

# **TOM GREEN COUNTY, TEXAS**

## **REQUEST FOR PROPOSAL**

**GOODFELLOW AIR FORCE BASE  
RENOVATION AND REPAIR OF BUILDING 3453  
(RFP) 18-017**



Prepared By:

Tom Green County Auditor  
113 West Beauregard  
San Angelo, Texas 76903  
Phone 325-659-6500  
[purchasing@co.tom-green.tx.us](mailto:purchasing@co.tom-green.tx.us)

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**RFP 18-017**

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## **INTRODUCTION**

Proposals are being accepted for RFP 18-017 Renovation and Repair of GAFB Building 3453. This RFP is provided by Tom Green County (the County), in accordance with Texas Government Code 2269.151, for the purpose of soliciting proposals from prospective vendor(s) to provide construction and remodeling services for Goodfellow Air Force Base (GAFB) building 3543 to the County. Funding for this project has been provided by the Texas Military Preparedness Commission in the form of the Defense Economic Adjustment Assistance (DEAAG) Grant with State and local matching funds. There are multiple projects covered under this funding. The projected budget for this project is approximately \$1.2 million.

These are the only approved instructions for use on your proposal. Items contained herein apply to and become a part of Terms and Conditions of the proposal. Any exceptions thereto must be in writing.

The contractor shall furnish all labor, tools, equipment and materials in order to fulfill the obligations of this contract.

Tom Green County reserves the right to reject any proposal which: fails to meet the mandatory requirements as stated; does not comply with the specification requirements of the RFP; or exceeds budgetary expectations.

## **SCHEDULE**

Issue RFP	July 3, 2018
Pre-Bid Conference	July 16, 2018
Written Inquiries must be received by	July 20, 2018
Responses to inquiries by	June 27, 2018
Proposals Due	August 3, 2018

***Please be sure to submit all required forms and documentation.***

Questions concerning this RFP should be directed in writing to **Tom Green County Auditor's Office, Dustin Klein**. Email to [purchasing@co.tom-green.tx.us](mailto:purchasing@co.tom-green.tx.us)

\*Any catalog, brand name or manufacturer's reference used in a proposal invitation is descriptive-NOT restrictive-it is used only to indicate type and quality desired. Proposals on brand of like nature and quality will be considered. If the proposal is based on other than the reference specifications, the proposal must show the manufacturer, brand or trade name, lot number, etc., of the article offered. If other than the brands(s) specified is offered, illustrations and complete descriptions should be made part of the proposal. If the offeror takes no exception to specifications or reference data, he/she will be required to furnish brand names, numbers, etc. as specified.

## **PROJECT DETAILS/STATEMENT OF WORK**

Each submitting company must include the following items in its response to the RFP:

1. Cover letter containing the name, address, telephone number, email address, and main contact name of primary company and each participating company other than primary company.
2. Number of total personnel and personnel assigned to this project, by discipline for each participating company.
3. Outline of specific areas of responsibility (financial management, labor standards, environmental review, etc.) and team lead for primary and each participating company.
4. Brief resume of key personnel including name/title, name of company, experience, education, professional registration or licensure number, and other relevant qualifications.
5. List of recent work completed by primary company and each participating company that may be relevant to the project, including project name/location, type of work, funding source (if known), company's responsibilities and services provided, project owner's main contact/address/telephone number, approximate completion date, and estimated project cost.
6. Each submitting company should include a list for valid licenses and certifications held by personnel assigned to project.

### **PART 1 - SCOPE OF WORK:**

#### **1.1 GENERAL:**

The work to be performed under this contract and in accordance with this Statement of Work (SOW) shall consist of furnishing all necessary materials, labor, tools, transportation, supplies, supervision, equipment, and incidentals necessary for providing all work as described on the drawings, and in the SOW including the herein Attachments, and all applicable codes, regulations, standards and criteria in effect at the date of solicitation. The work outlined below shall consist of, but not be limited to the following to Repair-Renovate Goodfellow AFB building 3453 (Fire Training School-FTS) for SPINSTR (Special Instruments Training).

Agency Relationship: Tom Green County (TGC) has sole contract authority. 17th Civil Engineer Squadron (17 CES) Goodfellow AFB will serve in the role of providing contract coordination/monitoring but will not have any direct contract authority to approve or disapprove construction work. All contract correspondence shall be directly submitted to TGC.

#### **1.2 LOCATION:**

Goodfellow Air Force Base is located in Tom Green County, on the southeast side of San Angelo, TX. and is bounded to the north by Highway #388 (Paint Rock Rd.), to the west by Fort McKavitt Rd and Bell Street/Christoval Road, to the south by Highway #1223 (San Antonio Hwy.) and to the east by the eastern city limits. Work location is building 3453.

### **1.3 WORK AND MECHANICS:**

The work for this project shall be executed in a good and workmanlike manner. Individual trade work for this project shall be performed and quality maintained by the applicable trade, only. All trades shall coordinate their work with that of other trades. The Contractor shall coordinate and perform all operations in a manner that will result in a professional and expeditiously completed project. The work shall be in strict accordance with prevailing industry standards and manufacturer's instructions. Work and materials shall comply with this Statement of Work and the editions in effect at the time of this solicitation for all applicable criteria, regulations, guidelines and codes, all of which are made a part thereof.

### **1.4 PROJECT DESCRIPTION & SEQUENCE OF WORK:**

Overall project construction scope includes demolition, architectural, mechanical, electrical, communications, security systems, plumbing and general construction for the above subject project. All renovation work shall be In Accordance With (IAW) the contract drawings and this SOW, refer to ATTACHMENT A: Summary of Work. Project construction work shall be sequentially performed as listed below in the Sequence of Work Table 1.4.1. In order to complete the renovation of the South Annex of building 3453 for SPINSTRAS, the Contractor shall sequentially renovate facility room(s) and ancillary support spaces including corridors in building 3453 then Goodfellow AFB will sequentially vacate SPINSTRAS offices currently in building 448 and relocate to the renovated South-Annex as the renovated spaces in building 3453 become available. Refer to Sequence of Work Table 1.4.1 below for additional information.

The Contractor shall perform all facility renovations/alterations necessary to modify existing facility building 3453 in accordance with the Construction Documents. During/or before site mobilization and prior to starting demolition and construction, the Contractor shall provide shop drawing submittals and have approved materials on-site, refer to Submittal Register (AF Form 66), ATTACHMENT B. Note as part of this renovation project to move SPINSTRAS to building 3453, South Annex rooms 227, 228 and 229A and 229B shall be secured with new Intrusion Detection Alarms (IDS). For additional information on IDS refer to para 1.5.9 below and ATTACHMENT C. Currently the South Annex of building 3453 does not have existing IDS alarms.

The following 'Sequence of Work' has been developed to allow the building to remain occupied during construction and to minimize impact to building occupants. The Contractor shall submit a management work plan outlining the sequence of work with the Contractor's methods of achieving this work within 21 calendar days after Notice to Proceed (NTP) for approval. This management work plan must be approved before the Contractor can commence any construction/demolition work. The management plan shall to enable Goodfellow AFB personnel to continue occupying building 3453 during this renovation project. This work plan shall include but not be limited to; demolition plan, proposed utility outages, coordination of all hot water & chilled water shut downs/startups to enable continual facility occupancy, power system upgrades, intrusion detection

system installation, communication systems installation, and lay-down areas and dumpster location(s).

The Contractor shall submit a Work Plan that fully describes the means to perform all work including but not limited to providing all equipment, tools, materials, supplies, transportation, supervision, management, proposed project schedules, work sequence plans, associated configurations for all demolition and new work including electrical, mechanical and communications infrastructure as described in the SOW. As part of the Work Plan, the Contractor shall provide site surveys, and other incidentals necessary to provide and test/commission all new electrical, mechanical and communication systems as described in this SOW.

**1.4.1 SEQUENCE OF WORK TABLE:**

Sequence	Room #	Additional Information
1	West – Rooms 118 and 125	Refer to Drawings
2	Main & North Annex – Rooms 155A/B, 163B, 178, 198, 199, 200, 203, and 211	Work on Rooms 163B, 198, 199, 200, 203, and 211 may begin 3 business days after completion of Room 118 (Sequence 1).  Work on Rooms 155 and 178 shall begin 7 calendar days after completion of the entirety of Sequence 1 to allow Goodfellow AFB time to relocate personnel/equipment.
3	South Annex – Rooms 216, 217, 220, 221, 223 A/B, 224, 225, 227, 228, 229 A/B, 234 and 237	Work on Sequence 3 shall begin 3 business days after completion of Sequence 2 to allow Goodfellow AFB time to relocate personnel/equipment. Goodfellow AFB will vacate the entire South Annex to the Contractor for the renovation work.

*Table 1.4.1 – Sequence of Work*

Sequence of Work Notes:

- a. Moving SPINSTRAS from Bldg 448 is Not in Contract: Goodfellow AFB will move SPINSTRAS furnishings and personnel from bldg. 448 to building 3453 South Annex.

- b. Goodfellow AFB will continue to use rooms 194, 196, 213, 214, and 215 during the renovation of the Sequence of Work #2, North Annex rooms.
- c. As rooms are completed per the above Sequence of Work, incremental final inspections will be conducted prior to Government acceptance. The Contractor shall be responsible for requesting a final inspection to TGC.
- d. At the contract final inspection, there will be a joint Government (Goodfellow AFB & TGC) Contractor inspection to include operational testing of all fire devices to ensure all facility fire detection systems are operable.
- e. Under no circumstances will Goodfellow AFB occupy or operate in any building areas under construction. At all times in Goodfellow AFB occupied building areas, the Contractor shall ensure all building utility systems (power, water, sewer, communications to include cable TV, telephone, internet) are operational. Also the Contractor shall ensure all building restrooms are accessible and usable at all times.
- f. All corridor/ lobby construction work shall be performed by the Contractor after normal business hours (1700 until 1200) and can be performed at any time during the contract. (Note: No later than the start of the following business day (0600) - all corridors must be cleaned, cleared and allow for safe access for Goodfellow AFB personnel) Prior to project construction start, the Contractor shall submit a construction plan and schedule; Goodfellow AFB will use the schedule to coordinate with all building occupants to vacate use of rooms/areas to allow the Contractor access for construction.
- g. Goodfellow AFB will provide additional information at the Contract Preconstruction meeting regarding procedures and scheduling of US Air Force escorts for all work to be performed after normal business hours as well as for all work performed in South-Annex rooms 227, 228 and 229 following commissioning of the new Intrusion Detection System. Refer to ATTACHMENT C for addition information.
- h. A “SPECIAL SECURITY INSPECTION” will occur in the South-Annex main Corridor once the corridor ceiling grid has been removed and prior to reinstallation. This will allow the eastern wall of Corridor to inspected by Goodfellow AFB Security personnel.
- i. All work in mechanical and electrical rooms can be accomplished at any time during the contract. Refer to para 1.5.11 for additional information on scheduling utility outages.

## **1.5 WORKING CONDITIONS:**

**1.5.1** Total contract performance period is 180 calendar days to complete all work.



**1.5.2** During the performance of the entire project, regular weekly progress/coordination meetings between the Goodfellow AFB personnel, Tom Green County and Contractor will occur. Meeting conference scheduling will be mutually determined by Goodfellow AFB and Contractor during the pre-construction meeting. Contractor shall record (in writing only) all meeting minutes and e-mail Tom Green County within 24 hours following the meeting.

**1.5.3** Facility 3453 is a mission essential fire training facility. During the entire duration of this contract, Goodfellow Air Force Base will continue to occupy portions of this facility not under construction and will continue fire training operations.

All adjacent facilities are also mission essential training facilities that will remain occupied during duration of this contract. The Contractor shall coordinate the work of all activities whereby both Goodfellow AFB and the Contractor can continue operations with the least possible interference and inconvenience. The Contractor shall conduct all work such that means of facility ingress and egress are maintained at all times for all surrounding buildings.

**1.5.4** Initial Site Mobilization: After the original contract Notice to Proceed (NTP), the first work performed by the Contractor shall be site mobilization to include such as tasks as mobilizing the Contractor yard (refer to drawings for site mobilization area), performing site surveys, material surveys, compiling submittals for approval and/or information, ordering materials to be available for the actual construction work, ordering long lead-time items and verifying dimensions. The Contractor shall have full access to building 3453, and all contract material and product submittals shall be submitted within first 21 calendar days of contract NTP. No actual new work or demolition shall be permitted during this period, only site surveys and submittals during the first 21 calendar days after NTP.

The Contractor shall fence-in and secure the lay down area. (Contract Mobilization Site as described on the drawings). This area shall provide for office space and material storage. New materials shall be secured and protected in this area. This fence shall be minimum 6'-0" high portable chain link with portable interlocking panels, pedestrian gate(s), and vehicular gate(s). Parking on turf is not permitted without prior written approval. Parking will be allowed adjacent to the designated mobilization/staging area in the Southwest lot adjacent to Building 3453/South Annex. The Contractor shall be allowed to bring in materials through a door located at the South entrance of the building.

Temporary Fencing and Barriers: Prior to the start of any construction work, the Contractor shall provide temporary orange warning fencing around the contractor mobilization area only and secure the lay-down area in accordance with Contractor's staging plan. Temporary fencing or barriers shall not hamper pedestrian / vehicular access nor existing to and from active occupied areas.

The Contractor shall submit within 21 calendar days after (NTP) a traffic and pedestrian plan showing pedestrian and traffic flow altered by construction/demolition and proposed alternate routing for approval by the Contracting Officer. Tom Green County must approve the plan before Contractor can commence any construction/demolition work.

There are no Goodfellow AFB furnished covered or secure storage areas. Limited storage may be permitted at the discretion of the Tom Green County and on a space available basis. If the Contractor requires additional temporary field office, storage, and other construction buildings required temporarily in the performance of the work, the additional space shall require written approval of the Contracting Officer. Plans showing temporary field office, storage, and other construction buildings shall be submitted by the Contractor for Government Approval (GA). Utilities at the storage area may or may not be available for Contractor use. Goodfellow AFB assumes no responsibility for lost or stolen materials, equipment, or tools, the security of which lies solely with the Contractor. Contractor shall keep their storage areas clean, neat, and orderly. Contractor shall mow grass and weedy vegetation when it reaches a height of 6 inches. Mowing shall be to a height of 3 inches. Mowing shall be accomplished with a rotary mower that leaves the clippings evenly distributed on the soil surface. Mowing shall be accomplished during periods and in a manner that the soil and grass will not be damaged. Towed or self-propelled riding mowers shall not be operated within 3 feet of shrubs or trees. Contractor shall mow areas adjacent to shrubs and trees with hand propelled mowers. Temporary fencing used by the Contractor to delineate construction sites shall be securely anchored with tension wires and posts as required to prevent sagging and an unsightly appearance. Fencing shall be maintained by the Contractor in this manner throughout the life of the contract. Due to high winds in west Texas, Contractor shall take every precaution to preclude trash and materials from blowing off site.

**1.5.5** All construction work shall be sequentially performed as described in the above 'SEQUENCE OF WORK' Table 1.4.1. Also, there will be three (3) business day lead time/transition period between each of the construction work sequences (before start of work and after completion of each sequence of work) to allow Goodfellow AFB to vacate each existing portion of the facility in its entirety as well as return to a completed area before starting the next Sequence of Work, unless otherwise noted.

The Contractor shall perform no new work or demolition for this project during these transition periods, unless otherwise noted above in the SEQUENCE OF WORK Table 1.4.1.

**1.5.6 Removal of Building Furnishings: Disassembly and Disposal:** All furnishings identified for removal and disposal shall become Contractor salvage and removed from Goodfellow AFB. Refer to drawings for additional information.

**1.5.6.1** The Contractor shall disassemble and dispose of all furnishings listed above once Goodfellow AFB personnel have vacated the respective portion of facility 3453, per SEQUENCE

OF WORK Table 1.4.1 above. (Note: Goodfellow AFB personnel will be responsible for moving all electronics, training equipment, and personal items)

**1.5.6.2** Goodfellow AFB does not have any on-base storage. Under no circumstances shall any demolition occur until all room furnishings have been disassembled and proper disposal has occurred.

**1.5.6.3** The Contractor shall not disassemble, move and dispose of any furnishings in the the next Work Sequence until after completion of the final inspection for each completed Work Sequence IAW Table 1.4.1 above.

**1.5.7** All facilities will remain open during construction. The Contractor must coordinate his work schedule with Goodfellow AFB to ensure minimal disturbance to the facilities. At all times, the Contractor shall exercise care to reduce noise and ensure safe construction activities while minimizing disturbances. Refer to para 1.12 below for Contractor daily cleanup responsibilities. Normal Goodfellow AFB business hours for the facility are 0700 until 1700 (Monday thru Friday), and the facility building 3453 is normally closed during weekends. Refer to para 1.5.12 for additional information on weekend work.

**1.5.8** The Contractor shall be responsible for providing suitable, approved signs, barricades, roped barriers, etc., to warn occupants of hazardous areas at the job site for the entire duration of the contract at no additional cost to the contract. Under no circumstances shall the Contractor open cut the existing “troopwalk”. Also, the Contractor shall ensure safe pedestrian/troop marching access at all times.

**1.5.9** Intrusion Detection System (IDS) Security Alarms: The Goodfellow AFB security alarm system is “ADVANTOR SYSTEMS”, refer to ATTACHMENT C for IDS Security Alarm Commissioning Checklist. Following installation and commissioning of the new security alarms in the South Annex, (refer to Sequence of Work 1.4.1), the system shall remain in operation at all times. After IDS installation and commissioning, at no time shall the Contractor de-alarm any security alarm entry/exit points without prior Goodfellow AFB approval and in the presence of the Goodfellow AFB (Security Forces Squadron, 17 SFS/S5) personnel.

All work performed related to installing new IDS and connecting to the IDS system shall be done by either the installation Contractor “ADVANTOR Systems Corporation” or by an “ADVANTOR” approved Contractor, so as not to void the warranty of the existing IDS installation.

Prior to the start of building security alarm installation, the Contractor shall provide a 3 business day written notification to Goodfellow AFB of the intended/requested start date to install/alarm/commission security alarms card readers. Following IDS alarm

installation/commissioning, access to the South-Annex facility shall require Goodfellow AFB escorts at all times for work in the SPINSTRA offices in building 3453.

The new IDS system shall have an 8 hour battery emergency backup uninterruptable power supply (UPS). In the event of commercial power failure at the protected area, the IDS equipment shall change power sources without causing an alarm indication. Provide new IDS monitoring station and devices with tamper protection to prevent unauthorized modification. All secure rooms shall be clearly distinguishable from other rooms to facilitate a priority response. Prior to installation of new IDS, the Contractor shall submit IDS shop drawings with product information, operational capabilities and proposed IDS device locations as described on the drawings.

The Goodfellow AFB will provide additional information at the Contract Preconstruction meeting regarding IDS procedures and scheduling of escorts.

**1.5.10** Goodfellow AFB entry/egress for all work: The Goodfellow AFB entry/egress point to the building will be all doors except South Annex SW doors nearest to the Contractor mobilization area as shown on project drawings. All building fire exit/egress doors shall be maintained/functional at all times.

Contractors shall take effective measures to reduce false fire alarms, i.e. Coordinating with 17 CE Alarm Shop and 17 CES/CEF Prevention Office, minimizing dust as well as covering and protecting fire detection systems such as smoke and heat detectors as well as duct detectors.

Contractor entry/egress shall vary by each Sequence of Work and the Contractor shall submit a Work Plan that identifies their proposed entry/egress doors for both the Contractor and Goodfellow AFB. Refer to para 1.14 for additional information.

**1.5.11** In accordance with the Utilities para 1.15, the Contractor shall submit written notification regarding any and all utility outages to the Tom Green County and Goodfellow AFB 14 calendar days in advance of the proposed outage. All water, power, fire system or communication outages must be scheduled for weekends or after normal duty hours.

The Contractor shall have the responsibility to prevent freezing of utility lines and stoppages in sanitary sewer lines during construction/demolition operations. Upon completion and prior to final inspection, the Contractor shall flush all lines and prove flow through the lines.

**1.5.12** For all work that shall be accomplished on a weekend, a (3) business days advance written request seeking permission to work on the weekend shall be submitted to the Contracting Officer. This request shall specify the amount of time and number of workers necessary to accomplish the work.

Goodfellow AFB will provide escorts for all weekend and after business hours (night work).

**1.5.13 Indoor Air Quality:** All interior spaces shall be properly ventilated to comply with all applicable OSHA Regulations, and the Contractor's safety plan required by this contract SOW. The Contractor shall minimize dust particles during construction operations to the best of his ability. The Contractor shall submit a management plan prior to start of work to ensure full compliance with OSHA and US Army USACE Health and Safety Manual EM 385-1-1.

**1.5.14** Refer to ATTACHMENT I, Project Closeout Checklist: The Contractor shall complete this checklist prior to the completion of all work. Tom Green County and Goodfellow AFB will only accept Beneficial Occupancy Date (BOD) after approval/acceptance of all checklist items, unless otherwise noted as not applicable to the work. For all drinking water disruptions, refer to Utilities 1.15.

**1.5.15 Notification:** The Contractor shall cease work and immediately notify the Tom Green County upon the suspected discovery of lead based paint, asbestos containing material and regulated waste material, not identified in this contract, thought to be hazardous to workers or personnel in the area.

## **1.6 STORAGE OF MATERIALS:**

The Contractor shall not work or store materials in a manner that would hinder or otherwise block pedestrian circulation to exit corridors and exit doors in the event of an emergency or fire. If space allows, materials already submitted/approved by the TGC may be stored at the job site as coordinated with and approved by the Tom Green County Contracting Officer. If additional storage space is needed, the Contractor shall submitted a request along with a single line diagram describing additional needed space. In all instances, the Contractor shall be responsible for the security, storing and preparing of materials in the manner specified herein, or by the manufacturer's instructions, so that materials are properly suited for installation. Off-site acclimatization of materials shall be at no additional cost to the contract.

## **1.7 POSTING OF WARNING SIGNS:**

The Contractor must give notification of proposed work to areas 14 days in advance. The Contractor shall post signs at all principal entrances of pending within. These signs will remain in place, and a will remain in effect until the Tom Green County has accepted the contract work.

## **1.8 TOILET FACILITIES:**

There are no toilet facilities available for Contractor use. Contractor shall provide their own portable/temporary toilet facilities. Location of portable toilet facilities shall be the Contractor Mobilization/and or Storage area.

**1.9 WORK SCHEDULE:**

Working hours for the Contractor will normally be between the hours of 0700 and 1700, excluding Saturdays, Sundays, and Federal holidays. The Contractor must submit their work schedule request to the Tom Green County in writing fourteen (14) calendar days in advance for approval to work outside normal working hours. If personnel are reasonably available, the Tom Green County may authorize the Contractor to perform work during periods other than normal duty hours/days. If such work is required Contractor shall submit request in writing to Tom Green County a minimum of 72 hours in advance.

Federal Holiday		Observed
New Year's Day	01 Jan	1 Jan 18
Martin Luther King's	3rd Monday in	15 Jan 18
President's Day	3rd Monday in	19 Feb 18
Memorial Day	Last Monday in	28 May 18
Independence Day	4 Jul	4 Jul 18
Labor Day	1st Monday in	3 Sep 18
Columbus Day	2nd Monday in	8 Oct 18
Veterans Day	11 Nov	12 Nov 18
Thanksgiving Day	4th Thursday in	22 Nov 18
Christmas Day	25 Dec	25 Dec 18

Any Holidays falling on a Saturday will be observed the preceding Friday. Any Holiday falling on a Sunday will be observed by Goodfellow AFB the following Monday. Note, 2019 will follow a similar schedule. The base could be closed because of security problems, adverse weather, or other events. Unless otherwise notified by Tom Green County, the Contractor should monitor local television stations, radio stations, or Goodfellow AFB's Facebook page for notification of a possible base closure or late opening. The Contractor may not receive any other form of notification of a base closure, unless contacted by the Tom Green County (TGC). The Contractor is responsible for notifying his/her employees. Contractor(s) do not report when the base is closed due to security problems and/or adverse weather.

**1.10 SAFETY:**

All Contractor operations shall be conducted and performed in accordance with Department of Labor, OSHA requirements found in 29 CFR 1910 (1910.146 and 1910.147) and 29 CFR 1926, and US Air Force Occupational Safety & Health (AFOSH) AFOSH standards including AFI 91-203, US Air Force Consolidated Occupational Safety Instruction. The Contractor shall also ensure that all work is performed in accordance with project identified national standards, military manuals, instructions, pamphlets, standards, and handbooks, and with the edition in effect on the date of this solicitation of the Corps of Engineers (COE) Safety Manual EM 385-1-1. All job sites are subject to inspections by the Department of Labor. In the event of conflicts between the OSHA standards and these requirements, the most stringent shall apply.

### **1.10.1 WORKER'S COMPENSATION LAWS:**

All companies who conduct business within the state of Texas must, in accordance with Texas Worker's Compensation laws (Texas House Bill 62), have an approved company safety policy and an Accident Prevention Plan. The plan, approved by the Texas Worker's Compensation Commission (TWCC), shall be submitted For Information Only (FIO) in accordance with paragraph, SUBMITTALS. In addition to meeting the TWCC requirements; the plan must also include the requirements of COE Safety Manual EM 385-1-1.

### **1.10.2 CONSTRUCTION SAFETY PLAN:**

Contractor shall furnish a Construction Safety Plan in accordance with the SOW as well as a Project Schedule prior to the start of construction. The Safety Plan shall identify the following items:

- a. Proposed access points, staging area and haul routes.
- b. Temporary markings to be used, if any (detours, exiting, etc.).
- c. Locations and types of barricades or other traffic (pedestrian and vehicular) control devices.
- d. Methods by which the Contractor will communicate with the 17th CES.
- e. Procedures and Policies for emergencies and accidents.

### **1.10.3 VIOLATIONS OF SAFETY & HEALTH STANDARDS:**

Resolution of Department of Labor citations for violations of Occupational Safety and Health Standards is a Contractor responsibility and shall provide for no basis of a claim against the Goodfellow AFB and Tom Green County.

### **1.11 TOBACCO USE IN AETC FACILITIES:**

Contractors are advised that the Commander has placed restrictions on the smoking of tobacco products in AETC facilities. AFI 40-102, Tobacco Use in the US Air Force, outlines the procedures used by the commander to control smoking in our facilities. Contractor employees and visitors are subject to the same restrictions as US Air Force personnel. Smoking is permitted only in designated smoking areas. Additional information, to include locations of designated smoking areas, will be provided to the Contractor at the pre-performance conference.

### **1.12 SITE MAINTENANCE AND CLEANUP:**

#### **1.12.1 SITE MAINTENANCE:**

The Contractor shall protect adjacent property, buildings and their contents from dust, dirt or other materials. Work areas shall be maintained in a neat, clean, and safe condition and shall, at a minimum, be cleaned at the end of each shift and as required. All streets and roadways in/or adjacent to the site shall remain clean and free of project generated trash and debris at all times.

### **1.12.2 DAILY CLEANING:**

The Contractor shall keep the site and all areas of building 3453 free from debris at all times and shall perform daily cleaning and as directed of all areas.

### **1.12.3 CLEANUP:**

The Contractor shall collect any and all trash, debris, refuse, garbage, etc., that is generated from daily work, and as requested and place it in appropriate containers with lids or approved covers on a periodic basis or as directed by the Contracting Officer's Representative /and or/ The Tom Green County Construction Manager. The aforementioned materials shall be hauled from the site by appropriate means on a daily basis, unless otherwise approved by the Contracting Officer's Representative /and or/ The Tom Green County Construction Manager. Disposal shall be outside the limits of Goodfellow AFB property. Disposal shall be by sanitary landfill or other approved methods and shall conform to all local, state, and Federal Laws, guidelines, criteria, and environmental regulations. Upon completion of the work, the Contractor shall leave the work site and storage area(s) in a clean, neat, and workmanlike condition satisfactory to the Contracting Officer. If any destructive demolition to existing walls, ceilings, floors or infrastructure was necessary for the installation of new work all existing entities shall be remedied and brought back to its original condition post systems installation.

### **1.13 WARRANTY:**

The Contractor shall identify all items being installed that are guaranteed or under warranty for more than a one-year period, and provide validated copies of the manufacturer's warranty. All warranty information shall be filed by the Contractor in the name of Goodfellow AFB. All warranties shall be identified by product with a listing of the name and address of the company and the expiration date of the guarantee or warranty.

### **1.14 DELIVERY, STORAGE, AND PARKING:**

All equipment and materials delivered or stored shall be protected from the weather, humidity and temperature variation, dirt and dust, and any other contaminants, in accordance with the manufacturer's guidance.

#### **1.14.1 STORAGE AREAS:**

All project storage areas shall be kept free of debris, leaks, stains, or splashes and kept in a neat, clean, and safe condition. Any contamination of the storage area by a hazardous substance shall be immediately remedied by the Contractor, in accordance with PART 2.0 above at no additional expense to the Goodfellow AFB and Tom Green County. All paints, thinners, and other hazardous materials shall be secured when not in use. Refer to drawings for additional information on Contractor storage.



## **1.15 UTILITY OUTAGES AND SPECIAL CONDITIONS:**

**1.15.1 Permits/Certifications:** All Federal, State and Local Jurisdictional required trade certifications are the responsibility of the Contractors and or Sub-Contractors. All Contractors, Sub-Contractors requiring Certification by their particular trades, shall have all certificates up to date and current.

### **1.15.2 Base Civil Engineer Work Clearance Request:**

The Contractor shall obtain and process AF Form 103 for approval prior to commencement of work for this project. Due to the requirement for multiple agencies to coordinate, it takes approximately 14 days for processing of the paperwork. Contractor requests should be submitted at the earliest possible date to preclude delays. AF Form 103 are required prior to any infrastructure digging on site. It is suggested if digging is anticipated that the Contractor maintain a dated photo-log of all flagging of existing utilities for future reference.

## **1.16 UTILITY OUTAGES:**

When a utility outage (including security and communication alarm systems) is necessary to perform the contract work in an occupied facility, regardless of whether the work area is occupied, the outage shall be performed by the Contractor during non-duty hours at no additional cost to the contract, unless otherwise approved by the Contracting Officer. The Contractor shall notify 17th Civil Engineer Squadron Service Call (325-654-3436) of outage requirements to include buildings affected; length of outage; and reasons for the outage. The Contractor must allow affected occupants a minimum of fourteen calendar days' notice prior to outage. The Contractor is also required to provide the Tom Green County a written notification of the requested outage.

For all drinking water disruptions and new construction, the Contractor shall adhere to 30 TAC 290 Subchapter D paragraph 290.46(g and j). Submit Drinking Water Analysis Report and a "Drinking Water Customer Service Inspection checklist" via an AF Form 3000 for Tom Green County Approval. Contact Goodfellow AFB Bioenvironmental Engineering at 325-654-3126 prior to restoring drinking water service.

## **1.17 UTILITIES CONSERVATION:**

The Contractor shall instruct employees in utilities conservation practices. The Contractor shall be responsible for operating under conditions that preclude the waste of utilities, which shall include: Lights shall be used only in areas where and when work is actually being performed or where safety concerns necessitate lights to stay on. The Contractor shall not adjust mechanical equipment controls for heating, ventilation, and air conditioning systems. Water faucets or valves shall be turned off after the required usage has been accomplished. The Contractor shall not abuse the use of base telephones. Telephones shall be used for contract related issues only. The Contractor shall use good judgment in the conservation of US Air Force utilities. Prevailing energy conservation practices shall be adhered to and enforced by the Contractor.

### **1.18 BASE FIRE REGULATIONS:**

The Contractor shall comply with Base Fire Regulations as set forth in the latest edition of GAFB Instruction 32-2001, titled "Base Fire Protection Program". The Contractor shall use no explosives in performing the work. All work shall be in strict compliance with NFPA-101. Contract SOW must reference the USACE Safety and Health Manual EM-385-1-1 and NFPA 241 and must contain the requirement that the Installation's fire regulations be followed. All work shall be in strict compliance with NFPA-101.

