6.0 PROJECT SPECIFIC REQUIREMENTS FORT SILL, OK*<VER>*(REV 1.3 – 30 APR 2012)*</VER>*

6.1. GENERAL

The requirements of this paragraph augment the requirements indicated in Paragraphs 3 through 5.

6.2. APPROVED DEVIATIONS

The following are approved deviations from the requirements stated in Paragraphs 3 through 5 that only apply to this project.

6.2.1. Foundations: Due to expansive soil conditions at Ft. Sill, slabs on grade are not permitted. See paragraph 6.6.1.3.

6.2.2. Pressure piping. No Type M for underground pressure pipe will be allowed. See paragraph 6.8.2.

6.3. SITE PLANNING AND DESIGN

6.3.1. General: ***<SITE_GOV>***

6.3.1.1. The layout for conceptual site preparation and approximate grading elevations are shown on the drawings in Appendix J. Design and construct site and facilities within the specific site responsibility area. The Government will provide general site preparation and mass grading including:

(a) Clearing of all bush and vegetation from the site area. The Government will stockpile removed vegetation outside of site area as designated.

(b) Removal of rocks and stones larger than 6-inches in size;

(c) Rough grading to plus or minus 0.3 feet of proposed subgrade elevation (assumed to be finished floor elevations as shown on the infrastructure site plans minus an assumed foundation depth per the rough grading plan, for proposed structures. Maximum allowable variation of the finished floor elevations is plus or minus 0.2 feet. The Contractor is responsible for any additional fill or cut in order to meet the required minimum or maximum finished floor.

(d) The Infrastructure Contractor will perform rough grading. In areas that required fill during the rough grading, general compaction of fills between 95 to 100 percent of maximum density as measured by Standard Proctor with fill being constructed in maximum 8-inch lifts. The D/B Contractor's geotechnical engineer shall verify compaction of final site.

(e) The Contractor is responsible for any specific site preparation required to accommodate the foundation design prepared or proposed by the Contractor.

6.3.1.2. Time and weather conditions may affect the actual condition of the building site(s); therefore, the Contractor shall accept the site(s) as is and be solely responsible for all final site preparation including any excavation (if necessary), placement of select fill (if necessary), and any testing required to accommodate the proposed foundation, as required by the Contractor's final geotechnical report. Confine site preparation operations to the work area defined by the project site plan unless approved by the Government. Do not waste excess soil within the project site plan work area. Deposit at an approved stockpile or as directed by the Government.

6.3.1.3. Site Design. The Government will designate approximate building site locations and related site features within the drawing included in Appendix J. Since finish grades are not specifically established for specific site responsibility areas, establish finish grades and coordinate grading and other site aspects with the Infrastructure Contractor and other Contractors working on other sites. The Contractor is responsible for the shape of the footprint and the building orientation of the proposed facility or facilities on the designated parcel of land (designated as building envelope on the drawings) with respect to adjacent and future facilities shown on the drawings. Coordinate the design with the Infrastructure Contractor, the included drawings and others working on nearby sites. Locate the facility on the respective parcel of land; however, the Government must approve any proposed changes from the layout identified in the RFP and Contractor must coordinate proposed changes with

the Infrastructure Contractor. The Infrastructure Contractor is typically responsible for design and installation of the surrounding walkways, courtyards, gathering areas, site amenities and parking areas within the site constraints as shown on the drawings, except for organizational parking that is associated with such facilities as the Tactical Equipment Maintenance Facilities, as designated on the Site Drawings in Appendix J., which are the responsibility of the Contractor. Connect all utilities from the building to the service connection point, with the exception of natural gas. Coordinate between the Infrastructure Contractor, the drawings and other contractors relating to site, facility design and functionality and utility connections and outages. Coordinate specific utility outages a minimum of 48 hours in advance through the CO.

6.3.1.4. Upon finalizing the building footprint, provide proposed building footprint, site orientation and requests for deviations from the drawings for Government concurrence and coordination, as applicable, with other product lines. The Government will enforce coordination of proposed buildings and finalize the placement of the buildings within the drawings boundaries and finalize associated site grading around the proposed facilities. The Contractor shall coordinate efforts with work by others on adjacent sites. The Government may modify desired building placement within the building envelope, if deemed necessary. The Government will provide survey control benchmarks and monuments within the specific site area. Set finish floor as indicated in the RFP Drawings and at least a minimum of 8-inches higher than predominant exterior grade. Slope exterior finish grade down and away from each building at a minimum of 5% slope for the first 10 feet. Under no circumstances shall any slope exceed 20% unless retaining structures are not feasible.

6.3.1.5. Privately Owned Vehicle (POV) Parking. By Others. Coordinate POV parking requirements with the A/E Integrator, Infrastructure Contractor, and the Contracting Officer.

6.3.1.6. Additional Information

«SITE_PLANNING» *</SITE_GOV><SITE_DB>*

Comment [JHoffman1]: Default is “Not Used”, unless the Specifier inputs additional information.

6.3.1.1. The Government will designate approximate building site locations and related site features within the drawing included in Appendix J. Since finish grades are not specifically established for specific site responsibility areas, establish finish grades.

6.3.1.2. Site Design. The Contractor is responsible for the shape of the footprint and the building orientation of the proposed facility or facilities on the designated parcel of land (designated as building envelope on the drawings) with respect to adjacent and future facilities shown on the drawings. Locate the facility on the respective parcel of land. The Government must approve any proposed changes from the layout identified in the RFP. Connect all utilities from the building to the service connection point, with the exception of natural gas. Coordinate between the drawings and other contractors relating to site, facility design and functionality and utility connections and outages. Coordinate specific utility outages a minimum of 48 hours in advance through the CO.

6.3.1.3. Upon finalizing the building footprint, provide proposed building footprint, site orientation and requests for deviations from the drawings for Government concurrence and coordination, as applicable, with other product lines. The Government will enforce coordination of proposed buildings and finalize the placement of the buildings within the drawings boundaries and finalize associated site grading around the proposed facilities; however, the Contractor shall be responsible for coordination efforts with work by others on adjacent sites. The Government may modify desired building placement within the building envelope , if deemed necessary. The Government will provide survey control benchmarks and monuments within the specific site area. Set finish floor as indicated in the RFP Drawings and at least a minimum of 8-inches higher than predominant exterior grade. Slope exterior finish grade down and away from each building at a minimum of 5% slope for the first 10 feet. Under no circumstances shall any slope exceed 20% unless retaining structures are not feasible.

6.3.1.4. Privately Owned Vehicle (POV) Parking.

«SITE_DB_POV_PARKING»

Comment [JHoffman2]: For Contractor provided POV Parking, project specific fill-in. describe POV functional (not design) parking requirements, if not already specified in paragraph 3.

6.3.1.5. Additional Information

«SITE_PLANNING» *</SITE_DB>*

Comment [JHoffman3]: Default is “Not Used”, unless the Specifier inputs additional information.

6.3.2. Site Structures and Amenities

Provide one dumpster pad and enclosure per facility. Locate dumpster enclosure per UFC 4-010-01. Dumpster screening, if required, shall be compatible with the building(s) they serve and shall incorporate the concepts of the architectural theme defined in Appendix F. Locate, design and construct dumpster enclosure(s) as directed within the drawings.

Comment [JTH4]: Dumpsters are personal, not real property and cannot be purchased with MILCON funds.

«SITE_STRUCTURES_AMENITIES»

6.3.3. Site Functional Requirements:

6.3.3.1. Stormwater Management (SWM) Systems. Storm drainage system design is shown within the drawings at Appendix J. Design any additional storm drain system required by the project. If the Contractor chooses to connect roof drain leaders to the storm water systems, coordinate the location and size for connection of roof drain leaders to the site storm water system with other contractors, as applicable, through the Contracting Officer prior to finalizing building design a minimum of 45 days prior to beginning building construction. The Contractor is responsible for the Storm Water Pollution Prevention Plan (SWPPP) of the entire construction site. Submit site specific SWPPP in accordance with requirements contained in Section 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL. Make any piping connection from the building to the connection point.

