actual materials used.
- Add journal entries to note the date and time work was started.
- Change the status of the work order to closed.
- Enter remaining deficiencies and separately report these to the COR in writing.

C7.4.9.7 Calibration - Preventive Maintenance requirements that require testing of equipment installed with gauges, meters, and test equipment, the Contractor shall present evidence of

calibration per NETA standards for any such meters to the COR at the time of request for scheduling of the PM (i.e., certificates of calibration).

C7.4.9.8 The Contractor shall perform calibration of main internal and external switchboard meters and all Kilowatt hour meters one (1) time during the base period of performance and once every four (4) years thereafter.

C7.4.9.9 Clean-up/restoration. The Contractor shall mop-up, vacuum or otherwise remove water resulting from overflowing fixtures, leaks, clogged drains, etc. as part of the repair. Walls, ceilings, and other structures, paved areas such as sidewalks and roads, grassed areas, etc., which are damaged by and/or removed to gain access to leaks, clogs, or other defects shall be restored by the Contractor to original condition.

C7.4.10 Proactive Facility Tours

C7.4.10.1 The Contractor shall tour major building systems, equipment, and anything requiring tours mandated by any acts, codes or regulations as contained in this PWS. To accomplish this objective the Contractor shall develop a Tour Plan and submit it to the COR or designee for approval, no later than end of Startup or transition phase. With the advent of technology and innovation a "tour" is no longer exclusive to the physical walks. A tour shall be a part, or a combination of physical visits and automated systems. Tours are an opportunity to view equipment in different phases of operation, adjust, validate controls, verify set points, check efficiency, physical condition of mechanical space, and overall safety. It is not the intention of the Government to overly prescribe tour frequencies or methodologies; instead, the Contractor is expected to develop tours at frequencies and using methodologies that are of value to operations, inclusive of analytical decision making intended to optimize operations based on real time performance data.

C7.4.10.2 Proactive Facility Tours
The Contractor shall conduct periodic tours of the building to identify proactively and remedy any issues pertaining to tenant environmental comfort concerns. All findings noted during the tour shall be tracked and a Work Order shall be initiated for corrective action by the Contractor.

C7.4.10.3 Minimum Tour Frequencies
C7.4.10.3.1: Generator/Parallel Gear – check hour meters, switches and breakers, Substations/ meter KWH / Volts, Building UPS -check for alarms and proper operations.

C7.4.10.3.2 Weekly: Barrier Systems.

C7.3.10.4 Operator Logs and Tour Check Sheets
C7.3.10.4.1 Contractor shall maintain Operating Logs and Tour Sheets as part of the data for major equipment. Documentation shall be completed at the time of the tours. The information recorded in the logs shall be sufficient to track the operating hours and performance history of the equipment. Records shall be kept of tours and action items needed based upon tour discovery. As such, Operating Logs and Tour Sheets shall be a part of the Tour Plan, and a Tour

Sheet shall be established for any space identified as requiring a tour. The Contractor shall upon request make the operating logs and tour sheets available for inspection by the COR or designee.

C7.4.10.4.2 A Tour Sheet shall contain at a minimum:

- General space condition and annotate any discrepancies.
- Identify broken/inoperable equipment and capture Service Order status.
- Accurately reflect equipment inspected during the tour.
- Capture operating data on identified equipment.
- Status regarding operational parameters.

C7.4.10.4.3 The Contractor shall submit to the COR, or designee, proposed Operating Logs and Tour Sheets for approval prior to implementing the Tour Plan.

C7.4.11 Site Utility Control Systems

C7.4.11.1 The Contractor shall operate systems according to the established sequence of operation for the UCS. The Contractor is responsible for notifying the COR or designee if a sequence of operations, equipment, or schedule is not operating as designed or is resulting in unnecessary energy use. The Contractor must have regular onsite expertise to perform basic daily adjustments, such as setpoint adjustments, while minimizing, documenting, and evaluating overrides without compromising the sequence of operations; overrides must be temporary and must revert to the established sequence of operations, or the Contractor must propose permanent changes to the COR. The Contractor must have onsite capability to operate the facility during any necessary emergency or manual operations of the system.

C7.4.11.2 The Contractor shall have an adequate level of UCS expertise to maintain the control systems according to DLA requirements for security compliance, energy efficient building system operations, and tenant thermal comfort. The contractor must operate the UCS to maintain the power distribution systems on site. Where the conditions/standards cannot be maintained, the Contractor shall notify the COR or designee and develop corrective action plans.

C7.4.11.3 The Contractor must have in-house expertise, or subcontract, for additional, specialized UCS services, such as sequence of operation tuning, sensor calibration, and UCS log review. If the Contractor does not have a manufacturer trained or equivalent UCS operator onsite, the Contractor shall enter a subcontract, including regular scheduled support (not merely support on a contingency basis), and remote access (where available and subject to J6 IT governance security clearances and training), with a firm that has these skills.

C7.4.11.4 The Contractor shall monitor the UCS for alarms. After hour alarms shall be routed to contractor phones as a phone text or as a monitored email. A UCS alarm after Normal Working Hours that impacts the building operations must be corrected under emergency call back Work Order service and recorded in the EBS. The Contractor shall maintain the following minimum standards described below.

C7.4.11.5 Utility Control Systems and Upgrades

C7.4.11.5.1 Utility Control Systems shall be maintained as designed. The Contractor shall perform maintenance required to ensure that all UCS devices function properly, and repair or replace components that fail. The Contractor shall be responsible for UCS software and firmware updates and security patches. The Contractor shall advise the KO or designee and coordinate UCS vendor activities necessary to facilitate any upgrades the KO or designee deems necessary for the functionality and/or security of the UCS over and above those necessary for standard system operations. The Government may upgrade or change control system software or reprogram control systems during the performance period of the Contract. If the Government provides operator level training and operator level documentation for the Contractor's use, the Contractor shall not claim additional payment for in-house services relating to the new or upgraded control software or systems programs.

C7.4.11.5.2 The Contractor shall not modify sequences of operation, control programs, or run systems manually without concurrence of the KO or their designee. Where sequence of operation changes is approved, the Contractor is required to provide accurate edits to the Sequence of Operation to document the changes made.

C7.4.11.6 Utility Control Systems Reporting. Deficiencies in the UCS system operations shall be identified by UCS trending or Contractor's tours. All deficiencies shall be reported to the KO or designee immediately and documented and included in the monthly report. UCS alarms logs shall be included in the monthly report to show that they are being addressed.

C7.4.11.7 Site Electrical Distribution Equipment Reporting. The Contractor shall report and enter in EBS all activities performed with respect to the Site Electrical Distribution system and its components in the appropriate EBS Service Orders.

C7.4.11.8 Utility Meter Reading, Calibration, and Maintenance

C7.4.11.8.1 The Contractor shall read and record all HQC complex electric utility meters once per month. The readings shall be on the 1st of each month or the next business day if the 1st falls on a weekend or holiday. The Contractor shall submit the readings to the COR within two (2) days after reading. Any deficiencies in the meters shall be reported with the readings. The Contractor shall provide the form the meter readings will be recorded on prior to contract start for approval by the KO.

C7.4.11.8.2 The contractor shall perform maintenance and calibration of central plant amp-meters, voltmeters, and KWH-meters annually or calibrated and maintained in accordance with the requirements in the PWS, Preventive Maintenance Guides.

C7.4.11.9 One Time Service (Base Year). Paint Electrical Rooms. The Contractor shall be responsible to paint all the mechanical rooms in the HQC one time to be completed before the end of the base year. There are approximately 32 Electrical rooms of various sizes which total approximately 15,000 square feet. The paint shall include all piping to mechanical equipment, pads and floors and shall conform to 29 CFR 1910.144 (Safety Color Code for Marking Physical Hazards). All piping shall be labeled according to ANSI A13-1. The color schemes to be field verified. The pipe finish shall be oil base type or of equal quality. The house keeping pads and floor finish shall be non-skid epoxy type finish.

C7.4.12 Corrective Maintenance Service Order Proposals

C7.4.12.1 Corrective Maintenance Service Orders (SO) proposals shall identify a deficiency and provide a recommended solution. The technical scope and price proposal shall be submitted to the Government with sufficient detail and supporting documentation per contract requirements.

C7.4.12.2 The Contractor shall complete all the required information on the service order form and submit a firm fixed price proposal to the Contracting Officer (KO) or designated representative. The Contractor shall submit an electronic copy of the SO to the Government for review and approval. The Government will review the proposal and upon approval, the KO will generate a Notice-to-Proceed (NTP) for the specific task. The Contractor shall not proceed with any repairs prior to written notification from the KO. SOs must be approved by the KO.

C7.4.13 Building Operations

C7.4.13.1 Typical Site Electrical Distribution Hours: 7:00 to 11 PM, Monday through Friday, including weekends and holidays.

Utility Provider Information:
Electric: Dominion Power
Water & Sewer: American Water
Gas: Washington Gas
Fire Alarm: Johnson Controls

C7.4.13.2 Office Space. Government Furnished Facilities. The Government will provide the following rooms: 0632 and 0626 in BLDG 2462 (about 350 sq. ft. each) for contractor use. The Contractor shall assume responsibility and accountability of such facilities provided for contractor use and shall take adequate precautions to prevent fire hazards, safety hazards, odor, and vermin. Custodial services for Government furnished facilities shall be the responsibility of the Contractor and as a minimum shall be maintained at the same level as similar spaces occupied by the Government. The Contractor shall obtain written approval by the COR at least five (5) business days before making any modifications or alterations to any of the Government-furnished areas. Any modifications to Government Furnished facilities shall be at Contractor expense. At the completion of the contract, all areas shall be returned to the Government in the same condition as received, except for reasonable wear and tear.

C7.4.13.3 Utilities. The Government will make available, at no cost to the Contractor, electricity for Contractor connection in the vicinity of work areas. The Contractor shall instruct employees in utilities conservation practices. Information concerning the location of existing outlets may be obtained from the Government Representative. The Contractor shall be responsible for operating under conditions which preclude the waste of utilities.

C7.4.13.4 Equipment. For appropriate covered services, the Government will provide an office space with desk, chair, LAN connection, and telephone for Contractor use. Contractor personnel shall only use the provided office equipment for official business and in accordance with all sites

administrative and security guidance. Use of Government communications devices require consent to monitoring. Contractor can utilize their own equipment/communication but will not be able to access the DLA network.
Any required computer or server hardware (i.e., PC, laptop) and peripherals (i.e. mouse, keyboard, monitor) and/or routing and switching equipment, used to provide DLA network connectivity, must be government-furnished and must be provided by DLA.

C7.4.13.5 Material. The Contractor shall furnish all materials necessary, to include tools to perform the contract requirements and shall return to the Government the threshold of critical parts on hand at the termination of performance of these requirements. No inventory of the material returned to the Government will be taken at the termination of this contract. The Government is not responsible for lost or stolen tools or equipment. The Contractor shall furnish extensions from utility connections.