#### **1.18.1 Welding, Cutting and Brazing:**

The Contractor shall contact 17 CES/CEFT (Fire Prevention) for a complete inspection of all welding, cutting, and brazing operations prior to any operation. The Contractor shall provide an appropriate operable fire extinguisher. Contractor shall comply with OSHA Standard 29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements) and AFI 91-203 US Air Force Consolidated Occupational Safety Instruction, Chapter 27. An AF Form 592 USAF Welding, Cutting and Brazing permit will be issued prior to any operation and shall be kept on site till completion of operation or permit expires. Contact Fire Prevention at (325) 654-3532/33/34 for issuance of permit.

### **1.19 TESTING:**

Costs of all tests, unless specifically indicated as being performed by Goodfellow AFB, shall be at the Contractor's expense. The Contractor shall schedule all tests and notify the Tom Green County or his/her representative in a timely manner prior to any required testing. All test results shall be submitted to the Tom Green County on AF Form 3000, Material Approval Submittal. Where test reports are to be submitted to the Tom Green County within 24 hours after the tests are performed, the results may be faxed to the Tom Green County at a number provided at the preconstruction conference. Testing laboratories must be licensed to operate in the State of Texas.

### **1.20 REFERENCES:**

All publications listed herein shall be the most current editions in effect at the time of solicitation and form a part of this Statement of Work. The publications are referred to in the text by basic designation only and include the following:

#### **AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)**

ANSI S3.41 Audible Emergency Evacuation Signal

#### **AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)**

E985 Permanent Metal Railing Systems and Rails for Buildings

#### **FACTORY MUTUAL ENGINEERING AND RESEARCH (FM)**

FM P7825a Approval Guide Fire Protection

**INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)**  
IEEE C62.41 Surge Voltages in Low-Voltage AC Power Circuits

**GAFB INSTRUCTION**

GAFBI 32-2001 Goodfellow AFB Base Fire Protection Program

**USACE**

US ARMY COE (USACE) Health and Safety Manual (EM 385-1-1)

**INTERNATIONAL BUILDING CODE (IBC)**

**OCCUPATIONAL SAFETY & HEALTH (OSHA)**

OSHA Standard 29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements)

OSHA requirements found in 29 CFR 1910 (1910.146 and 1910.147) and 29 CFR 1926

**INTERNATIONAL PLUMBING CODE (IPC)**

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**

NFPA 13 Fire Sprinkler Standard

NFPA 70 National Electrical Code (NEC)

NFPA 72 National Fire Alarm and Signaling Code

NFPA 75 Standard for Fire Protection of Information Technology Equipment

NFPA 96 Standard for Ventilation Control and Fire Protection

NFPA 99 Electrical Resistance Testing

NFPA 101 Life Safety Code

NFPA 1221 Installation, Maintenance and Use of Public Fire Service  
Communication Systems.

NFPA 90A Installation of Air Conditioning and Ventilating Systems

**UNDERWRITERS LABORATORIES (UL)**

UL 1242 Intermediate Metal Conduit

UL 1971 Signaling Devices for the Hearing Impaired

- UL 228 Door Closers-Holders, With or Without Integral Smoke Detectors
- UL 268 Smoke Detectors for Fire Protective Signaling Systems
- UL 268A Smoke Detectors for Duct Application
- UL 38 Manually Actuated Signaling Boxes for Use with Fire-Protective Signaling Systems
- UL 464 Audible Signal Appliances
- UL 521 Heat Detectors for Fire Protective Signaling Systems
- UL 6 Rigid Metal Conduit
- UL 632 Electrically-Actuated Transmitters
- UL 797 Electrical Metallic Tubing
- UL 864 Control Units for Fire Protective

## **US AIR FORCE**

- AFI 32-7086 Hazardous Materials Management
- AFI 40-102 Tobacco Free Living
- AFI 91-203 US Air Force Occupational Safety Instruction

### **1.21 SUBMITTALS:** Refer to ATTACHMENT B, AF Form 66 Submittal Register.

The Contractor shall provide submittals in the form of manufacturer's data, certificates of compliance, shop drawings and samples for all items provided and installed per the attached AF Form 66. The Contractor will not be permitted to perform any work on site without approved submittals. The submittals listed on the attached AF Form 66 shall be required and shall be submitted for Approved (GA) or For Information Only (FIO). Use AF Form 3000 to process submittals. Submit four copies of submittals to Tom Green County Contracting Officer. Draft DD 1354 due 14 days prior to final inspection. Execute DD Form 1354 Checklist and submit to Tom Green County at final inspection.

#### **1.21.1 SHOP DRAWINGS:**

The requirements for the shop drawings for the REPAIR RENOVATE BUILDING 3453 to SUPPORT "SPINSTR" MOVE PROJECT # 1060124 reporting system are as follows: all shop drawing submittals shall follow requirements listed ATTACHMENT B, AF Form 66 Submittal Register.

### **1.22 DEMOLITION: Submit Demolition Work Plan**

Items to be included in the demolition shall consist of but not limited to the careful removal and disposition of materials as described on the drawings. The Contractor shall recycle or divert construction wastes from landfill disposal to the maximum extent practicable. The Contractor shall track recycling and waste disposal and submit the report on the provided construction Waste Management Form for Approval at the end of the project, and prior to final acceptance of the work. The Contractor shall, before commencement of any work, carefully survey the existing site to determine the extent of the work. Record of such survey should be annotated, date photographed and filed in a secured fire file. The Contractor shall take all necessary precautions to ensure against damage to existing work that remains in place, or that remains the property of the US Air Force. Any damage to the aforementioned shall be repaired or replaced by the Contractor at no additional cost to the contract or the Goodfellow AFB. The Contractor shall be responsible for the proper disposal of all other materials including protection of all existing fire control devices and cabinets, meeting all rules pertaining to the disposal of such products. The work includes removal of vinyl/fabric wallcovering, demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from US Air Force property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible; salvaged items and materials shall be disposed of as specified.

### **1.23 Repair of Surfaces:**

All surfaces should be in good condition before painting. Cracks, holes, and other defects shall also be repaired. Repairs shall be made prior to painting to avoid premature failure of the new paint. Rotten wood, broken siding, and other deteriorated substrates must be replaced or repaired prior to maintenance painting. Water associated problems, such as deteriorated roofs and non-functioning drainage systems, must be repaired prior to coating. The entire wall shall be painted to ensure full color consistency. Interior moist spaces, such as bathrooms and showers must be properly vented. The Contractor shall submit a Work Plan prior to performing the work.

### **1.24 AS-BUILTS:**

**1.24.1 Historical As-Builts:** Upon request, Goodfellow AFB will provide historical as-built drawings of building 3453. Note, all as-built information shall be field verified by the Contractor.

**1.24.2 Final Construction Contract As-Builts:** The Contractor shall maintain two sets of construction project drawings with red-line "as-built" notations and markings. As-built red-lines are required to be updated and maintained as soon as changes occur on the site. Prior to the final inspection, the Contractor shall copy and submit the red-lined changes in a CADD software that is

fully compatible with Autodesk's AutoCAD Release 2014 (or greater) software. At Final Inspection, the Contractor shall submit these AutoCAD files and PDF copies on a single CD-ROM under the cover of an AF Form 3000. The CD-ROM label shall contain, at a minimum, the following information: (1) Brand and version of the CADD software used to generate the drawing files, (2) Short description of the contents including a cross reference of the drawing file names on the CD and the project drawings sheet sequence numbers or sheet titles, (3) Statement marking the CD-ROM as "as-built" drawings, and (4) any directions required to open files. Upon written request from the Contractor, Goodfellow AFB will provide CADD design drawings.

**1.25 COMMUNICATIONS SYSTEMS:** Refer to ATTACHMENTS D, E & F.

**1.25.1** Not Used.

**1.25.2** All existing communications systems shall remain the property of the US Air Force. All existing communication equipment work will be sole responsibility of the US Air Force.

**1.25.3 COMMUNICATION WORK PLAN:** The Contractor shall submit a Work Plan that fully describes the means to perform all Communications work in accordance with Attachments D, E and F as described in the SOW and drawings.

**1.26 FIRE:**

**1.26.1 FIRE PROTECTION WORK PLAN:** The Contractor shall provide a licensed Professional (PE) Fire engineer to verify and submit shop drawings for the re-configuration of existing sprinkler system, adjustments to fire sprinklers and for new fire sprinkler heads.

Per NFPA, Fire Suppression testing shall be completed prior to completion and acceptance of each Sequence of Work. Tom Green County and the Goodfellow AFB will only accept the construction work after approval/acceptance of all NFPA checklist items, unless otherwise noted as not applicable to the work.

The Contractor shall provide a minimum of (3) business day written notice to the Contracting Officer for inactivation of fire sprinkler risers. All work by the Contractor on the fire suppression system shall be accomplished on weekends and all work shall be performed in a manner to minimize the time the area is without protection. After approval of shut down, the Contractor shall modify/relocate sprinklers and piping as indicated on drawings. Immediately after head relocation and all required testing has been passed and approved, sprinkler system shall be returned to service. The Contractor shall drain risers back to point at which system is "dry" and isolated IAW NFPA. The Contractor shall isolate with sectionalizing valves, provide appropriate drains and flow & tamper switches on all risers. The fire suppression system shall then be returned to full service.

**1.26.2 FIRE ALARM SYSTEM:** The installation/adjustments of fire alarm system devices must be certified by a licensed professional possessing a current Texas Alarm Certificate of Registration (ACR). A copy of this certificate shall be submitted. Prior to performing any work or disconnecting or shutting off any fire alarm system, the Civil Engineer Alarms shop at 325-654-3436 and Fire Protection 325-654-3532/33/34 shall be notified by the Contractor. After completing work on any fire protection alarm system, the proper completion documents and/or inspection and test documents, shall be completed and submitted to the Contracting Officer, that comply with NFPA 72, NFPA 13, NFPA 96, or NFPA 24 as applicable.

Refer to NFPA, all Fire Alarms/Smoke Detector/Heat Detectors shall be demonstrated/fully operational prior to completion/acceptance of the work.

### **1.27 CONFINED SPACES:**

**1.27.1 Confined Spaces:** In accordance with US Air Force Occupational Safety & Health Standard. 91-25, Ch. 7, the organization shall ensure the following information is included in the SOW (or equivalent contracting tool) when a Contractor enters a confined space:

- a. Notify the Contractor if the space is classified permit or non-permit required.
- b. Brief Contractor on the contents of the space.
- c. Brief Contractor on the known hazards of the space.
- d. Brief the Contractor on what precautions and procedures have been implemented by the organization to protect AF workers.
- e. Coordinate operations and procedures and agree on permit system to be used if both AF and Contractor personnel will enter the space at the same time.

The Base Fire Department will coordinate (document) on the contract if they are supplying a rescue team.

The Contractor will follow all requirements outline in OSHA Std. 1910.146.

All operations involving entry into confined spaces are performed by the Contractor and shall meet the requirements of OSHA 29 CFR 1910.146, AFOSH Std 91-25 (may be viewed at the website <http://www.e-publishing.af.mil/shared/media/epubs/AFOSHSTD91-25.pdf>), shall be briefly described during the pre-construction meeting with the Contracting Officer, and specifically comply with the following:

- a. All entry supervisors, attendees, and confined space entrants shall have been properly trained in the safety hazards, proper use of Personal Protective Equipment (PPE), entry procedures, and self-rescue. Records of this training must be readily available.
- b. Entry supervisors shall maintain a Master Entry Plan (MEP) consisting of:
  - (1) Descriptions of confined spaces to be entered including location, classification, and acceptable entry conditions.
  - (2) Designation of authorized entry supervisors, entrants, and attendees.
  - (3) Identification of the types of tasks to be performed in the confined space including duration.
  - (4) Procedures for entry and emergency rescue.
  - (5) Identification of Personal Protective Equipment (PPE), communication equipment, rescue equipment, testing equipment, and monitoring equipment; conditions under which they will be used; and verification of condition of equipment.
  - (6) Designation of frequency and type of atmospheric monitoring.
  - (7) Designation of controls required (e.g., lockout/tagout, ventilation, etc.).
  - (8) Procedures for communication during confined space operations.
- c. All AFOSH Std 91-25, chapter 7 requirements will be met and documented. If both Contractor and Goodfellow AFB personnel will be accomplishing confined space entry, all procedures (permits required, operations plan, and procedures) shall be documented by the Entry Supervisor prior to operations. Goodfellow AFB will brief known hazards and the Fire Chief will approve or disapprove rescue.
- d. All confined spaces shall be tested by a qualified person using a properly calibrated monitor for percent oxygen, lower explosive limit (LEL), and toxicity each time before entry and periodically during operations that have the potential to alter atmospheric conditions.

### **1.28 LOCKOUT/TAGOUT, HAZARDOUS ENERGY CONTROL:**

Lockout/Tagout: In addition to the requirements in OSHA Std. 1910.147, if a Contractor needs to lock or tag something out, the Contractor will ensure that affected employees are notified before and after the locks and tags are used.

### **1.29 OPERATIONS SECURITY (OPSEC) REQUIREMENTS:**

The purpose of OPSEC is to reduce the vulnerability of US Air Force missions by eliminating or reducing successful adversary collection and exploitation of critical or sensitive information. OPSEC applies to all activities that prepare, sustain, or employ forces during all phases of operations. OPSEC is a process of identifying, analyzing and controlling critical and sensitive information indicating friendly actions associated with military operations and other activities to: 1) identify those actions that can be observed by adversary intelligence systems; 2) determine what specific indications could be collected, analyzed, and interpreted to derive critical or sensitive information in time to be useful to adversaries; 3) select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation.



Organizations and personnel supporting the 17th Training Wing have OPSEC requirements associated with their activities and support. The Contractor will comply with the 17th Training Wing OPSEC Program and during the construction contract pre-construction meeting further information will be provided by Goodfellow AFB on the OPSEC Program. The basis for the OPSEC program is AFI 10-701.

**1.29.1 SPECIFIC REQUIREMENTS:**

The Contractor is susceptible to OPSEC assessments, surveys or any other evaluation tool available for the Wing OPSEC Program Manager or subordinate OPSEC Coordinator to use in order to gauge the effectiveness of the overall program.

**END OF SOW PART 1 – SCOPE OF WORK**

## **PART 2 – ENVIRONMENTAL REQUIREMENTS:**

### **2.1 COMPLIANCE WITH LAWS:**

Construction activities are NOT exempt from air emission, storm water, hazardous waste, and other environmental compliance rules and regulations. The Contractor shall comply and ensure that all Sub-Contractors comply with all applicable federal, state, and local jurisdictional laws, regulations, ordinances and standards related to environmental matters. The Contractor shall also comply and ensure that all Sub-Contractors comply with all specific instructions or directions given to the Contractor by Goodfellow AFB regarding environmental matters.

### **2.2 HAZARDOUS AND SPECIAL WASTES GENERATED BY THE CONTRACTOR:**

The Contractor shall identify, characterize, containerize, store and dispose of hazardous wastes in strict accordance with federal guidelines found in the Code of Federal Regulations, Title 40 (40 CFR) parts 260-270, state regulation 30 TAC 335, all local guidelines, and as specified. A Uniform Hazardous Waste Manifest shall be used by the Contractor to document all parties and locations involved in the transportation, storage and disposal of all hazardous and special wastes. This form shall be provided to Goodfellow AFB by the Contractor and signed by the Base Environmental Coordinator (17 CES/CEIE) before the waste is transported from the limits of US Air Force property. A copy of the manifest shall be signed by the receiver of the waste and submitted to the Tom Green County not later than forty-five days after disposal has taken place. Hazardous waste treatment, storage and disposal facility shall be located within in the state of Texas, permitted by the U.S. EPA, and approved by 17 CES/CEI.

### **2.3 CONTRACTOR ENCOUNTERED HAZARDOUS WASTE:**

The Contractor shall cease work and notify Goodfellow AFB and Tom Green County upon discovery of any suspected lead based paint, asbestos containing material and regulated waste material, not identified in this contract, thought to be hazardous to workers or personnel in the area.

### **2.4 ASBESTOS AND/OR LEAD BASED PAINT:**

Should the Contractor encounter/suspect previously unidentified Asbestos Containing Material (ACM) and/or Lead Based Paint that must be disturbed to comply with the contract documents, the Contractor shall cease all work which would disturb the suspect material and shall immediately notify the Contracting Officer.

#### **2.4.1 ASBESTOS CONTAINING BUILDING MATERIALS:**

Under no circumstances, under the provisions of this contract, shall the Contractor be allowed to provide asbestos containing building materials, or products containing encapsulated asbestos or mineral fibers as defined in the 40 CFR 61, National Emission Standards for Hazardous Air Pollutants of 1990, to GAFB. The Contractor shall provide a signed statement, accompanied by SDS sheets for project materials, from a licensed asbestos inspector or the project architect or engineer, proclaiming that no asbestos-containing building materials were used in the construction.

## **2.5 HAZARDOUS MATERIALS:**

The Contractor shall provide to the Tom Green County an AF Form 3000, Material Approval Submittal, listing all materials to be utilized during the contract. If any of the material is classified as hazardous materials in accordance with regulations and AFI 32-7086, the Contractor will submit an installation Contractor Hazardous Materials Usage Tracking Form for all material items with all supporting information as required for approval. This is to ensure that all hazardous materials used on the installation is tracked at a level sufficient to ensure Contractor compliance with local monitoring, determination, authorization, tracking, and to meet environmental reporting requirements and support fire protection, ESOH, and disaster response efforts. The Contractor must obtain authorization from the Tom Green County prior to bringing or using any hazardous materials on the installation.

The Contractor must supply up-to-date SDS for each requested items, that were listed as a hazardous material, as defined to be delivered under this contract. The hazardous materials shall be properly identified on the required request form and shall include any applicable identification number (such as part numbers, manufacturers name and any other special item number). This information shall also be included on the Safety Data Sheet submitted under this contract. The Contractor must maintain a file of all SDS. The Contractor shall submit for approval (via AF Form 3000) to the Tom Green County on a monthly basis, or at the end of the contract, as determined by the Contracting Officer, a Contractor Hazardous Materials Usage Tracking Form (2 copies) on the usage of all HAZMAT materials used within that reporting period. No chemicals, lubricants, oils, liquids or related materials shall be deposited in the refuse containers on base.

## **2.6 NUISANCE AND POLLUTING ACTIVITY PROHIBITED:**

Polluting, dumping, or discharging of any harmful, nuisance, or regulated materials (such as but not limited to concrete truck washout, vehicle maintenance fluids, residue from saw cutting operations, solid waste and hazardous substances) into building drains, site drains, streams, waterways, holding ponds or to the ground surface shall not be permitted and the Contractor shall be held responsible for any and all damages which may result. Further, the Contractor shall conduct work activities in such a fashion as to avoid creating any legal nuisance, including but not limited to, suppression of noise and dust, control of erosion, and implementation of other measures as necessary to minimize offsite impacts of work activities.

## **2.7 RELEASE OF FLUIDS TO THE SANITARY SEWER SYSTEM:**

Goodfellow AFB's sanitary sewer system discharges into the Publicly Owned Treatment Works (POTW) operated by the City of San Angelo, Texas. This POTW has established testing requirements for certain constituents as well as discharge limits of those same constituents. Accordingly, any Contractor performing work at Goodfellow AFB and contemplating a release of non-hazardous water into the sanitary sewer system shall meet the pretreatment standards and comply with the testing/release requirements established by the City of San Angelo. Contractor is also responsible for any and all testing, monitoring, measuring, documenting, etc. to prove

compliance with it. Contractor shall not discharge wastewater to base's sanitary sewer without prior approval.

## **2.8 AIR EMISSIONS:**

The Contractor shall submit air emission reports For Information Only (FIO), monthly and upon completion of the project, to the 17 CES/CEIEC.

## **2.9 CONSTRUCTION WASTE MANAGEMENT:**

At the end of the project, and prior to final acceptance, the Contractor shall submit a solid waste diversion report by completing the Construction Waste Management form identifying the materials and weights either recycled or diverted from solid waste disposal to other re-use as well as weights of waste disposed in a landfill.

## **2.10 ENVIRONMENTAL MANAGEMENT SYSTEM:**

Contractors on site supervisory personnel shall complete EMS Awareness Training. The Base Civil Engineer Installation Management Flight system administrator should be contacted at (325) 654-3456 or (325) 654-5946 for information and password to complete the 30-minute awareness training within 60 days of contract award or a new contract employee supervisor begins work. The training will be accomplished utilizing web-based Environmental, Safety, and Occupational Health Training Network (ESOHTN) available through any internet access at <http://esohtn.com/>. The training will be tracked online by the system administrator.

## **2.11 GREEN PURCHASING:**

Green Purchasing is a mandatory component of the pollution prevention program. The Under Secretary of Defense issued a policy memorandum "Establishment of the DoD Green Purchasing Program (GPP)" which states: "The DoD goal is to achieve 100% compliance with mandatory Federal GPP programs is all acquisition transactions." This document contains guidelines for implementing the RCRA, EO, DOD, and US Air Force requirements.

### **2.11.1 APPLICABLE ENVIRONMENTAL REGULATIONS AND LAWS:**

#### **The Resource Conservation and Recovery Act (RCRA)**

Section 6002 (42 U.S.C. 6962).

#### **Title 40, Code of Federal Regulations (CFR),**

Part 247 Comprehensive Procurement Guideline for Products containing Recovered Material.

#### **Executive Order (EO) 13693,**

Executive Order -- Planning for Federal Sustainability in the Next Decade.

#### **Energy Policy Act (EPACT).**

The Farm Security and Rural Investment Act (FSRIA).

## **2.11.2 EXEMPTIONS:**

### **2.11.2.1 EPA RECOMMENDATIONS:**

The U.S. EPA recommends minimum content levels for those items listed in the attached Construction Products Recovered Materials Form. These levels are mandatory for work at Goodfellow AFB, unless one of the following exemptions applies:

- a. The product is not available from a sufficient number of sources to maintain a satisfactory level of competition (i.e., available from two or more sources)
- b. The product is not available within a reasonable period of time.
- c. The product does not meet the performance standards in applicable specifications or fails to meet reasonable performance standards of the procuring agency.
- d. The product is not available at a reasonable price. For Goodfellow AFB, “unreasonable price” is defined as follows: If the price of the recycled-content product exceeds the cost of a non-recycled item, then the price is considered unreasonable.

### **2.11.2.2 CONTRACTOR RESPONSIBILITY:**

The Contractor shall complete the attached Construction Products - Recovered Materials Determination Form with respect to the work and products being provided. Contractor shall provide written documentation when items not meeting the minimum content levels are used. This documentation shall be forwarded to the Tom Green County via AF Form 3000 for Goodfellow AFB approval. In the event the documentation fails to support the Contractor’s findings, the Tom Green County shall return the documentation to the Contractor citing the reason(s) for disapproval.

## **2.11.3 EPA DESIGNATED ITEMS:**

### **2.11.3.1 CONSTRUCTION PRODUCTS RECOVERED MATERIALS FORM:**

A complete listing of the U.S. EPA-designated items can be obtained at the following website: <http://www.epa.gov/cpg/products.htm> Not all of these materials may be required in the construction of this project. Please refer to the drawings and SOW.

The Construction Products Recovered Materials Form shall be used to demonstrate compliance with the stated procurement requirements. Note, the Form shall be provided at the Pre-Construction (Precon) meeting.

### **2.11.4 INTENT:**

The intent of this section is to increase the use of GPP by all Contractors involved with this project.

#### **2.11.4.1 USE OF RECYCLED PRODUCTS:**

The various sections of the SOW contain references to products to be used in the construction of this project. The listed product may or may not be manufactured from or contain recycled materials. Therefore, all Contractors, Sub-Contractors, equipment suppliers, and material suppliers are responsible for compliance with this SOW and those items/products listed on the attached form. Recycled products shall be used wherever possible subject to the exemptions as per the paragraph entitled EXEMPTIONS.

#### **2.11.5 RECYCLED OR RECOVERED PRODUCTS:**

Those construction materials identified on the form at the end of this section.

#### **2.11.6 SOURCES OF INFORMATION:**

The following is a partial list of sources of information for compliance with GPP requirements:

Select Sources of Supply for Environmentally Preferable Products and Services

- GSA: <http://www.gsa.gov/environ>
- DLA: <http://www.dscr.dla.mil/catalogs/catalog.htm>
- Energy Star®: <http://www.energystar.gov/>
- JWOD: <http://www.nib.org/JWOD%20Catalog/index.html>
- UNICOR: [www.unicor.gov/about/erecycle.htm](http://www.unicor.gov/about/erecycle.htm)
- FEMP: [http://oahu.lbl.gov/cgi-bin/search\\_data.pl](http://oahu.lbl.gov/cgi-bin/search_data.pl)
- EPA: <http://www.epa.gov/oppt/epp/>

Green Procurement Program Product Listings

- CPG: <http://www.epa.gov/cpg>
- Bio-based: <http://www.biobased.oce.usda.gov/public/index.cfm>
- FEMP: <http://oahu.lbl.gov>
- Energy Star: [http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product](http://www.energystar.gov/index.cfm?fuseaction=find_a_product)
- Alternatives to Ozone-Depleting Substances:  
<http://www.epa.gov/ozone/snap/lists/index.html>
- For paints, carpet, office supplies, cleaners, and particle board:  
<http://www.greenseal.org/recommendations.htm>
- For construction projects: <http://www.epa.gov/opptintr/epp/tools/bees.htm>

**END OF SOW PART 2 – ENVIRONMENTAL REQUIREMENTS**

## **PART 3 – PRODUCTS:**

### **3.1 REFERENCES TO MATERIALS, MANUFACTURERS, AND PRODUCTS:**

Materials and equipment shall be the standard products of a manufacturer regularly engaged in the manufacture of the products and shall essentially duplicate items that have been in satisfactory use for at least 2 years prior.

#### **3.1.1 VERIFICATION OF DIMENSIONS AND CONDITIONS:**

The Contractor shall visit the premises to become thoroughly familiar with details of the work and working conditions, field verify all dimensions and advise the Tom Green County of any discrepancies before starting the work.

#### **3.1.2 DELIVERY OF MATERIALS:**

Contractor shall ensure delivery of all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

#### **3.1.3 STORAGE OF MATERIALS:**

Contractor shall store all materials subject to damage off the ground, away from wet or damp surfaces, and under sufficient cover to prevent damage or contamination.

#### **3.1.4 DAMAGED MATERIALS:**

Damaged or deteriorating materials shall not be used and shall be removed from the premises by the Contractor.

### **3.2 CONTRACTOR PROVIDED MATERIALS (CPM)**

As follows;

#### **3.2.1 MINOR ALTERATION:**

##### **3.2.1.1 GYPSUM BOARD:**

Contractor shall provide gypsum board assembly in accordance with ASTM C1396 and ASTM C1658 comparable to Georgia-Pacific Gypsum paper faced or equal. Provide products which are lead and chromate free for surface preparation during minor alterations.

Type X (Special Fire-Resistant) with 5/8 inch thick, tapered edges. IAW manufacturers directions, use all-purpose compound specifically formulated and manufactured to serve as both a taping and a finishing compound and compatible with tape, substrate and fasteners.

Use ASTM C 1002, Type "G", Type "S" or Type "W" steel drill screws for fastening gypsum board to gypsum board, metal framing members.

### **3.2.1.2 INTERIOR PRIMER AND PAINT:**

Provide interior paint on entire surface from Sherman Williams "Duration" or approved equal on all surfaces of disturbed walls (gypboard and CMU) with Interior Acrylic latex Egg Shell SW 6035 Gauzy White. On surface of disturbed ceilings, with Interior Acrylic latex Egg Shell SW 7000 Ibis White. Ensure products are appropriate for the substrates which they will affect, only apply products which are necessary to accomplish the desired result.

### **3.2.1.3 FIRE STOP:**

Provide fire stop around holes cut in wall or ceiling to seal air leakage and standardize the fire rating on the building assembly. Provide 3M Fire Block Foam FB – Foam or equal. Use Fire Stop/Caulk for all mechanical and electrical room penetrations, and as described in Summary of Work ATTACHMENT A.

### **3.2.1.4 SUSPENDED CEILING TILE/GRID:**

Comply with EPA requirements in accordance with PART 2 - ENVIRONMENTAL PROTECTION. Submit samples of each type of acoustical unit and each type of suspension grid tee section showing texture, finish, and color. Conform acoustical units to ASTM E 1264, Class A, and the following requirements: Contractor to remove/replace existing 2' x 4' ceiling tiles and grid, ceiling lights, light switches, exit signs, emergency battery packs, diffusers, and receivers throughout as described on the drawings.

New suspended grid ceiling system for all other areas shall be 2'x2' white ceiling tile equal to Armstrong ¾" Cirrus #577, fire resistive, tegular, beveled, tiles set in a suspension system equal to Armstrong Suprafine 9/16" white tees.

Provide standard overlapped corners. Suspended ceiling framing system must have the capability to support the finished ceiling, light fixtures, air diffusers, and accessories, as shown. Provide a suspension system with a maximum deflection of 1/360 of the span length.

#### **3.2.1.4.1 CEILING ATTENUATION CLASS AND TEST:**

Provide a ceiling system with an attenuation class (CAC) of 40 - 44 for when determined in accordance with ASTM E 1414. Provide fixture attenuators over light fixtures and other ceiling penetrations, and provide acoustical blanket insulation adjacent to partitions, as required to achieve the specified CAC.

#### **3.2.1.4.2 Not Used.**

#### **3.2.1.4.3 HANGERS:**

Hangers and attachment capable of supporting a minimum 300 pound ultimate vertical load without failure of supporting material or attachment.



### **3.2.1.5 ACCESSORIES:**

Exposed Mechanical Fastenings: flush countersunk screws in accordance with ASTM C1002. Contractor shall provide trim in accordance with ASTM C1047. Contractor shall provide galvanized or aluminum coated steel sheet with control joint. Use joint tape in accordance with ASTM C475 1-1/16 inch wide paper tape, and joint compound in accordance with ASTM C475, all-purpose ready mixed vinyl-based. Accommodate with control joints for expansion and contraction of members and building movement without damage to connections or members.

### **3.2.1.6 METAL FRAMING:**

Provide metal framing in accordance with ASTM C645. Use C-track, galvanized steel, 16 gauges, with H-studs, 16 gauge.

### **3.2.1.7 BATT INSULATION:**

Contractor shall provide batt insulation above 2' x 2' suspended ceiling panels for the following rooms; 155A, 155B, 216, 220, 221, 223, 224A, 224B, 225, 227, 228, 229, 238, and 239 in conformance with existing US Air Force standards. The Contractor shall provide 9.5 inch R 30 insulation Unfaced Continuous Roll 23 in by 25 ft. by Owens Corning or equal.

### **3.2.1.8 FLOOR COVERING: CARPET TILE & VTC**

#### **3.2.1.8.1 FLOOR COVERING – CARPET TILE:** Shaw or approved equal.

Carpet Application Classification to be as follows; Type IX – Administrative Areas/Classrooms/Libraries (Severe Wear) Modular Tile 24 by 24 inch square with 0.15 percent growth/shrink rate in accordance with ISO 2551. Pile Type: Level-loop.

Pile Fiber: Commercial 100 percent branded (federally registered trademark) nylon continuous filament or nylon staple, minimum 5 percent post-consumer or 20 percent post-industrial recycled content with 25 percent minimum total combined recycled content, minimum 85 percent bio based materials. Chemical treatments, including moth treatment, are permitted with written approval from the Contracting Officer.

Yarn Ply: Minimum 2.

Gauge or Pitch: Minimum 1/10 inch in accordance with ASTM D 5793.