Include all information in the Storm Water Pollution Prevention Plan (SWPPP) required by the Oklahoma Department of Environmental Quality (ODEQ) General Permit OKR10 for storm water discharges from construction activities within the State of Oklahoma. A copy of the OKR10 permit may be found at the following web page: http://www.deq.state.ok.us/WQDnew/stormwater/construction/okr10_final_permit_13_sep_2007

6.3.3.2. Erosion and Sediment Control. The Fort Sill Environmental Division of Public Works oversees the Stormwater Sediment and Erosion Control Management Plan for the Post.

6.3.3.3. Vehicular Circulation.

(a) Design and construct site pavement to provide access for Ft Sill's fire trucks. The turning radius of the ladder truck is 75-feet 6-inches and weight is 30 tons.

(b) «VEHICULAR_CIRCULATION»

6.4. SITE ENGINEERING

6.4.1. Existing Topographical Conditions. The Government has provided a three dimensional digital topographic and utility survey. Bring any discrepancies which are found in the Government furnished survey to the immediate attention of the Government for clarification. Drawings showing existing conditions are included within Appendix J.

«SITE_EXIST_TOPO»

6.4.2. Existing Geotechnical conditions: See Appendix A for a preliminary geotechnical report.

«SITE_EXIST_GEO»

The following supersedes the 1st sentence of paragraph 5.2.2.1: A report that contains raw data for the project site is contained in Appendix A. Borings, a boring location map, and the raw data on the subsurface conditions are included in the referenced appendix.

6.4.2.1. The following supersedes the 4th sentence of paragraph 5.2.2.1: Additional subsurface investigations and laboratory analysis are required to better characterize the site and develop the final design. Perform the investigation and analysis subsequent to award under the direction of a licensed geotechnical engineer.

6.4.3. Fire Flow Tests See Appendix D for results of fire flow tests to use for basis of design for fire flow and domestic water supply requirements.

«SITE_FIREFLOW»

6.4.4. Pavement Engineering and Traffic Estimates:

«SITE_PAVEMENT_ENGINEERING_AND_TRAFFIC»

6.4.5. Traffic Signage and Pavement Markings

«SITE_TRAFFIC_SIGNAGE»

6.4.6. Base Utility Information

6.4.6.1. Utilities: The Installation's DPW supervises infrastructure and utilities. Most utilities are privatized. Points of contact for utilities and rates are shown in Section 00 73 00 SPECIAL CONTRACT REQUIREMENTS or 00 73 10 TASK ORDER SUPPLEMENTAL CONTRACT REQUIREMENTS, as applicable to this contract or task order. Existing utility services such as potable water, sanitary sewer, electric, natural gas, and COMM «EXIST_UTIL_LOCATION». Coordinate and plan utilities with the A/E Integrator through the Contracting Officer. The site plan contained in Appendix J provides utility main routing and general orientation for points of connection for each facility. Prior to final design, Verify the locations and sizes of utility services with the A/E Integrator.

(a) Storm Drainage System tie-in points are shown in the drawings at Appendix J. Tie into these systems as appropriate.

(b) Natural Gas distribution lines are shown on drawings at Appendix J. Coordinate point of connection to the facility with the service provider, Oklahoma Natural Gas (ONG), through the CO. The private utility contractor will run Natural gas service, including meter and regulator, to the face of the building.. Connect to the meter and all piping past the meter outlet. The D/B Contractor is not responsible for costs incurred for services provided by the service provider (ONG). Coordinate and provide gas flow and pressure (if different from the standard pressure) requirements with ONG. Coordinate the location of the facility gas connection with the A/E Integrator and ONG and follow ONG's written and diagrammed location requirements, see Appendix . Design and construct the required building service lines and modifications to any distribution lines in accordance with the requirements of ONG. Also see paragraph entitled "Metering Utilities" in this section.

(c) Water mains are shown on the drawings at Appendix J. Coordinate points of connection through the A/E Integrator with the service provider, American Water Enterprises (AWE). The Infrastructure Contractor will provide the potable water service between the main line to the 5-foot line of the building. Provide potable water service from the 5-foot line to the facility and within the building, through a backflow preventer (generally located in the mechanical room). Coordinate with the service provider, AWE through the CO. The Government will provide primary or main water pipe distribution, including the water meter and vault.. Design and construct water service lines from the 5-foot line to the building to meet the utility provider's installation details and specifications. The Government will provide the Post Indicator Valve (PIV) and any bollards required for protection and route the fire water line (separate from the domestic supply) to 5 feet from the building. See Appendix for AWE requirements.

(d) Sanitary Sewer: The Infrastructure Contractor will design and construct the sanitary sewer service line between the sanitary sewer main to 5 feet from the building, including cleanout or manhole. ***<TEMF>***D/B Design and construct the oil-water separator.***</TEMF>*** Sanitary sewer mains are shown on the drawings in Appendix J. Coordinate points of connection through the CO with the service provider (AWE).

(e) Electricity: Others will provide the electrical distribution system , including the primary feed from the distribution line to the pad-mounted transformer. See Appendix J for drawings. Complete the design and construct the work from the pad-mounted transformer. Provide underground secondary service from the pad-mounted transformer to the building electrical equipment room. Power for buildings will be provided from pad-mounted distribution transformers. Locate electric meters in service entrance electrical equipment/switchgear located in the main electrical room. Coordinate with the Infrastructure Contractor for installation of the primary underground feeder to the service entrance transformer.

(f) Communications. See Appendix J for Communications service plans and capacities. Coordinate through the CO with the Fort Sill Directorate of Information Management (DOIM). Determine requirements and capacity for each facility and verify with the DOIM, through the CO, that the infrastructure supports the requirements and capacity of the facility..

(g) Cable TV is privatized. The privatized utility (Sudden Link) will provide service to the building. Provide outlet locations in the building(s), including backbox, mud ring and raceway and vertical/horizontal coaxial cable wire management including, but not limited to, labeling and identification. Provide faceplates for coaxial

Comment [sdn5]: NOTE TO SPECIFIER: Describe the performance requirements for roadways, parking and other pavements, including classification, vehicle types, loadings, design volume, climatic conditions, frost penetration Zones, etc.

Comment [sdn6]: Existing utilities are located near the site?

[are all located near the site such that lengthy utility extensions are not anticipated for this building] [are not located near the site. Closest locations for tie-ins are shown on drawings in Appendix J].

terminator to be installed by Sudden Link. Sudden Link will terminate all Contractor provided coaxial CATV cables. Provide a pre-wired CATV system throughout designated spaces. CATV system includes, but is not limited to, cables, conduits, pull boxes and CATV jacks. Route all CATV signal conduits and cables back to the communications room or other designated room/closet.

(h) Others will provide telephone system distribution design. Local Telephone Service tie-in points are shown on the drawings at Appendix J. The Infrastructure Contractor will provide telephone conduit duct bank from the primary distribution manhole to 5 feet outside the building. Design and install the telephone conduit duct bank from the[5 foot line of the building to the communications room. Share the telephone duct bank with the communication duct bank. DOIM will provide telephone cabling.

6.4.6.1.1. Metering Utilities.

(a) Provide water meters Prepare meters for EMCS connection The gas utility provider will provide and install gas meters.. Provide connection from the gas and water meters to the EMCS system.

(b) Provide an electronic meter with equivalent capabilities to a Square D Power Logic Monitor Series 4000. Electric meter shall communicate with the EMCS. Connect to the EMCS.. Locate electric meters in the service entrance electrical equipment/switchgear located in the main electrical room.

6.4.7. Cut and Fill***<SITE_GOV>***

6.4.7.1. The Government will provide grading as described hereinbefore. ***</SITE_GOV>***

6.4.8. Borrow Material

«BORROW_MATERIAL»

6.4.9. Haul Routes and Staging Areas

6.4.9.1. Use the Haul Route(s) shown in Appendix J.

6.4.9.2. The Contractor will be allotted an area as shown in the attached Access and Haul Route Plan for the placement of a construction trailer complex, if required, and storage «STAGING_AREA»

6.4.9.3. For proposal purposes, the D/B Contractor may assume utilities «TEMPORARY_UTILITIES» be provided during construction at the project site.