C7.4.13.6 The Contractor shall provide Personal Protective Equipment (PPE) and uniforms for its employees appropriate for the work to be performed (e.g., gloves, sleeves, coveralls, poles for high voltage personnel; respirators; safety boots; etc.). The Contractor shall calibrate and perform safety checks on all tools and equipment. The Contractor is responsible for obtaining equipment maintenance service manuals that are not available from the Government.

C7.4.14 Replacement Parts/Products

C7.4.14.1 All replacement units, parts, components, and materials to be used shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; shall comply with applicable Government, commercial, or industrial standards such as National Board of Underwriters or Underwriters' Laboratories, Inc., National Board of Fire Underwriters, National Fire Protection Association, National Electrical Manufacturer's Association, American Society of Mechanical Engineers, etc.; and used in accordance with original design and manufacturer intent. If the original manufacturer has updated the quality of parts for current production, the parts supplied under this contract shall equal or exceed the updated quality.

C7.4.15 Equipment Warranty

C7.4.15.1 The Contractor shall furnish the Government upon completion of the project the standard warranty of the equipment offered by the manufacturer.

C7.4.16 Contractor Personnel

C7.4.16.1 The Contractor shall be staffed with enough qualified employees who possess the managerial, administrative, and technical skills to perform the services specified in this PWS. If the Contractor is unable to meet these requirements for more than 90 days, the Government will consider such a breach of this contract and cause for termination. The Contractor shall furnish all site labor, technicians, supervision, instruments, controls, tools, materials, supplies, and other required work items to perform routine maintenance, inspections, repairs, modifications, and programming services, including response to emergency calls 24 hours per

day, 7 days per week. The contractor shall designate, as a minimum, one staff member as standby to respond to such calls. The personnel employed by the Contractor shall be journeymen, certified or licensed in their respective trades for the state of Virginia. A copy of each employee's certification or license shall be made available to the COR upon request. Contractor personnel must adhere to all DLA HQC rules and regulations regarding general employee conduct (DLA HQC permits smoking only in outdoor designated areas). The Contractor is responsible for maintaining a qualified and well-trained workforce. Contractor personnel will be required to obtain T5 clearance based on the location access required.

C7.4.16.2 Staffing Plan. A Staffing Plan shall for the Facilities shall be submitted within 30 days of the contract effective date. The staffing plan shall describe how the contractor plans to staff the contract with the appropriate staffing levels and type of personnel to meet the requirements of this PWS.
The plan shall include the following elements:

- Organizational chart
- Job classifications and descriptions
- Experience and competency requirements
- Primary job responsibilities
- Staffing levels
- Staff schedules and "on call" coverage
- Personnel costs

C7.4.16.3 Required Contractor Training and Certifications

The Contractor shall describe how the workforce (management and labor) with the requisite knowledge, skills, abilities, and applicable licenses and certifications to perform the requirements will be trained and/or certifications/licenses obtain to perform PWS requirements and/or the validation of current training from review training records of personnel hired from the preceding contractor/contract. Licensing includes but is not limited to the following: Commonwealth of Virginia Class A Electrical Contractors License; Underwriters Laboratory (UL) UL 2050 certification, Fairfax County Business License; and Commonwealth of Virginia Master Electrician License. Copies of all certifications for Contractor employees shall be kept on-site and provided to the Government upon request. The Contractor shall provide to the KO or their designee documentation of the certificates of training, licenses, and permits for all new employees not later than seven business days prior to that person beginning work under the terms of this Contract.

C7.4.16.3.1 Inspection, Testing, and Maintenance tasks shall be performed by craftsmen trained or qualified certified by appropriate federal and state regulatory agencies to meet federal and local certification requirements in maintenance and inspection of the Site Electrical Distribution Systems. Employees or subcontractors performing Contract work involving the operation, maintenance or repair, inspection, or testing of any piece of equipment or system shall be trained and possess the knowledge, experience and skills pertinent to the equipment or system as demonstrated by a current training certificate from an equipment manufacturer or a certificate by an organization acceptable to the KO. All personnel or sub-contractor personnel shall possess all

certifications and licenses required by Federal, state and local jurisdictions for equipment that they shall be operating, maintaining, repairing, inspecting or testing.

C7.4.16.3.2 Electrical Distribution Certifications
In addition to contractor licenses, the following individual licenses, certifications, or factory-trained manufacturer's representation must be held by the Contractor's employees or Contractor's subcontractor's employees. The Contractor shall provide copies of certification documents for any new or replacement personnel to the COR at least five (5) calendar days prior to the new or replacement personnel beginning work.

C7.4.16.3.3 Certified High Voltage Technicians. The Contractor shall provide High Voltage Technicians certified by the International Electrical Testing Association (NETA), National Institute for Certification in Engineering Technologies (NICET), when performing tasks including new construction, preventive maintenance, repairs, replacement or connection of high voltage electrical equipment, switchgear, cables splices and terminations, and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the High and Low Voltage electrical equipment.

C7.4.16.3.4 Certified Edwards/NFPA Fire Alarm Technician and Siemens XLS system. The Contractor shall provide manufacturer (Edwards Systems Technology and Siemens XLS system) and NFPA certified Fire Alarm Technicians fully knowledgeable in all aspects of addresses, set points, alarm points, graphics, maintenance, repair, new construction, and programming of the Edwards' FCC IRC-3 Life Safety System and the Siemens XLS system, when performing tasks such as maintenance, repairs or connection of fire detection equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the fire Alarm Systems and its equipment.

C7.4.16.3.5 Certified Liebert UPS Technician. The Contractor shall provide manufacturer (Liebert) certified UPS Technicians fully knowledgeable in all aspects of operation, set points, alarm points, graphics, maintenance and programming of the Liebert UPS System when performing such tasks including preventive maintenance, repairs or connection of UPS equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the UPS equipment.

C7.4.16.3.6 Certified Caterpillar Emergency Diesel Generator Mechanic. The Contractor shall provide manufacturer (Caterpillar) certified Emergency Diesel Generator Mechanics fully knowledgeable in all aspects of maintenance, repair, and troubleshooting of the five (5) Caterpillar Emergency Diesel Generators when performing such tasks including preventive maintenance, repairs, or connection of emergency generator equipment and systems. The Contractor shall develop a training program and demonstrate to the COR prior to the contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the Emergency Diesel Generators and systems.

C7.4.16.3.7 Certified ASCO Power Technologies ATS Technician. The Contractor shall provide manufacturer (ASCO) certified Automatic Transfer Switch Technicians fully knowledgeable in all aspects of maintenance, repair, new additions/construction, and troubleshooting of the ATS' and Paralleling Switchgear. The Certified ATS Technician shall be used when performing Annual PM and for any required troubleshooting, repairs, additions to the system and new construction. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the ATS and Paralleling switch gear.

C7.4.16.3.8 Acetylene cutting, Welding or Electric Welding. The Contractor shall provide personnel certified in accordance with the National Board of Boiler and Pressure Vessel Inspection Code and Section VIII and IX of the ASME Boiler and Pressure Vessel Code when performing acetylene cutting, welding, or electric welding.

C7.4.16.3.9 Crown Factory trained technicians shall be provided for performing all aspects of programming, maintenance, and repairs of the Sound Masking and Paging system. The Contractor shall develop a training program and demonstrate to the COR prior to contract start and prior to substitution of any On-site Supervisor that technical personnel are fully knowledgeable and capable of properly operating the Sound Masking and Paging system.

C7.4.16.4 Key Personnel

C7.4.16.4.1 Certain skilled, experienced, professional and/or technical personnel are essential for successful accomplishment of the work to be performed under this contract. These are defined as "key personnel" and are those persons whose resumes are submitted as part of the technical/business proposal for evaluation. The contractor shall use key personnel as identified in its proposal during the performance of this contract and will request contracting officer approval prior to any changes. Requests for approval of any changes shall be in writing with a detailed explanation of the circumstances necessitating the change. The request must contain a complete resume for the new key personnel and any other pertinent information, such as degrees, certifications, and work history. New key personnel must have qualifications that are equal to or higher than those being replaced. The contracting officer will evaluate the request and notify the contractor whether the requested change is acceptable to the Government.

C7.4.16.4.2 The Contractor shall designate a Contract Project Manager in writing and provide the name and contact information to the CO. The Contract Project Manager is considered essential to the work being performed under this Contract.

C7.4.16.4.3 Contract Project Manager

The Contract Project Manager performs day-to-day management of overall contract support operations, possibly involving multiple projects and groups of personnel at multiple locations. Organizes, directs, and coordinates the planning and production of all contract support activities. Prepares integration design and detailed cost estimates for project implementation as well as actual on-site subcontractor direction and management during implementation. Directs trades and provides technical direction on site during implementation. Has the ability to read and

interpret plans, blueprints, and specifications. The ability/experience in estimating, soliciting proposals, and for managing complex operations, testing, construction, maintenance, repairs and alteration projects. This position is directly responsible for cost targets and schedule adherence. The Contract Project Manager shall possess at least five (5) years of recent (within the past seven (7) years) experience in the management and supervision of building mechanical operations and maintenance for buildings of the approximate size, complexity and characteristics of the buildings to be covered by this Contract. A detailed resume shall be submitted to the CO or their designee for approval prior to the assignment of the project manager to the Contract. Both new and replacement project managers shall meet these qualification standards. Minimally, the resume shall contain:

- The full name of the proposed project manager.
- A detailed description of the proposed project manager's employment history for the previous five years. The names and addresses of the companies for whom the proposed project manager worked for the past five years, along with the names and telephone numbers of the immediate supervisors.

C7.4.16.4.4 Facilities Supervisor (On-Site Supervisor)

The On-Site Supervisor shall be an experienced Foreman Electrician and have a minimum of ten (10) years' experience as a licensed Master Electrician (or someone with master level electrical knowledge). The On-Site Supervisor shall possess at least five (5) years (within the past 10 years) experience as an electrical foreman. The On- Site supervisor shall be experienced in directing personnel and subcontractors responsible for the installation, operation, maintenance, and repair of electrical equipment, and the systems covered under this contract. The On-Site supervisor shall have five (5) years' experience in the operation of a large building's High/Low voltage electrical distribution systems with two or more main feeders, switchboards, Tie breakers, Emergency Generator Power Back-up Systems, UPS system, electrical systems

On-Site Supervisor Resume: The On-Site Supervisor shall be the same individual designated in the Contractor's proposal. In the event the On-Site Supervisor is replaced, a detailed resume for any replacement. The On-Site Supervisor shall be submitted in writing to the COR and KO at least seven (7) days prior to appointment. The resume shall contain, at a minimum, the information specified below. The Government reserves the right to disapprove of replacement personnel who do not meet the qualification requirements of the position.