Stitches or Rows/Wires: Minimum 11 per square inch.

Surface Pile Weight: Minimum 26 ounces per square yard. This does not include weight of backings. Determine weight in accordance with ASTM D 5848.

Pile Density: Minimum 6,000.

Dye Method: Solution dyed.

#### **3.2.1.8.1.1 FLOOR COVERING – ADHESIVE:**

Adhesive for installation of carpet shall be waterproof, nonflammable, and as recommended by the carpet manufacturer. Seam adhesive shall be waterproof, nonflammable, and non-staining as recommended by the carpet manufacturer. Provide adhesives for flooring, base and accessories as

recommended by the manufacturer and comply with local indoor air quality standards. VOC content shall be less than 50 grams/L. Submit manufacturer's descriptive data, documentation stating physical characteristics, and mildew and germicidal characteristics. Provide Safety Data Sheets (SDS) for all primers and adhesives to the Contracting Officer. Highlight VOC emissions

**3.2.1.8.2 FLOOR COVERING - VINYL COMPOSITION TILE:** Azrock or approved equal. Conform to ASTM F 1066 Composition 1, asbestos-free, 12 inch square and 1/8 inch thick. Provide color and pattern uniformly distributed throughout the thickness of the tile.

**3.2.1.8.3 FLOOR COVERING - STATIC-DISSIPATIVE VINYL TILE:**

Static-dissipative vinyl tile shall be a homogeneous vinyl product and conform to ASTM F 1700. Electrical resistance from floor to ground shall be 1,000,000 ohms ( $1.0 \times 10$  to the 6th) to 100,000,000 ohms ( $1.0 \times 10$  to the 8th) when tested in accordance with ASTM F 150 or ESD S7.1. Tile shall be 12, 24 or 36 inches square and 1/8 inch thick. Tile shall be pre-grooved for heat welding of seams. As required, provide welding rods as recommended by the manufacturer.

**3.2.1.8.4 FLOOR COVERING - WALL BASE:**

Conform to ASTM F 1861, Type TP (thermoplastic rubber), Style A (straight - installed with carpet) and Style B (coved - installed with resilient flooring). Provide 4 inch high and a minimum 1/8 inch thick wall base. Provide job formed corners in matching height, shape, and color.

**3.2.1.9 CONSTRUCTION COLOR BOARDS:**

The Contractor shall submit 4 complete construction boards. Color boards shall reflect all actual finish textures, patterns, and colors required for this contract. Materials shall be labeled with the finish type, manufacturer's name, pattern, and color reference. Samples shall be on size 8-1/2 by 11 inch boards with a maximum spread of size 25-1/2 by 33 inches for foldouts. Bounded 3 ring binder with samples in document protectors.

**3.2.1.10 INTERIOR STEEL DOORS AND DOOR FRAMES:** Republic Acoustical Steel Doors and frames or approved equal.

For secure rooms 227, 228 and 229 only provide acoustical metal framed doors constructed to provide Sound Transmission Class (STC) rating of 45 when tested in accordance with ASTM E 90 and ASTM E413. Doors shall be min. 16 gage without visible joints or edges and reinforced top and bottom with flush steel channels of not less than 16 gage. Door core shall be acoustic composite core. Doorframes shall be 16 gage; face welded and ground smooth construction. Provide frames with min. three anchors of not less than 0.042 in thickness. Frames shall be fully prepared for mortised hardware and reinforce only for surface mount hardware.

Additional Hardware Reinforcement: Provide the minimum lock blocks to secure the specified hardware. The measurement of top, bottom, and intermediate rail blocks are a minimum 125 mm 5

inch by full core width. Comply with the manufacturer's labeling requirements for reinforcement blocking, but not mineral material similar to the core.

For non-secure rooms the Contractor shall provide new interior Hollow Metal doors and frames to match existing doors at building 3453.

Color: Site painted to match existing construction and/or the Contract to provide door manufacturer finish color selection samples.

**3.2.1.10.1 DOOR HARDWARE LOCKS:** Stanley Best Access Lock System or approved equal. For secure rooms 227, 228 and 229 only the Contractor shall provide new X10 Series Locks or equal, from Stanley Best Security Solutions on corridor doors Rooms 227(x1), 228(x1), and 229 (x2). All hinges to anti-pin removal. All metal frames to be four hinge assemblies. Provide finish to match existing corridor doors.

For non-secure rooms the Contractor shall match existing building 3453 door hardware (Stanley Best Access lock System).

Provide Stanley Best (Wi-Q) including electronic locking device, card reader, door position switch, request to exit device, door control module, and wireless connection. Provide "Dual Validation-Reader" with 2 13/16in Bezel Size, High Impact ABS, Encapsulated Elastomer Keypad, 15 Kilovolts ESD protection, 1 million cycles for Keypad button operating life, visual/audio user feedback indicators and primary power battery pack.

Mortise lock series 45HQ, deadbolt with key, 7 pin housing, finish 626 630 with key over ride and extended life battery pack.

**3.2.1.11 FLAT PANEL TV MOUNTS:**

Contractor to provide all necessary commercial grade mounts and associated hardware to install 70" Flat Panel (LCD) TVs to walls as described on the drawings. Cable connection for the LCD TVs will be via the UTS cabling as described in the SOW and drawings. Note, Goodfellow AFB to provide LCD TV's.

**3.2.1.12 FIRE STROBE HORNS:**

Provide new Combination Audible/Visual Notification Appliances for South-Annex secure rooms 227, 228 and 229: Combination audible/visual notification appliances shall provide the same requirements as individual units except they shall mount as a unit in standard backboxes. Units shall be factory assembled. Any other audible notification appliance employed in the fire alarm systems shall be submitted for approval.

Visual notification appliances shall conform to the applicable requirements of UL 1971 and the contract drawings. Appliances shall have clear high intensity optic lens, xenon flash tubes, and output white light. Strobe flash rate shall be between 1 to 3 flashes per second and a minimum of 75 candela. Strobe shall be surface mounted.

Wiring: Wiring shall conform to NFPA 70. Wiring for 120 Vac power shall be No. 12 AWG minimum. The SLC wiring shall be copper cable in accordance with the manufacturer's requirements. Wiring for fire alarm dc circuits shall be No. 16 AWG minimum.

Note, existing Fire Control Panel in building 3453 is an integrated, addressable Fire Alarm Control/Transceiver panel Monaco M-2 with Monaco D21 Supervising Station Receiving Equipment.

**3.2.1.13 PLUMBING:** Bradley Wash fountain stainless with foot control model WF2708 classic circular 54in diameter or approved equal. Perform all work IAW IPC.

Final Acceptance Testing: A technician employed by the installing Contractor shall be present for the final tests and shall provide a complete demonstration of the operation of the system.

**3.2.1.14 ELECTRICAL:** Refer to ATTACHMENT G.

**3.2.1.15 MECHANICAL:** Refer to ATTACHMENT H.

**END OF SOW PART 3 – PRODUCTS**

## **PART 4 – EXECUTION:**

### **4.1 GENERAL:**

All work shall be installed as shown on the drawings, suspended ceiling system, new wall, doorways, electrical and fire protection/suppression and accessories shall be installed in accordance to the manufacturer's specifications and instructions and in accordance with the manufacturer's diagrams and recommendations, unless otherwise specified, in order to maintain the integrity of the products and acceptable performance of the completed installation. Necessary interconnections, services, and adjustments required for a complete operational system shall be provided.

#### **4.1.2 Not Used.**

#### **4.1.3 VERIFICATION OF CONDITIONS:**

Contractor shall verify the conditions on the premises and substrate are acceptable to begin work, the Contractor shall verify all dimension and advise the Tom Green County of any discrepancies before starting work.

#### **4.1.4 REPAIR OF WALLS AND CEILINGS:**

As required by the technical exhibits, the Contractor shall repair walls and ceilings to like new conditions after demolition work is completed. Where exhaust vents are removed, dampers shall be closed or sealed to prevent leakage. Provide a standard gypsum wallboard to match existing thickness, material, and applicable fire-rating. Wallboard shall be textured and painted to match the existing wall.

### **4.2 METAL FRAMING:**

Refer to para 3.2.1.6 above.

### **4.3 GYPSUM BOARD ASSEMBLY:**

#### **4.3.1 ASSEMBLY:**

Joint and level of finish to match paint and orange peel texture requirements, Tape seams, and apply a smooth full even coat of all-purpose joint compound into the recess created by the tapered edges of adjoining boards with a joint finishing knife. When the taping coat is dry use a 6 inch joint finishing knife to apply the second bedding coat of all-purpose joint compound, extend this edge 2 inches farther than the previous coat, then lightly sand with a medium grit sandpaper. Drive fastener heads 3/8" from the edge and end of the boards. Drywall screws should be applied with an electric screw gun as to eliminate crush or break the gypsum board and paper.

#### **4.3.2 PROTECTION:**

Protect gypsum board installations from damage and deterioration until the date of Beneficial Occupancy.

#### **4.4 SUSPENDED CEILING:**

##### **4.4.1 EXAMINATION:**

Examine area receiving suspension system to identify conditions which will adversely affect installation. Do not begin installation until adverse conditions have been remedied.

##### **4.4.2 INSTALLATION:**

Main Tees: Installed 48 inches on center, by direct suspension from existing structure, with not less than 12 gage steel hanger wires, wrapped tightly three full turns, spaced 48 inches on center along component length. Cross Tees installed perpendicular to main tees 24 inches on center forming 24 by 24 inch modules.

**4.5 ELECTRICAL:** Refer to ATTACHMENT G.

**4.6 MECHANICAL:** Refer to ATTACHMENT H.

##### **4.7 OPERATIONAL SYSTEMS:**

The Contractor shall insure that all work is performed in accordance with the criteria herein and that all equipment, systems, and accessories shall be fully useable and operational at the completion of work for this project.

##### **4.8 MANUFACTURER'S MANUALS – MANUFACTURER REFERENCE, INSTRUCTION, & INSTALLATION MANUALS:**

Shall be considered a part of this SOW and should be referred to for more specific application procedures and recommendations.

##### **4.9 FINAL INSPECTION:** Refer to ATTACHMENT I, Project Closeout Checklist

The Contractor shall advise the Tom Green County in writing of the Contractor's desired final inspection date seven (7) calendar days in advance of that desired date to permit proper coordination. The date selected shall provide adequate time for Contractor performed corrections of final inspection deficiencies within the contract performance time. The Tom Green County will be the final authority for determining whether or not the Contractor's performance is sufficiently advanced to warrant a final inspection.

**END OF SOW PART 4 – EXECUTION**

**END OF STATEMENT OF WORK**

## **REQUEST FOR PROPOSAL**

### **1. PROPOSAL SUBMISSION**

The offeror is expected to thoroughly examine the specifications and all instructions contained in this RFP.

PROVIDE ONE (1) ORIGINAL AND FOUR (4) COPIES OF YOUR PROPOSAL (EACH SIGNED IN INK AND SEALED IN A MARKED ENVELOPE) TO:

TOM GREEN COUNTY AUDITOR  
113 WEST BEAUREGARD  
SAN ANGELO, TEXAS 76903-5834  
325-659-6500

Sealed proposals shall be received no later than:

**2:00 p.m. Friday, August 3, 2018**

**And will be publicly opened in the County Auditor's Conference Room located on the second floor of the Judge Edd B and Frances Frink Keyes Building at**

**113 W. Beauregard Ave., San Angelo, Texas**

**At 2:15 p.m.**

**MARK THE OUTSIDE OF EACH ENVELOPE:**

"RFP# 18-017"

In the event that Tom Green County Offices are officially closed on a proposal opening day, proposals will be received until 2:00 p.m. on the next business day, at which time the proposals will be publicly opened.

If offeror does not wish to submit an offer at this time but desires to remain on the list for this service, please submit a "NO OFFER" by the same time and at the same location as stated above. If response is not received for three consecutive RFPs, offeror shall be removed from list. If however, you choose to "NO OFFER" this service and wish to remain on list for other services, please state the particular service under which you wish to be classified.

Tom Green County is always very conscious and extremely appreciative of the time and effort you must expend to submit an offer. We would appreciate your indicating on any "NO OFFER" response, the requirements of this RFP which may have influenced your decision to "NO OFFER".

**2. LATE PROPOSALS**

Proposals received after submission deadline shall be returned unopened and will be considered void and unacceptable and they will be returned unopened to the offeror. Offeror should allow sufficient mailing time to ensure the timely receipt of their proposal or proposals may also be hand delivered prior to deadline. Tom Green County is not responsible for lateness of mail, carrier, etc., and time/date recorded by the County Auditor's Office shall be the official time of receipt.

**3. ALTERING PROPOSALS**

Any interlineations, alteration, or erasure made to the PROPOSAL must be initialed by the signer of the proposal prior to receiving time, guaranteeing authenticity.

**4. WITHDRAWAL OF PROPOSAL**

Proposals may be withdrawn at any time prior to the official opening. A proposal may not be withdrawn or cancelled by the offeror for a period of ninety (90) days following the date designated for the receipt of PROPOSAL, without prior approval by the Commissioners Court based on a written acceptable reason. Offeror so agrees upon submittal of their PROPOSAL.

**5. PROPOSAL OPENING**

Proposals will be received and publicly acknowledged at the location, date, and time stated above. Offerors, their representatives and interested persons may be present. Proposals shall be received and acknowledged only so as to avoid disclosure of the contents to competing offerors and kept secret during the negotiation/evaluation process.

**NOTE:** All proposals shall be open for public inspection after the contract is awarded, except for trade secrets and confidential information contained in the PROPOSAL so identified by offeror as such.

**6. AWARD OF PROPOSALS**

Tom Green County will review all responses to assure compliance with the specifications. Vendor may be excluded from further consideration for failure to comply with the specifications of the RFP. The County reserves the right to reject in whole or in part any or all proposals, waive minor technicalities, informalities, or irregularities and award the proposal as it shall deem best serves the interest of Tom Green County. Award of contract will be executed by the Tom Green County Commissioners Court. However, any part of vendor's contract, which contradicts any part of the requirements of this Request for Proposals, shall be considered null and void. Receipt of any proposal shall under no circumstances obligate Tom Green County to accept the lowest proposal. The award of the contract shall be made to the responsible offeror whose proposal is determined to be the lowest and best evaluated offer



resulting from negotiation, taking into consideration the relative importance of price and other evaluation factors set forth in the RFP.

**7. SITE VISIT**

A pre-proposal site visit will be held on location at Building 3543 GAFB. Meeting at 3:00 p.m. on July 16, 2018 at the Visitor's Center located at the South Gate. Pre-authorization for a security pass is required for any prospective vendor, or representative, wishing to attend the pre-proposal visit. Certain information is required ahead of the date in order to issue a security pass and ensure ease of access on the day of the site visit. Security passes will only be authorized for the day of the pre-proposal visit. Site Visit Base Access Request Form must be filled out and submitted by July 11, 2018. See Exhibit I.

**8. FORMATION OF CONTRACT**

A response to this solicitation is an offer to contract with Tom Green County based upon the terms, conditions, scope of work, and specifications contained in this request. A solicitation shall become a contract when awarded by the Tom Green County Commissioners Court and a purchase order or notice of award is mailed or otherwise furnished to the successful offeror.

**9. CONTRACT TERM**

Contract will be from award in Commissioners Court until completion of project.

- Proposed NTP Construction: August 21, 2018
- Construction Time: 180 days
- Construction Substantial Completion: February 17, 2019
- Punch List Complete and Final Payment: Not Later Than February 28, 2019

**10. EVALUATION CRITERIA AND FACTORS**

The award (if any) of contracts shall be made to the responsible offerors whose submittals are determined to be the most advantageous to, and in the best interest of Tom Green County while taking into consideration factors set forth in the Request for Proposal in accordance with the Texas Government Code, Chapter 2269.

**NOTE:** Best value shall be determined by any relevant criteria specifically listed in the solicitation and by considering all or part of the criteria listed below:

- a. Reputation of the Vendor and of Vendor's goods and services.
- b. The quality of the Vendor's goods or services.
- c. The extent to which the goods or services meet the County's needs.
- d. Vendor's past relationship with the County. All vendors shall be evaluated on their past performance and prior dealings with the County to include, but not limited to, failure to meet specifications, poor quality, poor workmanship, and late delivery.

The following criteria will be used to evaluate proposals:

<b>A. Experience and Qualifications</b>	<b>Points Possible</b>
1. Has previous experience with similar projects	10
2. Has worked on Government funded construction projects	10
3. Has worked on projects located in this general area (100mi radius)	10
4. Extent of experience in project construction	10
<i>Possible Points Awarded for this Section</i>	<b>40</b>

<b>B. Work Performance (references and prior experience with firm)</b>	<b>Points Possible</b>
1. Past projects completed on schedule	10
2. Manages projects within budgetary constraints	5
3. Work product is of high quality	10
<i>Possible Points Awarded for this Section</i>	<b>25</b>

<b>C. Capacity to Perform</b>	<b>Points Possible</b>
1. Staff Level/Experience of Staff	5
2. Adequacy of Resources	5
<i>Possible Points Awarded for this Section</i>	<b>10</b>

<b>D. Pricing</b>	<b>Points Possible</b>
1. Proposed Cost of Construction	25
<i>Possible Points Awarded for this Section</i>	<b>25</b>

**TOTAL 100**

The Tom Green County Auditor has prepared the RFP, and will provide resource information to the Tom Green County Commissioners Court, who will evaluate proposals. The Commissioners Court may designate a representative or a review committee for this purpose. Discussions may be conducted with reasonable proposers who submit proposals determined to be reasonably susceptible of being selected for award. All proposers will be accorded fair and equal treatment with respect to any opportunity for discussion and revision of proposals. Revision of proposals may be permitted after submission and before award for the purpose of obtaining best and final offers as determined to be in the best interest of the County.

**11. REFERENCES**

Offeror shall supply with this proposal a list of at least three (3) references where like services and/or products are provided in the public sector. Include name of entity, address, telephone number and name of representative. **Note:** See Exhibit A – Vendor Reference Form.

**12. INSURANCE**

The contractor shall provide Worker’s Compensation coverage. The contractor shall provide Comprehensive General (Public) Liability Insurance of \$1,000,000 (combined single limit for

bodily injury and property damage) to include (but not limited to) premises/operation, independent contractors, personal injury, products/completed operations and contractual liability. Comprehensive Automobile Liability insurance for owned/leased vehicles, non-owned vehicles or hired cars shall be provided in the minimum amount of \$1,000,000 (combined single limit for bodily injury and property damage.) **The contractor shall provide the County with certificates of insurance evidencing the required insurances *within 10 calendar days of the Notice of Award*.** The contractor further agrees that with respect to the above required insurances, the County shall be named as an additional insured as its interest may appear; be provided with a waiver of subrogation; and be provided with thirty (30) days advance notice in writing, of cancellation or material change.

**13. TERMINATION**

The obligation to provide further service under the terms of the resulting agreement may be terminated by the either party upon sixty (60) days written notice. Tom Green County reserves the right to terminate upon breach of contract as allowed by law.

**14. SEVERABILITY**

If any part of this proposal is declared unenforceable or invalid, the remainder will continue to be valid and enforceable.

**15. DUTY OF VENDOR**

In order for proposals to be compared on an identical basis, it is necessary that all portions of the document, including requests for specific information about, services, reference forms and general information regarding the vendor be completed and adhered to.

**16. PERFORMANCE OF CONTRACT**

The contractor shall perform all work in a superior workmanlike manner and products shall be delivered in the condition requested, to the satisfaction of the Tom Green County Commissioners Court or designated representatives.

All items proposed shall be new, in first class condition, including containers suitable for shipment and storage, unless otherwise indicated in the proposal. Verbal agreements to the contrary will not be recognized. All materials and services shall be subject to County's approval. Unsatisfactory material will be returned at Seller's expense.

Tom Green County reserves the right to enforce the performance of this contract in any manner prescribed by law or deemed to be in the best interest of the County in the event of breach or default of resulting contract award.

**17. CAVEAT**

Although every effort has been made to provide accurate and up-to-date information, companies interested in supplying proposals should contact the County Auditor with any questions you may have (see "Introduction").

**18. VARIATION IN QUANTITY**

The County assumes no liability for commodities produced, processed or shipped in excess of the amount specified herein.

**19. NON-EXCLUSIVE CONTRACT**

It is expressly understood and agreed that in case Tom Green County should need any item(s) not available from the successful vendor during the term of this contract within the time frame requested, Tom Green County reserves the right to purchase these items from other than the successful vendor. This shall not be in violation of any terms or conditions of this contract. Further, Tom Green County reserves the right to purchase from or seek another vendor if, at any time, the vendor's prices do not conform to public pricing.

**20. REQUIREMENTS OF SPECIFICATIONS**

Each offeror shall be held to have examined the requirements of the RFP under consideration and confirm he fully understands the RFP and the County's needs and satisfies himself that he is cognizant of all factors relating to requirements contained in the RFP.

**21. SILENCE OF SPECIFICATIONS**

The apparent silence of the RFP as to any detail or to the apparent omission from it of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of the RFP shall be made on the basis of this statement.

**22. CONFLICT OF INTEREST**

No public official shall have interest in a contract, which results from this RFP, in accordance with Vernon's Texas Codes Annotated Local Government Code Title 5, Subtitled C, Chapter 171.

**23. CONFIDENTIALITY**

All information disclosed by Tom Green County to successful offeror for the purpose of the work to be done or information that comes to the attention of the successful offeror during the course of performing such work is to be kept strictly confidential.

**24. ADDENDA**

Only questions regarding clarification of instructions may be handled verbally. Any interpretations, corrections or changes to this RFP will be made by addenda. Sole issuing authority of addenda shall be vested in the Tom Green County Auditor. Any addendum will be sent via email to those companies known to be in possession of the proposal document. Offerors are responsible for ensuring that a correct email address is listed in the County's vendor database and may email [purchasing@co.tom-green.tx.us](mailto:purchasing@co.tom-green.tx.us) to update this information or to specifically request copies of any addenda issued. It is the responsibility of the Offeror to

ensure that all addenda are received and included with their submission. Failure to submit all signed addenda may result in proposal being considered non-responsive.

**25. CHANGE ORDERS**

No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing.

**26. ASSIGNMENT**

The successful offeror shall not sell, assign, transfer or convey any contract resulting from this RFP, in whole or in part, without the prior written consent of the Tom Green County Commissioners Court.

**27. VENUE**

This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in Tom Green County, Texas.

**28. SUBMITTAL OF CONFIDENTIAL MATERIAL**

Any proposed material that is to be considered as confidential in nature must be clearly marked as such by the proposer and will be treated as confidential by Tom Green County.

**29. MINIMUM STANDARDS FOR RESPONSIBLE PROSPECTIVE OFFERORS**

A prospective offeror must affirmatively demonstrate their responsibility and ability to meet the following requirements:

1. Has adequate financial resources, or the ability to obtain such resources as required;
2. Have a satisfactory record of performance;
3. Have a satisfactory record of integrity and ethics;
4. Be otherwise qualified and eligible to receive an award.

Tom Green County may request representation and other information sufficient to determine the offeror's ability to meet these minimum standards listed above.

**30. INDEMNIFICATION**

By entering into this contract, the successful offeror agrees to defend, indemnify and hold harmless Tom Green County and all its officers, agents, and employees from all suits, causes of actions, or other claims of any character, name and description brought for or on account of any injuries of damages received or sustained by any person, persons, or property on account of any breach, negligent act or fault of the successful offeror, or of any agent, employee, subcontractor, invitee or supplier in the execution of, or performance under, any contract which may result from proposal award. Successful offeror shall pay judgments with costs, including

attorney fees, expenses and costs of court, which may be obtained, against Tom Green County growing out of such injury or damages.

**31. WARRANTY**

The Vendor shall not limit or exclude any express, written, or implied warranties and any attempt to do so shall render this contract voidable at the option of Tom Green County. The offeror warrants that the goods furnished will conform to the specifications, drawings and descriptions listed in the proposal invitation, and to the sample(s) furnished by the offeror, if any. In the event of a conflict between the specifications, drawings, and descriptions, the specifications shall govern.

**SAFETY WARRANTY:** The vendor warrants that the product sold to the County shall conform to the standards promulgated by the U.S. Department of Labor under the Occupational Safety and Health Act of 1970. In the event the product does not conform to OSHA standards, the County may return the product for correction or replacement at the vendor's expense. In the event the vendor fails to make the appropriate correction within a reasonable time, the correction made by the County will be at the vendor's expense.

**32. SALES TAX**

Tom Green County is by statute exempt from the State Sales Tax and Federal Excise Tax; therefore, the proposed price shall not include such taxes.

**33. DELIVERY**

Proposal cost shall be F.O.B. Destination. If otherwise, show the exact cost to deliver by unit price, extend and show total. Actual costs will be based on quantities delivered.

If a delay is foreseen, the contractor shall give written notice to the County Auditor. The County has the right to extend the delivery date if the reason(s) appear valid. The Contractor must keep the County advised at all times on the order status. Default in promised delivery (without accepted reasons) or failure to meet specifications, authorizes the County to purchase supplies elsewhere and charge full increase in cost and handling to the defaulting contractor.

**34. TITLE AND RISK OF LOSS**

The title and risk of loss of goods shall not pass to the County until the County actually receives and takes possession of the goods at the point or points of delivery.

**35. DESIGN, STANDARDS AND PRACTICES**

Design, strength, quality of materials and workmanship must conform to the highest standards of engineering practices and/or professional services.

**36. PATENTS/COPYRIGHTS**

The successful offeror agrees to protect Tom Green County from claims involving infringements of patents and/or copyrights.

**37. INVOICES AND POINT OF CONTACT AFTER RFP IS AWARDED**

Invoices shall be mailed directly to:

Dianna Spieker  
Tom Green County Treasurer  
113 W. Beauregard  
San Angelo, Texas 76903

The invoices shall show:

1. Name and address of successful offeror;
2. Detailed breakdown of all charges for the services or products delivered stating any applicable period of time

**38. PAYMENT**

Payment will be made upon receipt and acceptance by the County of all completed services and/or products ordered and receipt of a valid invoice, in accordance with the Texas Government Code, Chapter 2251. Successful offeror is required to pay subcontractors within ten (10) days.

**39. FUNDING**

Funding for this project has been provided by the Texas Military Preparedness Commission in the form of the Defense Economic Adjustment Assistance (DEAAG) Grant with State and local matching funds. This grant has a closing date of August 31, 2018.

In the event construction has not been complete, the contract may be terminated or the scope amended. There shall be neither penalty nor any additional charges incurred by the County. The offeror, in accepting the contract, agrees that the County shall not be liable for damages in the event that the contract is terminated due to a lack of funding.

**40. DISCOUNTS**

Discounts for prompt payment offered may be taken into consideration during the proposal evaluation. Terms of payment offered will be reflected in the space provided on the proposal cost worksheet. All terms of payment (cash discount) will be taken and computed from the date of delivery of acceptable material or services, or the date of receipt of invoice, whichever is later.

**41. DEBARMENT**

Offeror certifies that at the time of submission of its proposal, Offeror was not on the federal government's list of suspended, ineligible or debarred contractors and that Offeror has not been placed on this list between the time of its submission and the time of execution of the Contract. If Offeror is placed on this list during the term of the Contract, Offeror shall notify the Tom Green County Auditor. False certification or failure to notify may result in termination of the Contract for default.

In accordance with Texas Local Government Code Chapter 154.045, if a seller is found to be indebted to Tom Green County by manner of delinquent taxes, fines, fees, or indebtedness arising from other written agreements, then Tom Green County may offset payments under a contract to satisfy the outstanding debt and no payments will be made until the debt is paid in full.

**42. CONFLICTS BETWEEN REQUEST FOR PROPOSAL AND PROPOSAL**

Should a conflict arise between the terms and provisions of this RFP and the submission of the vendor, the terms and provisions of this RFP will prevail.

**43. COMPLIANCE**

All offerors will comply with all Federal, State and local laws relative to conducting business in Tom Green County including, but not limited to licensing, labor and health laws. The laws of the State of Texas will govern as to the interpretation, validity and effect of this proposal, its award, and any contract entered into.

**44. DISCRIMINATION**

During the performance of this contract, the successful offeror agrees as follows:

a. The successful offeror will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The successful offeror will take affirmative action to ensure that applicants are employed, and the employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

b. The successful offeror will, in all solicitations or advertisements for employees placed by or on behalf of the successful offeror, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

c. The successful offeror will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the successful offeror's commitments under this section.



**45. CONFLICT OF INTEREST QUESTIONNAIRE (CIQ):**

Chapter 176 of the Texas Local Government Code requires that any proposer or person considering doing business with a local government entity disclose in the Conflict of Interest Questionnaire the proposer's or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. If applicable, this questionnaire, by law, must be filed with the records administrator of Tom Green County within seven (7) days of notice of potential award or within seven (7) days after submitting a proposal response. Additionally, a new form must be filed no later than the seventh (7th) business day after the person becomes aware of the facts that require the statement to be filed. The form can be found online at [https://www.ethics.state.tx.us/filinginfo/conflict\\_forms.htm](https://www.ethics.state.tx.us/filinginfo/conflict_forms.htm). By submitting a response to this proposal, the offeror represents that it is in compliance with the requirements of Chapter 176 of the Texas Local Government Code. If required, send completed forms to the Tom Green County Clerk's Office located at 124 West Beauregard Avenue, San Angelo, Texas 76903.

**46. HB 1295**

Offeror must complete a form 1295 filing, disclosure of interested parties, on the Texas Ethics Commission website. <https://www.ethics.state.tx.us/tec/1295-Info.htm> This filing shall be completed with the RFP, and prior to the issuance of any notice to proceed. For form item# 3 use "RFP# 18-017".

**47. VENDOR RESTRICTIONS REGARDING BOYCOTTS OF ISRAEL**

Government Code 2270 prohibits governmental entities (which include cities, counties, public school, special purpose districts, etc.) from contracting with companies who boycott Israel and from investing in companies that boycott Israel. This requires contracts to have written verification from the company that it does not boycott Israel and will not boycott Israel during the term of the contract.

**48. PREVAILING WAGE RATES**

The Davis-Bacon and related acts apply to contractors and subcontractors performing the construction of a public work, including a building, highway, road, excavation, and repair work or other project development or improvement, paid for in whole or in part from public funds, without regard to whether the work is done under public supervision or direction.

Sec. 2258.021. RIGHT TO BE PAID PREVAILING WAGE RATES. (a) A worker employed on a public work by or on behalf of the state or a political subdivision of the state shall be paid:

(1) not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed; and

(2) not less than the general prevailing rate of per diem wages for legal holiday and overtime work.

Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. Overtime pay at a rate not less than one and one-half times the regular rate of pay is required after 40 hours of work in a work week.

**Penalty: If the selected respondent or any subcontractor fails to comply with the prevailing wage law, it shall forfeit to the County sixty dollars (\$60.00) per calendar day or part of the day for each laborer, workman, or mechanic who is paid less than the specified rate, pursuant to §2258.023 of the Texas Government Code.**

**Refer to Attachment J. Wage Determination  
TX336 “Construction Type: Building” will be used for this project.**

**49. PROPOSAL SECURITY**

If the proposal exceeds \$100,000, the submission must be accompanied by a Surety Bond, Certified and/or Cashier's Check (on a solvent bank in the State of Texas, or with a surety company authorized to do business in this state) drawn to the order of the OWNER in the sum of not less than five per cent (5%) of the total amount of the proposal. The proposal bond must be executed by a surety meeting the requirements set forth in stated conditions.

The bond shall be made payable without condition to Tom Green County, Texas, hereinafter referred to as OWNER. The bond may be retained by and shall be forfeited to the OWNER as liquidated damages if the proposal is accepted and a contract based thereon is awarded and the Offeror should fail to fulfill contract in the form prescribed, with legally responsible sureties, within thirty (30) days after such award is made by OWNER.