6.4.10. Clearing and Grubbing:

«SITE_CLEAR_GRUB»

6.4.11. Landscaping:

<LANDSCAPING_NO>Landscaping is not required***</LANDSCAPING_NO><LANDSCAPING_YES>***Coordinate landscaping scheme with the Acceptable Plant List (Appendix I). Slopes shall not exceed 10:1 unless otherwise noted or shown on the rough grading plan as shown in Appendix J. Use a drip system for all irrigation for plantings. Rip-rap isn't permitted for erosion control. Use stone or brick for edging for planting beds. Steel or plastic edging isn't permitted. Plant trees such that the grade around the tree is recessed 2-inches. Place mulch up to grade. Do not berm around trees. Make minimal use of Pine trees and evergreens. Coordinate landscaping scheme with the Contracting Officer and the ADP.***</LANDSCAPING_YES>***

6.5. ARCHITECTURE

6.5.1. General: To the maximum extent possible within the contract cost limitation, the buildings shall conform to the look and feel of the architectural style and shall use the same colors as adjacent facilities as expressed herein ***<IMCOM_APPROVED>***and shall conform with the Fort Sill's Real Property Master Plan***</IMCOM_APPROVED>***. The Government will evaluate the extent to which the proposal is compatible with the architectural theme expressed in the RFP during the contract or task order competition. The first priority in order of importance is that the design provides comparable building mass, size, height, and configuration

Comment [sdn7]: NOTE TO SPECIFIER: DESCRIBE SOURCES OF ACCEPTABLE BORROW, OR STATE THAT NO BORROW IS AVAILABLE ON THE INSTALLATION, ETC.

Comment [JTH8]: Project specific fill-in: . [The trailer compound will be as shown on the drawings in Appendix J. The trailer compound sites will be assigned on a first-come, first-served basis according to Notice to Proceed (NTP) dates. Contractor is responsible for the site preparation, fencing, access drives and maintenance of his compound at all times. A connection point for electricity and telephone will be available. Contractor may be expected to provide temporary utilities until permanent utilities (by others) are completed. Permanent trailers will not be permitted within the building envelope work areas. Non-permanent trailers within the building envelope work area may be required to be relocated at no additional cost to the Government to accommodate other site activities including landscaping and grading being performed by other contractors.]

Comment [JTH9]: Project specific fill-in: **[will][will not]** be provided during construction at the project site. [A water fill point may be provided as indicated on the drawings. However, it may be necessary for the contractor to truck water to the project site initially until new utility connection points are established. Coordinate installation and maintenance of haul roads with the CO.]

compared to the architectural theme expressed herein. The second priority is that design is providing compatible exterior skin appearance based upon façade, architectural character (period or style), exterior detailing, matching nearby and installation material/color pallets, as described herein.

6.5.2. **Design**

6.5.2.1. Appendix F is provided "For Information Only", to establish the desired site and architectural themes for the area. Appendix F identifies the desired project look and feel based on Fort Sill's Installation Architectural Theme from existing and proposed adjacent building forms; i.e. building exterior skin, roof lines, delineation of entrances, proportions of fenestration in relation to elevations, shade and shadow effects, materials, textures, exterior color schemes, and organizational layout.

6.5.2.2. The design should address Fort Sill's identified preferences. Implement these preferences considering the following:

(c) Achievable within the Construction Contract Cost Limitation (CCL)

(d) Meets Milestones within Maximum Performance Duration.

(e) Achieves Full Scope identified in this Solicitation

(f) Best Life-Cycle Cost Design

(g) Meets the Specified Sustainable Design and LEED requirements

(h) Complies with Energy Conservation Requirements Specified in this RFP.

6.5.2.3. Priority #1. Visual Compatibility: Facility Massing (Size, Height, Spacing, Architectural Theme, etc.) Exterior Aesthetic Considerations: The buildings massing, exterior functional aesthetics, and character shall create a comprehensive and harmonious blend of design features that are sympathetic to the style and context of the Installation. The Installation's intent for this area is:

«THEME_DESCRIPTION»

6.5.2.4. Priority #2. Architectural Compatibility: Exterior Design Elements (Materials, Style, Construction Details, etc.) Roofs, Exterior Skin, and Windows & Door Fenestrations should promote a visually appealing compatibility with the desired character while not sacrificing the integrity and technical competency of building systems.

6.5.2.5. See Appendix F for exterior colors that apply to Architectural character at Fort Sill. The manufacturers and materials referenced are intended to establish color only, and are not intended to limit manufacturers and material selections.

6.5.2.6. Additional architectural requirements:

(a) Install fall protection anchor points on all roofs with a slope greater than 2:12

(b) **Installation Preference No. 1.** Provide standing seam metal roofing with either a 20-year comprehensive weather-tight warranty or an included maintenance contract for the period of 20 years and snow/ice guards. Provide snow/ice guards that are a standard product of the roofing manufacturer and install as recommended by the roofing manufacturer.

(c) Low slope roof systems are only allowed where required in other sections of the RFP documents. Minimum roof slope for low slope roof systems is ¼ inch per foot (2%) and 3 inches per foot (3:12) for all other roof systems. Avoid complex valleys, flashing and venting conditions, where possible.

(d) **Installation Preference No. 2**. Provide brick and/or split face CMU to be incorporated in the exterior walls. Any EIFS provided shall be high impact resistance rated to a distance of 7-feet vertically from finish grade in accordance with applicable criteria. EIFS shall incorporate a means to drain moisture to the exterior.

(e) **Installation Preference No. 3**. Eliminate the use of roof-top units (RTUs), clerestories, and minimize all other roof penetrations.

(f) Provide for attenuation of external noise sources such as airfields in accordance with applicable criteria for exterior walls and roof/ceiling assemblies, doors, windows and interior partitions.

(g) Unless, otherwise specified in paragraph 3, do not exceed levels recommended by ASHRAE Handbook Criteria for sound conditions (and levels) for interior spaces due to the operation of mechanical and electrical systems and devices.

(h) Trim and Flashing. All exterior metals including gutters, downspouts and fascias shall be factory pre-finished metal.

(i) Bird Habitat Mitigation: Provide a means to eliminate the congregating and/or nesting of birds at, on and in the facility. Direct special attention to pedestrian entrances and control of such nuisance.

(j) Exterior Doors and Frames:

(1) Main Entrance Doors: Aluminum storefront doors and frames with Architectural Class 1 anodized finish, fully glazed, with medium or wide stile are encouraged for entry into lobbies or corridors. Storefront systems shall comply with wind load requirements of applicable codes and UFC 4-010-01 requirements. Framing systems shall have thermal-break design. Color shall conform to Appendix F.

(2) Side Entrance Doors: Exterior doors and frames opening to corridors or lobbies shall be insulated hollow metal and comply with ANSI A250.8/SDI 100. Door and frame installation shall comply with applicable codes and UFC 4-010-01 requirements. Color shall conform to Appendix F.

(3) Exterior Non-entrance Doors: Exterior doors and frames opening to spaces other than corridors or lobbies shall be insulated hollow metal and comply with ANSI A250.8/SDI 100. Door and frame installation shall comply with applicable codes and UFC 4-010-01 requirements. Color shall conform to Appendix F.

(k) Finish Hardware

(1) All hardware in the facility shall be consistent and shall conform to ANSI/BMHA standards for Grade 1. Coordinate all requirements for hardware keying with the CO. Hardware finishes shall conform to ANSI/BHMA A156.18. Provide ANSI 626 (Satin Chromium plated on Brass or Bronze) or 630 (Stainless Steel). Install deadbolt locks on mechanical and electrical rooms keyed to the DPW keying system. Coordinate door hardware and security requirements with the functional requirements, the Room-by-Room Criteria and the electrical security/fire alarm system requirements of this document. Provide bored locks per BHMA A156.2. Provide all hardware necessary to meet the requirements of NFPA 80 for fire doors and NFPA 101 for exit doors. Provide door closers for all exterior doors, all doors opening to corridors and as required by codes. The Main entrance door is considered a high traffic door. Provide a high quality door closing mechanism complying with BHMA A 156.4 with adequate strength to ensure safe and easy operation in a high-wind environment.

(2) Programmable Electronic Key Card Access Systems: Even though programmable electronic key card access may be required elsewhere in the contract – do not provide such systems..

(3) Keying for Facilities: Key all doors individually, even if the doors lead to the same room. The mechanical, electrical, and communication rooms may be keyed alike, but the Installation encourages that they be keyed to the DCF-1. The cores for the mechanical electrical and communications rooms, if not keyed to the DCF-1, shall have a cylinder that is capable of receiving a Best Lock core. Provide four (4) keys for each lock. Provide master keys.

