

STATEMENT OF WORK

FOR

BUILDING 8433 COMMUNICATIONS UPGRADE

AT

JOINT BASE ELMENDORF-RICHARDSON, ALASKA

03 January 2019

STATEMENT OF WORK
Communications Upgrade in Building 8433

Table of Contents

1.0	<u>SECTION I</u>	
1.0	Objectives and Requirements	Page 3
1.1	Objective	Page 3
1.2	Period of Performance	Page 3
1.3	Place of Performance	Page 3
1.4	Overview Description of Services	Page 3
1.5	Preliminary Schedule	Page 3
1.6	Project Plan	Page 4
1.7	Post Award Meetings	Page 4
1.8	Project Start Date	Page 4
1.9	Inherently Government Function	Page 4
1.10	CLIN 001 – Quarters 1 Project Overview	Page 4
1.11	Specific Requirements	Page 5
1.12	Deliverables Table	Page 5
1.13	As Built Documentation	Page 5
1.14	Inspection	Page 5
1.15	Acceptance	Page 6
	<u>SECTION II SERVICE SUMMARY</u>	
2.0	Service Summary	Page 7
	<u>SECTION III GOVERNMENT FURNISHED PROPERTY and SERVICES</u>	
3.1	Government Furnished Facilities	Page 8
3.2	Government Furnished Equipment	Page 8
3.3	Government Furnished Materials	Page 8
3.4	Government Furnished Services	Page 8
4.0	<u>SECTION IV GENERAL INFORMATION</u>	Page 9
5.0	<u>SECTION V APPENDICES & EXHIBITS</u>	
APPENDIX 1	Acronyms	Page 12
APPENDIX 2	Cable Path Drawing and Work Summary – Quarters 1	Page 13
APPENDIX 3	Wall Port Modifications Work Summary - Quarters 1	Page 14
APPENDIX 4	Applicable Publications and Forms	Page 15

STATEMENT OF WORK

SECTION I

1.0 OBJECTIVES AND REQUIREMENTS

1.1. Objective. This is a non-personnel services contract to Engineer, Furnish, Install and Test (EFI&T) fiber optic and copper riser cables within Building 8433(Quarters 1) from the current communications entry point in basement to the top floor office. Install an ethernet patch panel, power to support communication equipment to be relocated from basement, and run Cat6 Ethernet cable to all required LAN drops throughout Quarters 1.

1.2. Period of Performance. All contract requirements must be completed within 45 days from date of contract award.

1.3. Place of Performance: The general area of work for Building 8433 installation is located on the Elmendorf side of JBER.

1.4. OVERVIEW DESCRIPTION OF SERVICES

1.4.1. This is a turnkey installation. The Contractor shall provide all management, personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to EFI&T the relocation of the official communications equipment currently located in the basement/boiler room to the 2nd floor office area. This will include, but is not limited to, items such as installing a new fiber optic riser cable and new Cat 3 UTP riser cable from the basement OSP demark to the new 2nd floor communications room location, building out a communications room location on the 2nd floor, and creating cable paths and installing new Cat 6, four port UC telecomm faceplates at the locations specified in this SOW which will be wired back to the new communications closet location and any other specific work within the facility defined in this Statement of Work (SOW). The Contractor shall be responsible for provisioning all required hardware, software, ancillary equipment, parts, material and cabling for the installation and full operational use of the fiber optic cabling, patch panels, and Ethernet ports, as well as testing of all newly installed or reused infrastructure. In addition, the premise will be returned to a functional and aesthetic state that is at least as good as or better than before the project began.

1.4.2. The Contractor shall adhere to the JBER Telecommunications Standard dated 18 Dec 2018 and all applicable references. This includes the planning, coordination, and surveillance of the activities necessary to ensure disciplined work performance and timely resources application to accomplish all tasking's under this contract.

1.4.3. Building blueprints provided are for pre-planning purposes only. No as-builds are available for current path/routes of communications lines throughout house. It is the Contractor's responsibility to identify/locate all communications line runs behind walls and bid accordingly. The Contractor will be responsible to engineer new cable run paths throughout the house, obtain government approval before execution/installation. The contractor must execute any construction activities; I.E. opening and closing of any walls within Quarters 1, in order to complete new cabal paths. Construction activities will be approved. Installation of conduit is contractor responsibility.