**50. RETURN OF PROPOSAL SECURITY**

The proposal bond of the successful offeror will be retained until offeror has furnished the required Contract Security and insurance, whereupon checks furnished as proposal bond will be returned. If offeror fails to furnish the required Contract Security and insurance within thirty (30) days of the Notice of Award, OWNER may annul the Notice of Award and the proposal security of the Offeror will be forfeited. OWNER may retain the proposal security of any Offeror whom OWNER believes to have a reasonable chance of receiving the award until the day after the required documents are delivered by CONTRACTOR to OWNER but not to exceed 45 days after the proposal opening. Checks furnished, as proposal security by other Offeror, will be returned within thirty days of the opening.

**51. PERFORMANCE AND PAYMENT BONDS**

1. Vendor shall comply with bond thresholds stated below:

a) Performance Bond: If the proposal exceeds \$100,000, and having satisfied all Conditions of award as set forth elsewhere in these documents, the successful offeror shall, within 30 days of award notice and prior to commencement of work, furnish a performance bond(s) in a penal sum of at least the full amount of the contract as awarded, in the form included in the specifications, which secures the faithful performance of the contract.

b) Payment Bond: If the proposal exceeds \$25,000, and having satisfied all Conditions of award as set forth elsewhere in these documents, the successful offeror shall, within 30 days of award notice and prior to commencement of work, furnish a payment bond (s) in a penal sum of at least the full amount of the contract as awarded which secures the payment of all persons, firms or corporations to whom the CONTRACTOR may become legally indebted for labor, materials, tools, equipment, or service, of any nature, employed or used by him in performing the work.

2. On each such bond the rate of premium shall be stated, together with the total amount of the premium charged. Bond(s) shall bear the date as a date subsequent to, the date of the contract, and not later than the 30<sup>th</sup> day after a contract is executed. The current power of attorney for the person who signs for any surety company shall be attached to such bond.

3. The failure of the Successful Offeror to supply the required bonds within thirty (30) days after the prescribed forms are presented for signature, or within such extended period as the COUNTY may grant based upon reasons determined adequately by the County, shall constitute a default, and the county may either award the contract to the next reasonable Offeror or re-advertise for proposals, and may charge against the Offeror the difference between the amount of the proposal and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the proposal guarantee.

**52. WAIVER OF BONDS**

The requirement for Performance bonds may be waived under the following conditions:

- a) The total contract sum is one hundred thousand dollars (\$100,000.00) or less.
- b) The general contractor agrees to one lump sum payment at completion of the project in lieu of standard monthly progress payments. Both of the above requirements must be met for waiver of Performance Bonds to occur.

**53. BUY TEXAS**

With respect to all services, if any, purchased pursuant to this Agreement, Vendor represents and warrants that it will buy Texas products and materials for use in providing the services authorized herein when such products and materials are available at a comparable price and within a comparable period of time when compared to non-Texas products and materials.

**54. TEXAS STEEL RESOLUTION**

On February 21, 2017 Tom Green County Commissioner’s Court passed the Tom Green County Texas Steel Resolution stating that “The Tom Green County Commissioners Court believes domestic iron and steel should be given preference in all local projects over foreign imports to support a strong, sustainable Texas Iron and Steel Industry and to ensure the use of high quality products in our public works projects”.

**55. BUY AMERICAN**

**52.225-9 Buy American - Construction Materials. (MAY 2014)**

(a) *Definitions.* As used in this clause-

*Commercially available off-the-shelf (COTS) item-* (1) Means any item of supply (including construction material) that is-

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

*Cost of components* means-

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

*Domestic construction material* means-

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if-

(i) The cost of its components mined, produced, or manufactured in the United

States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

*Foreign construction material* means a construction material other than a domestic construction material.

*United States* means the 50 States, the District of Columbia, and outlying areas.

(b) *Domestic preference.* (1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that-

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American statute.* (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including-

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute or Balance of Payments Program.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Cost Comparison

Construction material description	Unit of measure	Quantity	Cost (dollars) *
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

\* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

**PROPOSAL COST WORKSHEET**

EARLIEST START DATE \_\_\_\_\_

TOTAL PROJECT COST (All Sections) \$ \_\_\_\_\_

PROJECT COMPLETION DATE (All Sections) \_\_\_\_\_

The county reserves the right to award any or all sections. Total performance period is 180  
calendar days for all work.

**LIST THE COST FOR EACH SECTION AND THE COMPLETION DATE**

<u>Section</u>	<u>Completion Date</u>	<u>Price</u>
<u>Section 1:</u> Renovation/Repair Work for Building 3453 _____	_____	

<u>Section 2:</u> All Communications Work for Building 3453 \$ _____	_____	
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All bid items reflect F.O.B. destination: If otherwise please state, \_\_\_\_\_

Warranty – Material and Workmanship: \_\_\_\_\_ months

Explain warranty \_\_\_\_\_

Prompt payment discount: \_\_\_\_\_% \_\_\_\_\_ days. If left blank, net 30 will apply.

In accordance with the terms of **RFP 18-017** and with full knowledge of the terms and conditions, we agree to furnish and deliver the services specified for the prices indicated above.

It is understood by the undersigned that Tom Green County reserves the right to reject any and all proposals. The undersigned affirms that they are duly authorized to execute this contract, that this proposal has not been prepared in collusion with any other Offeror, and that the contents of this proposal have not been communicated to any other offeror prior to the official opening of this proposal.

The offeror hereby offers to furnish and deliver the services stated as specified above at the price and terms there stated and in strict accordance with the specification and general conditions of proposing all of which are made a part of this offer. This proposal is not subject to withdrawal.

FIRM NAME: \_\_\_\_\_

AGENT'S NAME & TITLE: \_\_\_\_\_  
Please Print

SIGNATURE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

PHONE/FAX NUMBER: \_\_\_\_\_ / \_\_\_\_\_

**ATTACHMENT A**  
**SUMMARY OF WORK**  
**FOR**  
**REPAIR-RENOVATE BUILDING 3453 to SUPPORT “SPINSTRAS” MOVE**  
**PROJECT No. 1060124**

The Summary of Work outlined below shall consist of, but not be limited to the following to Repair-Renovate Goodfellow AFB building 3453 (Fire Training School-FTS) for SPINSTRAS (Special Instruments Training). For additional information/details refer to the project Statement of Work (SOW) including Attachments and Drawings. This document is provided as a brief summary for information only.

**B3453 Main-West, Room 118:**

- Interior:
  - Demo existing countertop.
  - Remove all room modular furniture, existing power poles and disconnect electrical from systems furniture. Demo electrical back to junction boxes and reuse circuits.
  - Existing ceiling to remain, repair/replace damaged 2 by 4 ceiling tiles where existing system furniture power poles were removed as required.
  - Patch and Paint walls, as required.
  - Remove and replace flooring with new carpet tiles and rubber cove base.
- Electrical:
  - Provide new quadplex outlets as required.
  - Provide new power poles with both power and comm chase space as required.
- Intrusion Detection System (IDS): No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work. Work to be done by others (Not in Contract).



**B3453 Main-West, Room 125:**

- Interior:
  - Remove all room modular furniture, existing power poles and disconnect electrical from systems furniture. Demo electrical back to junction boxes and reuse circuits.
  - Existing ceiling to remain, repair/replace damaged 2 by 4 ceiling tiles and/or where existing power poles were removed as required.
  - Patch and Paint walls, as required.
  - Remove and replace flooring with carpet tiles and rubber cove base.
- Electrical:
  - Provide new quadplex outlets and power poles with both power and comm capability as required.
- Intrusion Detection System (IDS): No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work. Work to be done by others.

**B3453 Mechanical Room, Room 127A:**

- Interior: No Work.
- Electrical: No Work.
- Intrusion Detection System (IDS): No Work.
- Fire: No Work.
- Mechanical: Provide New Chilled Water Pump.
- Plumbing: No Work.
- Communications: No Work.

**B3453 Mechanical Room, Room 127B:**

- Interior: No Work.
- Electrical: Connect all electrical in room 125 to electrical panel.
- Intrusion Detection System (IDS): No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work.

**B3453 Main-East, Room 155A and 155B:**

- Interior:
  - Convert into two open offices 155A and 155B.
  - Provide new interior divider wall.

- Replace existing ceiling with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF).
  - New batt insulation, ceiling LED lights, dimmer light switches, emergency battery packs, diffusers, and return register shall be provided and installed throughout the rooms.
  - Patch and Paint walls.
  - Remove and replace flooring with carpet tiles and rubber cove base.
- Electrical:
  - Provide new duplex/quadplexes outlets, LED ceiling lights and dimmer switches as required.
  - Provide new Power Poles with both power and comm. chase space in room 155B only.
- Intrusion Detection System (IDS): No Work.
- Fire:
  - Work-around existing fire suppression sprinklers currently in-place in the existing ceiling system and provide new sprinklers at new wall divider.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed.
  - Provide new fire suppression sprinkler heads to enable full room coverage at new divider wall.
- Mechanical:
  - Provide two (2) new fan coil units complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications: No Work. Work to be done by others.

**B3453 Main-East, Rm. 163B:**

- Interior:
  - Permanently block existing south exterior opening (glass around door and window) by installing hard blocking frame on inside of existing door and window frame leaving door and window frame in place. Note, exterior door to remain.
  - Leave existing exterior door and window frame in-place on south exterior wall of room.
- Electrical: No Work.
- IDS: No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work. Work to be done by others.

**B3453 North Annex, Room 198:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights.
  - Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation.
  - Remove existing utilities and disconnect electrical back to existing power panels.
  - Remove ceiling vent hood and cap-off roof VTR on roof.
  - Remove existing roll-up interior door/accessories and frame above West exterior wall.
  - Leave adjacent existing exterior double doors and frame in-place on West wall of room. Provide hard blocking frame on inside space of existing double doors and frame as required.
  - Patch and Paint walls.
  - Remove and replace flooring with carpet tiles and rubber cove base.
- Electrical:
  - Provide emergency battery packs.
  - New ceiling lights (LED) and dimmer light switches
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
- Mechanical:
  - Replace fan coil, ductwork, diffusers and grilles. All new valves, controls, and temperature sensors shall be provided and installed.
- Plumbing: No Work.
- Communications: No Work. Work to be done by others.

**B3453 North Annex, Room 199:**

- Interior:
  - Remove door and frame and permanently close off double door located on South partition next to classroom room 198.
  - Provide new CMU wall to fill-in the double door space. CMU wall in-fill to match existing wall construction.
  - Patch and Paint CMU walls.
  - Remove and replace flooring with carpet tiles and rubber cove base.
- Electrical: No Work.
- IDS: No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.

- Communications: No Work. Work to be done by others.

**B3453 North Annex, Room 200:**

- Interior:
  - Remove door and frame and permanently close off double door located on South partition next to classroom room 199.
  - Remove water supply for laundry appliances, cap water supply and drain plumbing, and cap lint vent. Water supply line to be capped above ceiling. Cap floor drain.
  - Patch and Paint walls.
  - Remove and replace flooring with carpet tiles and rubber cove base.
  - Provide new 2 X 2 ceiling tiles and grid.
  - Remove all existing air compressor appurtenances and cap line.
- Electrical:
  - Provide new ceiling LED lighting and room dimmer switches.
- IDS: No Work.
- Fire: No Work.
- Mechanical:
  - Remove and install new fan coil complete with controls, ductwork, piping, diffusers, valves temperature sensors and controls.
- Plumbing:
  - Concrete cap existing floor drain.
  - Cap existing overhead water supply line (above ceiling) and provide wall cap for existing sewer drain.
- Communications: No Work. Work to be done by others.

**B3453 North Annex, Room 203:**

- Interior: No Work.
- Electrical: No Work.
- IDS: No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing:
  - Provide round student handwashing basin/sink, (54" RD Bradley Stainless Steel Classic Wash fountain WF2708 O.E.).
  - Connect new wash fountain to existing floor drain, and existing hot and cold water service currently in the ceiling.
- Communications: No Work.

**B3453 North Annex, Room 211A:**

- Interior:

- Construct new divider wall for server room.
- Remove existing countertop and cabinets.
- Remove existing hard ceiling, lights, emergency battery packs, diffusers, and return registers throughout room 211.
- Remove existing sink located in the northeast corner and cap attached utilities located in the northeast corner of room.
- Paint walls.
- Remove and replace flooring with carpet tiles and rubber base
- Replace with new 2' x 2' ceiling grid and tiles, batt insulation, ceiling lights (LED), emergency battery packs, and diffusers.
- IDS: No Work.
- Electrical:
  - New LED ceiling lights, dimmer light switches, emergency battery packs, diffusers, and return registers throughout room.
  - Provide new power duplexes on new partition wall.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system. Add new fire suppression sprinkler heads as required for full room coverage due to new divider wall.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed.
- Mechanical:
  - New fan coils, complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: Cap existing waterline.
- Communications: No Work. Work to be done by others.

**B3453 North Annex, Room 211B:**

- Interior:
  - Construct new server room (211B) with a hard ceiling in the Southeast corner room.
  - Replace existing hard ceiling with new hard (gypsum board) ceiling, lights, dimmer light switches, diffusers, and return registers and new ceiling lights.
  - Patch and Paint walls
  - Remove and replace flooring with carpet tiles and thermoplastic base
- Electrical:
  - Provide new 20 Amp dedicated quadplex outlet and busway grounding.

- IDS: No Work.
- Fire: No Work.
- Mechanical:
  - Remove existing fan coil unit and provide new fan coil unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing:
  - Cap existing water supply line and existing sewer drain.
- Communications: No Work.

**B3453 Mechanical Room, Room 212:**

- Interior: No Work.
- Electrical: Conduit and conductors in room 198 removed from panel in room 212.
- Intrusion Detection System (IDS): No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work.

**B3453 South Annex, Exterior:**

- Electrical/Communications:
  - Provide new Solar Powered Mast to be located on the exterior of the South Annex

**B3453 South Annex, Room 216:**

- Interior:
  - Provide a new commercial grade TV wall mount on the North wall. Mount to be secured to wall so that the top of the 70" LED TV frame is at 8'-0" AFF.
  - Paint walls.
  - Replace existing 2' x 4' ceiling tiles as required. Match existing tiles as required.
  - Remove and replace flooring with carpet tiles and rubber cove base.
- Electrical:
  - Provide new surface mounted wall quadplexes.
  - Disconnect and remove existing systems furniture power poles per NEC.
- IDS: No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications:

- Refer to SOW Attachments D, E & F.

**B3453 South Annex, Room 217:**

- Interior: No Work.
- Electrical:
  - Provide new surface mounted wall quadplexes.
  - Provide carpet tile and paint walls.
- IDS: No Work.
- Fire: No Work.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications: No Work.

**B3453 South Annex, Room 220:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid; Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation
  - Remove existing flooring and base, replace with carpet tile flooring and rubber cove base.
  - Contractor to install a new commercial grade TV wall mount on the West wall of Rm. 220. Mount to be secured to wall so that the top of the 70" LED TV frame is at 8'-0" AFF.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 220.
- Electrical:
  - New ceiling lights, emergency battery packs, diffusers, and return registers throughout room 220.
  - New dimmer light switches.
  - Provide new (1) duplex and quadplexes as required.
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed.
- Mechanical:
  - Provide new fan coil unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.

- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 221:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid; Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation
  - Remove existing flooring and base, replace with carpet tile flooring and rubber cove base.
  - Contractor to install a new commercial grade TV wall mount on the West wall of Rm. 221. Mount to be secured to wall so that the top of the 70" LED TV frame is at 8'-0" AFF.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling.
- Electrical:
  - New ceiling lights, emergency battery packs, diffusers, and return registers throughout room 220.
  - New dimmer light switches.
  - Provide new (1) duplex and quadplexes as required.
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed.
- Mechanical:
  - Provide new fan coil unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 223:**

- Interior:
  - Remove existing partition located (North-South) in the middle of the room, creating one large classroom.
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, emergency battery packs, diffusers, and return registers throughout room 223.



- Reuse existing hanger wires from current existing ceiling grid.
- Replace with new 2' x 2' ceiling grid and tiles(at 10'-0" AFF), batt insulation ceiling lights, dimmer light switches, emergency battery packs, diffusers, and return registers throughout room 223.
- Remove existing flooring and base, replace with carpet flooring.
- Contractor shall provide new surface prep and paint existing walls, floor to ceiling, Rm. 223.
- Provide new commercial grade TV wall mount on the North wall. Mount to be secured to wall so that the top of the 70" LED TV frame is at 8'-0" AFF.
- Electrical:
  - Remove existing Can ceiling lights and demo existing systems furniture power poles.
  - Provide new quadplex/duplex and dimmer switches.
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENT A.
- Mechanical:
  - Provide new Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Rm. 224**

- Interior:
  - Provide new partition wall and convert into two classrooms 224A and 224B. Provide new interior door without door lock between rooms 224A and 224B.
  - Build a division Sound Attenuation partition (East - West) to 11' AFF (STC 45-50) between both rooms.
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, emergency battery packs, diffusers, and return registers throughout Rm. 224.
  - Reuse existing hanger wires from current existing ceiling grid.

- Replace with new 2' x 2' ceiling grid and tiles(at 10'-0" AFF), batt insulation ceiling lights, dimmer light switches, emergency battery packs, diffusers, and return registers throughout rooms 224A and 224B.
  - Remove existing corridor doors and frames, replace with new sound attenuation solid core doors and metal frames, security tab or stud, non-removable pin hinges, no vision glazing, and re-use door locks with accompanying infrastructure at room 224A and 224B.
  - Block existing exterior windows (2) on West wall of rooms 224A and 224B. Leave existing windows in place and block existing window on the interior side.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling room 224A and 224B.
  - Cap all existing utilities (water, sewer drain and electrical) at floor.
- Electrical:
  - Provide new commercial grade TV wall mount on the North wall of room 224A. Contractor to install a new commercial grade TV wall mount on the South wall. Mount to be secured to wall so that the top of the 70" LED TV frame is at 8'-0" AFF. Refer to SOW ATTACHMENTS.
  - Provide new quaplexes/duplexes and dedicated power receptacle with dedicated breaker box.
  - New dimmer switches.
  - Provide new LED exit signs and emergency light combo.
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
- Mechanical:
  - Provide new (2) Fan Coil Units complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 225:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
  - Remove existing work table and attached utilities, cap-off utility and stub-up per code.
  - Remove existing ventilation hood system in ceiling and cap VTR.
  - Remove existing carpet flooring, and replace with new VTC flooring and rubber cover base.
  - Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles(at 10'-0" AFF), batt insulation ceiling lights, dimmer light switches, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 225.
  
- Electrical:
  - Provide new power bus way with comm rack.
  - Provide new power poles with comm. chase space and new dimmer switches.
  - Provide new quadplexes/duplexs and dedicated power receptacle with break box.
  
- IDS: No Work.
  
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
  
- Mechanical:
  - Provide new Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
  
- Plumbing: No Work.
  
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Corridor:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
  - Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles(at 10'-0" AFF), batt insulation ceiling lights, dimmer light switches, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
- Electrical:
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
- Mechanical: No Work.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.
  - Provide new cable tray (at ~13'-2" AFF, on existing structural cross members) above the ceiling the full length of Corridor for UTS. Contractor to verify proposed location of cable tray in order to avoid overt conflict with any existing and proposed MEP devices and/or equipment. Cable tray to include two continuous raceways with wires/fiber leading through corridor and into all classrooms as indicated in this SOW description of work.

**B3453 South Annex, Room 227:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, dimmer light switches, exit signs, emergency battery packs, diffusers, and return registers throughout room 227.
  - Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation, ceiling lights, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
  - Remove existing flooring and base, replace with approved carpet tile flooring and rubber cove base.

- Remove existing corridor doors and frame (1), replace with new sound attenuation solid core doors and metal frames, security tab or stud, non-removable pin hinges, no vision glazing, and security X-10 locks Stanley Best Access Locks with accompanying infrastructure.
  - Block existing exterior windows (2) on East wall of room. Leave existing windows in place and block existing windows on the interior side.
  - Remove existing corridor doors and frame (1), replace with new sound attenuation solid core steel door.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 227.
  - Provide new Server room.
- Electrical:
  - Provide electrical bus way grounding, new quadplexes/duplexes and special outlets.
  - Provide new LED ceiling lights and dimmer switches.
- IDS:
  - Provide new IDS alarms as described in the SOW and drawings.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
  - Provide new strobe-horns.
- Mechanical:
  - Provide new Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 228:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, dimmer light switches, exit signs, emergency battery packs, diffusers, and return registers throughout room 228.
  - Reuse existing hanger wires from current existing ceiling grid.

- Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation, ceiling lights, exit signs, emergency battery packs, diffusers, and return registers throughout corridor.
  - Remove existing flooring and base, replace with approved hard anti-static flooring and base on slab per USAF standards.
  - Remove existing corridor doors and frame (1), replace with new sound attenuation solid core doors and metal frames, security tab or stud, non-removable pin hinges, no vision glazing, and security XD-10 locks with accompanying infrastructure.
  - Block existing exterior windows (2) on East wall of room. Leave existing windows in place and block existing window on the interior side.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room. 228.
  - Provide new carpet tile and TV wall mount (for 70in monitor).
- Electrical:
  - Provide power for new IDS.
  - Provide new LED ceiling lights, dimmer switches and new quadplexes.
- IDS:
  - Provide new IDS alarms as described in the SOW and drawings.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
  - Provide new strobe-horns.
- Mechanical:
  - New Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 229:**

- Interior:
  - Remove existing partition located (East-West) in the middle of the room, creating one large classroom.
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, dimmer light switches, exit signs, emergency battery packs, diffusers, and return registers throughout room 229.

- Reuse existing hanger wires from current existing ceiling grid.
- Replace with new 2' x 2' ceiling grid and tiles (at 10'-0" AFF), batt insulation, ceiling lights, exit signs, emergency battery packs, diffusers, and return registers throughout Corridor.
- Contractor to build a continuous framed partition from the top of the existing CMU wall to the underside of the roof deck (West to East) on the north wall of the room 229. Partition shall be with Fire Caulking applied to all penetrations.
- No penetration shall be greater than 96 square inches in size, if so, install metal bars to reduce opening size as required.
- Remove existing flooring and base replace with approved carpet tile flooring and rubber cove base.
- Block existing exterior windows (4) on East wall of room. Leave existing windows in place and block existing window on the interior side.
- Remove existing corridor doors and frame (2), replace with new sound attenuation solid core doors and metal frames, security tab or stud, non-removable pin hinges, no vision glazing, and security XD-10 locks with accompanying infrastructure.
- Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 229.
- Electrical:
  - Provide power for new IDS.
  - Provide new cable tray (at 13'-2" AFF, on existing structural cross members) above the ceiling, the full length South to North, of Rm. 229 for wires/fiber cable. Cable tray to be located South to North 6'-0" parallel and from the interior side of the exterior wall of the building. Cable tray to be continuous with adjacent room 228. Refer to SOW ATTACHMENTS.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 229.
  - Provide new LED ceiling lights, dimmer switches and new quadplexes.
- IDS:
  - Provide new IDS alarms as described in the SOW and drawings.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
  - Provide new strobe-horns.

- Mechanical:
  - New Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**B3453 South Annex, Room 237:**

- Interior:
  - Remove existing 2' x 4' ceiling tiles and grid, ceiling lights, emergency battery packs, diffusers, and return registers throughout Rm. 221.
  - Reuse existing hanger wires from current existing ceiling grid.
  - Replace with new 2' x 2' ceiling grid and tiles(at 10'-0" AFF), batt insulation ceiling lights, dimmer light switches, emergency battery packs, diffusers, and return registers throughout room 221.
  - Remove existing flooring and base, replace with carpet tile flooring and rubber cove base.
  - Contractor shall provide new surface prep and paint existing walls, floor to ceiling, room 220.
- Electrical:
  - New quadplexes, dimmer switches and LED ceiling lights.
- IDS: No Work.
- Fire:
  - Contractor to work-around existing fire suppression sprinklers currently in-place in the existing ceiling system.
  - Existing Fire Alarm apparatus/equipment to be disconnected and reused, reconnect after new ceiling system is has been installed. Refer to SOW ATTACHMENTS.
- Mechanical:
  - New Fan Coil Unit complete with all valves, piping, vents, ductwork, diffusers, temperature sensors and controls.
- Plumbing: No Work.
- Communications:
  - Refer to Attachments D, E & F.

**END OF SUMMARY OF WORK**











PROJECT NUMBER: 1060124											PROJECT TITLE: Repair-Renovate Building 3453 to Support SPINSTRA Move			SOLICITATION/CONTRACT NO.:							
<b>SCHEDULE OF MATERIAL SUBMITTALS: ATTACHMENT B</b>																					
TO BE COMPLETED BY THE PROJECT ENGINEER											TO BE COMPLETED BY CONTRACT ADMINISTRATOR										
NUMBER	ITEM OR DESCRIPTION OF ITEM, CONTRACT REFERENCE, TYPE OF SUBMITTAL (Ref spec & para no.)	NO. OF COPIES REQUIRED									REQUIRED SUBMISSION DATE	DATE RECEIVED IN CONTRACTING	DATE TO CIVIL ENGINEERING	RETURN SUSPENSE DATE	FOLLOW UP	DATE CONTRACTOR NOTIFIED		CONTRACTOR RE-SUBMITTAL	FINAL APPROVAL	REMARKS	
		CERTIFICATION OF COMPLIANCE	SHOP DRAWINGS	SAMPLES	COLOR SELECTION	MANUFACTURER'S RECOMMENDATIONS	MANUFACTURER'S WARRANTY	OPERATING INSTRUCTIONS	SEE PARAGRAPHS	OTHERS AS SPECIFIED						APPROVED	DISAPPROVED				
39	SOW 3.2.1.12 Fire Strobe Horns									4	c									GA	
40	SOW 3.2.13, Wash Fountain								4	4	c									GA	
41	SOW Electrical, Manufacturer Data, Certificates, & Samples	4								4	c									GA	
42	SOW Mechanical, Manufacturer Data, Certificates, & Samples	4							4	4	4	c								GA	

**AF Form 66**

- (a) No later than 21 calendar days after Notice to Proceed (NTP)
- (b) Prior to starting demo/construction, and in no case later than 21 calendar days after NTP
- (c) No Later Than 1 Calendar Day after Removal of Equipment
- (d) Prior to Final Inspection
- (e) Final Inspection
- (f) As Required per Specifications
- (g) No later than 45 calendar Days after Notice To Proceed (NTP)

### ATTACHMENT C

#### Intrusion Detection System (IDS) Security Alarm Commissioning

**Operational Systems Quality Control and Commissioning:**

Has the contractor completed a Contractor Verification Test (CVT) to insure that all work was performed in accordance with the criteria specified per drawings, and that all equipment and systems are fully useable and operational at the completion of work for this project?

Yes  No

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Was the CVT testing by the contractor performed with the 17 SFS/S5A and 17 Training Wing (17 TRW/IP) witnessing the testing demonstration?

Yes  No

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Was all CVT testing (all points) performed in accordance with AFI 31-101, and accomplished by a licensed professional alarm installer approved by manufacturer of system?

Yes  No

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The contractor shall submit a copy of the installer's license.

**Formal Testing is subdivided into Three Phases:**

Phase I testing was performed and all installed equipment and components were performing according to system specifications and operational requirements?

Yes  No

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Testing to include intrusion tests, tamper tests, ac power loss tests, line supervision tests, sensor system self-tests where capable.

Phase II testing was performed over a 72-hour continuous test that ensured all equipment was installed and properly working according to specifications? 72-hour burn-in test is to determine the reliability of the alarm system. The facility will be alarmed, and no one will enter for 72 hours.

Yes  No

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It will establish initial expectations in regard to false and nuisance alarms.

Phase III testing for a 30-day continuous operational test to assess how well the system performs in its normal operating mode on a permanent basis was performed?

Yes  No

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This test is to detect any premature or latent defects in the equipment or components, allow the operators and maintainers an opportunity to assess the adequacy of logistics support, and assess the false and nuisance alarm rates of the system. The facilities being worked on must have coverage during the installation, testing, and thirty day break in period of the new system.

Is the Intrusion Detection Equipment (IDE), (volumetric PIR sensors and mechanical BMS) positioned to provide mandatory zone security on exterior doors and hatches? (Note: two levels of detection are required.)

Yes  No

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Are all obstructions removed from the detection zone of the PIR (movable walls, furniture, hanging lights, signage, etc.)?

Yes  No

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PIRs should be located a minimum distance of 24" from air ducts and fire sprinkler systems.

Is IDS transmission lines secured in metal conduit?

Yes  No

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A transmission line inspection must be conducted by the 17 SFS ESS administrator (17 SFS/S5A.)

Was the 17 SFS ESS administrator contacted to perform a function test on each PIR and BMS in the affected areas to ensure proper operation of the IDE and there are no voids in detection zones?

Yes  No

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17 SFS ESS Contact # (325-654-3523 or DSN 477-3523)

Are all alarm points and assessment systems shall be routed ultimately to the Command, Control and Display Equipment (CCDE) located in Bldg. #3323/Security Forces Emergency Control Center (ECC) and Bldg. #517/Alternate Security Forces Control Center?

Yes  No

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The facility will be connected to the base system at Bldg. #3323 and Bldg#517. The system shall provide, as required herein, an integrated capability that enables monitoring and control of all connected equipment, including capabilities for detection, assessment, enrollment station, delay/denial, communications and power functions, by a single operator. This system shall provide security forces the ability to respond to attempted penetrations. Controls and displays for integrated systems equipment, to include voice radios and telephones, shall be provided in the CCDE consoles. The system shall have the capability to provide operators with customizable views of data/information.

**Archiving:**

Has the Contractor provided a capability to archive, retrieve and produce reports in electronic and paper media of all system events and operator actions by event type, date and time?

Yes  No

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This includes maintenance periods, alarms received, alarm/status, accessing/securing sensors, sensor access attempts, response device status, entry control, battery/line power source status/change, automatic test, self-test, fail safe information, line supervision status, configuration data, configuration file changes and any other system events that occur. Required archiving capacity is 30 days. Alert the operator prior to archive capacity being exceeded. Provide a capability to download archived files to permanent storage media. Overwrite oldest data when maximum archival capacity is reached.



Has the Contractor installed all alarm communication lines IAW within requirements of AFI 31-101 and DoDM 5200.01?

Yes  No

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Does the IDS transmission line leave the Secured Facility rooms with line security employed?

Yes  No

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Encrypted-line security is achieved by using an approved 128-bit (or greater) encryption algorithm.

Has the Contractor furnished the Government technicians with basic system service and training for installation of IDS system?

Yes  No

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Has the Contractor provided As-Built Technical Exhibits to Govt. in AutoCAD?

Yes  No

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Does the IDS detect attempted or actual unauthorized human entry into the Secured Facility rooms with each of the following four phases as described below?

Yes  No

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Detection Phase:

The detection phase begins when a sensor reacts to the stimuli for which the sensor was designed to detect.

Communication (Reporting) Phase:

Does the Premise Control Unit (PCU) receives signals from all associated sensors in the Secured Facility rooms alarmed zones and establishes the alarm status?

Yes  No

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Is the alarm status immediately transmitted to the Monitoring Station?

Yes  No

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Within the Monitoring Station, does a dedicated Alarm-Monitoring panel (or central processor) monitor incoming PCU signals?

Yes  No

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On receiving an alarm signal, does the Monitoring Station's enunciator generate an audible and visible alarm for the monitoring personnel?

Yes  No

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**Assessment Phase:**

On receiving an audible or visible alarm, can the monitoring personnel immediately assess the situation and determine the appropriate response?

Yes  No

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The alarm may only be reset by authorized users internal to the Secured Facility rooms affected.

**Acceptance Testing:**

Has the IDE been tested to provide assurance that it meets all requirements of AFI 31-101 and DoDM 5200.01?