(l) ***<SITE_GOV>***Exterior Signage: The Government will provide building identification s signs and illumination, where required, outside of 5-feet from the building***<TEMF>*** and hardstand***</TEMF>***. Design and install exterior signage attached to the facility and within 5-feet of the facility***<TEMF>*** and hardstand***</TEMF>*** per Appendix H, Exterior Signage. Coordinate requirements with the Government.***</SITE_GOV><SITE_DB>***NOT USED***</SITE_DB>***

(m) Exterior Windows: Provide operable windows with locks and insect screens removable from the inside.

(n) Thermal Insulation: Do not install Insulation directly on top of suspended panel ceilings.

(o) Exterior Louvers: Provide exterior louvers designed to exclude wind-driven rain, with bird screens, and made to withstand wind loads in accordance with the applicable codes. Provide wall louvers with the AMCA certified ratings program seal for air performance and water penetration in accordance with AMCA 500-D and AMCA 511.

(p) Exterior Paint Systems: Provide Exterior Paint Systems in accordance with the recommendations of the Master Painters Institute (MPI) for the substrate to be painted and the environmental conditions existing at the project site. Provide a minimum one prime coat and two finish coats for exterior surfaces (surfaces except factory

pre-finished material). For exterior applications, provide an MPI Gloss Level 5 finish (semi-gloss) unless otherwise specified. Apply all paints in accordance with the manufacturer's instructions.

«ARCHITECTURE»

6.5.3. ***<UEPH>***Not Used***</UEPH><UEPH_NO>***Programmable Electronic Key Card Access Systems:

«PROGRAMMABLE_KEY_CARD»***</UEPH_NO>***

Comment [sdn10]: NOTE TO SPECIFIER: For non-UEPH type facilities only. If the installation has information on brand names of existing key card access system, identify here and coordinate with paragraph 3. For UEPH type Facilities NOT USED

6.5.4. INTERIOR DESIGN

6.5.4.1. Interior building signage requirements:

«INTERIORS»

Fully integrate interior signage as a design element with the architecture and interior design. Provide modular signage for general office areas to accommodate personnel changes or room function changes. Use International symbols to the maximum extent possible. Locate emergency/fire evacuation plans at key areas to ensure fire safety. Coordinate signage plaque colors with the interior color scheme. Provide rooms signs for electrical or mechanical spaces. Provide room control sign for conference room(s).

6.5.4.2. Interior Design Considerations:

Provide maximim use of day lighting and operable windows within the constraints of the contract requirements. Provide interior surfaces that are easy to clean and light in color. Plan the interior spaces to allow maximum flexibility for future modifications.

(a) Interior Partitions and Walls. Non-combustible construction is encouraged even where combustible materials are allowed by code.

(b) Provide each occupied facility with an appropriately sized room that has been "hardened" to resist the forces of tornadoes which are prevalent in Oklahoma. Provide room in accordance with ICC-500 and FEMA 361.
(c) Interior Glass and Glazing: Coordinate the arrangement of fenestrations with the proposed furniture layout.

(c) Where moisture or moisture infiltration from the wall cavity cannot be eliminated or sufficiently reduced, consider the use of wall coverings with higher permeability ratings. Don't use f wall coverings that do not breathe, such as vinyl wall coverings in high humidity areas due to the tendency for mold to develop.

(d) Floors and Ceilings: Non-combustible construction is encouraged even where combustible materials are allowed by code.***<COF_TEMF_DF>*** Carpet is not allowed in corridors. ***</COF_TEMF_DF><UEPH>*** Carpet is not an allowable floor finish.***</UEPH>***

(e) Interior Doors and Frames: Provide hollow metal doors and frames or wood doors in accordance with the standard design and requirements of the project. All door frames shall be hollow metal.

(f) Paint: Comply with the recommendations of, the Master Painters Institute (MPI) for the substrate to be painted and the interior environmental conditions existing at the project site. Paint a minimum of one (1) prime coat and two (2) finish coats for interior surfaces, except factory pre-finished material or interior surfaces receiving other finishes. In wet areas, provide an MPI Gloss Level 5 (semi-gloss) finish. Apply all paints in accordance with manufacturer's instructions.

(g) Gypsum Board: Comply with ASTM C 36. Minimum panel thickness shall be 5/8-inch. Provide moisture resistant panels (glass-mat panels are encouraged) at locations subject to moisture.

6.5.4.3. Specialties and Furnishings

(a) Window Treatments: Provide horizontal mini-blinds or vertical blinds at all exterior glazed areas, unless otherwise noted.

(b) Bulletin Boards: Provide bulletin boards consisting of a tack board, aluminum tabular frame, and sliding aluminum framed glazed doors with a permanent header panel and a general title, such as "Notices" or "Information", and a 1/4-inch cork pinning surface glued to 1/4-inch thick plywood or hardboard backing. Provide cork with a plastic impregnated surface and burlap backing. The cork's surface finish to be smooth and be free

from air pockets, raised cork blemishes, and joint imperfections. Provide the door frame with a removable glazing bead applied on the inside. Glazing to be 1/4-inch polished laminated glass. Each bulletin board door shall be complete with hardware including key operated lock. Provide aluminum hardware with anodized finish matching the frame. Header panel to be white letters on standard black background; cork panel - medium gray. Bulletin board dimensions to be 4 feet by 6 feet. Heading message shall be upper and lower case Helvetica medium, 2-inch capital letter height, centered. Secure frame to the wall by means of concealed screws or bolt hangers.

(c) Projection Screens: Provide projection screens that are ceiling recessed mounted and manual. Screens shall be flame retardant, mildew resistant and white matte with black masking borders. Bottom of screen fabric to be weighted with metal rod. Roller to be a rigid metal at least 3 inches in diameter mounted on sound absorbing supports. Ceiling recessed case to be extruded aluminum. Screens shall be UL listed. Projection screen viewing area shall be minimum 7'-3" high x 9'-8" wide. Provide one ceiling recessed mounted projection screen in each conference area.

(d) Projector Mount: Furnish and install a low profile ceiling mounted projector mount system. PROJECTOR NOT INCLUDED IN CONTRACT. Ceiling mount shall consist of a steel ball joint and Universal Projector Bracket. Mount shall project a maximum 6 inches below finished ceiling height and shall securely attach to ceiling and structure above with steel mounting plate. Provide mounting hardware appropriate to ceiling conditions. Steel ball joint attaches to the Universal Projector Bracket with twist-lock engagement. Mount shall provide up to 30° roll or pitch adjustment and 360° yaw adjustment at ball joint. Two setscrews lock ball joint in position. Silver finish. Maximum load to be 26 lbs. Furnish and install concealed electrical wiring, connections and accessories necessary for projector operation. Provide one low profile ceiling mounted projector mount system in each conference area.

(e) Corner Guards. Provide surface-mounted, high-impact integral color rigid vinyl corner guards at all outside corners of gypsum board walls.

(f) Chair Rail. Install chair rails in areas prone to hi-impact use, such as corridors, classrooms, conference rooms, etc.

(g) Toilet Accessories: All toilet accessories shall be Type 304 stainless steel with satin finish.

6.6. STRUCTURAL DESIGN

6.6.1. Site Specific Loading Requirements:

6.6.1.1. Use basic wind speed of 90 mph 3-second-gust, in miles per hour, for wind loads.

6.6.1.2. Use ground snow load of 10 psf.

6.6.1.3. Use frost penetration of 14 inches.

6.6.1.4. Use the following seismic acceleration parameters for mapped Maximum Considered Earthquake spectral response at short periods and at 1-second period, respectively: Ss: 38 (%g) and S1: 2 (%g).

6.6.2. Equipment Pads: Elevate floor or on-grade mounted equipment on minimum 4 inch thick concrete pads to prevent accumulation of water and metal corrosion.

6.6.3. Foundation

6.6.3.1. Due to soil conditions at Ft. Sill, the use of pier and supported grade beam foundation with structurally supported slab, conventional rib mat slabs or thickened structural slabs is required for this project. Slabs on grade or floating slabs are not permitted.