- The full name of the proposed On-Site Supervisor.
- A detailed description of his/her previous ten (10) years of employment.
- The names and addresses of the companies for whom the proposed On-Site Supervisor worked for during the past ten (10) years, along with the names and phone numbers of his/her immediate supervisor.

Copies of current licenses and certificates required for the performance under this contract.
Copies of certificates of pertinent training for the past (10) years.

C7.4.16.4.5 8140 Certified Personnel

The DoD 8140, Information Assurance Workforce Improvement Programs requires training and certification for Cybersecurity duties performed. All contract employees performing cyber-IA functions shall meet the requirements in accordance with the provisions of the IDIQ Base Level PWS Section C.4 Security/Cybersecurity.

C7.4.16.5 Non-Key Personnel Labor Categories
The Contractor shall provide sufficient licensed or certified Journeymen Electricians, wireman, electrical apprentices, or other crafts required for performance of this contract. The Journeymen electricians shall possess the necessary skills required to operate service, maintain, and respond to service orders associated with the equipment and systems covered under this contract.

C7.4.16.5.1 Journeyman Electricians
The Contractor shall provide sufficient Journeyman Electricians to perform preventive maintenance, service orders, minor work orders, and operations required by this contract. The Journeymen Electricians shall possess the following minimum experience in the operation and maintenance of the building electrical equipment and the systems covered under this contract:

- At least three (3) years of recent and within the last five (5) years' experience in the operation, maintenance of electrical components, equipment, and systems of a building approximately the same size and characteristics covered under this contract.
- A thorough understanding and knowledge of electrical systems, emergency generator power, security systems, fire detection and suppression, heating, ventilation, air conditioning, and plumbing to facilitate professional/technical coordination with other building service Contractors.
- The ability to read and interpret plans, blueprints and specifications.

C7.4.16.5.2 Utility Controls System Integrator
C7.4.16.5.2.1 The Controls System Integrator is responsible for the design, development, implementation, and/or integration of a DOD IA architecture, system, or system component for use within CE (computing environment), NE (network environment), and/or enclave environments in support of higher-ranking IA professionals. Must meet the Department of Defense Directive (DoDD) 8140.01, "Cyberspace Workforce Management and DoD 8570-M "Information Assurance Workforce Improvement Program" requirements for IAM (Information Assurance Manager) Level 1 or 2, and IAT (Information Assurance Technical) Level 2, or IASAE (Information Assurance System Architect and Engineer) Level 2.

C7.4.16.5.2.2 Experience: three (3) years of experience with complex software systems, to include: Systems Analysis, Systems Architecture, Systems/Equipment Support, Test and Evaluation, and Logistics support of C4ISR requirements. Specific experience: three (3) years of experience in Supervisory Control and Data Acquisition (SCADA) development.

C7.4.16.5.3 Administrative Assistant
The Contractor shall have qualified personnel to provide administrative support on-site eight hours a day from 07:00 AM to 3:30 PM. The Administrative Assistant shall possess the necessary skills to operate a computer using Excel, Word, and other software programs, and be familiar with the Contractor's work control processes, provide status of ongoing work to the COR, operation of EBS computer aided facility management system under the terms and conditions of this contract. The Administrative Assistant shall possess at least one (1) year (within the past three (3) Years) experience performing this type of work. Detailed resumes containing, as a minimum, the information specified below must be submitted to the COR for

approval at least five (5) business days prior to the assignment, reassignment, or replacement of any non-key personnel employees to this contract.

- The full name of the proposed employee.
- A detailed description of employment for the most recent previous five (5) years.
- The names and addresses of the companies for whom the proposed employee worked for during the past five (5) years, along with the names and phone numbers of the employee's immediate supervisor(s).
- The Contractor shall provide to the COR at least five (5) business days prior to the start of any replacement personnel requiring licensing or certification, copies of current licenses and certificates required for the performance under this contract.

C7.4.16.5.4 Service Order Dispatcher
This position receives, records, and distributes work orders to service crews upon customers' requests for service on articles or utilities purchased from wholesale or retail establishment or utility company, records information, such as name, address, article to be repaired, or service to be rendered, prepares work order and distributes to service crew, schedules service calls and dispatches service crew. The Service Order Dispatcher calls or writes the customer to ensure satisfactory performance of service, keeps record of service calls and work orders, may dispatch orders and relay messages and special instructions to mobile crews and other departments using radio or cellular telephone equipment.

C7.4.16.6 Identification of Contractor Employees
All contract personnel attending meetings, answering Government telephones, and working in other situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed.

C7.4.16.7 Staff Appearance
Contractor personnel shall present a neat appearance and be easily recognized. This shall be accomplished by wearing uniforms bearing the name of the company and employee name. Uniforms shall be regularly laundered, consistent among personnel classifications, and maintained presentable to tenant personnel during all working hours. All contractor service vehicles must be clearly identified with the company name.

C7.4.16.8 Escorting
Temporary contract employees who do not have favorable preliminary or final suitability determinations and need to work in non-public federally controlled space must be escorted. In those cases, the Contractor shall comply with the security clearance procedures for Escort Only Contractors. All uncleared contract employees shall be escorted in non-public space by a Government employee or another responsible cleared contract employee who is approved by the KO or designee. Other Government agencies shall have specific agency security requirements for their own space that shall only allow escort by Government employees or those designated by their agency. Government employees or approved cleared contract employees who provide

escorts for uncleared contract employees shall always be within eyesight of the uncleared contract employees. The Contract Government escort shall watch uncleared employees and remain with uncleared contract employees for the entire time they are in non-public federally controlled space. Any security violation of escort requirements by a cleared and approved contract employee shall result in the immediate removal from the Contract of all contract employees involved, i.e., escorts and uncleared escorted contract employees. Also, violations of escort requirements by subcontract employees in accordance with security requirements shall be grounds for loss of facility access for those individuals or grounds for termination of Contract, or both.

C7.4.16.9 Standards of Conduct
The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking disciplinary action with respect to its employees, as necessary. The Contractor is responsible for ensuring that its employees do not disturb papers on desks, open desk drawers or cabinets, or use Government telephones, except as authorized. Each employee must adhere to standards of behavior that reflect favorably on his or her employer and the Federal Government. Smoking is only allowed in designated areas on the property and no smoking is allowed within the Facility.

C7.4.17 Deliveries

C7.4.17.1 All contractor deliveries shall initially be taken to Building 2480, Material Receiving and Screening Facility (MRSF) for off-loading and screening. The Government will visually inspect and screen the materials. The contractor is then responsible for loading the materials onto their vehicles and delivering the materials to their destination. The Contractor shall be responsible for the loading, transporting, and unloading of all equipment, materials and supplies to be used in performance of this PWS. Materials delivered to the site shall be inspected for damage, unloaded, and stored with a minimum of handling. Storage facilities shall be provided by the Contractor at the job site for maintaining materials at temperatures and conditions recommended by the manufacturer

C7.5 Deliverable (s)

C7.5.1 Documentation and Records

All documentation, records, and schedules, as described in this PWS, which are the responsibility of the Contractor, are the property of the Government. The Government shall have access to these files at any time upon request. The entire file set shall be turned over to the Government within ten (10) working days after completion of the contract. Final payment will not be issued until receipt of the documentation.

C7.5.2 Monthly Progress Report

C7.5.2.1 The Contractor shall use the developed reports of monthly progress or other submittal requirements (e.g., quality control, asset inventory) to describe the status of maintenance and operations as of the last day of the performance month. The Contractor shall provide reports to the KO or designee as requested and, in a format, and media as requested with a preference for

electronic submittal. The Monthly Progress Report shall be submitted to the KO or designee by the 5th business day of the subsequent month. This report shall include the: Service Order status of all types of maintenance, inspections, repairs, service calls (highlight overdue and tenant complaints), including deferred, completed and active (include estimated completion date), by type of work i.e., repair and Service Orders resulting from testing and inspections, and any equipment out of service.

C7.5.2.2 The Monthly Progress Report must also include:

1. Explanation of any equipment, designed to be controlled by the BAS, operating in manual mode as of the end of the performance month, and of any other overrides to sequences of operations in effect as of the end of the performance month.
2. Operating schedule changes (manual or programmed).
3. Description of any lost time accidents or other safety problems, including incidents involving hazardous materials that occurred during the performance month.
4. Copies of quality control inspections performed during the month.
5. Building Management Support Services (utility hours/miscellaneous work) provided during the month.
6. Monthly water treatment test results.
7. When testing is performed, the Contractor shall submit results with the next monthly progress report.
8. A copy of the updated refrigerant control logs.
9. All inspections, test results, and maintenance performed on all equipment and FRCS Equipment and Systems using inspection, testing and maintenance forms.

C7.5.3 Project Management

C7.5.3.1 Program Management Support

C7.5.3.1.1 The Contractor shall provide complete program management support that fully integrates, manages, controls, and documents all phases of the TO requirements. The program manager shall be the focal point for all issues in the maintenance effort and shall keep the Government fully informed, both verbally and in writing. The Contractor shall provide all necessary personnel, administrative, financial, and managerial resources necessary for the support of individual TOs.

C7.5.3.1.2 The Contractor shall participate in a Government-scheduled Kick-Off Meeting prior to the execution of each TO. The Government will schedule the Kick-Off Meeting at a minimum within a week after the contract award. The meeting shall include key personnel from both the prime Contractor and Subcontractor. The purpose of this Kick-Off Meeting is to:

- Aid both the Government and Contractor personnel in achieving a clear and mutual understanding of all requirements
- Identify and resolve any potential problems. The Contractor shall be prepared to discuss any issues requiring clarification and gather information necessary for the Project

Management Plan (PMP), as discussed below. The Kick-Off Meeting will include as a minimum: a program review, existing and planned Applications and Technical Initiatives, and personnel and physical security issues. The Contractor shall develop and submit a close-out report. The report is due 5 workdays prior to each individual TO completion. A close-out is completed when all administrative actions have been completed, issues are resolved, and final payment has been made.

C7.5.3.2 Project Management Plan
The Contractor shall develop, maintain, and update, throughout an individual TO's period of performance (POP), a process to provide the necessary information to the COR and/or government designee to manage the project. The project management plan should include but is not limited to:

- Project schedule
- Risk Management
- Deliverables
- Work Breakdown Structure (WBS)
- Communication
- Cost Management
- Project Organization
- Procurement Plan

C7.6 Enterprise Business System (EBS) – Plant Maintenance

C3.6.1 The Contractor shall use EBS-Plant Maintenance to track all work requests and to log, schedule, and record all labor and other costs associated with each work order. The Contractor shall enter an adequate work description into EBS. The Contractor shall use the EBS work order number as the work order number through completion of the work order. The Contractor shall enter EBS data properly and accurately into EBS. Upon completion of a SO, the Contractor shall input the time taken to perform each task identified, the parts used (by part number, part name, quantity and the cost per unit), and the name of the Contractor personnel performing repair within 2 days of completing the repair or maintenance action to include work perform by subcontractors.