Yes  No

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Are records of testing and test performance being maintained in accordance with AFI 31-101 and DoDM 5200.01?

Yes  No

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Did US citizens perform all IDE testing?

Yes  No

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Non-US citizens shall not provide testing services without prior written approval by the 17 TRW/IP.

**Motion Detection Sensor Testing:**

Were all motion detection sensors tested to ensure that the sensitivity is adjusted to detect an intruder who walking toward/across the sensor at a minimum of four consecutive steps at a rate of one step per second?

Yes  No

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That is, 30 inches  $\pm$  3 inches or 760 mm  $\pm$  80 mm per second. The four-step movement shall constitute a “trial.”

Was an alarm initiated in at least three out of every four such consecutive “trials” made moving progressively through the Secured Facility rooms?

Yes  No

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The test is to be conducted by taking a four-step trial, stopping for three to five seconds, taking a four-step trial, stopping for three to five seconds, repeating the process throughout the Secured Facility rooms. Whenever possible, the direction of the next trial is to be in a different direction.

**BMS Testing:**

Were all BMSs tested to ensure that an alarm signal initiates before the non-hinged side of the door opens beyond the thickness of the door from the seated position?

Yes       No

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That is, the sensor initiates after the door opens 1¾ inch for a 1¾ inch door.

**Tamper Testing:**

Upon removing each IDE cover individually, does an alarm indication appear on the monitoring panel in both the secured and access modes?

Yes       No

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Tamper detection devices need only be tested upon installation with the exception of the tamper detection on the PCU that is activated when it is opened.

**Manufacturer's Prescribed Testing:**

Were all tests prescribed in manufacture's literature conducted to assure that the IDE operates in accordance with manufacture's specifications and applicable requirements?

Yes       No

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## ATTACHMENT D

### NIPRNet & SIPRNet SOW

BLDG 3453 South Annex Only

#### 1. DESCRIPTION

- a. **System Description:** To prepare the identified rooms for Nonsecure Internet Protocol Router Network (NIPRNet) & Secure Internet Protocol Router Network (SIPRNet) utilization. Please refer to Construction SOW for both AFTAC SSA-NET and UTS network requirements. The vendor will need to install cable tray and network wiring from communications closet to end user locations for this SOW.
- b. **Scope of Work:** The contractor shall perform all tasks necessary to accomplish the installation and configuration of the overhead cable tray, copper & fiber wiring to designated rooms. These tasks are outlined in Section 9, General Tasks and Section 11, Specific Tasks below. As an overview, the contractor must:
  - i. Complete a review of equipment needed
  - ii. Stage and prepare equipment for installation
  - iii. Perform requirements and systems analysis
  - iv. Develop implementation plan and schedule
  - v. Purchase equipment in **Attachment 1** – Summary of Equipment Needed: Install the Wall Mount Cabinet (turn network components over to government for installation)
  - vi. Remove and dispose of all equipment packing materials
  - vii. Configure and secure the operating environment and hardware
  - viii. In accordance with Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016), ref: paragraph 2-5.3.1 Cable Tray, the contractor must develop installation design, acquire, and install overhead cable trays (non-Government Furnished Equipment) according to **Attachment 2** – Overhead Cable Tray Locations.
    - (1) Contractor must adhere to the Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016) for all telecommunications infrastructure installation. This is specifically referenced for the overhead cable tray installation.
    - (2) **There are three emphasis items:**
      - (a) **The height above the drop-ceiling should be at a height that does not require additional safety equipment (i.e. personal fall protection equipment, etc.) to be accessed by the government maintenance staff.**
      - (b) **In accordance with NFPA 70, the cable tray system must be bonded and grounded to the building grounding systems.**
  - ix. Provide Logical and physical drawings of installed hardware/cabling upon completion.
- c. **Location:** Cable tray and network drops will be installed in Building 3453, South Annex only.
- d. **Purpose:** This project is to install premise wiring for both NIPRNet & SIPRNet

networks.

2. **PERSONNEL:** Contractor personnel shall present a neat appearance and be easily recognized. This may be accomplished by wearing distinctive clothing bearing the name of company or by wearing appropriate badges that contain the company name and employee name. **Contractor shall ensure personnel are compliant with REAL ID Act of 2005 for the purpose of gaining access to Goodfellow Air Force Base.**
  - a. **Suitability Investigations.** Contractor personnel shall successfully complete, as a minimum, a National Agency Check with Written Inquiries (NACI), before operating government furnished workstations, being given government information, or being given access to multiple government buildings. These investigations shall be submitted by the government at no additional cost to the contractor. The contractor shall comply with the DoD 5200.2-R, Personnel Security Program, and AFI 33-119, Electronic Mail (E-Mail) Management and Use, requirements.
  - b. **Listing of Employees.** The contractor shall maintain a current listing of employees. The list shall include employee's name, social security number, and date of investigation if contract work involves unescorted entry to Air Force restricted or other sensitive areas designated by the installation commander. The list shall be validated and signed by the company Facility Security Officer (FSO) and provided to the contracting officer and ISPM prior to the contract start date. Updated listings shall be provided when an employee's status or information changes.
  - c. **Freedom of Information Act Program (FOIA).** The contractor shall comply with DoD Regulation 5400.7/Air Force Supplement, DoD Freedom of Information Act Program, requirements. The regulation sets policy and procedures for the disclosure of records to the public and for marking, handling, transmitting, and safeguarding For Official Use Only (FOUO) material.
  - d. **Additional Security Requirements.** In accordance with DoD 5200.01 and AFI 16-1404, the contractor shall comply with AFMAN 33-282, Computer Security (COMPUSEC); AFSSI 7700, Emission Security (EMSEC); applicable AFKAGs, AFIs, and AFSSIs for Communication Security (COMSEC); and AFI 10-701, Operations Security (OPSEC).
3. **QUALITY CONTROL:** The contractor shall ensure that all work performed under this (SOW) meets the quality established in Section 9, General Tasks, and Section 11, Specific Tasks.
4. **PHYSICAL SECURITY:**
  - a. **Vehicle Passes:** The Contractor shall obtain vehicle passes for each vehicle used on Goodfellow AFB (GAFB) during the performance period. The necessary applications for

vehicle passes can be obtained by contacting the 17th Contracting Squadron Contract Officer (CO) or with the Government Project Manager (GPM). Before starting the work, the Contractor shall provide a list of all personnel that will work on GAFB, (include Social Security number and driver's license number and state), to permit security screening. Any workers not cleared will be identified, and not permitted to work on GAFB.

- b. **Government Property:** The Contractor shall be responsible for safeguarding Government property associated with the required work. Facilities, equipment, and materials shall be secured at the close of each work period.
5. **HOURS OF OPERATION:** The contractor shall perform the on-site tasks of this SOW during a normal day. These hours are normally defined as 0730 to 1630 Central Standard Time, Monday through Friday, except Federal Holidays. Requests for changes or exceptions to this work schedule may be submitted to the CO for coordination with the GPM as required. These requests will be evaluated and approved or declined by the CO after coordinating with the GPM, based on impact to the cost, scope, and schedule of the project.
  6. **CONSERVATION OF UTILITIES:** The Contractor shall instruct employees in utilities conservation practices and shall be responsible for operating under conditions, which preclude the waste of Government utilities.
  7. **GOVERNMENT FURNISHED UTILITIES AND SERVICES:** The Government shall provide without costs to the Contractor, the utilities necessary (limited to water & electricity) to accomplish the tasks specified in this work description.
  8. **CONTRACTOR FURNISHED EQUIPMENT, PARTS, MATERIALS, and SERVICES:** Except for the utilities, services and equipment specifically stated to be Government furnished, the contractor shall provide all personnel, equipment, tools, transportation, and supervision required.
  9. **GENERAL TASKS:**
    - a. The Contractor shall visit the job site to verify location, conditions, quantities and dimensions prior to starting work. They shall coordinate with the government representative prior to visiting to the job site.
    - b. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and contract documents and shall not encumber the site with any materials or equipment without prior written authorization for exact location of each. Any deviation from or changes to the terms outlined in the contract (including this SOW) are subject to the approval of the CO or their designee (i.e., Contracting Officer Representative (COR) or GPM).
    - c. The Contractor shall plan operations so as to keep temporary work from blocking access to completed work. If, however, conflict with normal traffic access occurs, the contractor shall provide temporary bypass routing until such temporary work is completed.
    - d. The Contractor shall be responsible for any cutting, fitting, or patching required to complete the work to ensure all parts fit properly.
    - e. During the performance of the work within the requirements of this contract and until final completion and acceptance thereof, the Contractor shall exercise the utmost care to

avoid accident or injury to persons or property. The contractor shall place and maintain all necessary barriers and safeguards, including watchmen if necessary, about the work site for the prevention of accidents and shall take all precautions required to protect personnel and property to include the general public and properties adjacent to the work site.

- f. The Contractor shall provide a full time quality control function to assure himself and the Government that all materials and workmanship are in strict accordance with industry standards and this SOW. Installation and materials shall conform to the requirements of applicable codes. The Contractor shall maintain adequate quality control capability regardless of the volume of workload. All work performed by the Contractor shall be inspected and approved by the Government before final acceptance by the Government.
- g. Upon completion of all work the Contractor shall request a final inspection. The Government shall inspect all work before acceptance. All work identified during the final inspection not meeting the criteria specified by this statement of work shall be repaired by the Contractor at no additional cost to the Government.

**10. SPECIFICATIONS:** It is the contractor's full responsibility to inventory equipment to ensure the correct material and amount required to perform the stated requirements under the terms of this statement of work and technical exhibits. This product will be installed with the manufacturers recommended methods and must be installed by a professional who is knowledgeable of this specific product to prevent exclusion of manufacturer's warranty.

**11. SPECIFIC TASKS:** The contractor shall provide all equipment, hardware, software, material, labor, documentation, tools, test plans, transportation, lodging, and staff needed to complete this project. Any existing equipment or components removed during contractor execution shall remain the property of the government. The tasks required to accomplish this implementation include Project Management and Planning, and South Annex Sequence of Work Schedule 3 to include Installation, Labeling and Testing of Network hardware/cabling.

- Project Management/Planning
- South Annex Sequence of Work 3 Schedule – Rooms 216, 217, 220, 221, 223A/B, 224, 225, 227, 228 & 229A/B
  - Installation of Overhead Cable Tray
  - Installation, Labeling and Testing of Network Cabling

**1. Project Management/Planning:** The contractor shall assign a dedicated Contractor Project Manager (CPM) to work with the Government Project Manager (GPM), to provide oversight for on-site project planning and execution. The contractor CPM shall (at a minimum):

- a. Schedule and host at Goodfellow AFB, TX a project kick-off meeting with CO, GPM, COR, and the contractor project team.



- b. Develop and deliver to the CO and GPM a project management plan and detailed schedule.
  - c. Schedule and host weekly onsite or telephone conference project status meetings with the CO, GPM, and contractor project team.
  - d. Provide written status reports to the CO and GPM prior to and during project execution on a weekly basis.
  - e. Provide to GPM at conclusion of the project, the following documentation:
    - (1) Project Management Plan
    - (2) Project Management Schedule
    - (3) Project Risk Management Plan and Report
    - (4) Project Change Management Plan, including approved and rejected change requests.
  - f. Complete project completion checklist with GPM prior to final acceptance of each sequence of work, and overall project.
- 2. South Annex Sequence of Work 3 Schedule – Rooms 216, 217, 220, 221, 223A/B, 224, 225, 227, 228 & 229A/B** – The Government will be vacating the entire South annex to the Contractor for the renovation work. The Government must have at least minimum 3 business days after completion of Sequence 2 in order to relinquish the South Annex to the Contractor
- a. **Installation of Overhead Cable Tray:** During this sequence of work for the project, the contractor will be required to:
    - i. Conduct on site meetings with government Network Administrator personnel to finalize logistical details of this Sequence of Work Schedule 3.
    - ii. In accordance with the Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016), ref: paragraph 2-5.3.1 Cable Tray, the contractor must develop installation design, acquire, and install overhead cable trays. The overhead cable tray hardware is not Government Furnished Equipment (GFE) and must be provided by the contractor. (See “**Attachment 2: Overhead Cable Tray Locations**” for recommended tray locations)
    - iii. Provide to the customer finalized documentation and diagrams indicating the locations of all installed cable trays.
  - b. **Installation, Labeling and Testing of Network Cabling:** During Sequence of Work Schedule 3 of the project, the contractor will be required to:
    - i. Conduct on site meetings with government Network Administrator personnel to finalize logistical details of this Sequence of Work Schedule 3. See “**Attachment 7: Communications Floor Plans**” and “**Attachment 8: Server Room 227 Current Room Layout**” for additional details.

- ii. Install GREEN CAT6 U/FTP Plenum cabling from source communications closets to destinations. All telecommunications infrastructure must be implemented in accordance with Unified Facilities Criteria (UFC) 3-580-01 dated 01, June 2016. See “**Attachment 3: CAT6 NIPRNet Locations and Quantities of Client Drops**”. Estimates of cable run distances have been provided for all buildings in “**Attachment 4: CAT6 NIPRNet Estimated Cable Lengths and Quantities**”. All network infrastructure (source to destination cabling), to include cable, connectors, termination components, surface mount cable raceways, etc., is NOT GFE, and must be provided by the contractor. Installation shall include any and all penetrations to walls in all building locations. This includes penetrations to cinder block walls. **Contractor shall remove pre-existing NIPRNet cabling in ROOMS 227, 228 & 229 ONLY.**
- iii. Install OM3 50/125-micro multi-mode (MM) fiber optic (FO) cabling from source communications closets to destinations. All telecommunications infrastructure must be implemented in accordance with Unified Facilities Criteria (UFC) 3-580-01 dated 01, June 2016. See “**Attachment 5: OM3 50/125-MM FO SIPRNet Locations and Quantities of Client Drops**”. Estimates of cable run distances have been provided for all buildings in “**Attachment 6: OM3 50/125-MM FO SIPRNet Estimated Cable Lengths and Quantities**”. All network infrastructure (source to destination cabling), to include cable, connectors, termination components, etc., must be TIA/EIA “LC” type and are NOT GFE, and must be provided by the contractor. Installation shall include any and all penetrations to walls in all building locations. This includes penetrations to cinder block walls.
- iv. All network cabling, faceplates & patch panels, etc., will be labeled following the ANSI/TIA/EIA 606-A standard. All labels shall be printed by a mechanical device (printer, label maker), and shall be legible viewing at 12”. The Government will provide specific labeling identifiers (bay, equipment shelf, terminal block etc.), after the contract is awarded.
- v. Test all installed network cabling for functionality, providing a test report detailing results of findings. Any failures must be annotated in the report, and a follow up regression test report provided after corrective action.

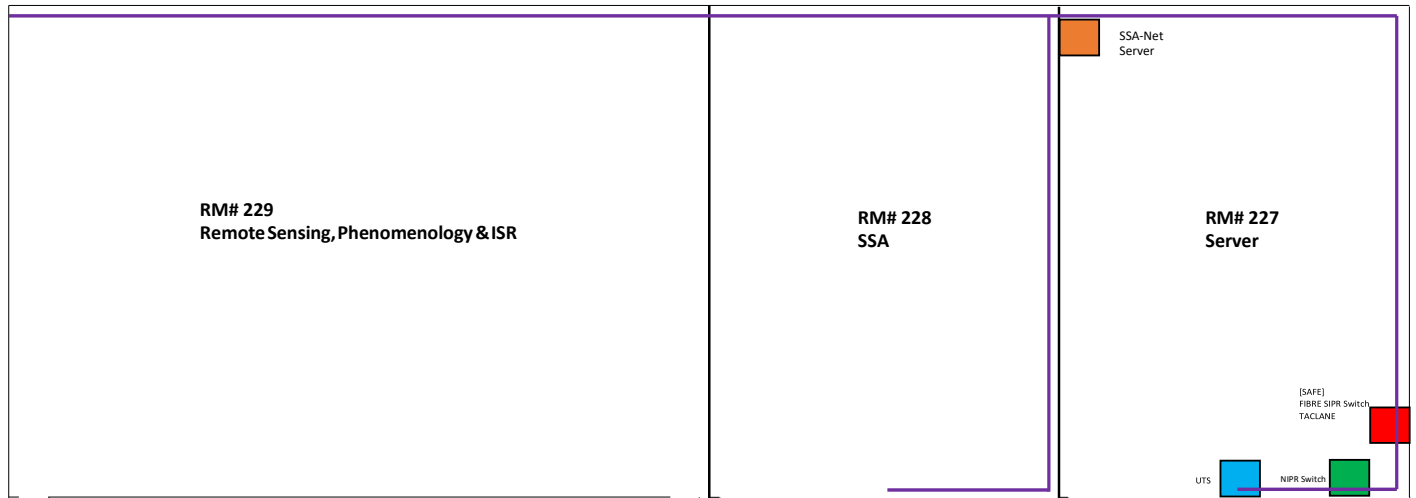
**12. PERIOD OF PERFORMANCE:** In accordance with section 5 of the SOO/TRP, all equipment must be delivered within 30 calendar days after contractor receipt of order (with exception to manufacturer-caused delivery delays out of the contractor's control). Once all equipment has been delivered, all work outlined within these installation instructions must be accomplished within 120 business days. The project kick-off meeting and planning and

design workshops are estimated to take no more than 5 business days and should begin no later than 10 business days after product delivery. The contractor is responsible for analyzing the tasks outlined in these installation instructions and developing a plan to complete the work after the project kick-off meeting. All work defined in these installation instructions will be conducted during the hours of operation stated above and during normal working days. Exceptions to this constraint will be submitted to the Contracting Officer and GPM in writing no later than ten (10) business days prior to the event. All activities, including delivery of final system documentation and security documentation must be completed within the Period of Performance stated within the contract documentation.

**Attachment 1 – Summary of Equipment Needed**

LINE	PART #	DESCRIPTION	QTY
<b>NETWORK COMPONENTS</b>			
1	WS-C3850-24XS-E	Stackable 24 Port SFP+ GE Fiber Switch, with 715WAC power supply, 1 RU, IP Services feature set	1
2	PWR-C1-715WAC	715WAC Power Supply Spare	1
3	C3850-NM-4-10G	Cisco Catalyst 3850 4 x 10GE Network Module	1
4	SFP-10G-LRM	Cisco multi-mode fiber 10 Gigabit SFP interfaces	12
5	1G-MM-1	TACLANE-1G Cyber Ready Encryptor Multi Mode (KG-175GM)	1
6	1G-MMC	Fiber Optic Cable (TACLANE-1G) (Multi Mode)	1
7	EWMW482225	Hoffman Cabinet, Wall Mount, Plexi Glass, Dual Hinge, 26RU	1
8	3517	Fibermart 24 Fibers LC Wall Mounted Fiber Terminal Box as Distribution box with Pigtails and Adaptors	1
9	3517	Fibermart, 4 Fibers LC Wall Mounted Fiber Terminal Box as Distribution box with Pigtails and Adaptors	2
<b>CABLE INSTALLATION COMPONENTS</b>			
9	TBD	Overhead Cable Tray (to be designed per SOW instructions)	1
10	TBD	All network infrastructure (source to destination) to include cable, connectors, termination components	1
<b>MISC</b>			
11		20A Outlet At Location Of Rack	1
12		Network Rack Grounding Buss Bar	1

Attachment 2: Overhead Cable Tray Locations (**Diagram is for cable tray location ONLY**)



Legend

Cable Tray

**Notes**

- Cable Tray location will be installed above ceiling of Server room 227 for cables/fibers
- Cable tray will run East to West (mid length) & North to South (full length) parallel and from the interior side of the exterior wall of the building
- Cable tray to be continuous with adjacent Rooms 228 and 229
- Cable tray will support NIPRNet, SIPRNet, AFTAC SSA-Net & UTS network cables/fibers from room 227 to room 228 & 229
- Recommended cable Manufacture/Model # listed below:
  - PANDUIT – WG12BL10 Wyr-Grid Pathway
  - MPHUSKY – BF2R-12X2-EZ
  - COPE - CAT2-12SL-120

**Attachment 3 – CAT6 NIPRNet Locations and Quantity of Client Drops**

<b>Building</b>	<b>Room #</b>	<b># Drops</b>
3453	216	N/A
3453	217	1
3453	220	1
3453	221	13
3453	223	1
3453	224A	2
3453	225	1
3453	227	8
3453	228	2
3453	229	2
3453	237	13
	<b>TOTAL</b>	<b>44</b>

**Attachment 4: NIPRNet Estimated Cable Lengths and Quantities (All measurements are in feet)**

3453 Comm Rm 227		(17x20)					
Rooms	Length	Width	Cinder?	Pos. #	Cable Distance		
216	39	29	Y	0	250	0	
217	9	9	Y	1	250	250	
220	39	30	Y	1	220	220	
221	39	30	Y	13	190	2470	
223	20	20	Y	1	150	150	
224A	19	30	Y	2	130	260	
224B	20	30	Y	0	130	0	
225	39	39	Y	1	100	100	
227	19	19	Y	8	50	400	
228	19	19	Y	2	80	160	
229	19	20	Y	2	120	240	
237	19	19	Y	13	170	2210	
238	19	19	Y	0	190	0	
239	19	19	Y	0	210	0	
		<b>Total:</b>		<b>44</b>		<b>6460</b>	

**Attachment 5: OM3 50/125-micron MM OF SIPRNet Locations and Quantity of Client Drops**

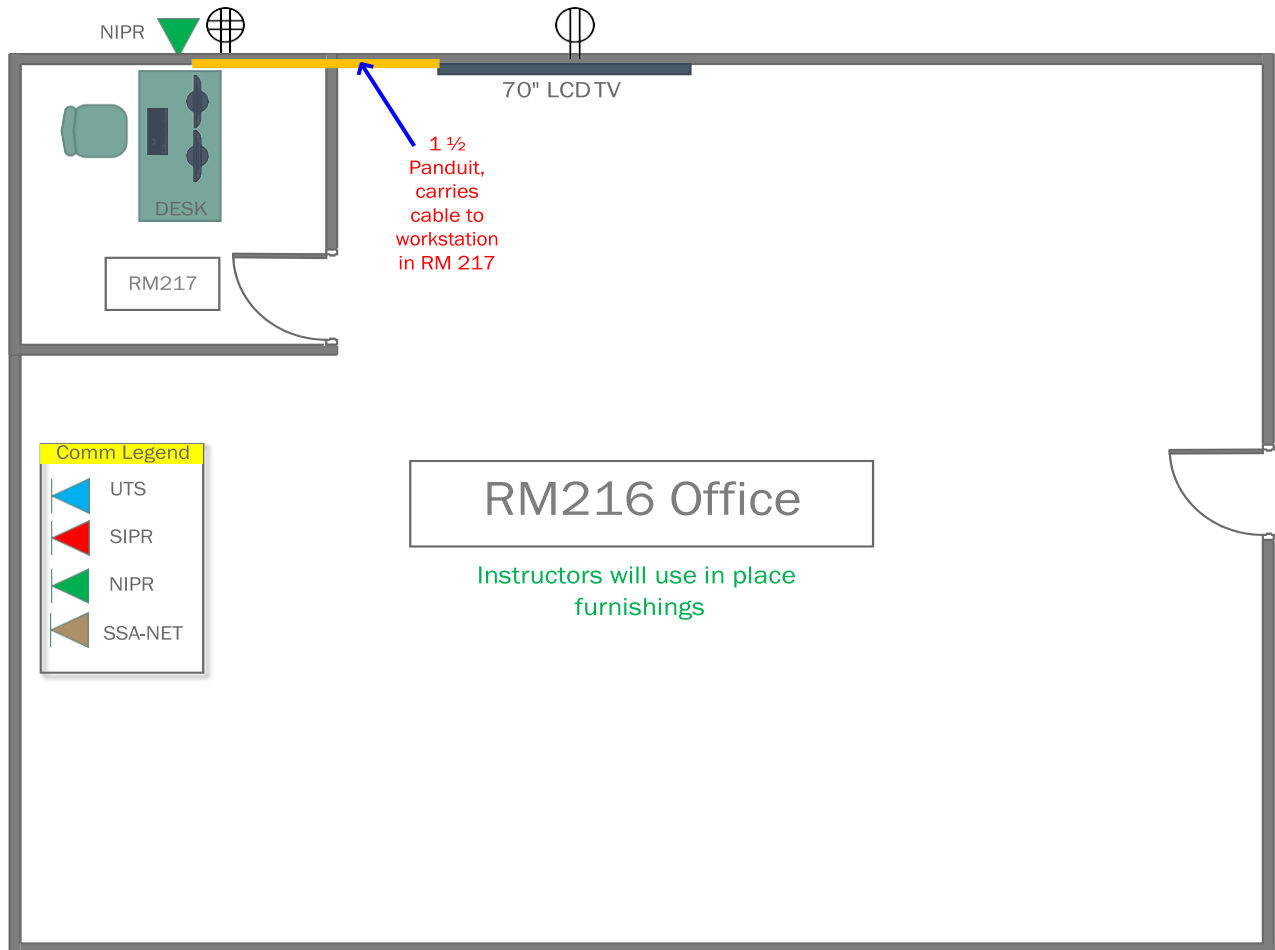
<b>Building</b>	<b>Room #</b>	<b># Drops</b>
3453	227	8
3453	228	2
3453	229	2
	<b>TOTAL</b>	<b>12</b>

**Attachment 6: OM3 50/125-micron MM OF SIPRNet Locations and Quantity of Client Drops (All measurements are in feet)**

3453 Comm Rm 227			(17x20)			
Rooms	Length	Width	Cinder?	Pos. #	Cable Distance	
227	19	19	Y	6	50	300
228	19	19	Y	2	80	160
229	19	20	Y	2	120	240
		<b>Total:</b>		<b>12</b>		<b>700</b>



Attachment 7: Communications Floor Plans **(Please note that ALL power receptacles are shown for information only, refer to electrical drawings for electrical requirements)**



**B3453 South Annex, Rm. 216**

- Install TV mount/70” LCD TV on North wall
- Connect PANDUIT and DVI Cable between 70” LCD TV and Instructor Workstation in Rm. 217.

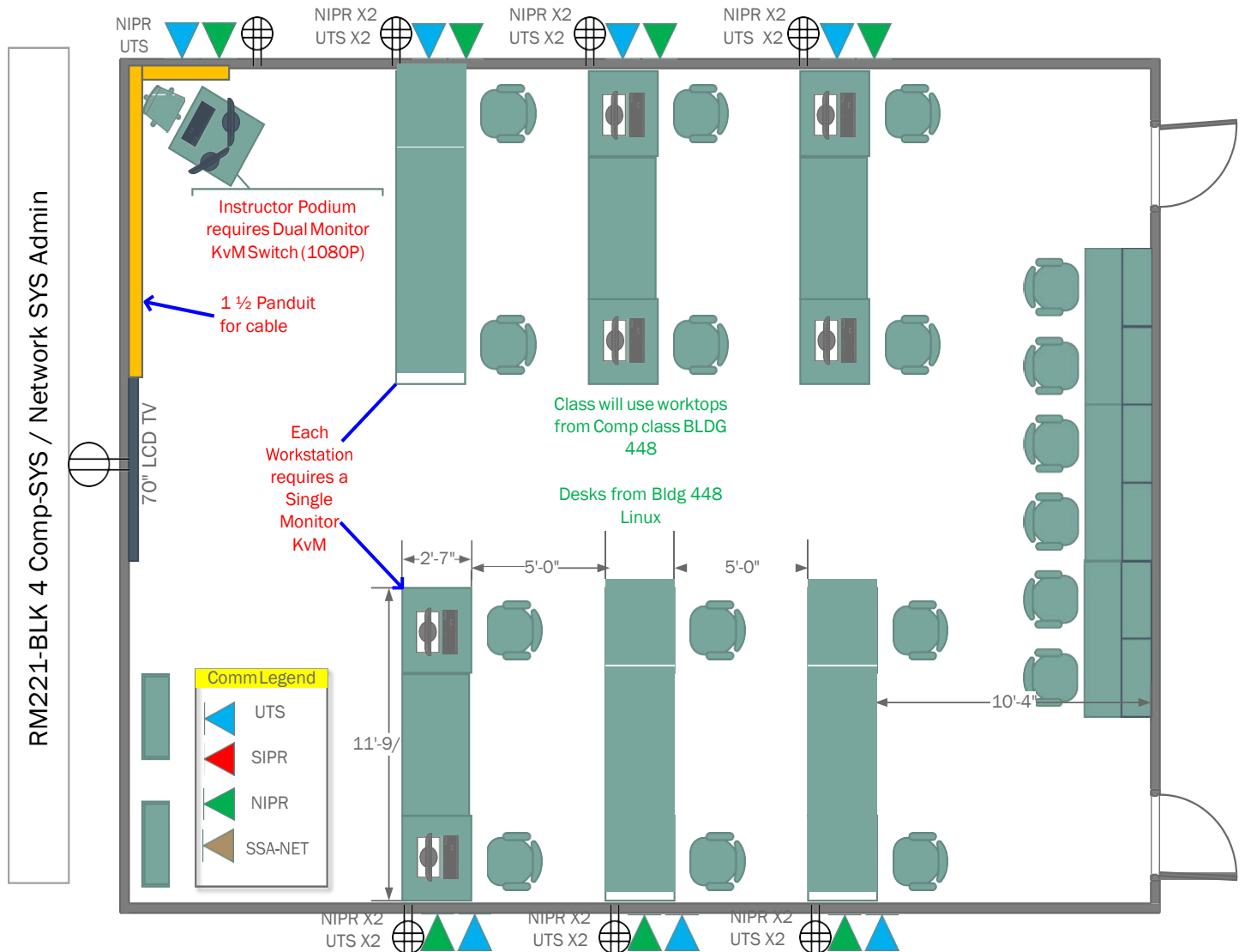
**B3453 South Annex, Rm. 217**

- Connect PANDUIT DVI Cable between Instructor workstation and 70” LCD TV in Rm. 216.
- One **(1) NIPR** drop at Instructor Workstation.



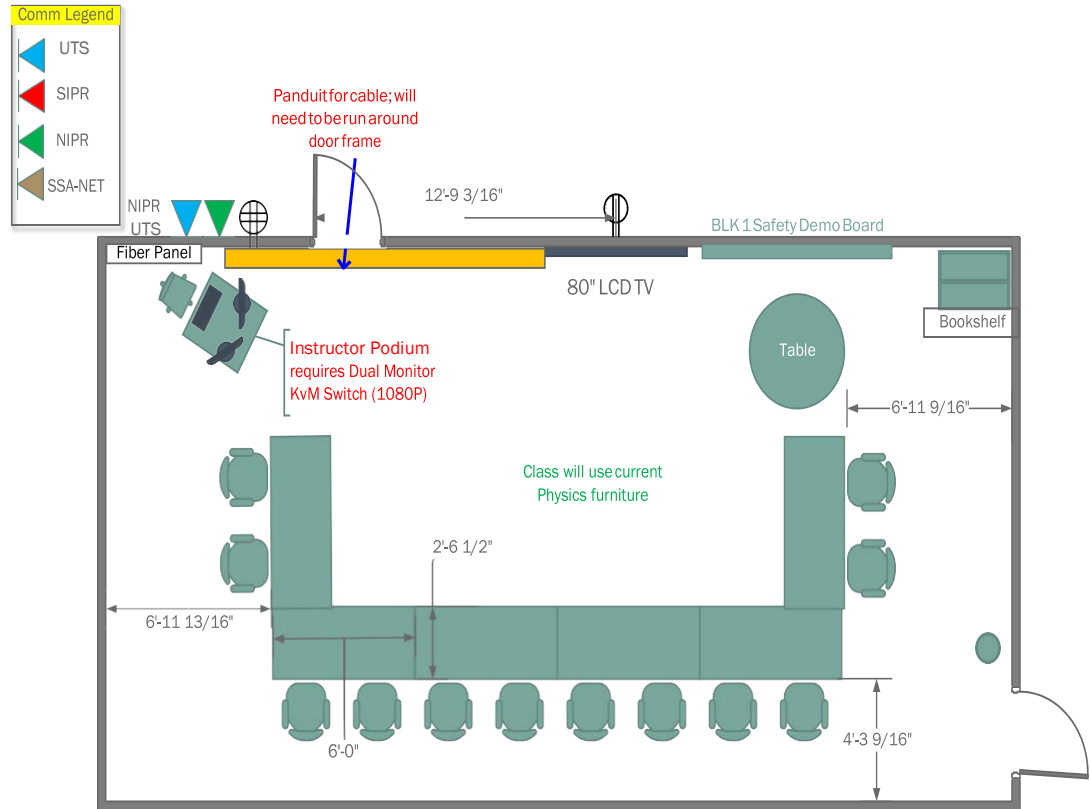
**B3453 South Annex, Rm. 220 (1,085 S.F.)**

- Twelve (12) UTS drops, for Student desks,
- One (1) UTS drop at the Instructor Podium.
- One (1) **NIPR** drop at the Instructor Podium.
- Install TV mount/70" LCD TV on West wall.
- One (1) Dual monitor KVM switch (non-security rated) at the Instructor Podium.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.