6.6.3.2. Perform controlled expansion consolidation tests on undisturbed samples collected from the overburden material to assess potential settlement and/or heave for piers and edge lift/center lift conditions for ribbed mat slabs and thickened slabs in accordance with ASTM D 4546, Method C, latest edition. Heave predictions using the Potential Vertical Rise (PVR) method or swell pressure predicted from free swell test are not allowed.

6.6.3.3. Assume a minimum 15-foot active zone measured from top of existing ground for uplift and heave calculations.

6.6.3.4. Provide foundation systems for permanent facilities capable of supporting the typical loadings specified elsewhere in this document that are capable of resisting the soil movement and chemical characteristics of the soils present for the design life of the facility. Systems proposed are to have been used successfully at the Installation for a time period equal to the design life of the proposed facility or submit documentation from an acceptable independent certifying entity certifying that a proposed alternate system has been used successfully for a period of time equal to the design life of the proposed facility on a minimum of 10 facilities where the soil movement and chemical characteristics are the same as at the Installation.

6.6.3.5. Site Features – Retaining Walls/Bridges/etc. Design site features with maximum 2 in 1 slope (same as the earth cover). Design site features to drain properly and tie into the drainage collector system.

6.7. THERMAL PERFORMANCE

There are no additional requirements other than those previously stated/referenced.

6.8. PLUMBING

6.8.1. **Piping Materials:** Provide Piping materials per applicable criteria but pipe materials may be restricted based on specific conditions at a particular site. Type M copper is not allowed. Type L above ground pressure piping and copper Type K for underground pressure pipe are preferred. Non-plastic drainage, waste and venting (DWV) plumbing materials are preferred, however, PVC or ABS waste and vent pipe is acceptable.

6.8.2. **Cross Connection Control**: Follow local site specific requirements for cross connection control / backflow prevention. Provide an inlet water backflow prevention device for each facility. Protect potable water systems from contamination by hydronic water and other industrial and mechanical systems via a reduced pressure zone backflow preventer.

6.8.3. **Natural Gas Supply**: Normally use the standard gas pressure from utility provider's building regulator of 5.3 ounces. If higher pressures are needed, coordinate those requirements with the utility provider. Provide the utility provider with required flow rate and expected gas usage diversity so the utility provider may provide the appropriate metering and regulation equipment. Report no diversity, that is, all loads are firing at the same time in the facility.

6.8.4. **Gas Regulator Venting**: Vent all gas regulators in building to the outside.

6.8.5. **Domestic Water Heating**: The Installation encourage the use of point-of-use instantaneous domestic hot water heaters for small hot water demand areas such as small restrooms (small is considered to be two lavatories or less) and gas-fired hot water storage heaters for larger demand areas such as larger gang restrooms and restrooms with showers.

6.8.6. **Exterior Water Piping Freeze Protection**: Design seasonally utilized (not used in winter) water supply piping for complete drain down. Provide an interior or below grade isolation valve. Insulate exposed water piping that is utilized year round, heat traced and protected with pipe jacketing to ensure that the piping will not freeze.

6.8.7. **Fixture Faucet Mixing Valves**:

(a) For administrative and classroom facilities, the automatic flush and water valves, with long-life batteries and backup manual flush buttons, for water closets, urinals and lavatories perform best.

(b) Provide automatic mixing type with anti-scald temperature control shower valves (pressure balancing/compensating type). Additionally, valves shall not have any internal or exterior plastic parts.

6.8.8. **Wall Hydrants**. Provide non-freeze wall hydrants on all building faces at no more than 100-feet intervals.

6.9. SITE ELECTRICAL AND TELECOMMUNICATIONS SYSTEMS

6.9.1. **Exterior Lighting**. Design and install exterior lighting within the construction limits. Exterior site and area lighting shall be pulse-start metal-halide (PSMH) or induction type, except compact fluorescent lighting is acceptable for walkway lighting where suitable for the climatic conditions. Exterior lighting includes parking areas,

hardstands, roadways and walkways. Photo control devices for exterior lighting shall have adjustable operation range of approximately 0.5 to 5.0 foot candles. Provide protective lighting systems at the perimeter fence where required by the specific project to deter trespassers and to make them visible to guards. Use 90 degree cut off lighting facing any runway.

6.9.2. **Exterior Electrical**: Design and extend the electrical service underground from the pad-mounted transformer to building service equipment/main electrical switchgear.. Coordinate all electric work and interruptions through the CO and Ft Sill DPW. The existing distribution system is a 13,200Y/7,620 V three-phase, four-wire multi-ground system. Duct lines (600-volt) shall be direct buried thick wall type; concrete encased in vehicular traffic areas. Provide two spare conduits from the transformer to the building service equipment/main electrical switchgear..

6.9.3. **Exterior Communications**: Design and Install the Exterior Communications facilities in accordance with the drawings and the applicable references. The drawings accompanying this Request for Proposal delineate the limits of construction and specific responsibilities between the Contractor (Inclusive) and Others (NIC) for exterior communications facilities, including but not limited to ductbank, manholes, building service(s) cabling, splicing and terminations. Securely fasten all entrance conduits to the building so they can withstand a typical placing operation. Keep area around the entrance conduit free of any construction, storage and mechanical apparatus.

Comment [sdn11]: NOTE TO SPECIFIER FOR EXTERIOR COMMUNICATIONS: The RFP drawings must delineate the limits of construction and specific responsibilities between the Contractor (Inclusive) and Others (NIC) for design and installation of exterior communications facilities, including but not limited to ductbank, manholes, building service(s) cabling, splicing and terminations.

6.10. FACILITY ELECTRICAL AND TELECOMMUNICATIONS SYSTEMS

6.10.1. Power system study shall consist of fault analysis and coordination study.

6.10.2. **Lightning Protection and Grounding**: Provide lightning protection shall be provided based on NFPA 780 (2004) Annex L Lightning Risk Assessment of the facility. Provide grounding, bonding, shielding for all facilities. Provide grounding straps and connect to the building grounding system. Provide grounding points in vehicle and equipment parking areas on 20 foot centers (maximum) and coordinated with the power and data board units. Provide ground strap on walls, and two (2) grounding points on each functional bay floor. Provide a bonding grounding in oil storage room.

6.10.3. **Closed Circuit TV (CCTV):** Install a conduit system to support CCTV throughout designated spaces. The conduit system includes but is not limited to conduits, pull boxes and pull wires. Route all conduits for CCTV signals back to the telecommunications room or the designated monitoring room.

6.10.4. **Telephone and Local Area Network (LAN):** Provide complete riser diagrams and equipment locations on the drawings. Connect the facility to the installation Campus Area Network (CAN) System and telephone system in accordance with the I3A (and SIPRNET guide, where applicable in paragraph 3). Allocate communications systems resources in accordance with the I3A regarding outlet densities based upon the functionality of the facility's (ies') various component floor spaces. Connect all standard MILCON outlets from the telecommunications room equipment communication patch panels with two each, TIA/EIA 568-B Category 6 unshielded twisted pair (UTP) solid copper station cable. Connect all single 8-position wall outlets from the commercial rack patch panels with one each TIA/EIA 568-B CAT 6 UTP cable. Provide a weatherproof telephone enclosure located on an exterior wall near the main entrance of each building.

6.10.5. Communication Testing. Provide material and documentation for communication testing. Provide complete end-to-end certification of all wire/cable installed in accordance with the TIA/EIA 568 Standards. Provide 30 days notification of testing. Testing includes but is not limited to:

(a) A submitted and Government approved test plan.

(b) Test of all installation ground bus bars, wiring and ground grids.

(c) Furnishing test results within 7 days of testing performance and prior to final acceptance.

(d) Test results include, as a minimum, electrical resistance readings, continuity readings, insulation and resistance and dB loss readings. Include graphical representation of results. Include: date, time, tester, building number, room number and panel number.

6.10.6. Terminate all components prior to testing. There will be no acceptance of equipment and systems until the required inspections and tests have been made and submittal of the required documentation to the Government.