C3.6.2 The Contractor shall input the following information for all facility related PM and SO actions:

1. Date and time of service call notification and arrival at location
2. Model, serial number and location of the equipment involved
3. For PM, the labor hours spent to perform each task identified
4. For SOs, labor hours and associated labor rates
5. All replacement parts used by part number, part name, quantity and cost per unit

supported by actual supplier invoices, published price lists and/or proof of payment.

6. Indicate if a "like new" part has been installed or used in the repair
7. Description of malfunction and work/service performed, and corrective action taken if action is a repair

C3.6.3 Enterprise Manpower Reporting. The contractor shall report all contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the Defense Logistics Agency via a secure data collection site. The contractor is required to completely fill in all required data fields using the following web address: http://www.ecmra.mil/. Reporting input will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year, beginning with 2024. Contractors may direct questions to the help desk at: http://www.ecmra.mil/.

C8. APPLICABLE STANDARDS

C8.1 Site Requirements

C8.1.1 Facility Security Clearance

A Facility Security Clearance at the Secret level is needed for this contract. Contractors are required to submit written verification of an Active Facility Security Clearance (FCL) at the Secret level as part of their proposal submission. This will be validated as part of the technical evaluation of each proposal. The Contractor shall provide a copy of the FCL with the Technical Proposal, Volume 1. The Prime Contractor shall ensure that prior to entering into any sub-contracting agreements that each sub-contractor requiring access to secured infrastructure within the HQC has received and is in possession of a FCL at the appropriate level. All Prime Contractor personnel that require access to secured infrastructure shall, at a minimum, be eligible for access to classified information at SECRET level as verified through the Joint Personnel Adjudication System (JPAS). Prior to commencement of work, the Prime Contractor shall provide Visit Authorization Requests in accordance with the National Industrial Security Program Manual (DOD 5220.22-M) and any instructions contained in the DD Form 254 (Contract Security Classification Specification)

C8.1.1.1 Prime Contractor employees must obtain all necessary identification/ access badges required to fully execute the requirements of this contract. Forms, access to forms and instructions for badges will be given by the COR. Common Access Card (CAC), see Attachment 3 for instructions. Only required for Prime Contract Employees who require network access.

C8.1.1.2 For employees not requiring a CAC card, a Defense Biometric Identification System (DBIDS) badge will be issued. Initially, a Form 1728, Request for Contractor Badge is to be filled out for all Contractor personnel requiring access to the HQC and submitted to the COR (Government Sponsor) for approval and signature. The approved form 1728 is submitted to the DLA Personnel Security Office which will conduct an initial background check. If Personnel

Security determines a more comprehensive background check is required, the Contractor will be notified on how to proceed. All Contractor employees must receive a favorable background investigation to obtain access to the HQC. If the background investigation shows that the employee has a criminal background, the Personnel Security Office will make the determination on employee access to HQC. Once the Contractor personnel have passed the background investigation, the Physical Security Office will issue Contractor badges to each employee. All Contractor personnel working in the Secured Areas must possess a secret clearance prior to starting work. Government personnel will not provide escort services. For lost HQC Badge/CAC not turned in when requested or at the end of a contract, the final invoice will not be paid until all cards have been returned and accounted for.

C8.1.1.3 For a Defense Threat Reduction Agency (DTRA) access and badge, the contractor must meet the requirements in C8.1.1.3 . The contractor must then provide a provide Visit Authorization Requests to the DTRA Personnel Security Office. The contractor must also fill out a DTRA Form 3 to be turned into the Government sponsor for signature and approval.

C8.1.2 Building Security

C8.1.2.1 The Prime Contractor shall be responsible for safeguarding all Government property provided for Contractor use. At the close of each work period, Government facilities, equipment and materials shall be secured. All persons and vehicles are subject to search.

C8.1.2.2 Visitors must process through McNamara Headquarters Complex Visitors Control Building 2420. The weekday business hours are Monday through Friday from 6 a.m. to 4:30 p.m. The visitor control center is located at the HQC gate 1 closest to the Fort Belvoir gate on John J. Kingman Road. The center's parking lot is on the immediate right.

C8.1.2.3 Building Security. The Prime Contractor shall be responsible for safeguarding all Government property provided for Contractor use. At the close of each work period, Government facilities, equipment and materials shall be secured. All persons and vehicles are subject to search.

C8.1.2.4 Active-duty military, individuals with a current DoD/government Common Access Card or a military retiree/dependent ID card are not required to stop at the Visitors Center and may use any gate to enter the complex. Members of the public, family members, commercial vendors and contractors are considered visitors or guests and must enter the HQC through the VCC.

C8.1.2.5 Visitors will need a state or government-issued photo ID, such as a driver's license or Virginia Real ID driver's license and take them to the HQC VCC for processing and access. Employees without a CAC or a military ID must go to the HQC VCC for a pass and access. Employee who loses their CAC, must stop at the VCC to get a pass to go to the Security Office to report the lost or stolen card, fill out a report and get a new card at the Pass & ID office.

C8.1.2.6 DoD security regulations require HQC visitors to be cleared before accessing the facility. To reduce wait times, visitors can pre- register online in DBIDS, the Defense Biometric Identification System, before arriving at the center. Pre-registering in DBIDS enables visitors'

sponsors to easily submit requests to HQC Security for required background checks without having to handle visitors personally identifiable information. The DBIDS online prescreening process is optional but highly encouraged.

C8.1.2.7 Steps for pre-registering in DBIDS and entering through the visitors' center are:

Step 1: The sponsor provides visitors with link to DBIDS pre-enrollment website https://dbids-global.dmdc.mil/enroll#!/ and their work email and phone number.

Step 2: The visitor goes online no more than 30 days before their scheduled visit and enters their personal information. At the end of the process, the visitor receives a visit confirmation page with a QR code and six-digit number.

Step 3: The visitor sends a copy of the confirmation page, QR code and six-digit number to their sponsor.

Step 4: The sponsor sends a digitally signed email to HQVisitorAccess.HQDLA@dla.milwith a copy of the visit confirmation and date of the visit. Sponsors should submit their requests five business days before the visit when possible. Unless notified otherwise, the sponsor can expect that their visitor is approved to access the HQC.

Step 5: At the time of the visit, the visitor takes their state-issued photo ID, such as a driver's license or Virginia Real ID driver's license and a printout of the visit confirmation from DBIDS to the HQC VCC (directions above). The visitor is verified in DBIDS and issued a visitor's pass allowing them to drive through the HQC gate and park.

Step 6: Visitors will enter building 2462 Andrew T. McNamara Headquarters POD 1-9 through the main entrance at POD 4 facing the building on the 3-star flagpole side entrances and undergo security screening.

C8.1.2.8 Visitors to the Defense Threat Reduction Agency will enter Building 2462 Andrew T. McNamara Headquarters Pod-10 and will undergo additional processing and badging upon entering the building. Visitors requiring an escort must remain in the lobby until their sponsor arrives.

C8.1.2.9 Visitors for the Child Development Center Building 2468 Main entrance to the CDC. All personnel are required to sign in and sign- out at the CDC front entrance and receive access approval after normal working hours of 6:00 AM to 6:00 PM Monday through Friday. After hours will need to be prearranged with the CDC Management.

C8.1.2.10 Walk-up visitors will be accepted at the HQC VCC, they should expect to wait while security checks are completed. For more information, contact the HQC Visitor Access Office at HQCVisitorAccess.HQDLA@dla.mil or (571) 767-1899.

C8.1.3 Driving on HQC

C8.1.3.1 Contractor shall obey all speed limits and traffic signs. Speed limit on HQC is 15 MPH unless otherwise posted. Radar is used on Center. Disobeying traffic regulations may include a monetary fine, court appearance, or loss of driving privileges. Contractor personnel operating motor vehicles on the installation shall always have in their possession a valid Driver's License, Vehicle Registration, and proof of insurance.

C8.1.4 Parking

C8.1.4.1 Parking. Vehicle owners and those who work on the HQC are responsible for parking in accordance with the HQC Parking Policy. Personnel shall be aware of the contents of the HQC Parking Policy, obey signs posted to identify the various parking rules, and inquire of the security force when there is doubt. Strict enforcement of parking procedures will be enforced to control violations.

C8.1.4.2 Personnel who park in unauthorized spaces will be issued a traffic citation. Personnel who collect three (3) traffic violations within a one (1) year period will receive a letter of warning advising that an additional violation will result in a six (6) month suspension of driving privileges at HQC. The next violation will result in a Notice of Hearing letter.

C8.1.4.3 Vehicles will be subject to towing for the following reasons: abandonment; parking in violation of complex policies; constituting safety or security hazards; driving illegally on the HQC; the arrest of the owner/driver for a criminal violation; leaving a disabled vehicle on the complex for more than twenty-four (24) hours without notifying proper authorities. Towed vehicles and their contents remain the owner's responsibility.

C8.1.5 Weapons on Center

No weapon, either on one's person or placed inside a privately-owned vehicle is allowed. If a weapon of any type is found, it will be confiscated and held as evidence. Having unauthorized weapons on Federal property is a felony, and violators will be prosecuted.

C8.1.6 Key Control

C8.1.6.1 The Contractor shall establish and implement a procedure for ensuring that all keys and/or combinations locks used are not misplaced and are not used by unauthorized persons. All keys and/or combination locks required for satisfactory accomplishment of tasks described in the contract will be furnished by the Government.

C8.1.6.2 Keys issued to the Contractor shall not be duplicated. Combination locks shall not be disseminated beyond a "need to know" basis. The Contractor shall report loss of a key or compromise of a combination immediately to the COR. All keys lost by the contractor must follow C8.1.6.3.

C8.1.6.3 Contractor will be replaced by the Government at the COR's discretion, existing locks will be replaced; the direct cost of which will be charged to the Contractor. The cost of replacing combination locks resulting from contractor caused compromise of combination will also be

assessed to the Contractor. The Contractor shall provide a monthly key control inventory report to the COR.

C8.1.7 Escorted Areas

All contract employees, including subcontractor employees who are not in possession of the appropriate security clearances, must be escorted in areas where they may be exposed to classified and/or sensitive materials and/or sensitive or restricted areas.

C8.1.8 Protection and Damage

The Contractor shall make reasonable efforts to assist the Government to prevent hazardous conditions and property damage and to maintain security. The Contractor shall promptly report such conditions or activities to the KO or their designee. The contractor shall safeguard all Government property provided for contractor use. At the close of each work period, Government facilities, equipment and materials shall be secured. The Contractor shall protect Government property, buildings, materials, equipment, supplies, records, and data within the Contractor's control against unauthorized access, loss, or damage and excessive energy consumption. The Contractor shall provide reasonable assistance to security or emergency response personnel as needed.