**B3453 South Annex, Rm. 221 (1,085 S.F.)**

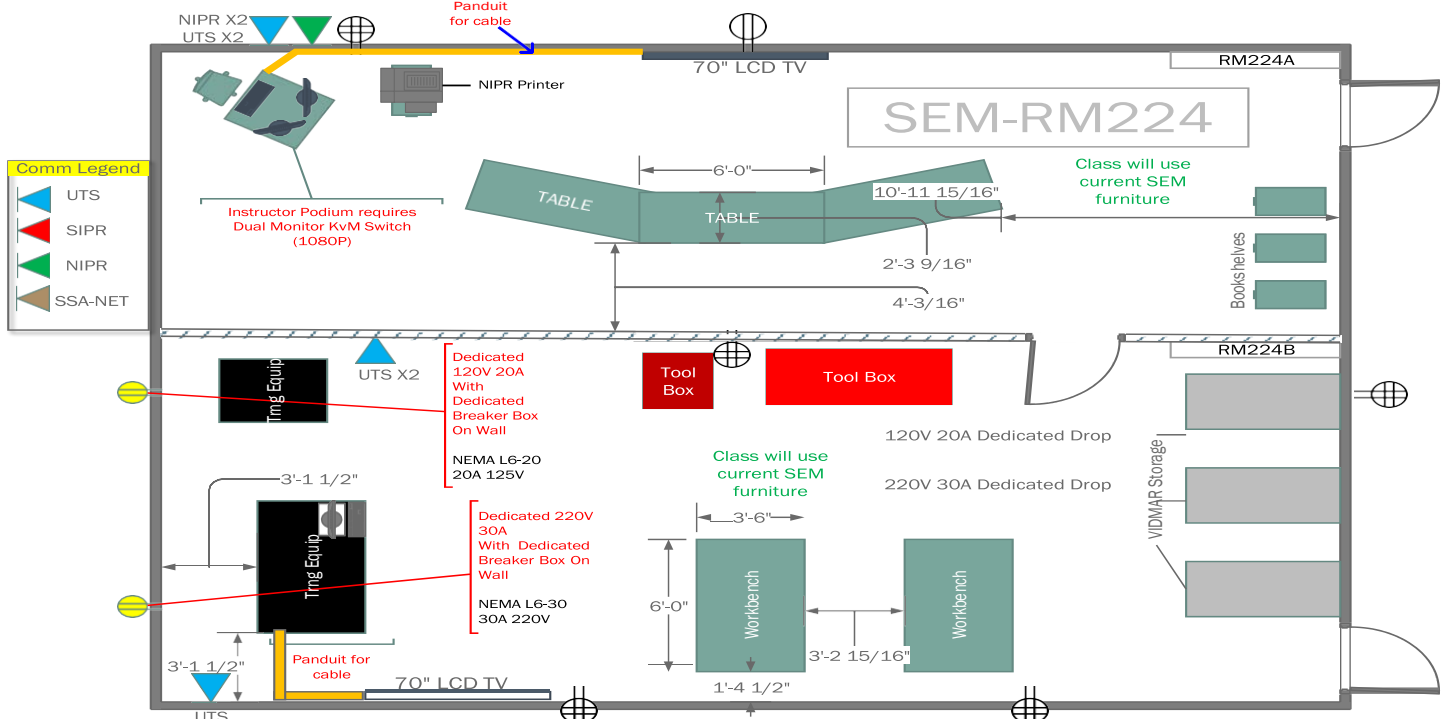
- Twelve (12) UTS drops at Student desks.
- One (1) UTS drop at Instructor Podium.
- Twelve (12) NIPR drops at Student desks.
- One (1) NIPR drop at the Instructor Podium.
- Install TV mount/70" LCD TV on West wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).
- Twelve (12) single monitor KVM switches (non-security rated at the student desks).



BLK 1, Math, Physics - RM 223

**B3453 South Annex, Rm. 223 (715 S.F.)**

- One (1) **NIPR** drop at the Instructor Podium.
- One (1) UTS drop at the Instructor Podium.
- Install TV mount/70" LCD TV on North wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).

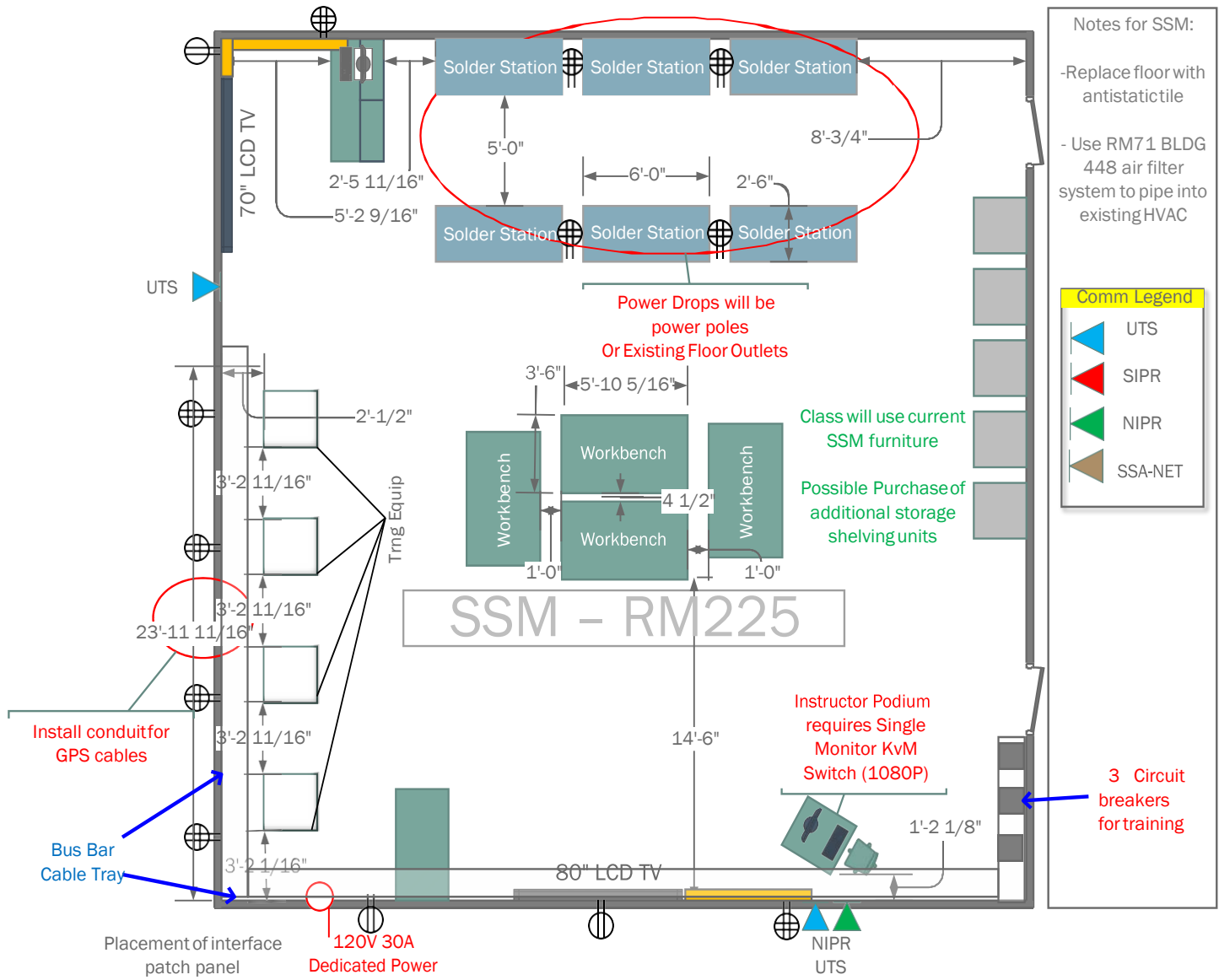


**B3453 South Annex, Rm. 224A (527 S.F.)**

- One (2) UTS drop at the Instructor Podium
- Two (2) **NIPR** drops at the Instructor Podium
- Install TV mount/70" LCD TV on North wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).

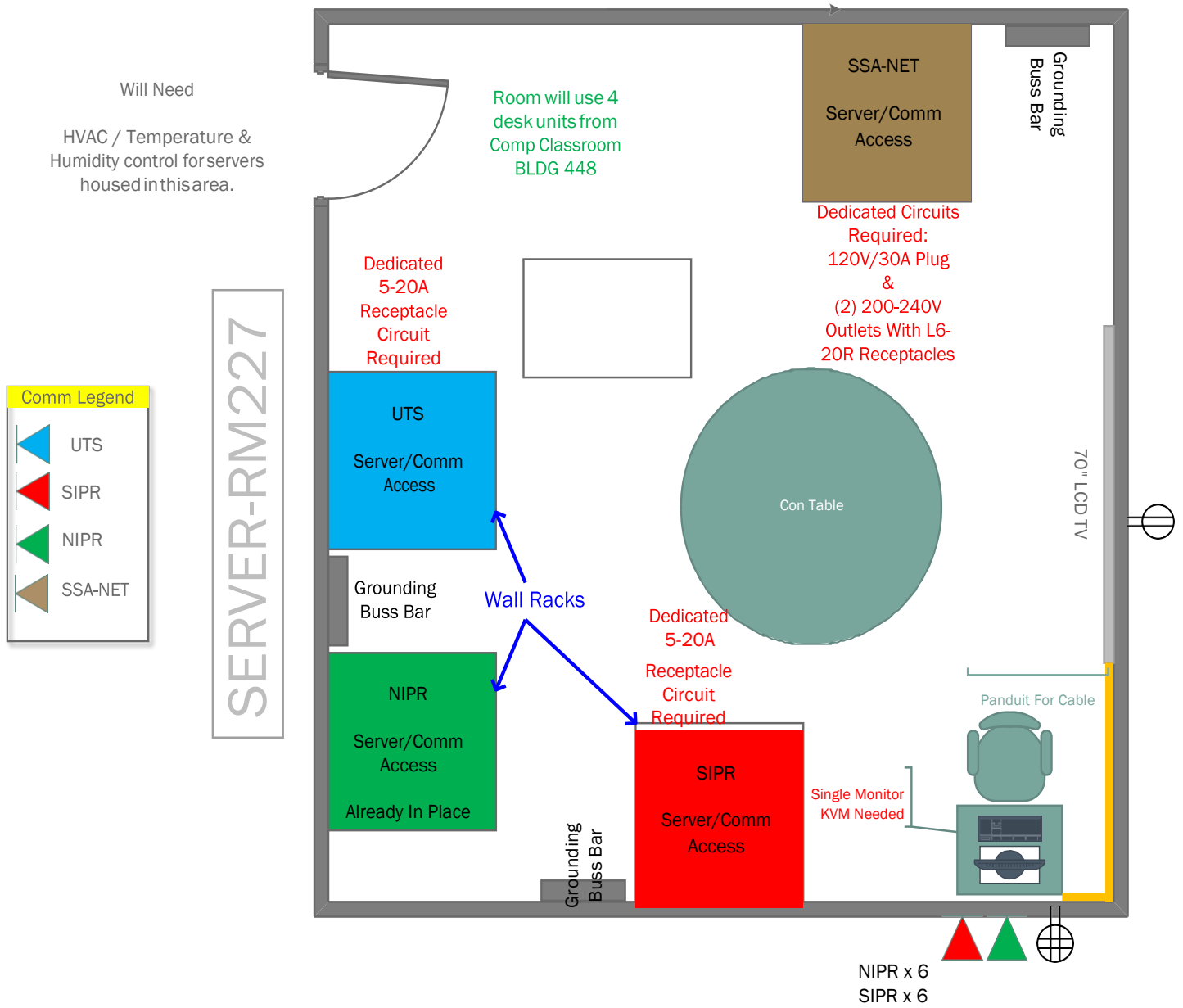
**B3453 South Annex, Rm. 224B (527 S.F.)**

- Two (2) UTS drops at Training Equipment.
- One (1) UTS drop at South Wall
- Install TV mount/70" LCD TV on South wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).
- Install one (1) dedicated 220V 30A drop on West wall.
- Install one (1) dedicated 120V 20A drop on West wall.



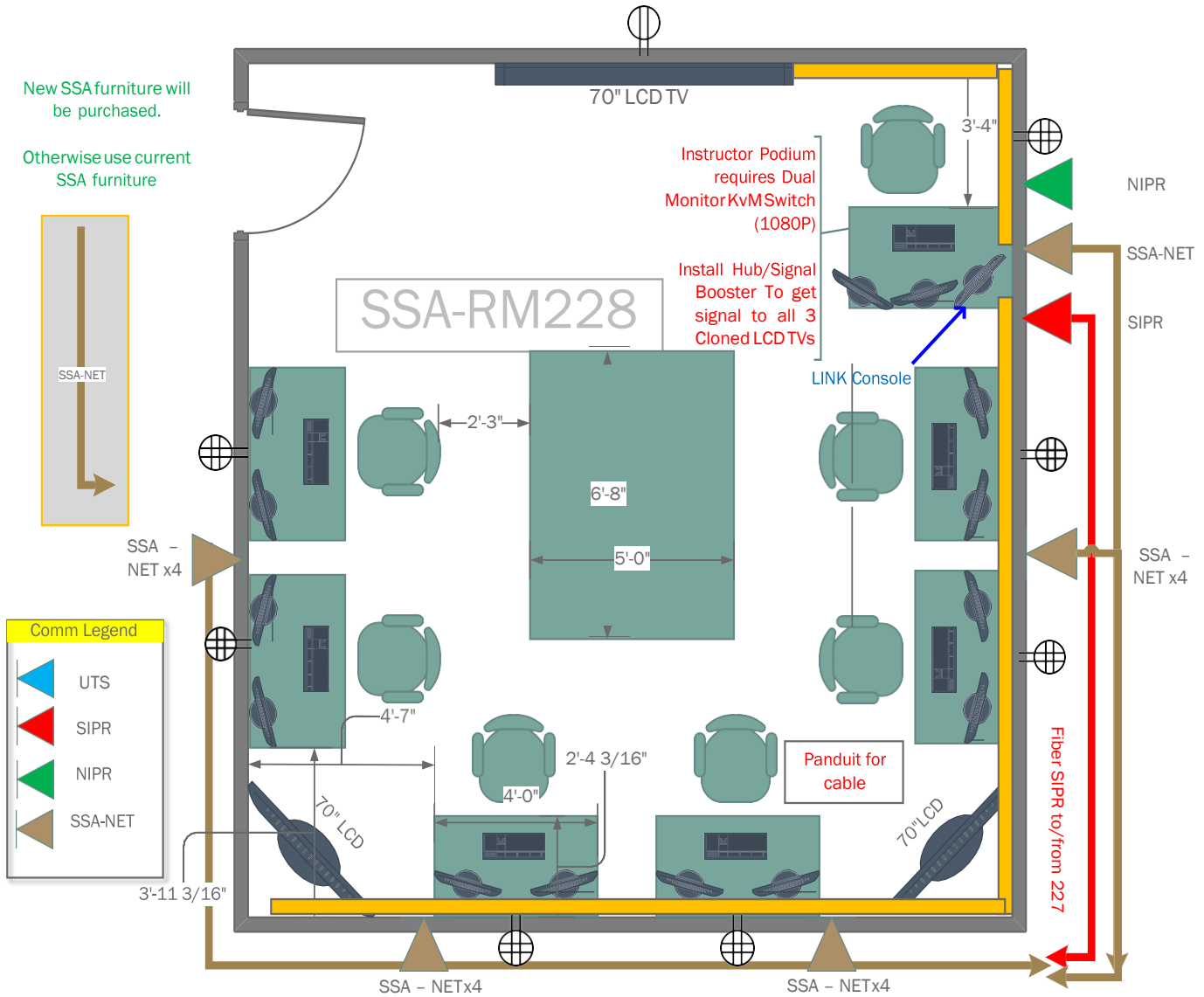
**B3453 South Annex, Rm. 225 (1,425 S.F.)**

- One (1) **NIPR** drop at the Instructor Podium.
- One (1) UTS drop at the Instructor Podium.
- One (1) UTS drop at the West wall.
- Install TV mount/70” LCD TV on East wall.
- Install TV mount/70” LCD TV on South wall.
- Connect PANDUIT and DVI Cable between 70” LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).



**B3453 South Annex, Rm. 227 (371 S.F.)**

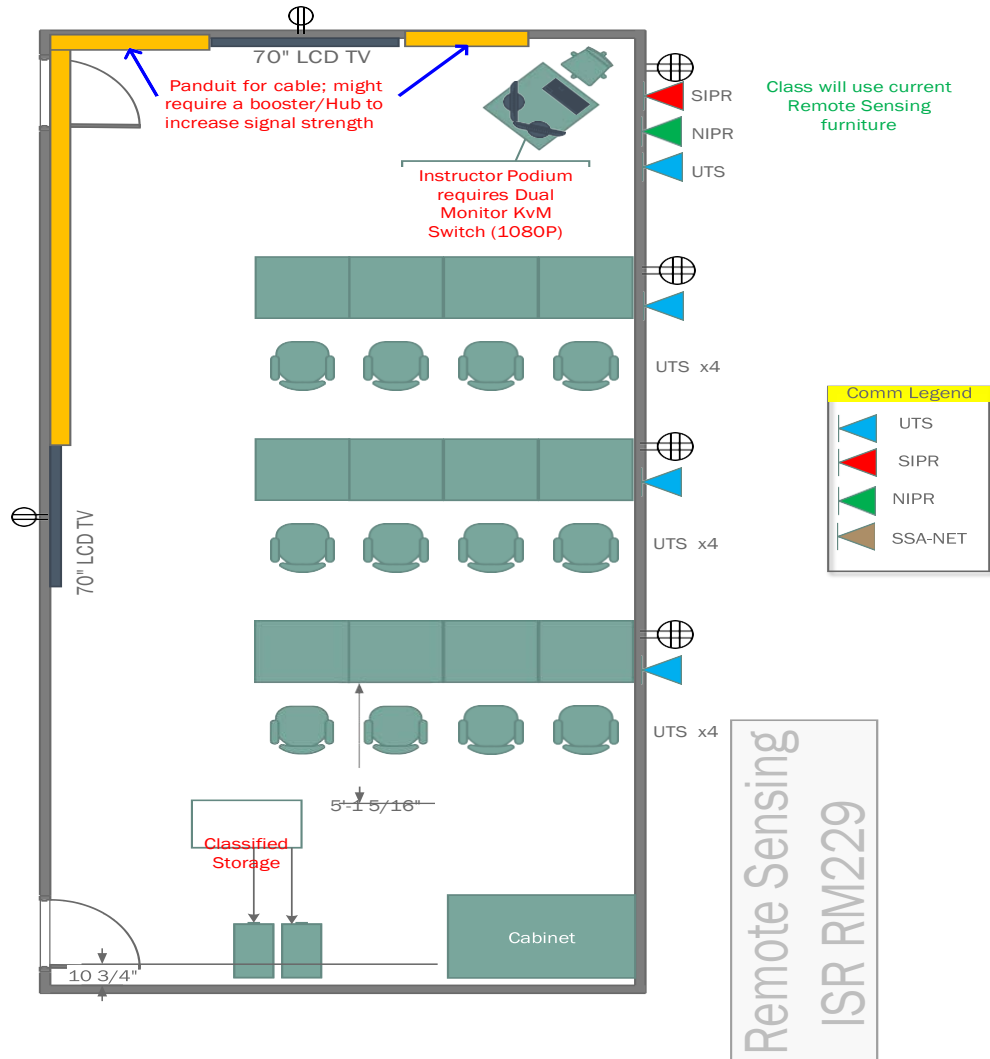
- Six (8) **NIPR** drops at the South wall.
- Six (8) **SIPR** drops at the South wall
- Install TV mount/70" LCD TV on East wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Single monitor KVM switch (non-security rated at the Instructor Podium.



**B3453 South Annex, Rm. 228 (361 S.F.)**

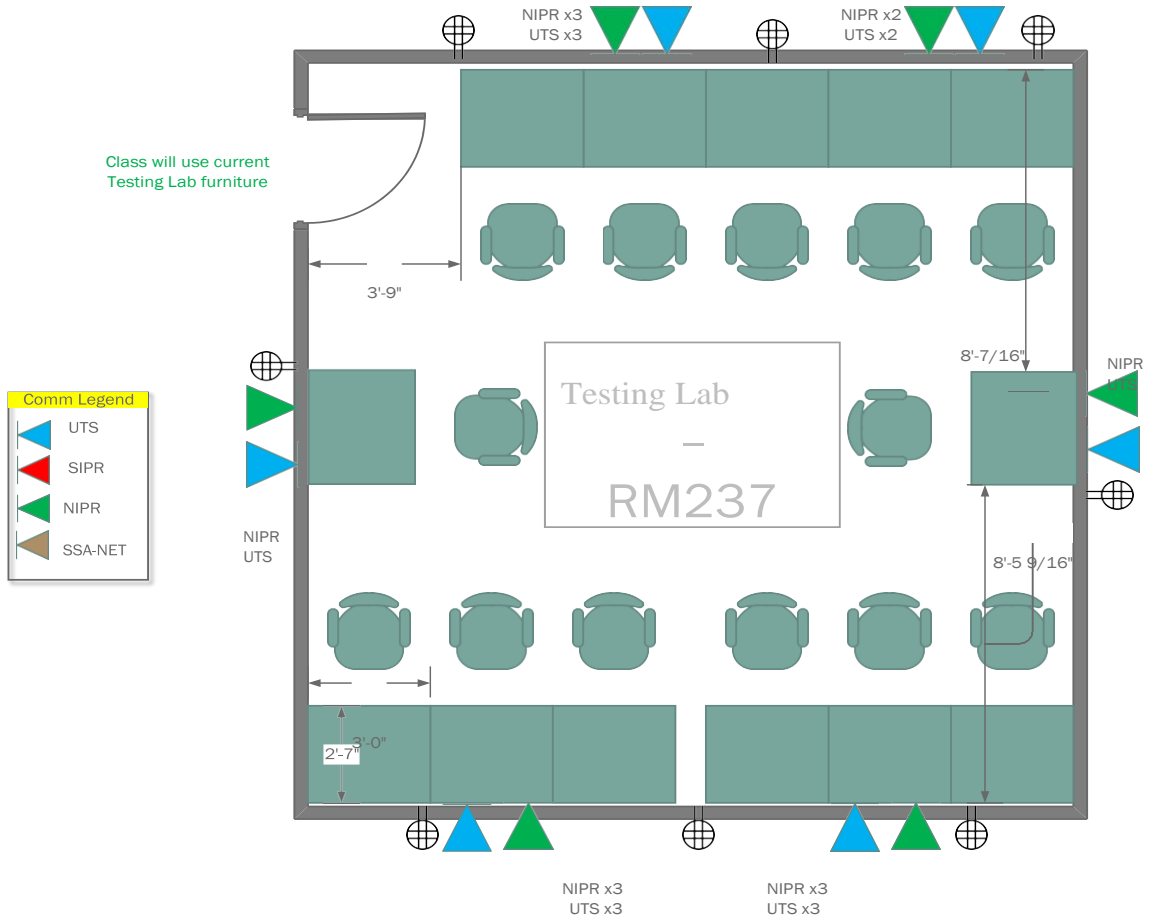
- Install TV mount/70" LCD TV on North wall.
- Install TV mount/70" LCD TV on South-East corner.
- Install TV mount/70" LCD TV on South-West corner.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- Two (2) **SIPR** drop at the East wall
- Two (2) **NIPR** drop at the East wall
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium.





**B3453 South Annex, Rm. 229 (773 S.F.)**

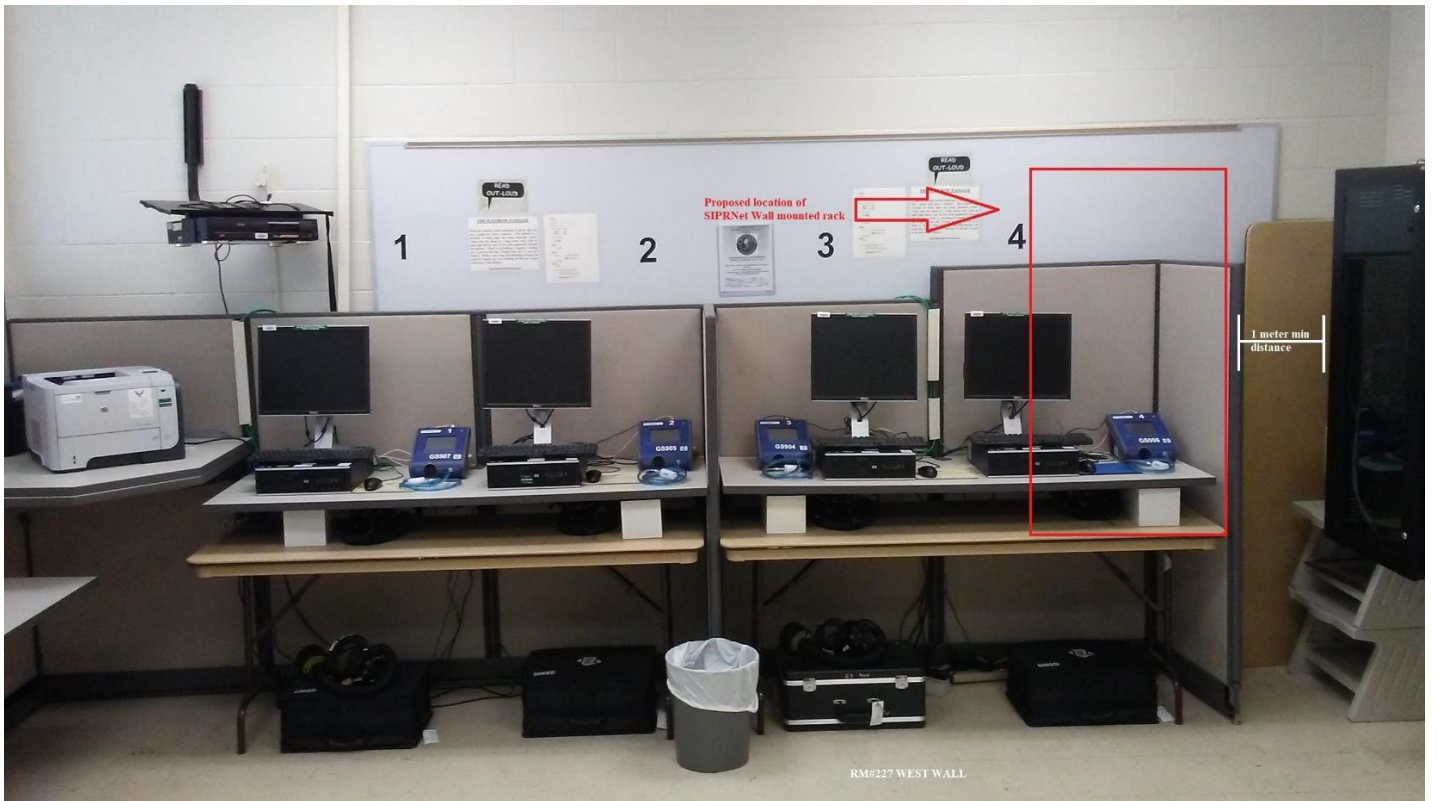
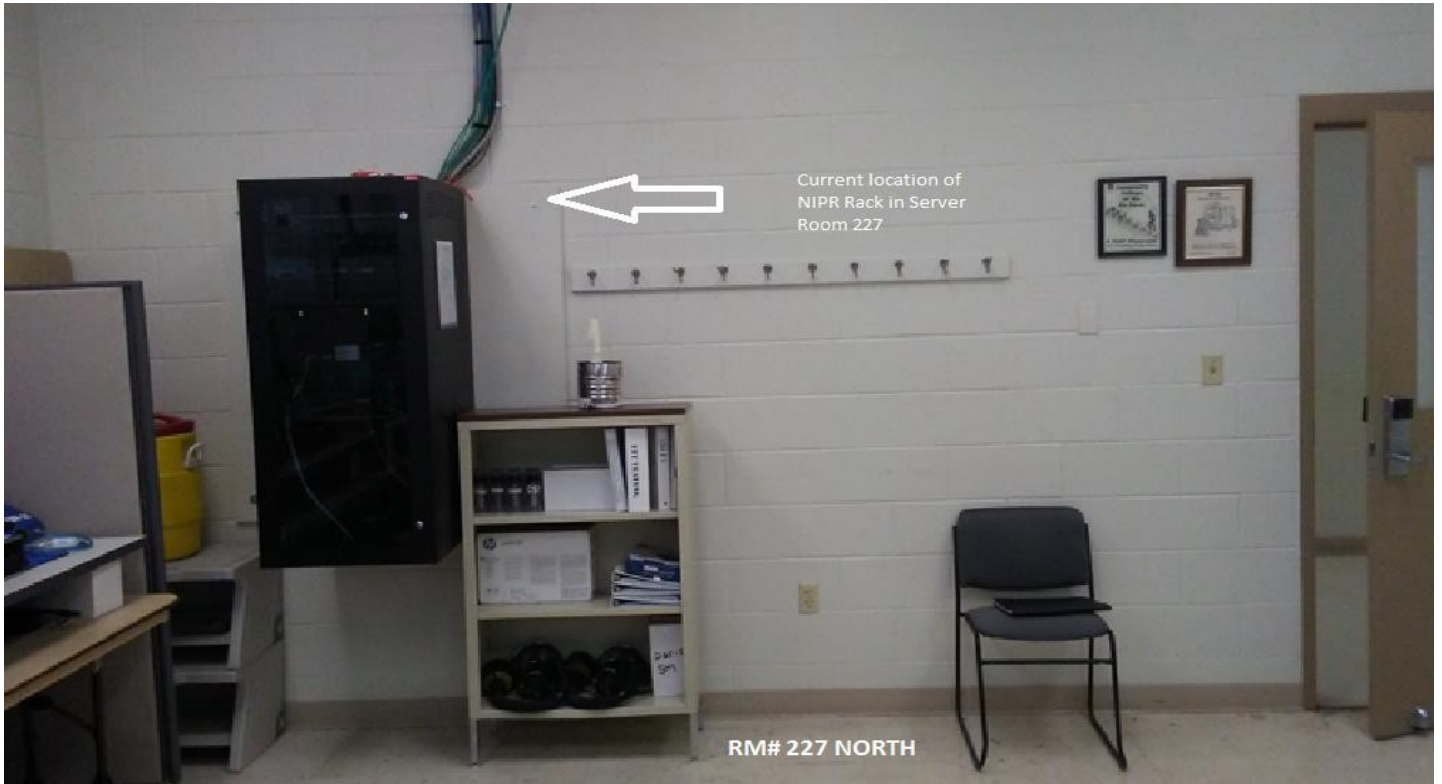
- Thirteen (13) UTS drops at Student desks.
- One (2) NIPR drop at the Instructor Podium.
- One (2) SIPR drop at the Instructor Podium.
- Install TV mount/70" LCD TV on North wall.
- Install TV mount/70" LCD TV on West wall.
- Connect PANDUIT and DVI Cable between 70" LCD TV and Instructor Podium.
- One (1) Dual monitor KVM switch (non-security rated at the Instructor Podium).