1.4.4. The Contractor shall be responsible for maintaining communication with the Contracting Office, Government Project Manager, and the Contracting Officer Representative (COR). The Contractor shall immediately notify both the COR and the Government Project Manager of any problems that would prevent timely performance of this contract. The Contractor shall implement and maintain management control systems necessary to plan, organize, direct, and control all activities under this contract.

1.4.5. The Government will evaluate the technical quote for acceptability based on the requirements set forth in the PWS. Quoters must specifically identify the approach/technology proposed, the standards utilized, the tools and methodologies of how the solution/approach is developed, and a proposed list of materials with manufacturer cut sheets for significant items related to the creation of cable paths and the installation of the fiber optic cable sheaths (identify source, quantity, & price). At a minimum, the list shall include fiber optic cable sheath segments (by strand count and sheath type), fiber optic patch panels with accessories, fiber optic splice cases with accessories, fiber optic connectors, HDPE duct and innerduct (by size and type), conduit material, cable management and labeling material (brackets, step/arms, tags, etc.), and toning wire. The Government will evaluate the approach and solution to ensure it is viable. The characteristics of viable solutions will be used to determine whether a quote is technically acceptable.

1.5. Preliminary Schedule. The Contractor shall prepare and provide a preliminary schedule that reflects all tasks required to complete this requirement within the time specified. The Contractor shall provide a copy of the schedule for review and approval within 7 days of contract award.

1.6. Project Plan. The Contractor shall prepare and provide a finalized comprehensive project plan that reflects all tasks required to complete this requirement within the time specified. The Contractor shall provide a copy of the plan for review and approval within 10 days of contract award.

1.7. Post Award Meetings. The Contractor agrees to attend any post award conference convened by the Contracting Officer IAW FAR Part 42.5. These meetings shall be at no additional cost to the Government.

1.8. Project Start Date. The Contractor shall coordinate a projected start date, in conjunction with the Project plan, through the COR, no later than (NLT) 21 days after contract award date.

1.9. Inherently Governmental Function. The Contractor shall not perform inherently Governmental functions as defined in FAR Subpart 7.5 in relationship to this SOW.

1.10. CLIN 001 – Building 8433 Project Overview

1.10.1. This requirement involves providing and installing new copper and fiber optic riser cables from bottom floor to top floor office, the installation of appropriate cable termination hardware, installation of cable racking and management material where necessary, termination and testing of all cable segments, installation of interior conduit to support all cable runs, Cat 6 universal telecomm runs throughout all floors of the house, installation of 4 port, Cat 6 wall jacks throughout the house, and any other items necessary to complete a fully functional installation of these communications links. This broad overview should not be considered as a limitation to any particular aspect of providing a complete and functional fiber optic and UTP CAT 6 communications infrastructure that is ready to have communications equipment connected and brought on line.

1.10.2. In support of the major project aspects listed, the Contractor shall provide all material necessary and any labor necessary to fully accomplish this installation effort, to include but limited to, fiber optic cable, fiber patch panels, coupler plates, fiber splice cases and splice managers, cable labeling material, cable racking and management material, fiber hot melt single mode ST connectors, cable preparation material, fan-out kits, Cat 6 UTP cable, 4 port wall jack plates, and any other material necessary to complete a fully functional, turn-key type installation. All ISP fiber optic cable and UTP copper cable and associated installation material referenced in this project will conform to the JBER Telecommunication Installation Standard specifications.

1.10.3. In addition to any allied support upgrades and functional fiber optic cable installation requirements listed elsewhere, deliverables related to this project will also include various documentation such as test results in a format to be approved by 673CS/SCXP. Drawings showing how all

ducts/innerducts are utilized (to include annotating cable names on the drawings where the cables are labeled), and rack elevation or wall layout drawings where new equipment is installed as part of the project (these drawings will show all equipment in the respective racks or in the general area around the new equipment on the wall to give perspective on the location of the new equipment). Hand drawn sketches are acceptable for the butterfly and rack/wall equipment layout drawings, as long as they are legible and can be readily interpreted by 673CS/SCXP personnel.