C8.1.9 Cleanup

During and at completion of work, debris shall not be allowed to spread unnecessarily into adjacent areas nor accumulate in the work area itself. All such debris, excess material, and parts shall be cleaned up and removed from the HQC at the completion of the job and/or at the end of each day work is in progress.

C8.1.10 Locating Underground Utilities

The Contractor shall coordinate approval of all excavation permit requirements to support work covered under this contract and other Contractor/Government Personnel by locating, identifying and marking Government owned underground utility lines, including coordination of all other utility company efforts to approve excavation permits.

C8.1.11 Underground Storage Tanks

The Contractor shall provide persons certified by the Commonwealth of Virginia for all work on underground storage tanks. A certified person must be present on the job site at all times when work is being performed on underground storage tanks. The Contractor is responsible for all testing, operating, maintenance, record keeping and repair. There is one (1) for ice storage which is a confined space. The Contractor shall have trained personnel for permit required confined space per OSHA guidelines.

C8.1.12 Utility Outages

Utility outages shall be scheduled at a time of minimum demand and disruption, normally after regular working hours. Requests for utility outages will be submitted in writing to the COR for approval of a minimum of fifteen (15) working days in advance of the scheduled outage. This request shall list all areas affected and temporary utilities required during the duration of the outage. All scheduled outages must be approved in advance by the COR. All equipment affected by an outage shall be properly secured in advance and reactivated after utilities are restored to normal conditions. All labor efforts required to coordinate and perform utility outages for performance of work under this contract, shall be the responsibility of the Contractor and included in the contract price at no additional cost to the Government. All labor efforts required to coordinate and perform utility outage work, whether scheduled or unscheduled, shall be covered under the service call, task order or requirement that generated the request (i.e. support of other Contractor work effort, Emergency Service Call, etc.)

C8.1.13 Service Interruption

If any services must be discontinued (even temporarily) because of scheduled contract work, the Contractor shall notify the COR at least fifteen (15) working days in advance. If the discontinued service is because of an emergency breakdown, the Contractor shall notify the COR immediately. Services and equipment included are heating, cooling, plumbing, ventilation, water treatment, and fire suppression equipment and systems. The chillers, boilers, cooling towers, water treatment and fire suppression equipment and systems are critical to the mission of the building. All maintenance and repair work (scheduled and unscheduled) shall be closely coordinated with the COR. The critical services/equipment shall not be interrupted without (1) approval of the COR, (2) all tools, equipment and parts to restore service located at the work site, and (3) presentation of a recovery plan (to include current system backup tape, recovery disks etc. for Building Automation System) to the COR in the event of system failure(s) when restoring service.

C8.2 Safety Requirements

C8.2.1 Safety Program

The Contractor shall establish an accident and safety program that shall provide safety, health protection, and personnel medical maintenance as required by the Occupational Safety and Health Administration (OSHA) and all Code of Federal Regulation segments implementing OSHA. The Government reserves the right to conduct unannounced safety inspections and environmental audits at any time.

C8.2.1.1 The Government reserves the right to investigate accidents involving Contractor personnel. The Contractor shall immediately report to the COR any bodily injury or death of Contractor personnel while in the performance of official duties, damage to Government property estimated to be more than $100, or loss of Government property resulting from activities of the Contractor, its agents, or employees.

C8.2.1.2 The Contractor shall provide employees with protection against health hazards by furnishing all industry standard protective equipment required for performance of this contract. All equipment shall be the National Institute of Occupational Safety and Health (NIOSH), or

Mine Safety and Health Administration (MSHA) approved for the usage intended, whichever is the most stringent. Conflicting instructions shall be brought to the COR for resolution.

C8.2.1.3 The Contractor shall ensure that all signs, equipment, machinery, and hazards are marked or painted to identify the hazard. The colors and markings used shall conform to OSHA regulations specified at 29 CFR 1910.144 (Safety Color Code for Marking Physical Hazards), ANSI A13-1 and other State and Local statutes as applicable.

C8.2.1.4 The Contractor shall ensure that all operating equipment and tools have guards which conform to the provisions of OSHA regulations specified at 29 CFR 1910, Subparts O and P.

C8.2.1.5 All waste material defined at 40 CFR 251.20 which could affect the environment must be disposed of in accordance with directions provided by the Environmental Protection Office/Safety Officer. Scheduled safety tests shall be the responsibility of the Contractor to perform, at no cost to the Government, in accordance with building specifications and as outlined in this contract.

C8.2.1.6 The Contractor shall submit a list of proposed products, solvents, cleaners, chemicals and substances to be used in performance of this contract to the COR within fifteen (15) days after contract award. The list shall include trade name, chemical composition, formulation, concentration, and application rate of active ingredients, method of application, EPA registration number, and Material Safety Data Sheets (MSDS) / Safety Data Sheets (SDS) for each product, chemical or substance. Additionally, when any new products, solvents, cleaners, chemicals or substances are planned for use, the Contractor shall submit to the COR the required information ten (10) days prior to ordering or bringing the materials onto the HQC. The contractor is responsible for complying with the Emergency Planning and Community Right-to-Know Act (EPCRA) and Fort Belvoir Environmental policies and procedures.

C8.2.1.7 There shall be a minimum of two (2) qualified personnel in the working areas any time work is being performed on or near energized equipment, or on ladders or lifts used in the atrium or parking lot areas or areas where there is a possible danger to contractor personal or building occupants. Barriers such as safety sawhorses, cones, and barrier tape shall be used to block off areas to keep building occupants safe and out of areas that the contractor is working, to include while working in or above ceiling on ladders or lifts.

C8.2.1.8 The contractor shall ensure all equipment shall be treated as energized unless tested and grounded and in compliance with OSHA standard for The Control of Hazardous Energy (Lockout/Tagout), Title 29 Code of Federal Regulations (CFR) Part 1910.147 Lockout Tagging and National Fire Protection Agency (NFPA), testing, and grounding performed for personal protection prior to working on de-energized conductors shall be done by the person performing the work and verified by the onsite shift supervisor. Each tag shall be signed and dated as required in the lockout tag out regulation.

C8.2.2 Burning Permits

Burning permits are required before burning or welding equipment can be used. The Contractor shall notify the COR prior to seeking a burning permit. To obtain a permit, the Contractor shall

coordinate with Installation Management leadership (delegated authority from the Ft. Belvoir Fire Department), in advance, for each day welding or burning is performed.

C*8*.2.3 Fire Alarm Disable Request

Fire alarm disable requests are required 24 hours prior to disable. The Contractor shall coordinate with the COR.

C*8*.2.4 Fire Protection and Prevention

C8.2.4.1 The Contractor shall comply with all safety, National Fire Protection Agency (NFPA) and fire requirements outlined in U.S. Army, Ft. Belvoir (USAFB) Fire Regulations, copies of which are available in the office of the Post Fire Marshal, USA FT Belvoir, Virginia.

C8.2.4.2 The Contractor shall be liable for any fire loss to Government property attributable to negligence or willful misconduct of the Contractor or Contractor's employees, including failure to comply with prevention or clarification on fire prevention and protection matters.

C8.2.4.3 The Contractor shall familiarize employees with the USAFB Fire Regulations, location of fire reporting telephones near site of work and correct fire reporting procedure. The USAFB Fire Marshall may be contacted for any additional information or clarification on fire prevention and protection matters.

C8.3 Environmental Compliance

C8.3.1 Environmental Requirements

C8.3.1.1 Throughout the full performance period the Contractor shall comply with the current Federal, State, and Local laws and Regulations related to building management and shall include, but not be limited to proper permitting, inspection, testing, personnel safety, control and management of hazardous substances, certification, licensing, and record keeping which includes materials and associated systems used or removed in the performance of this Contract. All environmental protection matters shall be coordinated with the Government Representative. If environmental laws/regulations change during the term of this contract, the contractor is required to comply as such laws come into effect.

C8.3.1.2 The Contractor shall maintain the appropriate and required equipment to clean up any oil or chemical spills which result from the Contractor's operations. The Contractor shall notify the KO and the Government Representative immediately in the event of any oil or chemical spill. The Contractor shall comply with installation rules and policies regarding the use, storage, transport and disposal of hazardous materials and wastes. Recycle demolition debris whenever feasible. Weights for recycled, reused and landfilled materials must be submitted. The Contractor shall use to the greatest extent practical the safest and most environmentally friendly products and processes available commercially.

C*8*.3.2 Environmental Protection Plan (EPP)

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Incorporate construction related objectives and targets from the installation EMS into the EPP. Include in the EPP measures for protecting natural and cultural resources, required reports, and other measures to be taken. Meet with the Contracting Officer or Contracting Officer Representative to discuss the EPP and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the EPP within 30 days after notice to proceed. Revise the EPP throughout the project to include any reporting requirements, changes in site conditions, or contract modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

C*8*.3.3 Environmental Brief

The Contractor shall attend an environmental brief to be included in the project kick off meeting. Provide the following information: types, quantities, and use of hazardous materials that will be brought onto the Installation; and types and quantities of wastes/wastewater that may be generated during the Contract; an inventory of equipment to be utilized, which includes make, model, fuel type, and expected hours of operation for each.

Prior to initiating any work on site, meet with the KO or designee and Installation Environmental Office to discuss the proposed Environmental Protection Plan (EPP). Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural and cultural resources, required reports, required permits, permit requirements (such as mitigation measures), and other measures to be taken.

C*8*.3.4 Environmental Coordinator

Appoint in writing an Environmental Coordinator for the project site. The Environmental Manager is directly responsible for coordinating contractor compliance with federal, state, local, and installation requirements. The Environmental Coordinator must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental permits are obtained, maintained, and closed out; ensure compliance with Storm Water Program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; ensure compliance with 81 FR 30429 and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers). This can be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation Areas; ensure only authorized personnel add wastes to containers; ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate

removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out. Submit Environmental Manager Qualifications to the KO.