**B3453 South Annex, Rm. 237 (373.8 S.F.)**

- Thirteen (13) UTS drops at Student desks.
- Thirteen (13) NIPR drops at Student desks.
- Thirteen (13) Single monitor KVM switches (non-security rated at student desks).

**Attachment 8: Server Room 227 Current Room Layout**





## **ATTACHMENT E**

### **SPINSTR Universal Training System (UTS) Re-Location Statement of Work (Bldg 3453 South Annex Only)**

#### **1. DESCRIPTION**

- a. **System Description:** To prepare the identified classrooms and offices for UTS utilization. The vendor will need to install cable tray hardware and network wiring from communications closet to end user locations.
  
- b. **Scope of Work:** The contractor shall perform all tasks necessary to accomplish the installation and configuration of the overhead cable tray and copper wiring to designated rooms. These tasks are outlined in Section 9, General Tasks and Section 11, Specific Tasks below. As an overview, the contractor must:
  - i. Perform an inventory of equipment
  - ii. Stage and prepare equipment for installation
  - iii. Perform requirements and systems analysis
  - iv. Develop implementation plan and schedule
  - v. Purchase equipment in Attachment 1 – Equipment List: Install the Wall Mount Cabinet (turn network components over to government for installation)
  - vi. Remove and dispose of all equipment packing materials
  - vii. Configure and secure the operating environment and hardware
  - viii. In accordance with Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016), ref: paragraph 2-5.3.1 Cable Tray, the contractor must develop installation design, acquire, and install overhead cable trays (non-Government Furnished Equipment) according to Attachment 3 – Overhead Cable Tray Locations.
    - (1) **Contractor must adhere to the Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016) for all telecommunications infrastructure installation. This is specifically referenced for the overhead cable tray installation.**
    - (2) **There are three emphasis items:**
      - (a) **The height above the drop-ceiling should be at a height that does not require additional safety equipment (i.e. personal fall protection equipment, etc.) to be accessed by the government maintenance staff.**
      - (b) **In accordance with NFPA 70, the cable tray system must be bonded and grounded to the building grounding systems.**
  - ix. Provide Logical and physical drawings of installed hardware/cabling upon completion.
  
- c. **Location:** Cable tray and network drops will be installed in building 3453 South Annex.
  
- d. **Purpose:** This project is to install premise wiring for the UTS network.

- 2. PERSONNEL:** Contractor personnel shall present a neat appearance and be easily recognized. This may be accomplished by wearing distinctive clothing bearing the name of company or by wearing appropriate badges that contain the company name and employee name. **Contractor shall ensure personnel are compliant with REAL ID Act of 2005 for the purpose of gaining access to Goodfellow Air Force Base.**
  - a. **Suitability Investigations.** Contractor personnel shall successfully complete, as a minimum, a National Agency Check with Written Inquiries (NACI), before operating government furnished workstations, being given government information, or being given access to multiple government buildings. These investigations shall be submitted by the government at no additional cost to the contractor. The contractor shall comply with the DoD 5200.2-R, Personnel Security Program, and AFI 33-119, Electronic Mail (E-Mail) Management and Use, requirements.
  - b. **Listing of Employees.** The contractor shall maintain a current listing of employees. The list shall include employee's name, social security number, and date of investigation if contract work involves unescorted entry to Air Force restricted or other sensitive areas designated by the installation commander. The list shall be validated and signed by the company Facility Security Officer (FSO) and provided to the contracting officer and ISPM prior to the contract start date. Updated listings shall be provided when an employee's status or information changes.
  - c. **Freedom of Information Act Program (FOIA).** The contractor shall comply with DoD Regulation 5400.7/Air Force Supplement, DoD Freedom of Information Act Program, requirements. The regulation sets policy and procedures for the disclosure of records to the public and for marking, handling, transmitting, and safeguarding For Official Use Only (FOUO) material.
  - d. **Additional Security Requirements.** In accordance with DoD 5200.01 and AFI 16-1404, the contractor shall comply with AFMAN 33-282, Computer Security (COMPUSEC); AFSSI 7700, Emission Security (EMSEC); applicable AFKAGs, AFIs, and AFSSIs for Communication Security (COMSEC); and AFI 10-701, Operations Security (OPSEC).
- 3. QUALITY CONTROL:** The contractor shall insure that all work performed under this (SOW) meets the quality established in Section 9, General Tasks, and Section 11, Specific Tasks.
- 4. PHYSICAL SECURITY:**
  - a. **Vehicle Passes:** The Contractor shall obtain vehicle passes for each vehicle used on Goodfellow AFB (GAFB) during the performance period. The necessary applications for vehicle passes can be obtained by contacting the 17th Contracting Squadron Contract Officer (CO) or with the Government Project Manager (GPM). Before starting the work, the Contractor shall provide a list of all personnel that will work on GAFB, (include Social Security number and driver's license number and state), to permit security

- screening. Any workers not cleared will be identified, and not permitted to work on GAFB.
- b. **Government Property:** The Contractor shall be responsible for safeguarding Government property associated with the required work. Facilities, equipment, and materials shall be secured at the close of each work period.
5. **HOURS OF OPERATION:** The contractor shall perform the on-site tasks of this SOW during a normal day. These hours are normally defined as 0730 to 1630 Central Standard Time, Monday through Friday, except Federal Holidays. Requests for changes or exceptions to this work schedule may be submitted to the CO for coordination with the GPM as required. These requests will be evaluated and approved or declined by the CO after coordinating with the GPM, based on impact to the cost, scope, and schedule of the project.
  6. **CONSERVATION OF UTILITIES:** The Contractor shall instruct employees in utilities conservation practices and shall be responsible for operating under conditions, which preclude the waste of Government utilities.
  7. **GOVERNMENT FURNISHED UTILITIES AND SERVICES:** The Government shall provide without costs to the Contractor, the utilities necessary (limited to water & electricity) to accomplish the tasks specified in this work description.
  8. **CONTRACTOR FURNISHED EQUIPMENT, PARTS, MATERIALS, and SERVICES:** Except for the utilities, services and equipment specifically stated to be Government furnished, the contractor shall provide all personnel, equipment, tools, transportation, and supervision required.
  9. **GENERAL TASKS:**
    - a. The Contractor shall visit the job site to verify location, conditions, quantities and dimensions prior to starting work. They shall coordinate with the government representative prior to visiting to the job site.
    - b. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and contract documents and shall not encumber the site with any materials or equipment without prior written authorization for exact location of each. Any deviation from or changes to the terms outlined in the contract (including this SOW) are subject to the approval of the CO or their designee (i.e., Contracting Officer Representative (COR) or GPM).
    - c. The Contractor shall plan operations so as to keep temporary work from blocking access to completed work. If, however, conflict with normal traffic access occurs, the contractor shall provide temporary bypass routing until such temporary work is completed.
    - d. The Contractor shall be responsible for any cutting, fitting, or patching required to complete the work to ensure all parts fit properly.
    - e. During the performance of the work within the requirements of this contract and until final completion and acceptance thereof, the Contractor shall exercise the utmost care to avoid accident or injury to persons or property. The contractor shall place and maintain all necessary barriers and safeguards, including watchmen if necessary, about the work site for the prevention of accidents and shall take all precautions required to protect

personnel and property to include the general public and properties adjacent to the work site.

- f. The Contractor shall provide a full time quality control function to assure himself and the Government that all materials and workmanship are in strict accordance with industry standards and this SOW. Installation and materials shall conform to the requirements of applicable codes. The Contractor shall maintain adequate quality control capability regardless of the volume of workload. All work performed by the Contractor shall be inspected and approved by the Government before final acceptance by the Government.
- g. Upon completion of all work the Contractor shall request a final inspection. The Government shall inspect all work before acceptance. All work identified during the final inspection not meeting the criteria specified by this statement of work shall be repaired by the Contractor at no additional cost to the Government.

**10. SPECIFICATIONS:** It is the contractor's full responsibility to inventory equipment to ensure the correct material and amount required to perform the stated requirements under the terms of this statement of work and technical exhibits. This product will be installed with the manufacturers recommended methods and must be installed by a professional who is knowledgeable of this specific product to prevent exclusion of manufacturer's warranty.

**11. SPECIFIC TASKS:** The contractor shall provide all equipment, hardware, software, material, labor, documentation, tools, test plans, transportation, lodging, and staff needed to complete this project. Any existing equipment or components removed during contractor execution shall remain the property of the government. The tasks required to accomplish this implementation include Project Management and Planning, and two installation sequences.

- Project Management/Planning
- Installation of Overhead Cable Tray
- Installation and Testing of Network Cabling

- 1. Project Management/Planning:** The contractor shall assign a dedicated Contractor Project Manager (CPM) to work with the Government Project Manager (GPM), to provide oversight for on-site project planning and execution. The contractor CPM shall (at a minimum):
  - a. Schedule and host at Goodfellow AFB, TX a project kick-off meeting with CO, GPM, COR, and the contractor project team.
  - b. Develop and deliver to the CO and GPM a project management plan and detailed schedule.
  - c. Schedule and host weekly onsite or telephone conference project status meetings with the CO, GPM, and contractor project team.
  - d. Provide written status reports to the CO and GPM prior to and during project execution on a weekly basis.
  - e. Provide to GPM at conclusion of the project, the following documentation:



- (1) Project Management Plan
  - (2) Project Management Schedule
  - (3) Project Risk Management Plan and Report
  - (4) Project Change Management Plan, including approved and rejected change requests.
- f. Complete project completion checklist with GPM prior to final acceptance of each sequence and overall project.

- 2. Installation of Overhead Cable Tray:** During this sequence of the project, the contractor will be required to:
- a. Conduct on site meetings with government Network Administrator personnel to finalize logistical details of this sequence.
  - b. In accordance with the Unified Facilities Criteria (UFC) 3-580-01 (dated 01 June 2016), ref: paragraph 2-5.3.1 Cable Tray, the contractor must develop installation design, acquire, and install overhead cable trays. The overhead cable tray hardware is not Government Furnished Equipment (GFE) and must be provided by the contractor. (See “Attachment 3: Cable Tray Locations” for recommended tray locations)
  - c. Provide to the customer finalized documentation and diagrams indicating the locations of all installed cable trays.

- 3. Installation and Testing of Network Cabling:** During this sequence of the project, the contractor will be required to:
- a. Conduct on site meetings with government Network Administrator personnel to finalize logistical details of this sequence.
  - b. Install Cat6 unshielded cabling from source communications closets to destinations. All telecommunications infrastructure must be implemented in accordance with Unified Facilities Criteria (UFC) 3-580-01 dated 01, June 2016. See “Attachment 2: Locations and Quantities of Client Drops”. Estimates of cable run distances have been provided for all buildings in “Attachment 4: Estimated Cable Lengths and Quantities”. All network infrastructure (source to destination cabling), to include cable, connectors, termination components, etc., is NOT GFE, and must be provided by the contractor. Installation shall include any and all penetrations to walls in all building locations. This includes penetrations to cinder block walls.
  - c. **Test all installed network cabling for functionality, providing a test report detailing results of findings. Any failures must be annotated in the report, and a follow up regression test report provided after corrective action.**

**12. PERIOD OF PERFORMANCE:** In accordance with section 5 of the SOO/TRP, all equipment must be delivered within 30 calendar days after contractor receipt of order (with exception to manufacturer-caused delivery delays out of the contractor's control). Once all equipment has been delivered, all work outlined within these installation instructions must be accomplished within 120 business days. The project kick-off meeting and planning and design workshops are estimated to take no more than 5 business days and should begin no

later than 10 business days after product delivery. The contractor is responsible for analyzing the tasks outlined in these installation instructions and developing a plan to complete the work after the project kick-off meeting. All work defined in these installation instructions will be conducted during the hours of operation stated above and during normal working days. Exceptions to this constraint will be submitted to the Contracting Officer and GPM in writing no later than ten (10) business days prior to the event. All activities, including delivery of final system documentation and security documentation must be completed within the Period of Performance stated within the contract documentation.

Attachment 1 – Equipment list

LINE	PART #	DESCRIPTON	QTY		
<b>NETWORK COMPONENTS</b>					
1	WS-C3850-48T-E	Stackable 48 10/100/1000 Ethernet ports, with 350WAC power supply, 1 RU, IP Services feature set	2		
2	PWR-C1-350WAC/2	350W AC Secondary Power Supply	2		
3	C3850-NM-2-10G	Cisco Catalyst 3850 2 x 10GE Network Module	1		
4	SFP-10G-SR	Cisco multi-mode fiber 10 Gigabit SFP interfaces	2		
5	STACK-T1-50CM	50CM Type 1 Stacking Cable	1		
6	CON-SNT-WSC388TE	SNTC-8X5XNBD Cisco Catalyst 3850 48 Port Data IP Serv	2		
7	VLWM3625PB	Cabinet, Wall Mount, Dual Hinge, Plexiglass Door, 36"H x 24"W x 25"D, 19RU	1		
<b>CABLE INSTALLATION COMPONENTS</b>					
8	TBD	Overhead Cable Tray (to be designed per SOW instructions)	1		
9	TBD	All network infrastructure (source to destination) to include cable, connectors, termination components, etc.	1		
<b>MISC</b>					
10		20A Dedicated Outlet At Location Of Rack	1		
11		HVAC At Location Of Rack (Need to ensure adequate cooling is provided)	1		
12		Grounding Buss Bar	1		

**TOTAL:**

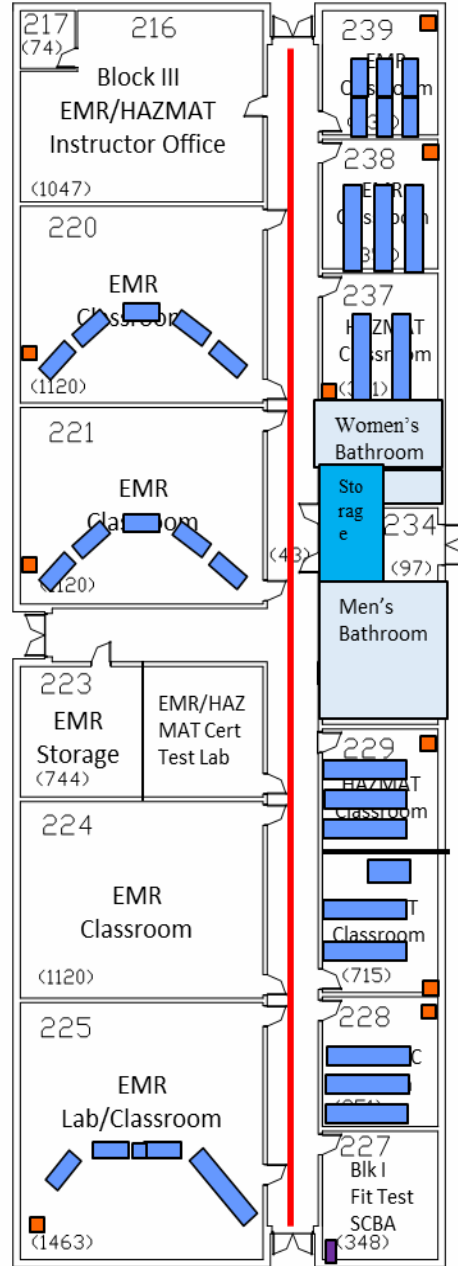
\* UTS Endstate (ITR-821) has already accounted for the following UTS items for SPINSTRA relocation hallway (B3453): thin client computers, non-secure KVM's, and KVM cables.


Attachment 2 – UTS Locations and Quantity of Client Drops

Building	Room	# Drops		Building	Room	# Drops	
3453	220	13		3453	224B	3	
3453	221	13		3453	225	2	
3453	223	1		3453	229	13	
3453	224A	2		3453	237	13	
3453	227	Install UTS Wall Mount Rack In This Room					
					<b>TOTAL :</b>	<b>60</b>	

Attachment 3: Overhead Cable Tray Location (Diagram is for cable tray location ONLY; desk layouts are old and do not represent the SPINSTRA requirements)

## South Wing



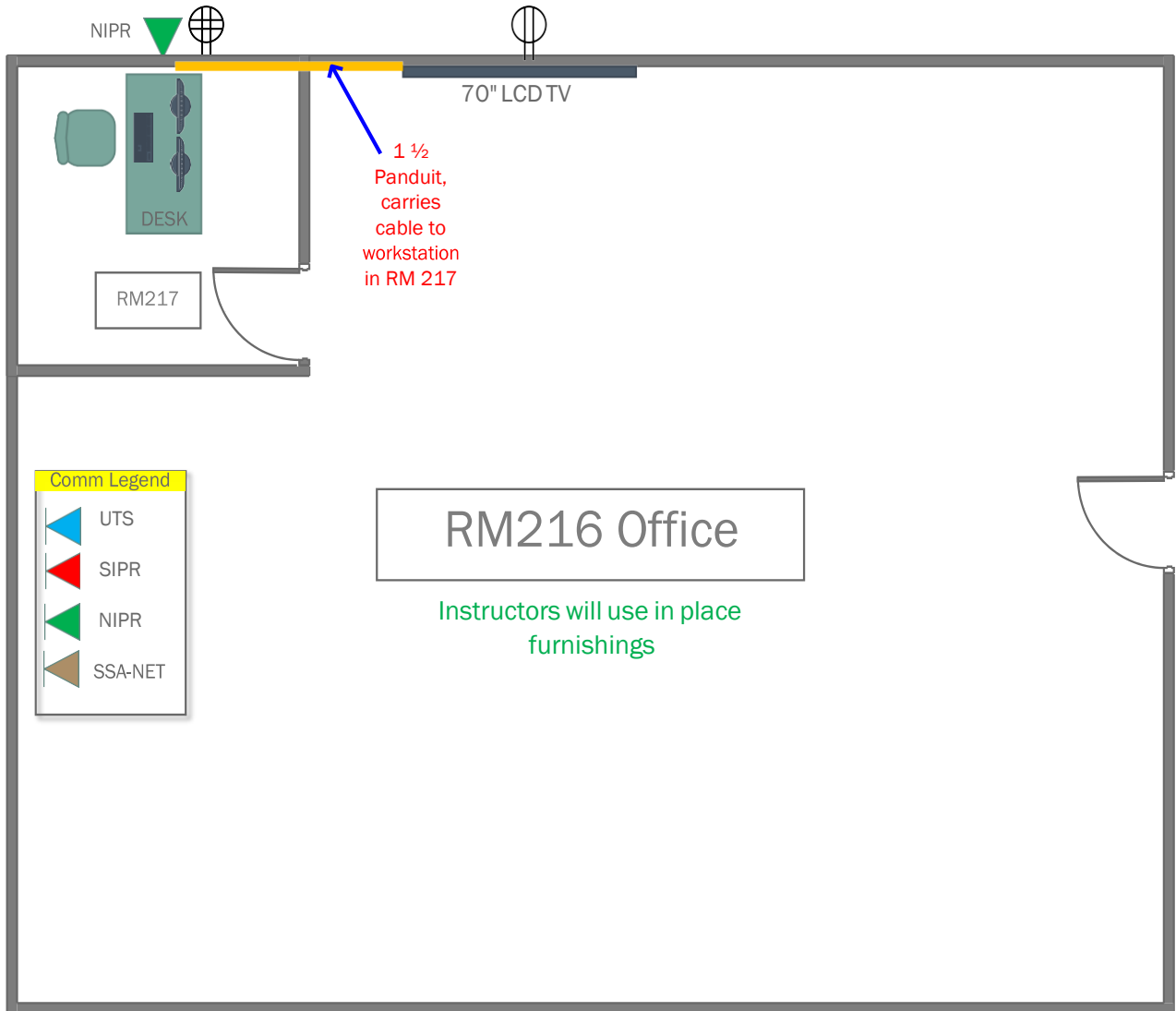
 Location of Cable Tray to be Installed

Attachment 4: Estimated Cable Lengths and Quantities

All measurements are in feet.

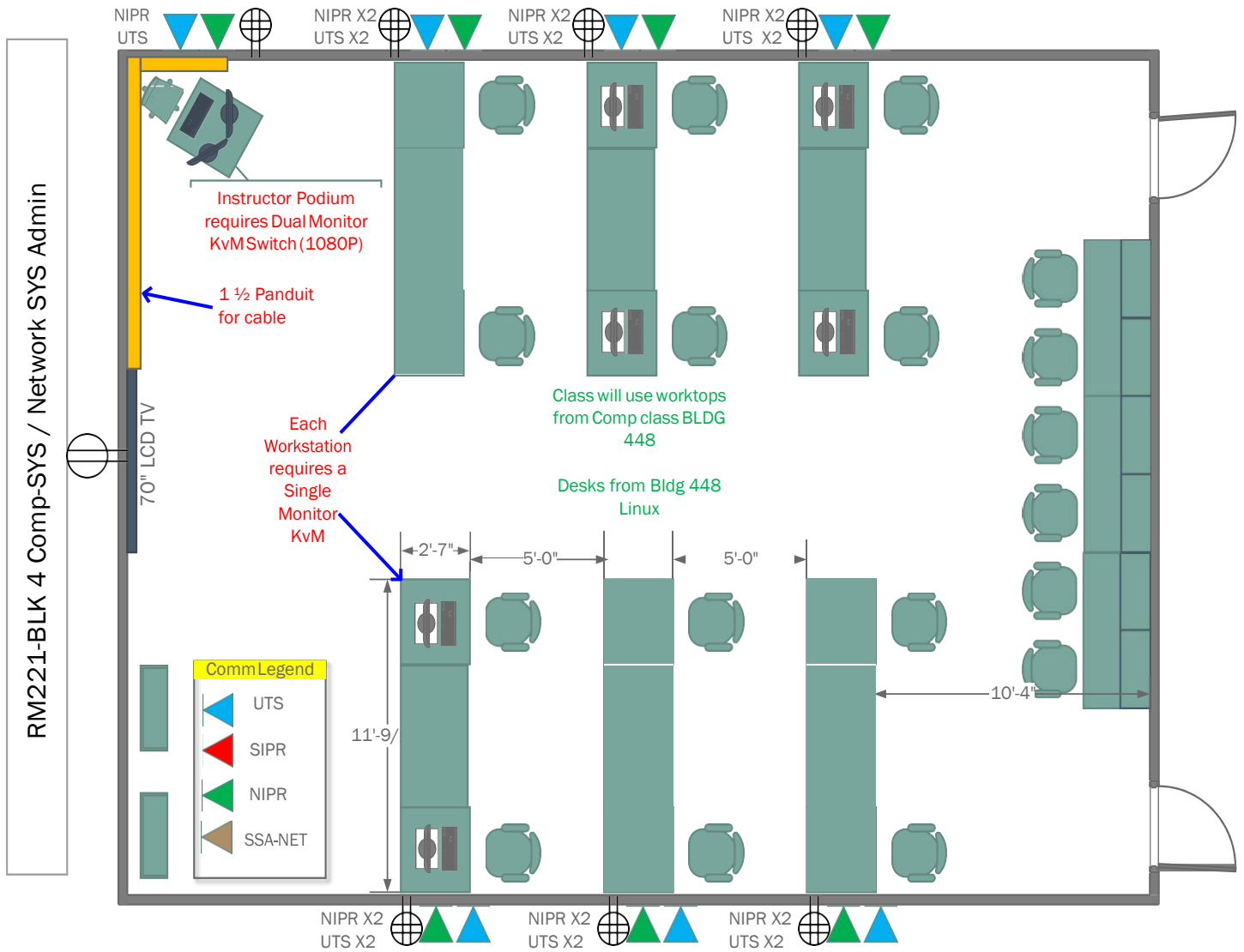
3453 Comm Rm 227		(17x20)				
Rooms	Length	Width	Cinder?	Pos. #	Cable Distance	
216	39	29	Y	0	250	0
217	9	9	Y	0	250	0
220	39	30	Y	13	220	2860
221	39	30	Y	13	190	2470
223	20	20	Y	1	150	150
224A	19	30	Y	2	130	260
224B	20	30	Y	3	130	390
225	39	39	Y	2	100	200
227	19	19	Y	0	50	0
228	19	19	Y	0	80	0
229	19	20	Y	13	120	1560
237	19	19	Y	13	170	2210
238	19	19	Y	0	190	0
239	19	19	Y	0	210	0
		Total:		60		10100