1.10.4. Any work that will touch the outside of the house must be approved by Aurora housing and 673rd CES. Anticipate new cable runs to have a path internal to the house. Opening and closing of walls for new cable paths must be approved by Aurora Housing Office.

1.10.5. The residents of the house will be living in the quarters for the entirety of the project. It is imperative all work minimizes impact to residents livelihood to include ensuring temperature of house does not drop below an acceptable level for habitation due to opening of walls timelines for installation efforts. Work must not impact air quality within house that would cause a health concern for inhabitants. Additionally the communications capabilities being delivered by current solution are critical to the general Officer residing in the home. Any downtime of current capabilities being delivered must be coordinated 48 hours in advance with the General's Exec or J6 staff for approval.

1.11. Specific Requirements - Building 8433 Installation

The following work bullets cover the fundamental requirements, but should not be considered as a limitation as to the listing of every aspect of the work required to create a complete and usable fiber optic cable transport system between two locations. These descriptions reference the associated cable sheath installation plan. All installation activities such as placement of service loops, termination material and methods, testing procedures, and cable naming conventions will adhere to Air Force and industry standards referenced in the JBER Telecommunications Installation Standards instruction guide.

1.11.1. Provide and install 12 strand single mode fiber optic cable, such as a Corning MIC type cable, as well as a Cat 3 UTP riser cable from the basement demarc to top floor office, along with all associated termination hardware as generally shown in the JBER Telecommunications Installation Standards typical installation drawing. This will include replacing the existing wall mounted FOPP in the basement with a new WCH-12P type wall mounted FOPP, fully populated with six port ST, single mode coupler plates. Fully terminate/test/label/manage these cables. Any new cable path created in support of the new riser cables will be left with a minimum of 100 percent additional capacity to add future cable sheaths between the two locations.

1.11.2. Provide and install power to top floor office closet consisting of two 120 VAC, 20A dedicated circuits as described in the JBER Telecommunications Installation Standards. The contractor must ensure that by installing power inside this office, it does not exceed Quarters 1 power capability to handle additional load. The contractor must evaluate power in Quarters 1 prior to work commencement to ensure it can handle additional load or determine if there is a need to upgrade building power or reroute power within the house to support additional requirement. Rerouting of power to support the new requirement will be executed by the contractor. Execution plan for this must be coordinated and approved through the Aurora housing office.

1.11.3. Converting the top floor office into a communications closet in current configuration may cause equipment to overheat. In order to improve ventilation, contractor will remove the fin tube heating element, insulate the pipe in place and install a vent above the closet door.

1.11.4. Provide and install new Cat 6 cables and all associated termination hardware to extend from the new second floor communications room location out to the specified telecom port locations.

1.11.5. Provide and install 4 port, Cat 6 telecomm face plates throughout the house, in accordance with Appendix 2

1.11.6. Provide and install Cat 6 UTP cable from the second floor communications room to all telecommunications faceplates throughout house. Fully terminate/test/label/manage all Cat 6 cables.

1.11.7. Terminate this cable using hot melt type, ST style single mode connectors. Interior fiber optic cables will meet the specifications in paragraph 5.3.2 listed in the JBER Telecommunications Installations Standards.

1.11.8 Contractor will minimize, as possible, and enclose communications infrastructure remaining in basement to reduce current poor visual aesthetics.

1.11.9. Fully test all fiber optic and UTP copper cable segments, as per JBER Telecommunications Installation Standards and provide test results for review and approval to 673CS/SCXP project manager, prior to leaving the site. Properly route/manage/splice/label the cable and patch panels at all access and termination points throughout the physical path. It is expected that any connectors that fail on either end of either segment (OSP segment between buildings or riser segment between floors) will be repaired/replaced or that any strands that fail in the new segment between floors will be repaired if possible (section throw replacements in these segments is not allowed) or replaced.

1.12. Deliverables Table. Below is a list of deliverables under this contract.

SOW Reference	Deliverable	Requirement
1.5.	Preliminary Schedule	Within 7 days of contract award
1.6.	Project Plan	Within 10 days of contract award
1.8.	Project start date	Within 21 days of contract award
1.2	Project completion date	Within 45 days of contract award
1.11.9., 1.13.5, & 1.17.	Strand test results	Upon contract completion
1.15	As-Built Package	Upon contract completion
4.3.1.1	Contract Manager Information	Within 2 days of contract award

1.13 As-Built Documentation. The Contractor shall provide the 673 CS/SCXP Project Manager a complete set of As-Built drawings upon project completion.