6.11. HEATING, VENTILATING, AND AIR CONDITIONING

6.11.1. General: ***<INTEGRATE>*** Integrate the control system to the installation's existing UMCS. The existing UMCS is an "open" protocol, Lonworks-based system constructed by TAC (Tour Andover Controls) Americas, located in Dallas, TX. Connect all new buildings and new building systems to the UMCS. The connection method is via LAN. Coordinate with Fort Sill DOIM to obtain a static IP address (current costs are approximately $250 each for address) and for DOIM construction requirements (crossover mech/electrical). Others will run LAN to each building.***</INTEGRATE>***

6.11.1.1. Integration of new facilities into the existing EMCS database and monitoring and controls software (such as the Post-wide demand limiting) will require generation of custom graphics matching the style and complexity of the existing graphics. Integration of new facilities shall also include programming of alarm handling and demand load limiting which will require Directorate of Public Works (DPW) input for critical alarm lists and priority of building for demand load limiting. This must be done at the existing EMCS "front-end." Integration will be limited to qualified companies and personnel. Fort Sill's encourages the use of Tour Andover Controls (TAC) or their designated local representative in Oklahoma City, OK (OKC) do the integration; TAC's OKC representative is, Energy Management & Controls Synergy (EMCS), contact Mr. Jeff Houpt, 405-528-3627. Other possible integrators are: Tang & Associates, contact Mr. John Huston, 312-616-7498 or EMC Engineers, contact Mr. Carl Lundstrom, 678-254-1221. Note that TAC and EMC Engineers are the only companies currently familiar with the Fort Sill EMCS.

6.11.2. **Water Quality Analysis and Treatment**: Water quality for the Installation and surrounding area is "hard." Treatment will be required for use as make-up water in HVAC equipment. Water Quality Analysis reports are included at Appendix. . Additional water analysis data from water treatment contractor is provided below:

Chlorides: 16 ppm

Total Alkalinity: 90 – 140 ppm (Total alkalinity varies by season.)

Total Hardness: 157 ppm (CaCO3)

ph: 8.00

Silica: 3.4 ppm (SiO2)

Iron: approx. 0.017 Reactive (Leaving plant; varies with location, age of piping, etc.)

Total Dissolved Solids: 190 ppm

6.11.2.1. Coordinate with water treatment contractor to confirm water data and current water treatment methods to obtain the required quantity and types of chemicals to be initially introduced into the closed loop heating and chilled water systems. Currently, water treatment is contracted by VT Griffin to Nalco Chemical Company.

6.11.3. Fuel for Heating/Cooling

6.11.3.1. **Installation Preference No. 4**. Ft. Sill's preference for heating/cooling systems is geothermal or natural gas heating with geothermal most preferred. The preferred type of geothermal system is drilled wells with closed circuit earth heat exchange pumping and piping system to gather heat from the earth for exchange to water or air for heating in the facilities.

6.11.3.2. HVAC Cooling Building Systems: Electric driven refrigeration and cooling systems are the most prevalent types at Fort Sill. Geothermal systems and other renewable or highly energy-efficient types of cooling are definitely encouraged over standard refrigeration-based equipment (DX, chilled water, etc.), where they are applicable. Fort Sill currently has several facilities (family housing, UEPH, BEQ, large office buildings, etc.) that are cooled and heated by geothermal closed-loop, drilled vertical borehole systems that are very successful. Evaporative cooling, direct and indirect evaporative building cooling systems, can be energy efficient; and state-of-the-art types proposed will be readily considered as long as site limitations such as climate, dust storms, etc. are taken into account. Do not provide the old style "swamp" direct evaporative pad or media coolers as a form of building cooling as they suffer from water mineral, dirt buildup and are maintenance intensive.

6.11.3.3. HVAC Central Cooling Plant Systems (serving more than one building or facility): Electric driven refrigeration and cooling systems are the most prevalent types at Fort Sill. Chiller plants mainly employ electric centrifugal chillers with water cooling towers. While this type of system is acceptable for maintenance and durability, Ft Sill encourages the use of other types of cooling systems, such as geothermal central plants that have been installed and are in use. Newer plants, where they are proposed or required should be of much higher efficiency than standard energy code minimum systems and are highly encouraged to employ renewable energy such as geothermal. The recommended type of geothermal cooling/heating system is drilled wells with closed circuit earth, lake, etc. heat exchange to water for cooling/heating plants.

6.11.4. Mandatory Equipment Requirements:

6.11.4.1. All mechanical equipment shall automatically restart after a power outage. Provide equipment such as boiler low water boiler cut-offs and controls that can restart in a normal mode after power is restored. Protect all mechanical equipment and controls against power surges and low and high supply voltage situations. Power loss, surges or low or high voltage shall not, in any way, effect HVAC or plumbing equipment or controls, set points, controls bindings etc.

6.11.4.2. Boiler Size: The maximum allowable individual boiler size that can be utilized is 10 million Btu per hour (input); this is a non-negotiable and mandatory Ft Sill requirement for them to operate under their current Environmental Air Quality Permit.

6.11.4.3. HVAC On/Off Switch. Provide an on/off switch for all HVAC systems in a central location as per UFC 4-010-01. Coordinate this requirement and switch features with local installation DPW during design.

6.11.4.4. HVAC Controls: Provide manual button or switch allowing users to have the capability to do minimal "run longer" control. Intent is for building users to work odd shifts without requiring Installation DPW input. HVAC controls shall provide all of the monitoring and controls points as mentioned for EMCS and shall expose all of the reset, tuning, etc. parameters as required for a completely open system as discussed above for EMCS. Coordinate with the CO to obtain the building occupied/unoccupied schedule for the facility; use that schedule for building controls and EMCS.

6.11.4.5. Chilled Water System Volume Requirements. For each chilled water system, the system must contain a minimum of 4-gallons per ton of chilling capacity, or more, if required by the manufacturer of proposed chiller. The volume calculation shall exclude the water volume of the chiller and all load heat exchange developed (coils, etc.) in the system. If the system volume does not contain the minimum volume, a chilled-water storage tank shall be designed to bring the system volume to the required minimum. The chilled-water storage tank shall be piped into the chilled water return line upstream of the chiller.

6.11.4.6. Provide all exterior air cooled HVAC equipment with hail guards.

6.11.4.7. Generator Equipment: Stationary emergency or electrical generator equipment shall use natural gas as a fuel source. This is required by the Installation's Environmental Permit.

6.11.5. **Installation Preference No. 3.** Ft. Sill prefers that no equipment, including HVAC, be roof mounted. However, if provided by the D/B Contractor, the D/B Contractor shall provide proper permanent ladders, roof-protecting walking surface and adequately large OSHA-approved work surfaces around each device or piece of equipment. See paragraph 6.5.2..

6.11.5.1. Equipment Placement: When possible, place the of air handling equipment to be either within the building spaces (i.e., equipment rooms or plants, etc.) which are sound isolated, within exterior on-grade equipment yards which are enclosed with screen walls or within enclosed roof penthouses. The Installation DPW encourages designers to organize vents, stacks, grilles and placement of mechanical or electrical service fixtures into locations which do not provide visually negative design impacts. Where possible, avoid catwalks especially when up and down travel is required to service multiple equipment pieces. (Coordinate with architectural design and RFP requirement.)

6.11.6. **Fort Sill's Freeze Protection**: Provide full protection down to lowest temperature with propylene glycol (PG) solution (dowfrost HD) or a combination of a lower concentration of PG in combination with controls logic to

start and run the chilled water pumps to circulate water to help avoid freezing. If any secondary protection is required or provided it shall be self regulating, industrial grade with shielded jacket heat tracing.

6.11.7. Outdoor Design Conditions:

«HVAC»

Comment [sdn12]: NOTE TO SPECIFIER: In accordance with paragraph 5.9.2, provide the outdoor design conditions that are referred to in paragraph 2.2 in UFC 3-410-01FA.

6.12. ENERGY CONSERVATION

6.12.1. General

«ENERGY_CONSERVATION»

6.12.2. Inclusion of Renewable Energy Features. The following renewable energy features have been determined lifecycle cost effective, are included in the project budget and shall be provided:

«RENEWABLE_ENERGY_FEATURES»

6.13. FIRE PROTECTION

6.13.1. Fire Sprinkler Service: Provide a separate fire sprinkler service connection within each building that requires fire sprinklers. ***<SITE_GOV>***The Infrastructure Contractor will provide the Post Indicator Valve (PIV) and any bollards required for protection and route the fire water line (separate from the domestic supply) to 5 feet from the building. Provide for all piping from the 5-foot line of the building and within the building. ***</SITE_GOV>*** Provide Knox boxes.***<SITE_DB>*** Provide a Post Indicator Valve (PIV) and any bollards required for protection. ***</SITE_DB>***

6.13.2. Provide fire hydrants.

6.13.3. Riser Location: Install fire risers in a dedicated space or mechanical room with external access and keying for the Fire Department.