C8.4 Refrigerant

Any of the following refrigerants are considered "mission critical" by The Defense Logistics Agency (DLA) and, if removed from equipment, ownership must be retained by the U.S. Government, for return to DLA Aviation:

CFCs	CHEMICAL NAME
R-11	Trichlorofluromethane
R-12	Dichlorodifluromethane
R-114	Dichlorotetrafluoroethane
R-500	Azeotropic mixture of CFC-12 and HFC-152A (1,1 Difluroethane)
R-502	Azeotropic mixture of CFC-115 and HCFC-22

HCFCs	CHEMICAL NAME
R-22	Chlorodifluoromethane

HALONs	CHEMICAL NAME
Halon 1202	Dibromodifluromethane
Halon 1211	Bromochlordifluromethane
Halon 1301	Bromotrifluromethane

SOLVENTs	CHEMICAL NAME
Methyl Chloroform	1,1,1 Trichloroethane
CFC-113	Trichlorotrifluoroethane

C8.4.1 Refrigerant Leak Rates

Refrigerant leak rates need to be recorded, per EPA regulations. The following would be applicable and should be added as requirements for industrial process refrigeration (IPR) containing 50 pounds or more of an ozone-depleting refrigerant. (These regulations do not apply to appliances containing solely substitute refrigerant such as HFCs):

C8.4.2 Leak Rate Calculations

The Contractor must calculate the leak rate every time ozone-depleting refrigerant is added to an appliance, unless the addition is made immediately following a retrofit, installation of a new appliance, or qualifies as a seasonal variance.

C8.4.3 Appliance Repair

C8.4.3.1 The Contractor must identify and repair leaks that exceed 30% for IPR, 20% for commercial refrigeration, and 10% for comfort cooling and other appliances within 30 days of when the ozone-depleting refrigerant is added. Leaks must be repaired such that the leak rate is brought below the applicable leak rate. The Contractor must perform and document both an initial and follow-up verification test of leak repairs for appliances that exceed the applicable leak rate. An initial verification test must be performed before any additional refrigerant is added to the appliance. A follow-up verification test must be performed only after the appliance has returned to normal operating characteristics and conditions. There is no minimum timeframe. Some refrigerants are exempt from the refrigerant management requirements. Examples include carbon dioxide, nitrogen, and water. For a full list of exempt refrigerants, see 40 CFR § 82.154(a).

C8.4.3.2 The verification tests must demonstrate that leaks were successfully repaired. If either the initial or follow-up verification test indicates that repairs were not successful, owners/operators may conduct as many additional repairs and verification tests as needed within the 30-day repair period. Owners/operators of IPR, commercial refrigeration, and comfort cooling equipment may request limited extensions to the 30-day repair deadline (120 days if an industrial process shutdown is required). If the Contractor fails to bring the leak rate below the threshold leak rate, the Contractor must create and implement a retrofit or retirement plan; in coordination with the COR and DPW Environmental Divisions.

C*8*.4.4 Leak Inspections

C8.4.4.1 The Contractor must conduct leak inspections for appliances that have exceeded the applicable leak rate, according to the schedule, below. Leak inspections must be conducted by a Section 608-certified technician. All visible and accessible components of an appliance must be inspected.

C4.4.4.2 Leak Inspection Requirements:

Industrial Process Equipment (IPR)

1) >500 pounds: Once every three months until the owner/operator can demonstrate through leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for four quarters in a row.
2) 50 to 500 pounds: Once per calendar year until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for one year.

Comfort Cooling

1) 50 or more pounds: Once per calendar year until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 10% for one year.
2) Quarterly or annual leak inspections are not required on appliances (or portions of

appliances) that are continuously monitored by an automatic leak detection system that is audited and calibrated annually.

C8.4.5 Refrigerant Retrofit or Retirement Plans

C8.4.5.1 The Contractor, in coordination with the COR and The Dept of Army DPW Environmental Division, must create a retrofit or retirement plan within 30 days of an appliance leaking ozone-depleting refrigerant above the applicable leak rate if: the owner/operator intends to retrofit or retire rather than repair the leak; the owner/operator fails to identify and repair the leak; the appliance continues to leak above the applicable leak rate after required repairs and verification tests.

C8.4.5.2 Retrofit or retirement plans must contain: identification and location of the appliance; type and full charge of the refrigerant in use; type and full charge of the new refrigerant (if retrofitting); itemized procedure for converting the appliance to a different refrigerant, including changes required for compatibility with the new refrigerant (if retrofitting); plan for disposition of recovered refrigerant; plan for disposition of the appliance (if retiring); and a schedule for completion within one year.

C8.4.5.3 The retrofit or retirement must be completed within one year of the plan's date unless granted extra time.

C8.4.5.4 The Contractor must repair all identified leaks as part of any retrofit. Some extensions may be available, particularly for IPR.

C8.4.5.5 The Contractor may request relief from the obligation to retrofit or retire an appliance if they can establish within 180 days of the plan's date that the appliance no longer exceeds the applicable leak rate and agrees in writing to repair all identified leaks within one year of the plan's date. Coordination with DPW Environmental would be required.

C8.4.6 Chronically Leaking Appliances

The Contractor must notify COR/DPW Environmental, so that leak reports can be submitted to the EPA, if any appliance leaks 125% or more of its full charge in one calendar year. This report must describe efforts to identify leaks and repair the appliance.

C8.4.7 Recordkeeping and Reporting Requirements

C8.4.7.1 The Contractor must maintain hard or electronic copies of:

a. Records documenting the full charge of appliances.
b. Records, such as invoices, showing when service or maintenance is performed, when refrigerant is added to an appliance (or removed, in the case of disposal), when a leak inspection is performed, and when a verification test is conducted.
c. If using an automatic leak detection system, documentation that the system is installed and calibrated annually and records of when the monitoring system identifies a leak and the location of the leak.

d. Retrofit and/or retirement plans.
e. Requests submitted to EPA to extend the repair or retrofit deadlines.
f. If a system is mothballed to suspend a deadline, maintain records documenting when the system was mothballed and when it was brought back on-line (i.e., when refrigerant was added back into the appliance).
g. Records to demonstrate a seasonal variance.
h. Reports on appliances that leak 125% or more of the full charge in a calendar year.

C8.4.7.2 All labels and placards of refrigerant containers and containing-devices shall be free of damage, dirt, and grime.

C8.4.7.3 Refrigeration units having a calculated leak rate of more than 10% must be immediately reported to COR/DPW Environmental for internal tracking.

C8.4.7.4 Leak rates, for every refrigerant service order, shall be calculated by the licensed technician performing the service, which should thereafter be sent to COR/DPW Environmental, quarterly. Leak rates shall be calculated using the following form with all portions/mathematical calculations completed:

C*8*.5 Potable Water Systems

C8.5.1 Drinking Water

The Contractor shall comply with The Safe Drinking Water Act, PL 99-339, as amended, and the Environmental Protection Agency Safe Drinking Water regulations (40 CFR 141.43, Sections A and D), which address the quantity of lead allowable in new installations or repairs to existing drinking water systems and or plumbing. Potable water systems that are repaired, modified, serviced, or breeched in any way shall be disinfected and flushed as needed prior to returning the system to service. Contractors are required to comply with all Federal, State, and Local codes in the operation, treatment, and testing of potable water systems.

C8.5.2 Storm Water Management

The Contractor shall utilize storm water protection measures when disturbing soil. Contact the KO and Government Representative for an inspection of protection measures prior to disturbing soil.

C8.6 Hazardous Waste

The Contractor shall ensure that on-site hazardous waste management is compliant with all regulatory accumulation requirements (e.g., hold times, marking/labeling and container management). All Hazardous and Universal Waste shipping documentation shall be maintained for the life of the contract and a copy provided to the government. DLA Installation Mgt. will be marked as the generator on all shipping papers. Coordinate with the contracting officer for the RCRA number and signature which will be provided by the government. Universal Wastes (i.e., fluorescent lamps, batteries, certain pesticides, and mercury-containing equipment) in quantities

subject to Federal and State Universal Waste Rules (40 C.F.R. part 273) shall be recycled or disposed of as Hazardous Waste. Preference is given to recycling of intact items. Hazardous Wastes not subject to the Universal Wastes Rule shall be managed in accordance with all applicable parts of 40 C.F.R. part 260.

C8.6.1 Safety Requirements

Contractors shall comply with all Department of Labor and OSHA Rules and Regulations, 29 CFR 1910 (General Industries) or 1926 (Construction), whichever is applicable. Contractors shall follow the safety requirements of EM 385-1-1, appropriate safety standards established by the National Electric Code, National Fire Code, the State of Virginia, DLA or other safety requirements as established. The Contractor shall immediately correct or mitigate any recognized safety hazard. The Contractor shall notify the KO, other designated Government representative, or appropriate authority if applicable.

C8.6.2 Safety Plan

The Contractor shall assure that an up-to-date Safety Plan is available at the job site. The Safety Plan shall identify each major type of work (for example: plumbing, electrical, demolition, equipment installation, equipment maintenance) or where a subcontractor or work classification is to perform work. For each type of work the contractor shall prepare an Activity Hazard Analysis (AHA).

The safety plan shall be submitted to the KO or their designee for review and approval 30 days after the award. By approving the plan, DLA assumes no responsibility for the Contractor's occupational safety and health program.

C8.6.3 Facility Hazards and Accidents

C8.6.3.1 Hazards

The Contractor is responsible for ensuring safe working conditions and identifying hazards that exist in the work environment. When the Contractor identifies any hazardous work condition, regardless of cause, the Contractor he is responsible for protecting its employees from that hazard and correcting hazards under its control. Hazards not under the control of the Contractor, as well as all hazards that present an imminent danger, must be reported immediately to the KO.

C8.6.3.2 Accidents

The Contractor shall immediately notify and provide copies of all accident reports to OSHA and to the KO or designee.

C8.7 Electrical Safety

The Contractor shall comply with National Fire Protection Association (NFPA) 70: National Electrical Code NEC) and NFPA 70E: Standard for Electrical Safety in the Workplace, when

working on or around electrical equipment or systems or switchgear equipment. Electrical work must be performed by qualified personnel with verifiable credentials who are familiar with applicable code requirements. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with State and Local requirements applicable to where work is being performed. The Contractor shall ensure that all areas restricted to qualified personnel are secured and properly labeled.

C8.7.1 Lock Out/Tag Out

The Contractor shall develop and implement a lockout/tag out program in accordance with 29 CFR 1910.147. The program shall include all anticipated utility, energy and mechanical sources including, but not limited to, electrical, water, steam and pressurized fluids/gasses. The Contractor shall communicate to all Contractor/sub-contractor personnel, Government employees and Government sub-contractors who may be affected by any instance when the lock-out/tag-out procedure is implemented in the building. When required, the Contractor shall brief all personnel performing work in the building of the Contractor's lock-out/tag-out procedure. All incidents requiring a lock out tag out action be taken shall be communicated to the CO or their designee either verbally or in writing as dictated by the Government. One (1) copy of the LO/TO procedures will be given to the KO or designee within 30 days of contract notice to proceed.

C8.7.2 Fall Protection

The contractor shall develop and implement specific fall protection procedures for work on roofs, equipment, and other areas at elevation. The contractor shall ensure fall protection equipment is provided to their employees and that employees are adequately trained.