1.14 Inspection. Deliverables will be reviewed by the Government and accepted or returned to the Contractor with comments within 5 workdays of receipt. Progress meetings may be held as required.

1.15 Acceptance. Government acceptance will consist of a review of the Contractor's physical installation to ensure all SOW requirements are met and comply with the JBER Telecommunication Standards, a review of fiber optic cable test results to ensure all strands are within prescribed tolerances, and a validation of the accuracy of the Contractor's As-Built drawings.

SECTION II

2.0 SERVICE SUMMARY

2.1. The Contractor service requirements are summarized into performance objectives that relate directly to mission essential items. The performance threshold briefly describes the minimum acceptable levels of service required for each requirement. These thresholds are critical to mission success.

Performance Objective	Performance Threshold	Method of Surveillance
SS-1. Adhere to all Installation Standards and Requirements	Any deviation from standard must be approved by 673 CS/SCXP before proceeding.	Periodic Inspections Random inspection
SS-2. Fully test all strands of new fiber optic segments	Zero deviation from standard	Periodic Inspections Random inspection
SS-3. Provide Strand Test Results	Zero deviation from standard	Visual Inspection
SS-4. Deliverables at Table 1.12.	Submits deliverables in a manner consistent with SOW 90% of the time.	Visual Inspection

2.2. Quality Assurance. The Government shall inspect and evaluate the Contractor's performance to ensure services are received in accordance with requirements set forth in this SOW. The Contractor shall provide an IMS in accordance with paragraph 1.11. The COR shall inspect by validating actual work performance, physically checking an attribute of the completed task, or otherwise inspecting the task or its results to determine whether or not performance meets the standards contained in this SOW. The COR will use the IMS or modified version thereof, to record validation results. When a performance threshold has not been met or Contractor performance has not been accomplished, the COR will initiate and provide the CO a Contract Discrepancy Report (CDR) (example at attachment 1 of the Quality Assurance Surveillance Plan) for issuance to the Contractor. The Contractor shall provide a Project Plan in accordance with paragraph 1.6 And return it to the CO within 7 calendar days of receipt.

SECTION III

3.0 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

3.1. Government Furnished Facilities. N/A

3.2. Government Furnished Equipment. N/A

3.3. Government Furnished Materials. N/A

3.4. Government Furnished Services. N/A

SECTION IV

4.0 GENERAL INFORMATION

4.1. Hours of Operation. The Contractor shall perform contract tasks during normal operating hours of the site. The average workweek consists of 9:00 AM and 5:00 PM (AST), Monday through Friday, excluding holidays and base closures. During the planning phase of the project, the Government will identify any locations that require installation and cutover after normal business hours to avoid unnecessary operational mission impact. Any site work requested by the Contractor to be performed outside of normal duty hours shall be coordinated with the Contracting Officer and COR at least 7 working days in advance. The Contractor shall accomplish the installation with minimum disruption of daily resident activities.

4.2. Recognized Holidays

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

*If the holiday falls on a Saturday, it will be observed on the preceding Friday. If the holiday falls on Sunday, it will be observed on the following Monday.

4.3. Performance

4.3.1. Contract Manager

4.3.1.1. The Contractor shall provide a contract manager and alternate(s) who are knowledgeable of outside plant fiber optic cable installations. The Contractor shall submit the name, address, telephone number and a resume of the contract manager to the CO within two days of contract start date. The list shall be kept current throughout the life of the contract.

4.3.1.2. The contract manager or alternate(s) shall have full authority to act for the Contractor on all contract matters relating to daily operation of this contract.

4.3.1.3. The contract manager or alternate(s) shall be available within 24 hours to meet on the installation with Government personnel designated by the CO to discuss problem areas.

4.3.1.4. The contract manager and alternate(s) shall be able to read, write, and speak English.

4.3.2. Contractor Employees

4.3.2.1. Alcohol/Drug Use. The consumption of alcoholic beverages or illegal drugs by Contractor personnel, while on duty, is strictly forbidden. The Contractor shall immediately remove any employee who is under the influence of alcohol or drugs.