6.13.4. Fire Sprinkler Seismic Design: Since the installation is located in a seismic zone, design fire sprinkler systems for protection of piping against damage from earthquakes per NFPA 13.

6.13.5. Fire Sprinkler Backflow Prevention: Double check valve backflow preventers are the minimum protection required for all sprinkler systems. Systems utilizing antifreeze require reduced pressure principle backflow preventers.

6.13.6. Mass Notification System (MNS)/Public Address (PA): The MNS system shall be fully functioning and shall be designed and installed to operate as both MNS and PA. The systems shall be zoned and permit zonal selection of paging by both installed microphone jacks and telephone dialup. Indicating devices shall be visual and located throughout the facility including exterior wall locations. All strobes for the MNS shall be synchronized with the fire alarm strobes in the event both are active at the same time. The MNS shall have the ability to interrupt all localized audio systems that are independent of the building-wide PA system. The Installation-wide giant voice system is an ADT MNS. Each building shall communicate with the ADT Central Control Unit via an existing radio frequency transmitter and antenna. Furnish and connect the following equipment:

(a) One (1) mass notification panel in accordance with the requirements of UFC 4-021-01 and compatible with the existing giant voice system at Fort Sill.

(b) One (1) transceiver with the ability to communicate with the Installation's big voice radio frequency (RF) equipment with the ability to transmit and receive information.

(c) Install One (1) antenna at the facility.

(d) Connect eight (8) dry contacts to the building MNS for controlling prerecorded messages and push-to-talk for audio (remainder of the eight (8) shall become spares). Connect the 600-ohm audio for audio from the central control unit to the MNS.

6.13.7. Fire Alarm Systems: Provide Class A addressable systems consisting of a fire alarm panel, an RF transceiver, initiating devices and notification devices. The Fire Alarm Control Panel shall be fully compatible with the existing Monaco system. Provide pull stations that are single-action, non-glass rod type.

6.13.7.1. **Installation Preference No. 5**: Provide the required fire alarm system with 72 hours of standby with 15 minutes of alarm in lieu of the 24 hours of standby required by code.

6.13.7.2. The RF transceiver shall be a Monaco BT-X (verify with Post Fire Chief) or approved equal operating on a frequency of 141.3625 MHZ. Provide transceiver communication with the Lawton, Oklahoma 911 dispatch located off Post

6.13.7.3. The fire alarm receiving system is a Monaco D-21 system.

6.13.7.4. Provide zone by zone information sent to the Fire Department receiving system. Send All tamper devices to the D-21 system as a supervisory tamper.

6.13.7.5. Provide all initiating devices that are connected, Class A, Style D, to signal line circuits (SLC), Style 6.

6.13.7.6. Provide all alarm appliances connected to notification appliance circuits (NAC), Class A, Style Z.

6.13.8. Furnish all software, software locks, special tools and any other proprietary equipment required to maintain, add devises to or delete devices from the system or test the fire alarm system prior to the final inspection of the system.

6.14. SUSTAINABLE DESIGN

6.14.1. LEED Rating Tool Version. This project shall be executed using «LEED_VERSION».

6.14.2. ***<ONLY_EXEMPT>***LEED Minimum Rating. This project includes no facilities that are required to achieve a specific LEED achievement level. Project shall achieve and document all points required by other portions of the RFP and all points that are feasible, but there is no minimum required LEED achievement level.***</ONLY_EXEMPT><NOT_ONLY_EXEMPT>*** The minimum requirement for this project is to achieve LEED «LEED_MIN» level. Each non-exempt facility (building plus sitework) must achieve this level. In addition to any facilities indicated as exempt in paragraph 3, the following facilities are exempt from the minimum LEED achievement requirement: «SD_EXEMPT_FACILITIES».***</NOT_ONLY_EXEMPT>***

6.14.3. ***<SINGLECO>***Credit Validation: LEED registration, compiling of documentation at LEED OnLine and use of the LEED Letter Templates is required. Registration and payment of registration fees will be by the «FEES_PAID_BY». Administration/team management of the online project will be by the «ADMIN_PERFORMED_BY». ***<USGBC>***Validation of credits will be accomplished by the Government. LEED certification of the project by the Contractor is required. The Contractor will obtain LEED certification prior to project closeout. Application, payment of certification of fees and all coordination with USGBC during the certification process will be by the Contractor. GBCI interim review of design phase data is not required by the Government but is recommended. Government validation during project execution does not relieve or modify in any way the Contractor's responsibility to satisfy all requirements for certification as defined by LEED and GBCI. Contractor is not responsible for design phase LEED documentation of any unaltered portion of the design that is accomplished by others. If the project includes unaltered complete design by others, during the certification process Contractor will coordinate all GBCI comments on LEED credits that fall outside Contractor's scope of responsibility with the Government for coordination with the Designer of Record, and Contractor will not be penalized if project fails to achieve certification at the minimum required level due to loss of credits that are the responsibility of others.***</USGBC><USGBC_NO>***Validation of credits will be accomplished by the Government. LEED certification of the project by the Contractor is not required. The Government may choose to seek LEED certification of the project, in which case the Government will pay certification fees and coordinate with the GBCI and the Contractor will furnish audit data as requested at no additional cost.***</USGBC_NO>***
</SINGLECO><SITE_BLDGOTHER>Credit Validation: The project is the site work ***<ADDITIONAL>***and building(s)***</ADDITIONAL>*** portion of a multiple contractor Combined Project. LEED registration, compiling of documentation at LEED OnLine and use of the LEED Letter Templates is required Registration and payment of registration fees will be by the «FEES_PAID_BY». ***<ADMINGOV>***Administration/team management of the online

Comment [sdn13]: [LEED-NC Version 2.2][LEED-NC Version 3][*text block for other to be filled in by specifier*]

Comment [sdn14]: [Silver][Gold][Platinum]

Comment [sdn15]: Select paragraph below if the project includes COS standard design buildings and a single contractor is doing all buildings and site work in the project. Edit for either Contractor or Government fees and administration (PDT choice). Registration is required.

Comment [sdn16]: Select paragraph below if the project includes the site work for COS standard design buildings by others. Include bracketed text in first sentence as applicable if project also includes standard design and/or non-standard design buildings in addition to site work for COS buildings by others. Registration and fees may be either by Contractor or Government (PDT choice). Administration may be by Government or shared - Contractor administers until construction phase, when Government must take over administration in order to compile and summarize data from the other contractors (PDT choice).

project will be by the Government.*</ADMINGOV><ADMINSHARED>*Administration/team management of the online project will be shared between the Contractor and the Government per Appendix LEED Requirements for Multiple Contractor Combined Projects.*</ADMINSHARED> <ADMINCONTRACTOR>*Administration/team management of the online project will be by the Contractor per Appendix LEED Requirements for Multiple Contractor Combined Projects. *</ADMINCONTRACTOR>*Validation of credits will be accomplished by the Government. LEED certification of the project by the Contractor is not required. The Government may choose to seek LEED certification of the project, in which case the Government will pay certification fees and coordinate with GBCI and the Contractor will furnish audit data as requested at no additional cost.*</SITE_BLDGOTHER><STDANDSITE>*Credit Validation: The project is a standard design building(s) portion of a multiple contractor Combined Project. LEED registration, compiling of documentation at LEED OnLine and use of the LEED Letter Templates is required. Registration and payment of registration fees will be by the «FEES_PAID_BY». Administration/team management of the online project will be by the «ADMIN_PERFORMED_BY». See Appendix LEED Requirements for Multiple Contractor Combined Projects for information about registered standard designs. Validation of credits will be accomplished by the Government. LEED certification of the project by the Contractor is not required. The Government may choose to seek LEED certification of the project, in which case the Government will pay certification fees and coordinate with GBCI and the Contractor will furnish audit data as requested at no additional cost.*</STDANDSITE><NSTDMULTI>*Credit Validation: The project is a non-standard design building(s) portion of a multiple contractor Combined Project. LEED registration, compiling of documentation at LEED OnLine and use of the LEED Letter Templates is required. Registration and payment of registration fees will be by the «FEES_PAID_BY». Administration/team management of the online project will be by the «ADMIN_PERFORMED_BY». Validation of credits will be accomplished by the Government. LEED certification of the project by the Contractor is not required. The Government may choose to seek LEED certification of the project, in which case the Government will pay certification fees and coordinate with GBCI and the Contractor will furnish audit data as requested at no additional cost.*</NSTDMULTI><ONLY_EXEMPT>*Credit Validation: LEED registration, compiling of documentation at LEED OnLine and use of the LEED Letter Templates is *<CREDIT_NO>*not required. Contractor has the option to register the project, compiling of documentation at LEED OnLine and use the LEED Letter Templates. In this case, payment of registration fees and administration/team management of the online project will be by the Contractor.*</CREDIT_NO><CREDIT>*required. Registration and payment of fees will be by the «FEES_PAID_BY». Administration/team management of the online project will be by the «ADMIN_PERFORMED_BY». *</CREDIT></ONLY_EXEMPT>*