C8.7.3 Confined Space Entry

Confined space entry must comply with Section 34 of EM 385-1-1, OSHA 29 CFR 1926, OSHA 29 CFR 1910, OSHA 29 CFR 1910.146, and OSHA Directive CPL 2.100. Any potential for a hazard in the confined space requires a permit system to be used.

C8.7.4 Labeling and Signage

The Contractor shall maintain the labeling of existing equipment, pipes, storage areas, containers, confined space, and workspaces as well as associated signage, in accordance with OSHA standards to ensure labels are visible and easily readable. Any equipment, pipes, and other materials, newly installed by the Contractor that require labeling and signage per OSHA standards shall be labeled immediately upon completion of the installation and maintained throughout the Contract period.

C9 ATTACHMENTS AND FORMS

ATTACHMENT 1 – SITE SPECIFIC DEFINITIONS AND ACROYNMS

AFTER ACTION REVIEW/LESSONS LEARNED. An assessment conducted after a project or major activity that allows the Government and contractor to discover (learn) what happened and why.

CONTRACT ADMINISTRATOR. The official Government representative delegated authority by the Contracting Officer to administer a contract. This individual is normally a member of the appropriate Contracting/Procurement career field and advises on all technical contractual matters.

CONTRACTOR. A supplier or vendor awarded a contract to provide specific supplies or services to the Government. The term used in this contract refers to the prime.

CONTRACTING OFFICER (KO). A person with authority to enter, administer, and/or terminate contracts, and make related determinations and findings on behalf of the Government. Note: The only individual who can legally bind the Government.

CONTRACTING OFFICER'S REPRESENTATIVE (COR). An employee of the U.S. Government appointed by the KO to administer the contract. Such appointment shall be in writing and shall state the scope of authority and limitations. This individual has the authority to provide technical direction to the Contractor if that direction is within the scope of the contract, does not constitute a change, and has no funding implications. This individual does NOT have the authority to change the terms and conditions of the contract. This individual has responsibility for surveillance of the Contractor's performance against the contract requirements at the IDIQ level.

DELIVERABLE. Anything that can be physically delivered but may include non- manufactured things such as meeting minutes or reports.

FEDERAL ACQUISITION REGULATION. The principal set of rules established to govern the acquisition process of the Government purchasing goods and services.

GOVERNMENT-FURNISHED PROPERTY OR GOVERNMENT PROPERTY.
Property in the possession of, or directly acquired by, the Government and subsequently made available to the Contractor.

KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract by the Key Personnel listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal

MONTHLY STATUS REPORT. To keep project status visible to senior management in the customer and delivery organization by providing an appropriate summary of project status on a regular monthly basis.

OTHER DIRECT COSTS. Non-labor and non-travel expenses incurred for the Government (i.e. facilities, shipments).

PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

PROJECT MANAGEMENT PLAN. A plan for executing a project and to meet specific objectives for the project. It should be used as a foundation for information and resource management planning and guidance.

PERFORMANCE WORK STATEMENT. Explains concisely what is to be accomplished in terms of results so that the Government can monitor and evaluate the progress and result of the project effectively.

QUALITY ASSURANCE. The Government procedures to verify that services being performed by the Contractor are acceptable IAW with established standards and requirements of this contract.

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP). An organized written document specifying the Government surveillance methodology to be used for surveillance of Contractor performance.

QUALITY CONTROL. All necessary measures taken by the Contractor to assure that the quality of a product or service shall meet contract requirements.

QUALITY CONTROL PLAN. The Contractor's standardized procedure/methodology for self-monitoring and documenting contract performance to ensure all contract requirements are met.

QUARTERLY MANAGEMENT REPORT. To keep project status visible to senior management in the customer and delivery organization by providing an appropriate summary of project status/management on a quarterly basis

RECOVERY TOOLS. Repairing, restoring, or diagnosing computer problems and systems.

RESPONSE. Time in which the HVACR Technician arrives on site and meets with POC.

SUBCONTRACTOR. One that enters a contract with a prime Contractor. The Government does not have privity of contract with the Subcontractors.

WIDE AREA WORKFLOW. A web-based application that allows Contractors to electronically submit invoices and receiving reports and the Government to inspect, accept, receive, and pay electronically.

WORKDAY. A day on which the government is routinely present, usually Monday through Friday, excluding federal holidays. A workday is distinguished from a calendar day, as within ten calendar days there may be a range of five to eight workdays.

WORK WEEK. Monday through Friday, except for Federal holidays unless specified otherwise.

2 Acronyms

AAR	After Action Review
ACD	Accelerated Capabilities Division
ALP	Acceptable Level of Performance
BAS	Building Automation System
BBP	Best Business Practice
BCS	Building Control Systems
CAC	Common Access Card
CFR	Code of Federal Regulations
CLIN	Contract Line-Item Number
CNA	Capability Needs Analysis
CoE	Center of Excellence
CONOPS	Concept of Operations
CONUS	Continental United States (excludes Alaska and Hawaii)
COR	Contracting Officer's Representative
DFARS	Defense Federal Acquisition Regulation Supplement
DoD	Department of Defense
DODD	DoD Directive
DSSR	Department of State Standardized Regulations
FAR	Federal Acquisition Regulation
FFP	Firm Fixed Price
FRCS	Facilities Related Control System
FTR	Federal Travel Regulations
GFE	Government-Furnished Equipment
GFP	Government-Furnished Property
GFI	Government-Furnished Information
IA	Information Assurance
IAW	In Accordance With
ID	Identification
IDIQ	Indefinite Delivery/Indefinite Quantity
IS	Information Systems
IT	Information Technology
JIIM	Joint, Interagency, Intergovernmental and Multi-national
JPAS	Joint Personnel Adjudication System
JTR	Joint Travel Regulations
KO	Contracting Officer
MSR	Monthly Status Report
NIE	Network Integration Evaluations
NOSC	Network Operations Support Center

OCI	Organizational Conflict of Interest
	Outside Continental United States
ODC	Other Direct Costs
OPSEC	Operations Security
PIPO	Phase In/Phase Out
PMP	Project Management Plan
POC	Point of Contact
POP	Period of Performance
PRS	Performance Requirements Summary
PWS	Performance Work Statement
QA	Quality Assurance
QAP	Quality Assurance Program
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QMR	Quarterly Management Report
SOP	Standard Operating Procedures
TOR	Task Order Request
TO	Task Order
VAL	Visit Authorization Letter
WAWF	Wide Area Workflow
WBS	Work Breakdown Structure

ATTACHMENT 2 – TECHNICAL REFERENCES & CODES

References and Codes

In general, all maintenance shall be done in accordance with the manufacturer's recommendations, industry standards, and the Systems Operations and Maintenance Manuals (SOMMs). The Contractor shall follow applicable UFC, Army Regulations, and NFPA specifications for all tasks, including Federal and Local laws and codes. For Cybersecurity reference Section C.4 Security / Cyber-Security. All contracts will use the current versions of these references and incorporate revisions as approved. References include, but are not limited to:

- UFC 1-200-01, DOD Building Code, with Change 2
- UFC 1-200-02, High Performance and Sustainable Building Requirements, with Change 2
- UFC 1-201-01, Non-Permanent DoD Facilities in Support of Military Operations, with Change 3
- UFC 1-201-02, Assessment of Existing Facilities for Use in Military Operations
- UFC 3-401-01 Mechanical Engineering, With Change 1
- UFC 3-410-01 Heating, Ventilating, and Air Conditioning Systems, With Change 8
- UFC 3-410-02 Direct Digital Control for HVAC and Other Building Control Systems, With Change 2
- UFC 3-430-07 Operations and Maintenance: Inspection and Certification of Boilers and Unfired Pressure Vessels, With Change 5
- UFC 3-301-01 Structural Engineering with change 4
- UFC 3-501-1 Electrical Engineering
- UFC 3-560-01 Electrical Safety
- UFC 3-600-01 Fire Protection Engineering with change 6
- UFC 4-010-01, Minimum Antiterrorism Standards for Buildings, with Change 1
- UFC 4-010-06, Cybersecurity of Facility Related Control Systems, with Change 1
- UFC 4-440-01 Warehouses and Storage Facilities, With Change 1
- UFC 4-610-01 Administrative Facilities, With Change 1
- UFC 4-440-01 Warehouses with change 1
- UFC 4-610-01 Administrative Facilities 2021
- UFC 4-440-01 Warehouses with change 1
- UFC 4-610-01 Administrative Facilities 2021
- UFGS 01 91 00.15 Building Commissioning
- UFGS 01 91 00.15 20 Total Building Commissioning Feb 2021
- UFGS 23 09 13 Instrumentation and Control Devices for HVAC
- UFGS 25 08 11.00 20 facility related control systems
- NFPA 58, Liquefied Petroleum Gas Code

- NFPA 54, National Fuel Gas Code
- NFPA 70, National Electrical Code
- NFPA 70B, Standard for Electrical Equipment Maintenance
- NFPA 70E, Standard for Electrical Safety in the Workplace
- NFPA 90A, Standard for Installation of Air Conditioning and Ventilation Systems
- NFPA 90B, Standard for the Installation of Warm Air Heating and Air-Conditioning Systems
- NFPA 92, Standard for Smoke Control Systems
- NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations
- NFPA 101, Life Safety Code
- NFPA 204, Standard for Smoke and Heat Venting
- Army Regulation AR 420-1, Rapid Action Revision 24 August 2012
- EM 385-1-1, Safety and Health Requirements Manual
- DLAI 4170.11 Energy and Water Resource Management
- E.O. 14057 - Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability
- E.O. 14008 - Tackling the Climate Crisis at Home and Abroad
- ASHRAE Standard 90.1, current version as of award of contract
- ASHRAE Standard 55 Thermal Environment
- ASHRAE Standard 62.1 Ventilation
- ASHRAE Standard 180 HVAC inspection

In addition to the UFC, Army Regulations, and NFPA requirements listed above, the Contractor shall follow current Industry Standards where applicable. All contracts will use the current versions of these references and incorporate revisions as approved. References include, but are not limited to:

- Manufacturer's Equipment Specific Maintenance Guidance
- Manufacturer's Installation Guidance
- Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems - ANSI/ASHRAE/ACCA Standard 180
- International Property Maintenance Code (IPMC)
- ASCE/SEI 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

ATTACHMENT 3 – CAC PROCEDURES

See CAC Procedures in the IDIQ PWS under ATTACHMENT 5 COMMON ACCESS CARD.