4.3.2.2. Employee Training. The Contractor shall utilize employees with adequate training, skills, and knowledge to perform the requirements in this SOW. Employee training records will be maintained during the period of this contract and provided to the Government upon request.

4.3.2.3. English Language. Contractor employees who deal directly with customers shall be required to effectively communicate with the customers in English. This requirement is strictly for the purpose of efficiently performing the contract tasks.

4.3.2.4. Privately Owned Vehicles. Each Contractor employee driving a privately owned vehicle on the installation must carry minimum liability insurance as required by the State of Alaska. Contractor employees shall adhere to all posted speed limits and shall not use hand-held cellular telephones while driving on the installation for phone calls or texting. Use of seatbelts is mandatory. Any Contractor employee cited for driving under the influence will have their driving privileges immediately revoked for a period to be determined.

4.3.2.5. Safety Equipment. The Contractor shall conform to the applicable regulations contained in the Operational Safety and Health Administration (OSHA) standards and comply with all local, state and federal safety guidelines.

4.3.2.6. Safety Threats: The Contractor shall not employ persons for work on this contract if such employees are identified to the Contractor by the CO as a potential threat to the health, safety, security, general well-being or operational mission of the installation and its population.

4.4 Security Requirements

4.4.1. Contractor Access to Air Force Installations

4.4.1.1. The Contractor shall obtain base identification and vehicle passes, if required, for all Contractor personnel who make frequent visits to or perform work on the Air Force installation(s) cited in the contract. The Contractor shall ensure company ID badges are worn at all times that identify the individual, company name, and clearly indicate the wearer is a Contractor.

4.4.1.2. The Contractor shall submit a written request on company letterhead to the Contracting Officer listing the following: contract number, location of work site, start and stop dates, and names of employees and subcontractor employees needing access to the base. The letter will also specify the individual(s) authorized to sign for a request for base identification credentials or vehicle passes. The Contracting Officer will endorse the request and forward it to the issuing base pass and registration office or security police for processing. When reporting to the registration office, the authorized Contractor individual(s) should provide a valid driver's license, current vehicle registration, and valid vehicle insurance certificate, to obtain a vehicle pass.

4.4.1.3. During performance of the contract, the Contractor shall be responsible for obtaining required identification for newly assigned personnel and for prompt return of credentials and vehicle passes for any employee who no longer requires access to the work site. When work under this contract requires unescorted entry to controlled or restricted areas, the Contractor shall comply with AFI 31-101, *Integrated Defense (ID)*, and AFI 31-501, *Personnel Security Program Management*. Upon completion or termination of the contract or expiration of the identification passes, the prime Contractor shall ensure that all base identification passes issued to employees and subcontractor employees are returned to the issuing office. Failure to comply with these requirements may result in withholding of final payment.

4.5 Miscellaneous Requirements

4.5.1. Permits. The Contractor shall be solely responsible for obtaining at its cost and expense any environmental permits required for its operations under the Contract, independent of any existing permits held by the Government. Any and all environmental permits required for any of the Contractor's operations or activities would be subject to prior concurrence of Government. The Contractor acknowledges that the Government will not consent to being named a secondary discharger or co-permittee for any operations or activities of the Contractor under the Contract. In the event the Government is named as a secondary discharger or co-permittee for any activity or operation of the Contract, the Government shall have the right to take reasonable actions necessary to prevent, suspend,

or terminate such activity or operation, including terminating this Contract, without liability or penalty.

4.5.2. Notification of Debarment/Suspension Status. The Contractor shall provide immediate notice to the Contracting Officer in the event of being suspended, debarred or declared ineligible by any other Federal Department or agency, or upon receipt of a notice of proposed debarment from another DOD Agency, during the performance of this contract.

4.5.3. Weapons, Firearms, and Ammunition. Contractor employees shall not possess weapons, firearms, or ammunition on themselves or within their Contractor-owned privately owned vehicles while on JBER.