6.14.4. Commissioning: See Appendix M for Owner's Project Requirements document(s).

6.14.5. LEED Credits Coordination. The following information is provided relative to Sustainable Sites and other credits. *<MULTI_NOT>*

SS Credit 1 Site Selection:

Project site **«FARMLAND»** considered prime farmland.

*<FLOOD1>*Project site is five feet or more above 100-year flood elevation.*</FLOOD1><FLOOD2>*Delineation of 100-year flood elevation is shown on site drawings provided in this CONTRACT.*</FLOOD2>*

*<HABITAT1>*Project site contains no habitat for threatened or endangered species.*</HABITAT1><HABITAT2>*Delineation of threatened or endangered species habitat is shown on site drawings provided in this CONTRACT.*</HABITAT2>*

*<WETLAND1>*No portion of project site lies within 100 feet of any water, wetlands or areas of special concern.*</WETLAND1><WETLAND2>*Delineation of water, wetlands and areas of special concern is shown on site drawings provided in this CONTRACT.*</WETLAND2>*

Project site **«PARKLAND»** previously used as public parkland.

SS Credit 2 Development Density & Community Connectivity.

Project site **«DENSITY»** meets the criteria for this credit.

SS Credit 3 Brownfield Redevelopment.

Comment [sdn17]: Select paragraph below if the project includes COS standard design building(s) only and site work is by others. If only a single contractor will ever be working on all the projects for a particular standard design, the COS may require the Contractor to register the standard design as part of the initial project and administer the online standard design on all subsequent projects. If multiple contractors will be working on projects for a particular standard design, registration and administration must be by the Government (COS).

Comment [sdn18]: Select paragraph below if the project includes non-standard design building(s) only and site work and COS standard design buildings are by others. Edit for either Contractor or Government fees and administration (PDT choice).

Comment [sdn19]: Select paragraph below if the project ONLY has exempt facilities and is not required to achieve LEED Silver.

Comment [sdn20]: Attach Owner Project Requirements (OPR) document for each climate controlled facility/facility type in the project. Obtain OPR for Standard Designs from COS. Develop OPR for each non-standard facility using USACE template at http://en.sas.usace.army.mil. Refer to SOW whenever possible in this document to avoid conflict with SOW.

Comment [sdn21]: If site work and building(s) are by separate contractors, this is a MULTIPLE CONTRACTOR COMBINED PROJECT and you should skip to the MR2 section (edit to indicate whether buildings or site is by others and identify the buildings by others).

Project site **«BROWN»** meets the criteria for this credit.

SS Credit 4.1 Public Transportation Access.

Project site **«TRANS»** meets the criteria for this credit.

EA Credit 6 Green Power.

35% of the project's electricity **«GREEN»** be provided through an Installation renewable energy contract. Do not purchase Renewable Energy Credits (REC's) to earn this credit.

</MULTI_NOT>**MR Credit 2 Construction Waste Management.**

The Installation ***<DOESNOT>***does not have an on-post recycling facility available for Contractor's use.***</DOESNOT><DOES>***has an on-post recycling facility.***</DOES> <CONTACT_KNOWN>***Contact «CONSTRUCTION_WASTE_CONTACT» for information about materials accepted.***</CONTACT_KNOWN><LEED3>***

Regional Priority Credits (Version 3 only)

The project zip code is «ZIP_CODE».***</LEED3>***

<MULTIPLE>See LEED Multiple Contractor Responsibilities Table(s) for additional information.***</MULTIPLE>***

6.14.6. LEED Credit Preferences, Guidance and Resources. See Appendix L LEED Project Credit Guidance for supplemental information relating to individual credits.

6.14.7. ***<MULTI_NOT>***Not Used***</MULTI_NOT><MULTIPLE>***Multiple Contractor Combined Project. When site work and building(s) are accomplished by separate contractors, it is a Multiple Contractor Combined Project for purposes of LEED scoring and documentation. This project is part of a Multiple Contractor Combined Project that includes site work and building(s) accomplished by separate contractors. See Appendix LEED Requirements for Multiple Contractor Combined Projects and Appendix LEED Multiple Contractor Responsibilities Table(s) for special requirements for this project.***</MULTIPLE>***

6.14.8. Additional Information

«MR2»

6.15. ENVIRONMENTAL

6.15.1. Solid Waste Disposal/Diversion Practices:

6.15.1.1. Solid Waste Disposal/Diversion Practices shall be in accordance with «SOLID_WASTE». No offsite disposal is permitted. Dispose of all construction material waste and debris from demolition in the Ft Sill landfill (Dodge Hill). Items that can be used to help decrease diversion rates include salvaged items (may be reused by others), scrap metal, masonry products, gravel, asphalt, concrete, rock and topsoil (earth fill is specifically excluded). There are segregated areas at the landfill for disposal of asphalt, concrete and rock. Dispose of waste fill on Post; The Contracting Officer (CO) will coordinate and approve location of disposal areas. There is no charge for using the Ft Sill Landfill. Confine construction limits to the construction site boundaries shown on the drawings within Appendix J.

6.15.1.2. Government policy applies to sound environmental principles in the design, construction and use of facilities. As part of the implementation of that policy, (1) Practice efficient waste management when sizing, cutting, and installing products and materials, (2) use all reasonable means to divert construction, and demolition waste from landfills and incinerators and to facilitate their recycling or reuse.

6.15.2. Asbestos containing materials (ACMs), lead based paint (LBP), or PCBs shall not be used in the project.

Comment [sdn22]: If site work and building(s) are accomplished by separate contractors, identify the project as a Combined Project

If site work and building(s) are accomplished by separate contractors, include general instructions on how LEED is handled for Combined Projects (standard text appendix LEED Requirements for Multiple Contractor Combined Projects), (STANDARD APPENDIX "N" IN WIZARD)

If site work and building(s) are accomplished by separate contractors, include LEED Strategy Tables (STANDARD APPENDIX "O" IN WIZARD), which indicate the status of site selection points, establish the number of points each contractor must earn relative to each building, and establish each contractor's requirements for shared building/site points.

If site work and building(s) are by separate contractors, add the MULTIPLE CONTRACTOR COMBINED PROJECT paragraph below.

Comment [sdn23]: Indicate here all project-specific differences from the default assumptions in Appendix L. For Multiple Contractor Combined Projects, describe here the other contacts and buildings in the combined project.

Comment [sdn24]: Solid Waste Disposal/Diversion Practices shall be in accordance with «SOLID_WASTE»

6.15.3. Air pollution restrictions applicable to this project do not allow materials to be burned on Government premises.

6.15.4. Oil Water Separators (OWS). Fort Sill requires OWS to be installed in a vault per local EQD requirements. Equip the oil water separator with a sensor/alarm panel that indicates when the separator requires service. Also include a sump pump tied to the separator for removal of rainwater from the vault.

6.16. PERMITS

Obtain permits from Fort Sill for each generator required for on-site electrical service. Note that generators equal to or larger than 500 hp, in use for more than 1-year require a permit from Fort Sill EDQ.

6.17. DEMOLITION

«DEMOLITION»

6.18. ADDITIONAL FACILITIES

«ADDITIONAL_FACILITIES»

End of Section 01 10 00<TO>.«TONUM»</TO>