ATTACHMENT 4 – TECHNICAL EXHIBIT LIST

TECHNICAL EXHIBIT A – DLA HQC SITE MAP

TECHNICAL EXHIBIT B – BUILDING LIST

TECHNICAL EXHIBIT C – PM Task List Template (Attached)

BLDG 2420 Visitors Control Center (VCC)

BLDG 2462 Andrew T. McNamara Headquarters Multi-story 1,100,000 (SF)

BLDG 2463 Gate 1 Access Control

BLDG 2464 Gate 2 Access Control

BLDG 2465 Gate 3 Access Control

BLDG 2466 Recreational Building

BLDG 2467 Irrigation Well House

BLDG 2468 Child Development Center (CDC) 34, 000 SF

BLDG 2469 Three Level Parking Garage building

BLDG 2480 Material Receiving and Screening Facility (MRSF) 15,000 SF

BLDG 2487 Outfall Control Structure

ATTACHMENT 5 – DOCUMENTATION OF SERVICE FORM

DOCUMENTATION OF SERVICE TO REFRIGERATION OR COMFORT COOLING EQUIPMENT

Date of service		Equipment Description	
Technician		Manufacturer	
Job/Work Order		Model No.	
Equipment Owner		Serial No.	
Bldg No.		Refrigerant Type	
Equipment Location (roof, eastside, room #)		Full refrigerant charge (lbs)	
Type of service (repair, maintenance, upgrade)			
Type of repair (cause, solution, parts replaced)			
Refrigerant added (lbs)		Date leak discovered	
Refrigerant removed (lbs)		Date leak repaired	
Refrigerant leaked (lbs)		Date of initial leak repair verification test	
Leak rate (%)		Date of follow-up leak repair verification test	
Annualized leak rate calculation	$\frac{\textit{refrigerant added (lbs)}}{\textit{refrigerant in full charge (lbs)}} \times \frac{\textit{365 days/yr}}{\textit{shorter of: \# days since refrigerant last added or 365 days}} \times 100\% =$		
Rolling Average leak rate calculation	$\frac{\textit{refrigerant added over past 365 days (lbs) [or since leaks were last repaired if period < 1 year]}}{\textit{refrigerant in full charge (lbs)}} \times 100\% =$		

Recordkeeping Template for Refrigeration or Comfort Cooling Equipment

Rev 1.0 FEB 2020

ATTACHMENT 6 – PERFORMANCE REQUIREMENTS SUMMARY (PRS)

A6-1 Deliverables Table

Performance Objective(s)	Task(s)	PWS Section(s)	Acceptable Quality Level (AQL)	Method of Surveillance	Deliver To:
Service Order/ Call Repairs	Repairs are made in a timely manner; Customers are informed of expected repair time. Response and repair is made within the specified time.	C7.1.5, C7.1.6, C7.2.6, C7.2.7, C7.3.6, C7.3.7, C7.4.6, C7.4.7	Response to and repairs of service orders/calls are timely 98% of the time.	Periodic (Monthly)	COR
Perform Routine/Preventive Maintenance	All BCS/UCS systems are fully operational 99% of the time. Failed equipment is responded to within the proper response time 100% of the time, and no failed equipment or component down longer than permitted.	C7.1.9, C7.2.9, C7.3.9, C7.4.9	Reports of all BCS/UCS Systems fully operational 99% of the time.	Periodic (Monthly)	COR
Operations and Routine/Preventive Maintenance Plan	Accurate plan is delivered within 2 business days of initial submission and when significant changes occur	C7.1.7.1, C7.2.8.3, C7.3.8.3, C7.4.8.3	98% of reports are timely and accurate	100% Inspection	COR
Submit Maintenance and	Accurate reports are delivered	C7.1.6.3 C7.2.6.3,	95% of all reports are	Periodic (Monthly)	COR

Repair (Service Order) Reports	within two business days	C7.3.6.3, C7.4.6.3	timely and accurate		
Submit 8140 Report	Accurate reports are delivered by 5th of each month	C6.1.3	98% of reports are timely and accurate	Periodic (Monthly)	COR
Staffing Plan	Accurate reports are delivered within two business days of significant changes	C7.3.16.2. C7.4.16.2	95% of reports are timely and accurate	100% Inspection	COR
Required RMF Documentation	Accurate artifacts are delivered within 2 business days of Submission Dates in Table A4-2	Table A6-2	98% of artifacts are timely and accurate	100% Inspection	COR
Monthly Progress Report and Briefing	Accurate reports and briefing are delivered within two business days	C7.5.2	95% of reports are timely and accurate	Periodic (Monthly)	COR
Quality Control Plan	Accurate reports are delivered within two business days	C5.2	95% of all reports are timely and accurate	Periodic (Monthly)	COR
Project Management Plan	Accurate reports are delivered within two business days	C7.5.3	95% of all reports are timely and accurate	Periodic (Monthly)	COR
Close Out Report	Accurate reports are delivered within two business days	C7.5.3.1.2	95% of reports are timely and accurate	100% Inspection	COR
Incoming Transition Plan	Plan delivered within 30 days of award	C4.2	Submitted within designated timeframe	100% Inspection	COR
Outgoing Transition Plan	Plan delivered within 60 days of contract end	C4.3	Submitted within designated timeframe	100% Inspection	COR
Operator Logs and Tour Sheets	Accurate reports are delivered within two business days	C7.2.10.3, C7.3.10.4, C7.4.10.4	Submitted within designated timeframe	100% Inspection	COR

HVAC Water Treatment Plan	Accurate plan delivered within 2 business days	C7.3.9.33	Submitted within designated timeframe	100% Inspection	COR
Safety Plan	Accurate plan delivered within 2 business days	C8.6.2	Submitted within designated timeframe	100% Inspection	COR
Environmental Protection Plan	Accurate plan delivered within 2 business days	C8.3.2	Submitted within designated timeframe	100% Inspection	COR
Service Interruptions Notification	Notified at least 15 working days in advance of interruption	C8.1.13	Submitted within designated timeframe	100% Inspection	COR
Burn Permits	Permits must be submitted and approved at least one day prior to using burning or welding equipment	C8.2.2	Submitted within designated timeframe	100% Inspection	COR
Refrigerant Retrofit or Protection Plan	Accurate plan delivered within 2 business days	C8.4.5	Submitted within designated timeframe	100% Inspection	COR

A6-2 RMF Documentation Chart and Submission Dates Table

RMF Documentation:			
#	Deliverable Name	Reference	Submission Due
1	System Diagrams (Architecture, Authorization Boundary, Data Flow and Purdue)	C6.4.5	Draft- One (1) month after contract award Final - six (6) months after contract award Update at least annually
2	Comprehensive Hardware/ Software List (DLA provided template)	C6.4.5	Draft- One (1) month after contract award Final - six (6) months after contract award Update at least annually
3	System CONOPs	C6.3.5, C6.5.1. C6.7.1	Six (6) months after contract award Update at least annually
4	Ports, Protocols and Services Management (PPSM)	C6.6.4	Four (4) months after contract award Update at least annually
5	FIPS 199 Categorization	C6.3.4-C6.3.6	One (1) month after contract award Update at least annually
6	Cybersecurity Scan Results (ACAS, SCAP, WebInspect)	C6.4.5	Draft - One (1) month after contract award Final - six (6) months after contract award Update at least annually
7	Security Technical Implementation Guides (STIGs) and Security Requirement Guides (SRGs) Checklists	C2.6.1, C2.6.5	Six (6) months after contract award Update at least annually
8	Documentation supporting RMF security control implementation (as outlined in DLA RMF SOP) (*When required)	C6.4.2	Six (6) months after contract award Update at least annually
9	Control assessment procedure test results	C6.4.2	Six (6) months after contract award Update at least annually
10	Plan of Actions and Milestones (POA&Ms)	C6.4.2	Six (6) months after contract award

			Update at least annually
11	PII Confidentiality Impact Level (PCIL) Categorization Worksheet Privacy Impact Assessment	C6.4.2	One (1) month after contract award Update at least annually
12	System Administrator Installation/ Configuration Documentation	C6.5.2	Four (4) months after contract award Updates as required
13	Application Software release/patch Documentation	C6.7.7	Four (4) months after contract award Updates as required

ATTACHMENT 7 – OPEN/CLOSED LOOP WATER LIMITS

Open Loop Water Limits

Chemistry Tests	Frequency of Test	Operating Ranges
Tower Water Conductivity	Blow down: Weekly, Monthly Manual Blowdown: Daily	160-2400 mmHOS (110-1600 ppm)
Makeup Water Conductivity (Hardness)	Auto Blow down: Weekly, Monthly	40-600 mmHOS (30-400 ppm)
pH Test	Daily, Weekly	7.5 to 9.5
Corrosion Monitoring (Coupon Test)	Quarterly (3 months)	Iron: 2 to 5 mils/ year Copper: 0.2 to 0.5 mils/ yr
Bacteria Testing	Quarterly (when system is running) and whenever system has been shut down for 5 consecutive business days	Max: 1000 cfu/ml (colony forming units/ ml)
Chlorides	Weekly, Monthly	Max: 250 ppm as Cl Max: 410 ppm as NaCL
Sulfites	Weekly, Monthly	50-100 ppm SO_3 80-160 ppm Na_2SO_3
Corrosion Inhibitor Residual	Auto Chem. Feed: Weekly, Monthly	Defined by Consultant
Oxidizing Biocide Residual	Auto Chem. Feed: Weekly, Monthly	Defined by Consultant
egionella pneumophila, Bacteria Testing		When total bacteria >1,000 cfu/ml (Repeat treatment and testing until total bacteria <1,000 and L. pneumophila bacteria <10 cf/ml <u>Max:</u> 10 CFU/ml

Closed Loop Water Limits

Chemistry Tests	Frequency of Test	Operating Ranges
PH	w down: Weekly, Monthly Manual Blowdown: Daily	160-2400 mmHOS (110-1600 ppm)
TDS or Conductivity	Auto Blow down: Weekly, Monthly	40-600 mmHOS (30-400 ppm)
Polyphosphates (PO4)	Daily, Weekly	7.5 to 9.5
Sulfites	Quarterly (3 months)	Iron: 2 to 5 mils/ year Copper: 0.2 to 0.5 mils/ yr
Bacteria Testing	Quarterly (when system is running) and whenever system has been shut down for 5 consecutive business days	Max: 1000 cfu/ml (colony forming units/ ml)
Corrosion Monitoring (Coupon Test)	Weekly, Monthly	Max: 250 ppm as Cl Max: 410 ppm as NaCL
Corrosion Inhibitor Residual	Weekly, Monthly	50-100 ppm SO_3 80-160 ppm Na_2SO_3
Bacteria Testing	Quarterly (when system is running) and whenever system has been shut down for 5 consecutive business days Max:1000CFU/ml Quarterly (when system is running) 10 CFU/ml When total bacteria >1,000 cfu/ml	When total bacteria >1,000 cfu/ml (Repeat treatment and testing until total bacteria <1,000 and L. pneumophila bacteria <10 cf/ml Max: 10 CFU/ml

ATTACHMENT 8 – INVENTORY LISTS

The attached list provides the most recent inventory list of equipment for HQC. This list is not absolute. It is the responsibility of the contractor to verify the inventory list and quantities.