SECTION V

APPENDIX 1

Acronyms

AFI	Air Force Instruction
AFMAN	Air Force Manual
AFOSH	Air Force Occupational Safety and Health
AFTO	Air Force Technical Order
CO	Contracting Officer
FOPP	Fiber Optic Patch Panel
IAW	In Accordance With
JBER	Joint Base Elmendorf-Richardson
MH	Manhole
OSP	Outside Plant
ISP	Inside Plant

APPENDIX 2

Communications Line & Office Modifications Building 8433



Quarters 1 - Mods

Basement

- * The NIPR switch and patch panel relocated to upstairs office closet.
- * 12 Strand Fiber extended from basement to top floor closet
- * Add a house copper cable run to top floor office
- * New Lan drop runs and wall plates will be installed (See next slide)
- * 2nd Floor office requires addition of two 120 VAC, 20A dedicated circuits.
- * Contract will consolidate and conceal basement remaining communications infrastructure in an enclosure/casing.

2nd Floor Office

- * Ventilation improvements to include removing fin tube heat element and adding a vent above closet door.

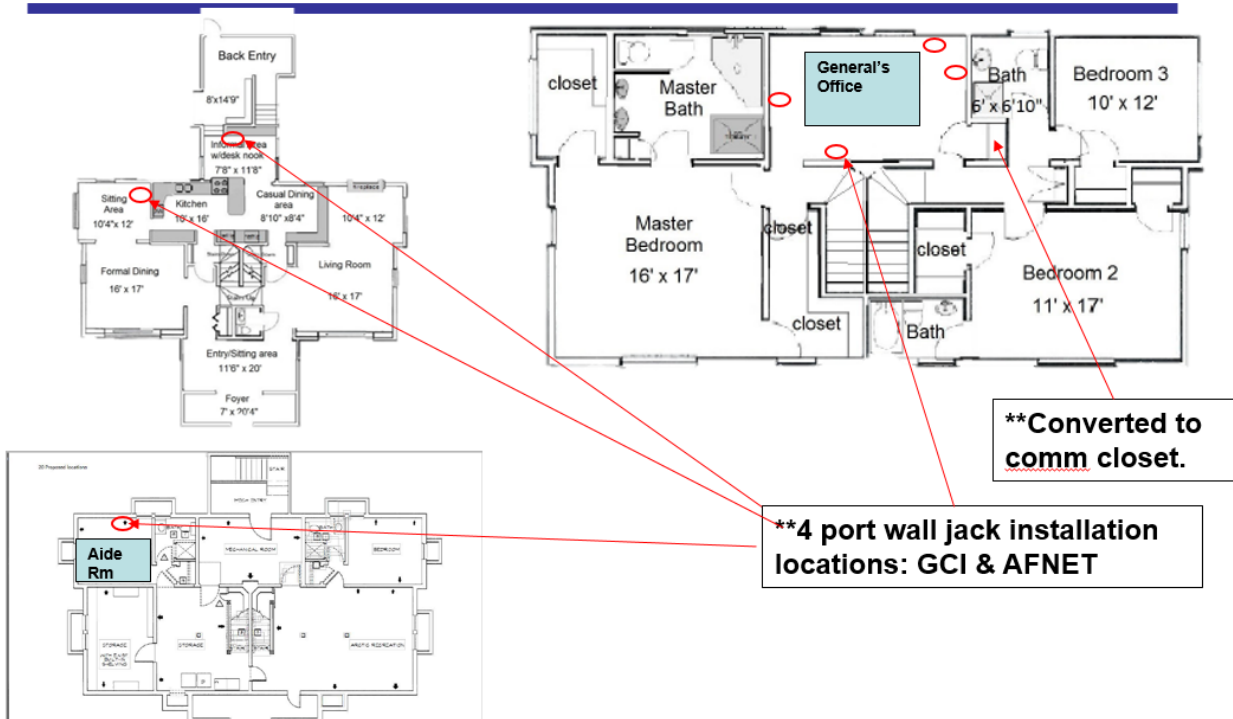
APPENDIX 3

Building 8433 Wall Jack Installation Modification

UNCLASSIFIED//FOUO



COA 1 (Current Requirement)



UNCLASSIFIED//FOUO

APPENDIX 4
APPLICABLE PUBLICATIONS AND FORMS

Title	Date	Location
JBER Telecommunication Installation Standards	18 Dec 2018	SOW Attachment 1