### Attachment 5: Graphical Layout of Work



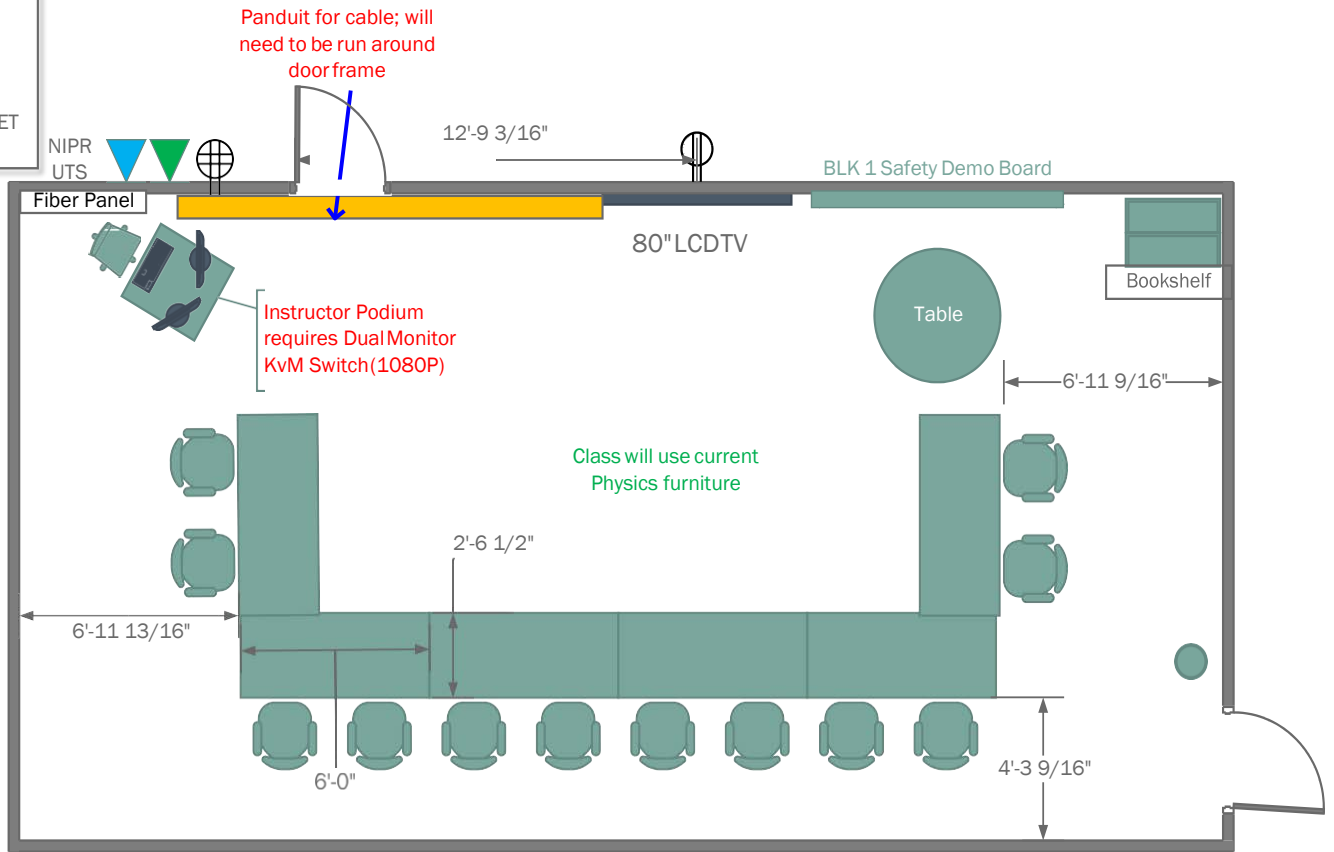




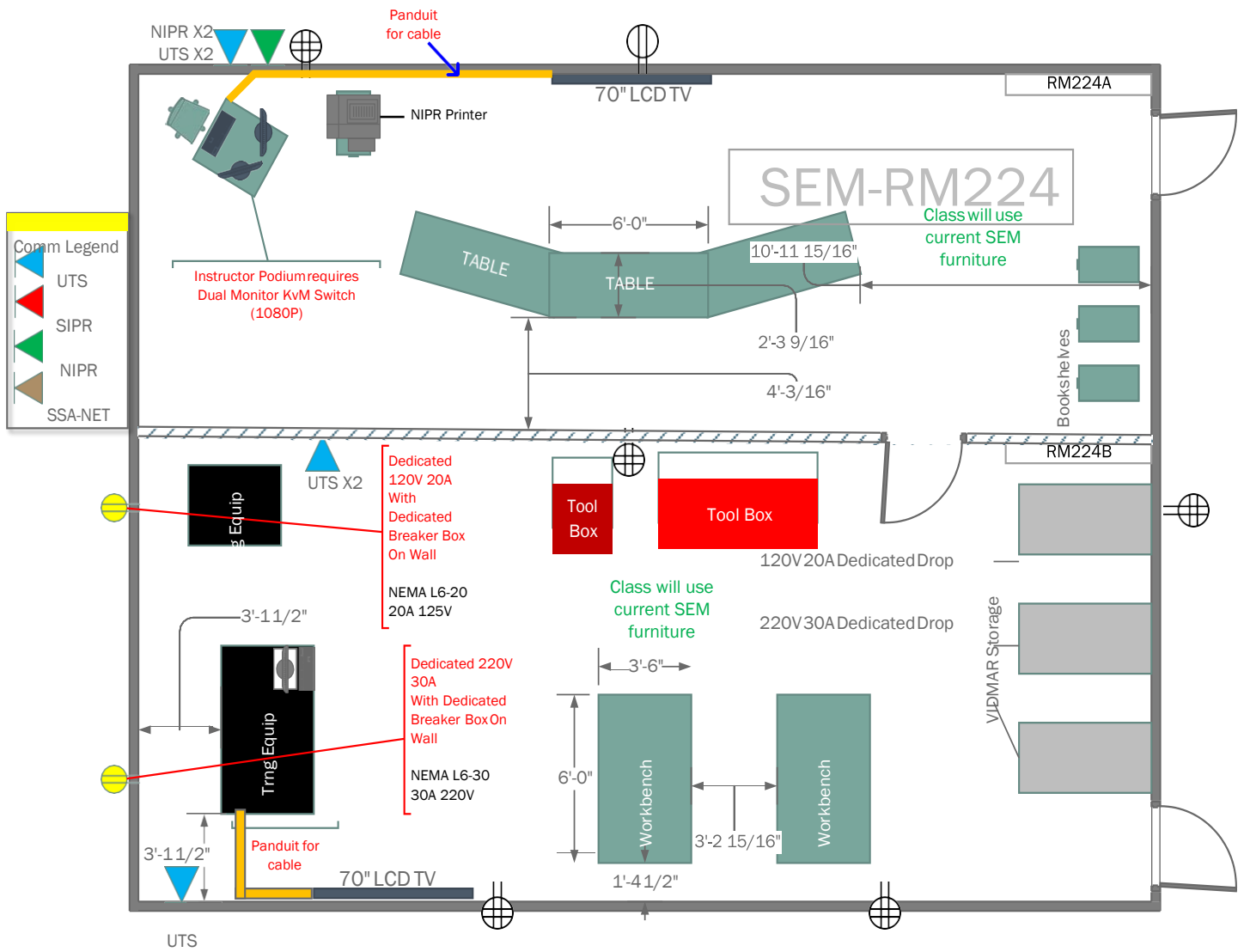


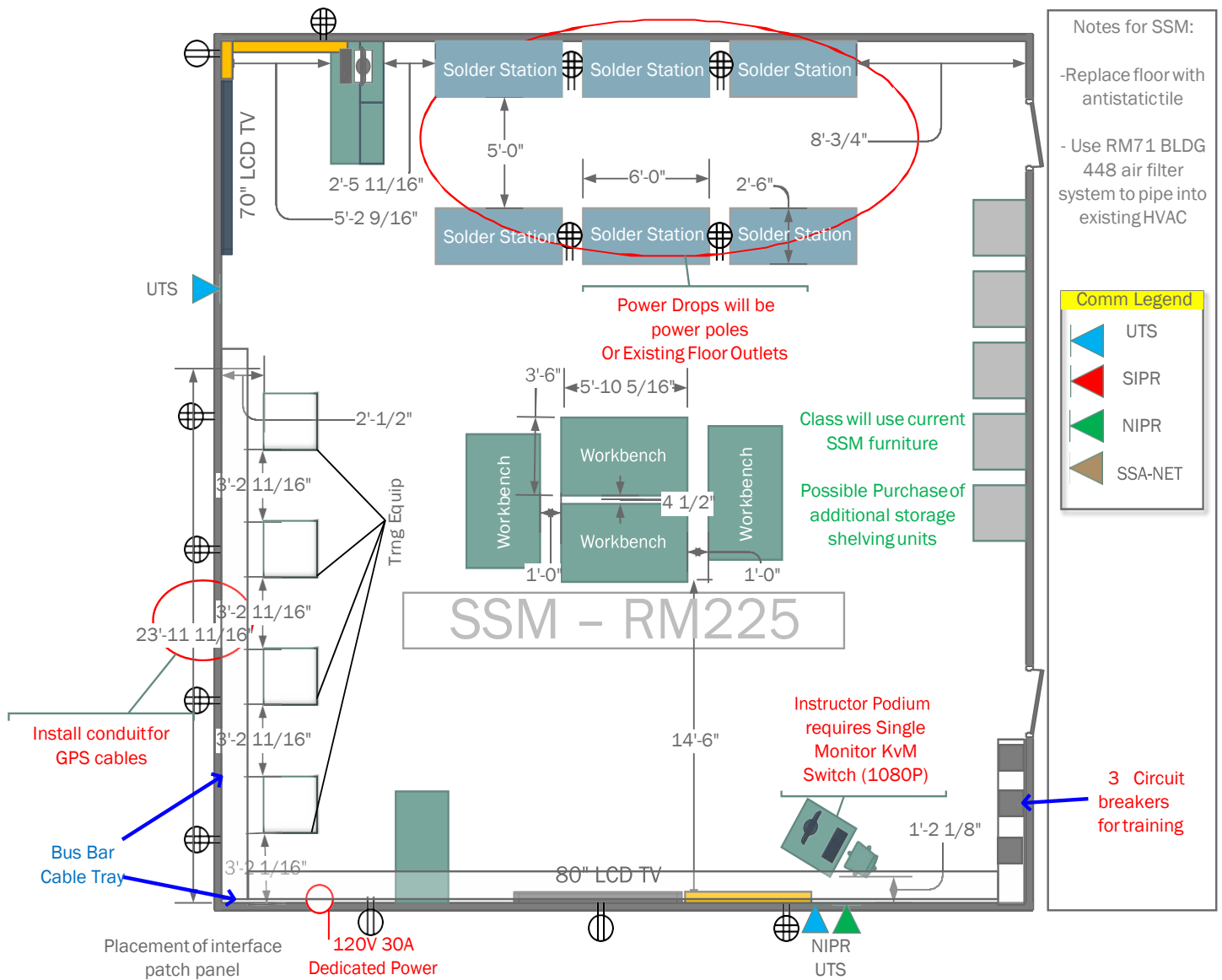
Comm Legend

- UTS
- SIPR
- NIPR
- SSA-NET



BLK 1, Math, Physics - RM 223

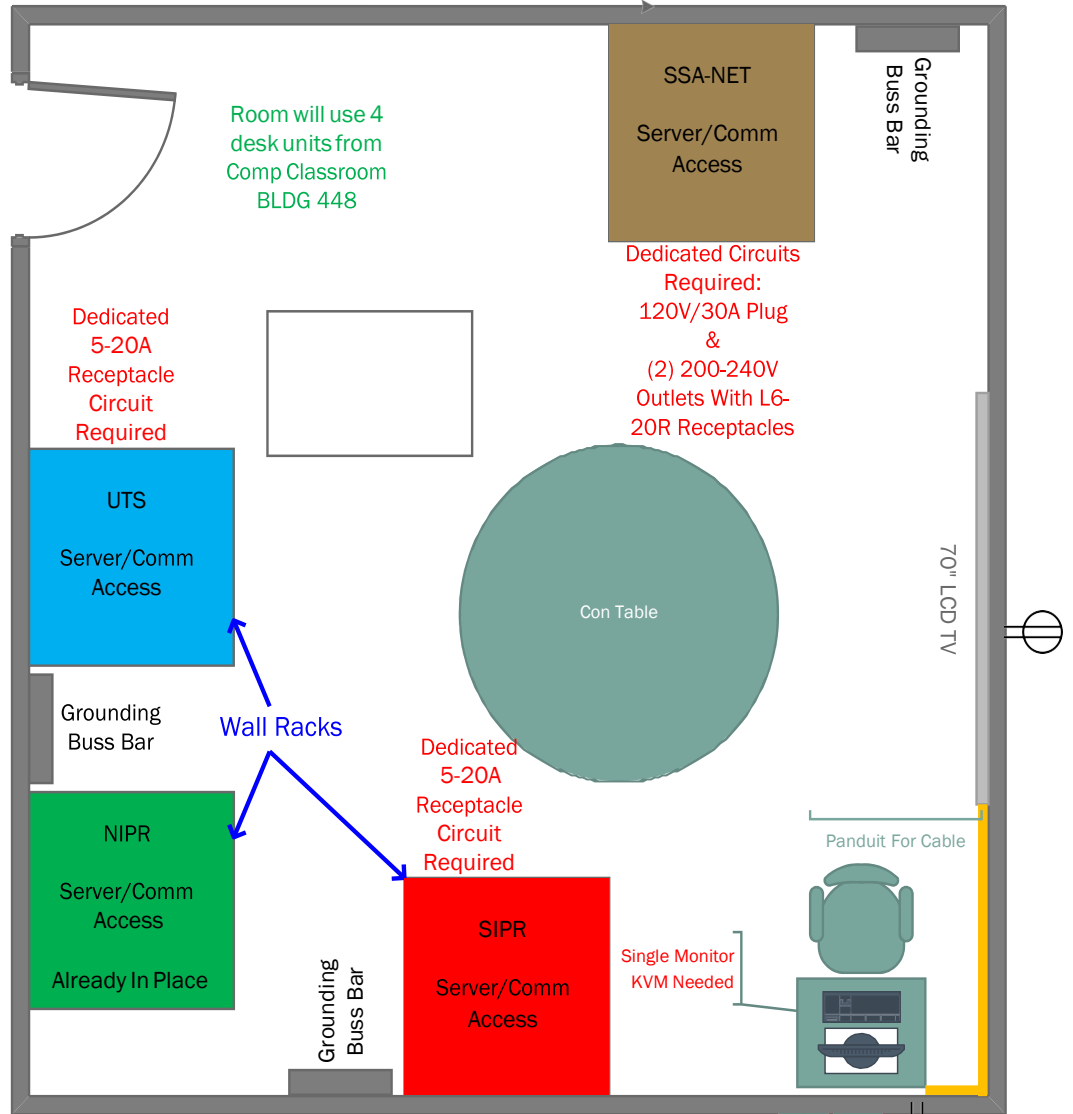
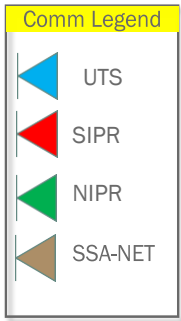




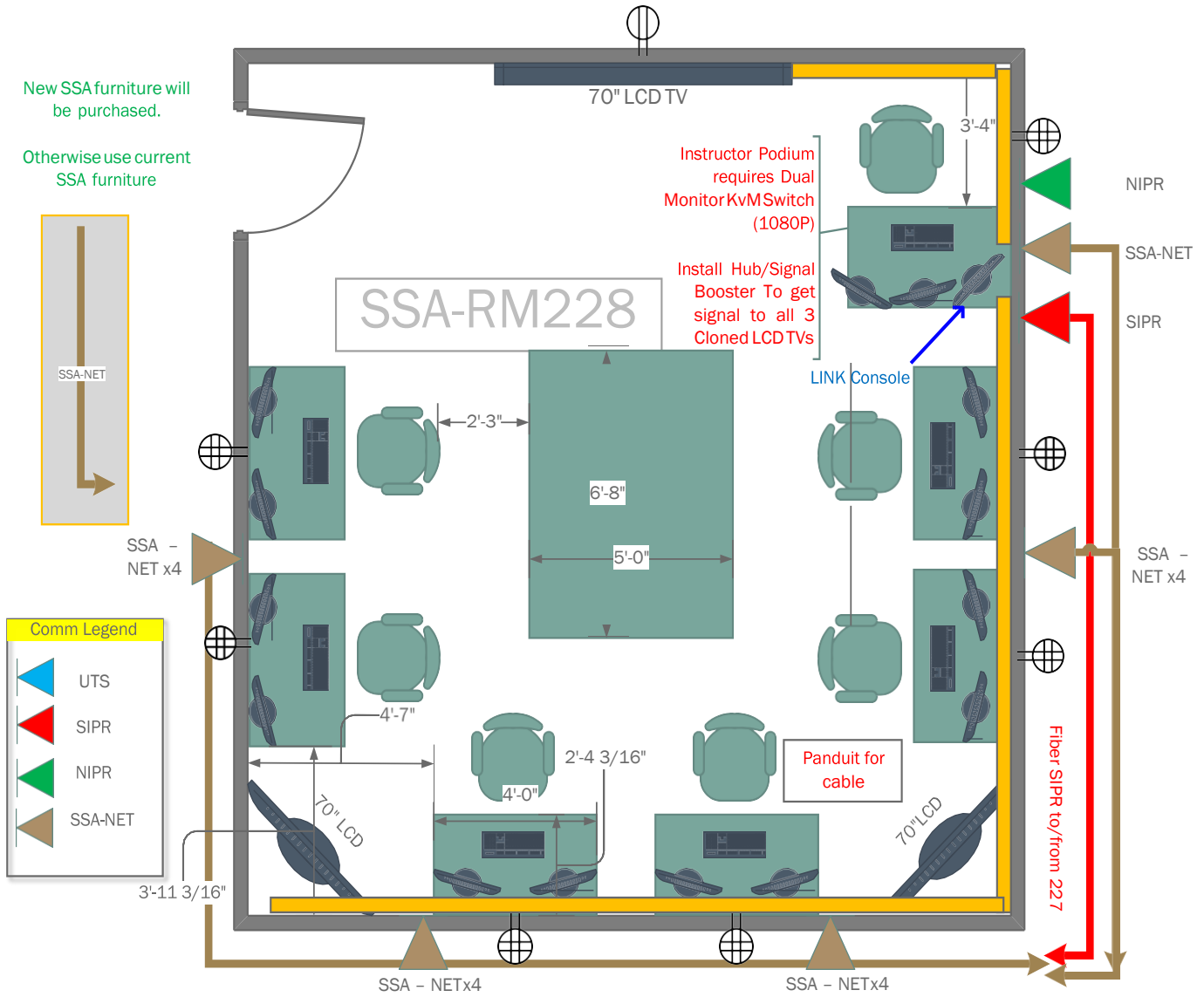
Will Need  
 HVAC / Temperature &  
 Humidity control for servers  
 housed in this area.

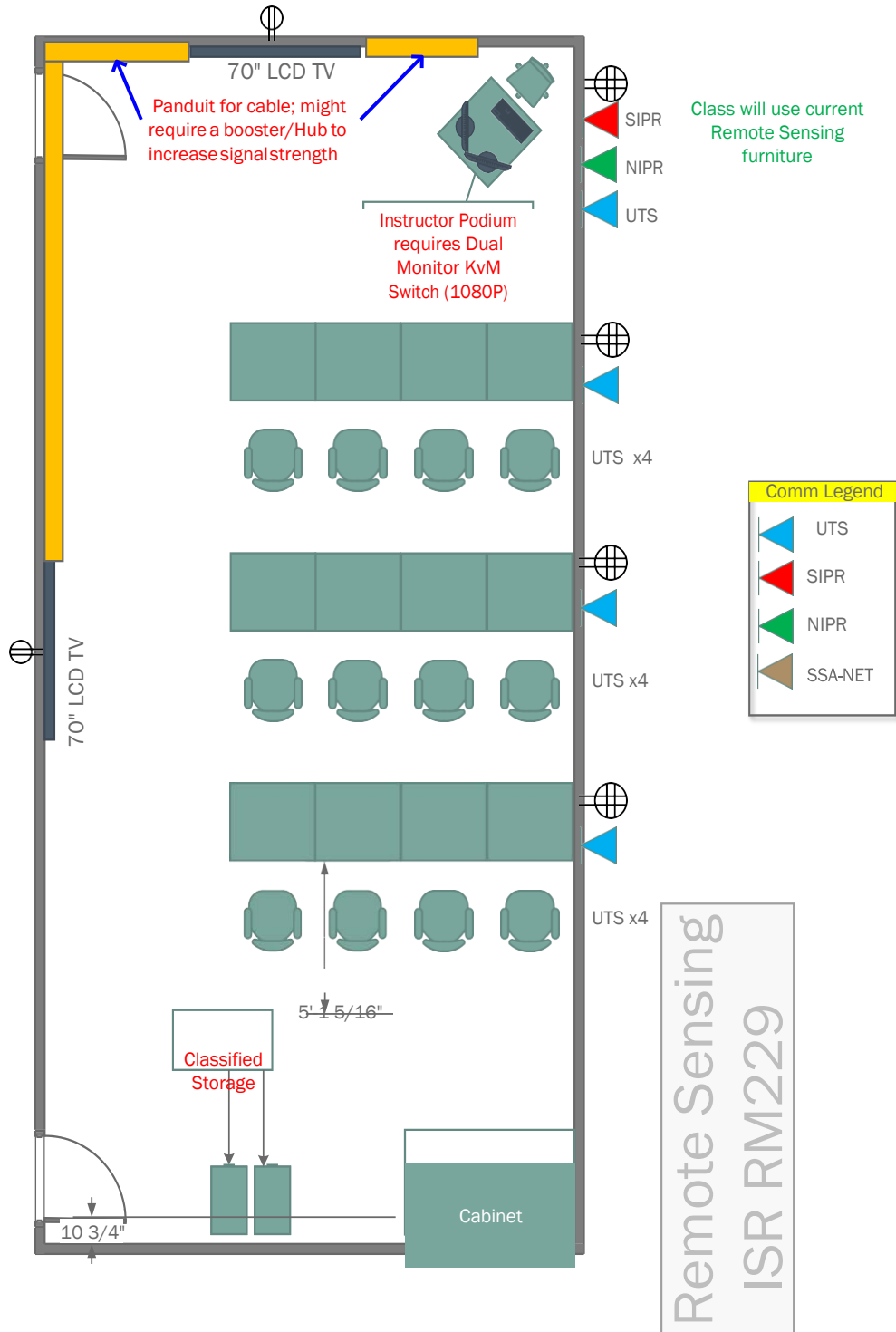
Room will use 4  
 desk units from  
 Comp Classroom  
 BLDG 448

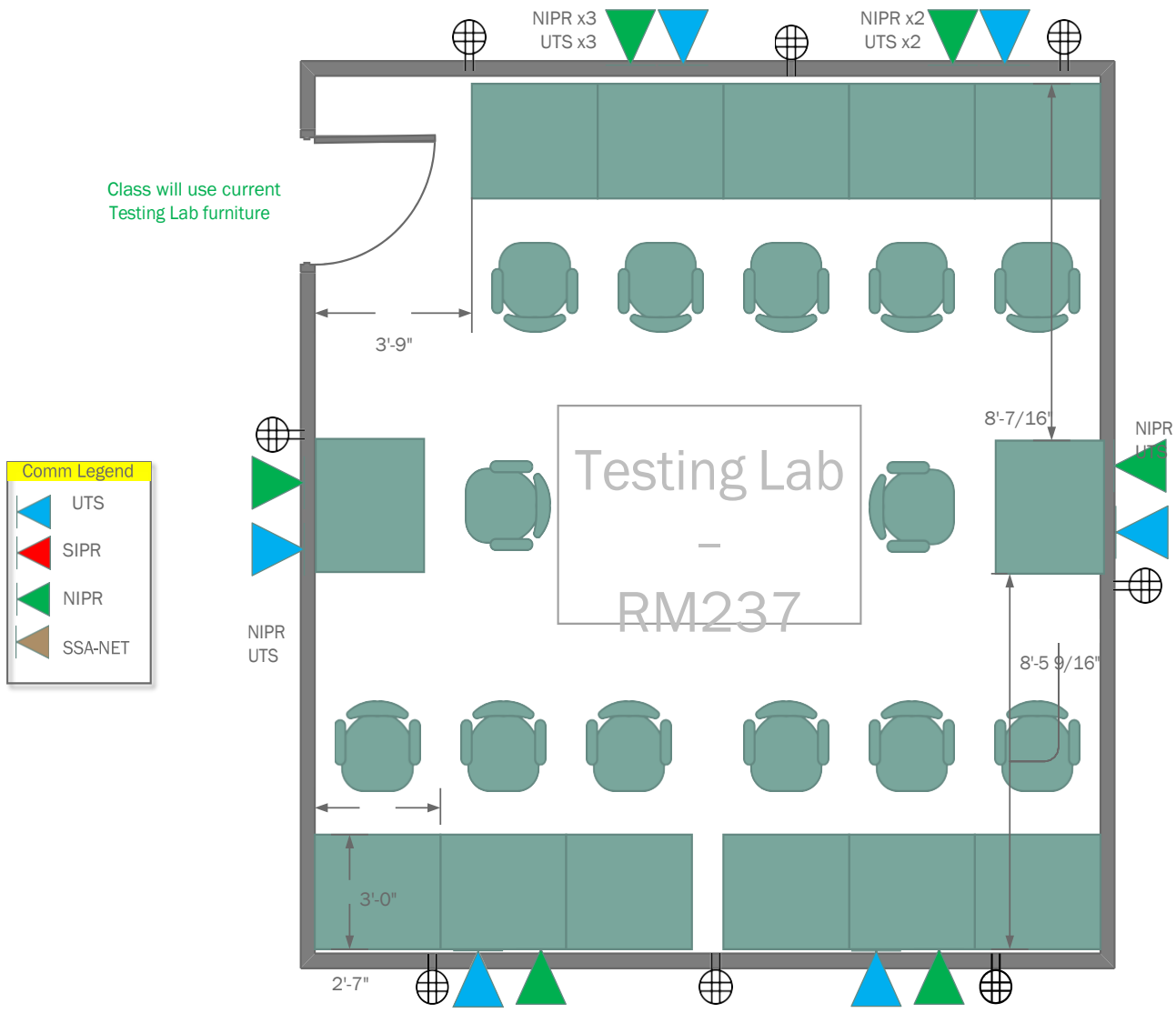
SERVER-RM227



NIPR x 6     
 SIPR x 6   









## **ATTACHMENT F**

### **AFTAC SSA NETWORK**

BLDG 3453 South Annex Only

#### **1. DESCRIPTION**

- a. **System Description:** To prepare the identified rooms for AFTAC SSA-NET network utilization. The vendor will need to install network wiring from communications closet to end user locations.
- b. **Scope of Work:** The contractor shall perform all tasks necessary to accomplish the installation and configuration of the Fiber Optic (FO) wiring to designated rooms. These tasks are outlined in Section 9, General Tasks and Section 11, Specific Tasks below. As an overview, the contractor must:
  - i. Complete a review of equipment needed
  - ii. Stage and prepare equipment for installation
  - iii. Perform requirements and systems analysis
  - iv. Develop implementation plan and schedule
  - v. Purchase equipment in **Attachment 1** – Summary of Equipment Needed: (turn network components over to government for installation)
  - vi. Remove and dispose of all equipment packing materials
  - vii. Configure and secure the operating environment and hardware
  - viii. Provide Logical and physical drawings of installed hardware/cablings upon completion.
- c. **Location:** AFTAC SSA-NET drops will be installed in Building 3453 and will run from Server room 227 to adjacent room 228 on cable tray. Please refer to NIPRNet-SIPRNet SOW for location of cable tray.
- d. **Purpose:** This project is to install premise wiring for the AFTAC SSA-NET network.

#### **2. PERSONNEL:** Contractor personnel shall present a neat appearance and be easily recognized. This may be accomplished by wearing distinctive clothing bearing the name of company or by wearing appropriate badges that contain the company name and employee name. **Contractor shall ensure personnel are compliant with REAL ID Act of 2005 for the purpose of gaining access to Goodfellow Air Force Base.**

- a. **Suitability Investigations.** Contractor personnel shall successfully complete, as a minimum, a National Agency Check with Written Inquiries (NACI), before operating government furnished workstations, being given government information, or being given access to multiple government buildings. These investigations shall be submitted by the government at no additional cost to the contractor. The contractor shall comply with the DoD 5200.2-R, Personnel Security Program, and AFI 33-119, Electronic Mail (E-Mail) Management and Use, requirements.

- b. **Listing of Employees.** The contractor shall maintain a current listing of employees. The list shall include employee's name, social security number, and date of investigation if contract work involves unescorted entry to Air Force restricted or other sensitive areas designated by the installation commander. The list shall be validated and signed by the company Facility Security Officer (FSO) and provided to the contracting officer and ISPM prior to the contract start date. Updated listings shall be provided when an employee's status or information changes.
  - c. **Freedom of Information Act Program (FOIA).** The contractor shall comply with DoD Regulation 5400.7/Air Force Supplement, DoD Freedom of Information Act Program, requirements. The regulation sets policy and procedures for the disclosure of records to the public and for marking, handling, transmitting, and safeguarding For Official Use Only (FOUO) material.
  - d. **Additional Security Requirements.** In accordance with DoD 5200.01 and AFI 16-1404, the contractor shall comply with AFMAN 33-282, Computer Security (COMPUSEC); AFSSI 7700, Emission Security (EMSEC); applicable AFKAGs, AFIs, and AFSSIs for Communication Security (COMSEC); and AFI 10-701, Operations Security (OPSEC).
3. **QUALITY CONTROL:** The contractor shall ensure that all work performed under this (SOW) meets the quality established in Section 9, General Tasks, and Section 11, Specific Tasks.
4. **PHYSICAL SECURITY:**
- a. **Vehicle Passes:** The Contractor shall obtain vehicle passes for each vehicle used on Goodfellow AFB (GAFB) during the performance period. The necessary applications for vehicle passes can be obtained by contacting the 17th Contracting Squadron Contract Officer (CO) or with the Government Project Manager (GPM). Before starting the work, the Contractor shall provide a list of all personnel that will work on GAFB, (include Social Security number and driver's license number and state), to permit security screening. Any workers not cleared will be identified, and not permitted to work on GAFB.
  - b. **Government Property:** The Contractor shall be responsible for safeguarding Government property associated with the required work. Facilities, equipment, and materials shall be secured at the close of each work period.
5. **HOURS OF OPERATION:** The contractor shall perform the on-site tasks of this SOW during a normal day. These hours are normally defined as 0730 to 1630 Central Standard Time, Monday through Friday, except Federal Holidays. Requests for changes or exceptions to this work schedule may be submitted to the CO for coordination with the GPM as required. These requests will be evaluated and approved or declined by the CO after coordinating with the GPM, based on impact to the cost, scope, and schedule of the project.

- 6. CONSERVATION OF UTILITIES:** The Contractor shall instruct employees in utilities conservation practices and shall be responsible for operating under conditions, which preclude the waste of Government utilities.
- 7. GOVERNMENT FURNISHED UTILITIES AND SERVICES:** The Government shall provide without costs to the Contractor, the utilities necessary (limited to water & electricity) to accomplish the tasks specified in this work description.
- 8. CONTRACTOR FURNISHED EQUIPMENT, PARTS, MATERIALS, and SERVICES:** Except for the utilities, services and equipment specifically stated to be Government furnished, the contractor shall provide all personnel, equipment, tools, transportation, and supervision required.
- 9. GENERAL TASKS:**
  - a. The Contractor shall visit the job site to verify location, conditions, quantities and dimensions prior to starting work. They shall coordinate with the government representative prior to visiting to the job site.
  - b. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and contract documents and shall not encumber the site with any materials or equipment without prior written authorization for exact location of each. Any deviation from or changes to the terms outlined in the contract (including this SOW) are subject to the approval of the CO or their designee (i.e., Contracting Officer Representative (COR) or GPM).
  - c. The Contractor shall plan operations so as to keep temporary work from blocking access to completed work. If, however, conflict with normal traffic access occurs, the contractor shall provide temporary bypass routing until such temporary work is completed.
  - d. The Contractor shall be responsible for any cutting, fitting, or patching required to complete the work to ensure all parts fit properly.
  - e. During the performance of the work within the requirements of this contract and until final completion and acceptance thereof, the Contractor shall exercise the utmost care to avoid accident or injury to persons or property. The contractor shall place and maintain all necessary barriers and safeguards, including watchmen if necessary, about the work site for the prevention of accidents and shall take all precautions required to protect personnel and property to include the general public and properties adjacent to the work site.
  - f. The Contractor shall provide a full time quality control function to assure himself and the Government that all materials and workmanship are in strict accordance with industry standards and this SOW. Installation and materials shall conform to the requirements of applicable codes. The Contractor shall maintain adequate quality control capability regardless of the volume of workload. All work performed by the Contractor shall be inspected and approved by the Government before final acceptance by the Government.
  - g. Upon completion of all work the Contractor shall request a final inspection. The Government shall inspect all work before acceptance. All work identified during the final inspection not meeting the criteria specified by this statement of work shall be repaired by the Contractor at no additional cost to the Government.

**10. SPECIFICATIONS:** It is the contractor's full responsibility to inventory equipment to ensure the correct material and amount required to perform the stated requirements under the terms of this statement of work and technical exhibits. This product will be installed with the manufacturers recommended methods and must be installed by a professional who is knowledgeable of this specific product to prevent exclusion of manufacturer's warranty.

**11. SPECIFIC TASKS:** The contractor shall provide all equipment, hardware, software, material, labor, documentation, tools, test plans, transportation, lodging, and staff needed to complete this project. Any existing equipment or components removed during contractor execution shall remain the property of the government. The tasks required to accomplish this implementation include Project Management and Planning, and South Annex Sequence of Work Schedule 3 to include Installation, Labeling and Testing of Network Cabling.

- Project Management/Planning
- South Annex Sequence of Work 3 Schedule – Rooms 216, 217, 220, 221, 223A/B, 224, 225, 227, 228 & 229A/B
  - Installation, Labeling and Testing of Network Cabling

- 1. Project Management/Planning:** The contractor shall assign a dedicated Contractor Project Manager (CPM) to work with the Government Project Manager (GPM), to provide oversight for on-site project planning and execution. The contractor CPM shall (at a minimum):
  - a. Schedule and host at Goodfellow AFB, TX a project kick-off meeting with CO, GPM, COR, and the contractor project team.
  - b. Develop and deliver to the CO and GPM a project management plan and detailed schedule.
  - c. Schedule and host weekly onsite or telephone conference project status meetings with the CO, GPM, and contractor project team.
  - d. Provide written status reports to the CO and GPM prior to and during project execution on a weekly basis.
  - e. Provide to GPM at conclusion of the project, the following documentation:
    - (1) Project Management Plan
    - (2) Project Management Schedule
    - (3) Project Risk Management Plan and Report
    - (4) Project Change Management Plan, including approved and rejected change requests.
  - f. Complete project completion checklist with GPM prior to final acceptance of each sequence of work, and overall project.

- 2. South Annex Sequence of Work 3 Schedule – Rooms 216, 217, 220, 221, 223A/B, 224, 225, 227, 228 & 229A/B** – The Government will be vacating the entire South annex to the Contractor for the renovation work. The Government

must have at least minimum 3 business days after completion of Sequence 2 in order to relinquish the South Annex to the Contractor

- a. **Installation, Labeling and Testing of Network Cabling:** During Sequence of Work Schedule 3 of the project, the contractor will be required to:
  - i. Conduct on site meetings with government Network Administrator personnel to finalize logistical details of this Sequence of Work Schedule 3. See “**Attachment 4** Communications Floor Plans” for additional details.
  - ii. Install OM3 50/125-micro multi-mode (MM) fiber optic (FO) cabling from source communications closets to destinations. All telecommunications infrastructure must be implemented in accordance with Unified Facilities Criteria (UFC) 3-580-01 dated 01, June 2016. See “**Attachment 2: OM3 50/125-MM FO AFTAC SSA-NET Locations and Quantities of Client Drops**”. Estimates of cable run distances have been provided for all buildings in “**Attachment 3: OM3 50/125-MM FO AFTAC SSA-NET Estimated Cable Lengths and Quantities**”. All network infrastructure (source to destination cabling), to include cable, connectors, termination components, etc., must be TIA/EIA “LC” type and are NOT GFE, and must be provided by the contractor. Installation shall include any and all penetrations to walls in all building locations. This includes penetrations to cinder block walls.
  - iii. All network cabling, faceplates & patch panels, etc., will be labeled following the ANSI/TIA/EIA 606-A standard. All labels shall be printed by a mechanical device (printer, label maker), and shall be legible viewing at 12”. On horizontal cabling, printed labels shall be provided within 12” of each end of the cable, on the patch panel, and on the workstation faceplate. The Government will provide specific labeling identifiers (bay, equipment shelf, terminal block etc.), after the contract is awarded.
  - iv. Test all installed network cabling for functionality, providing a test report detailing results of findings. Any failures must be annotated in the report, and a follow up regression test report provided after corrective action.

**12. PERIOD OF PERFORMANCE:** In accordance with section 5 of the SOO/TRP, all equipment must be delivered within 30 calendar days after contractor receipt of order (with exception to manufacturer-caused delivery delays out of the contractor's control). Once all equipment has been delivered, all work outlined within these installation instructions must be accomplished within 120 business days. The project kick-off meeting and planning and design workshops are estimated to take no more than 5 business days and should begin no later than 10 business days after product delivery. The contractor is responsible for analyzing

the tasks outlined in these installation instructions and developing a plan to complete the work after the project kick-off meeting. All work defined in these installation instructions will be conducted during the hours of operation stated above and during normal working days. Exceptions to this constraint will be submitted to the Contracting Officer and GPM in writing no later than ten (10) business days prior to the event. All activities, including delivery of final system documentation and security documentation must be completed within the Period of Performance stated within the contract documentation.

Attachment 1 – Summary of Equipment Needed

LINE	PART #	DESCRIPTON	QTY
<b>NETWORK COMPONENTS</b>			
1	3517	Fibermart 8 Fibers LC Wall Mounted Fiber Terminal Box as Distribution box with Pigtails and Adaptors	4
2	3517	Fibermart 4 Fibers LC Wall Mounted Fiber Terminal Box as Distribution box with Pigtails and Adaptors	1
<b>CABLE INSTALLATION COMPONENTS</b>			
3	TBD	All network infrastructure (source to destination) to include cable, connectors, termination components etc...)	1
<b>MISC</b>			
4	TBD	30A Outlet At Location Of Rack	1
5	TBD	Network Rack Grounding Buss Bar	1

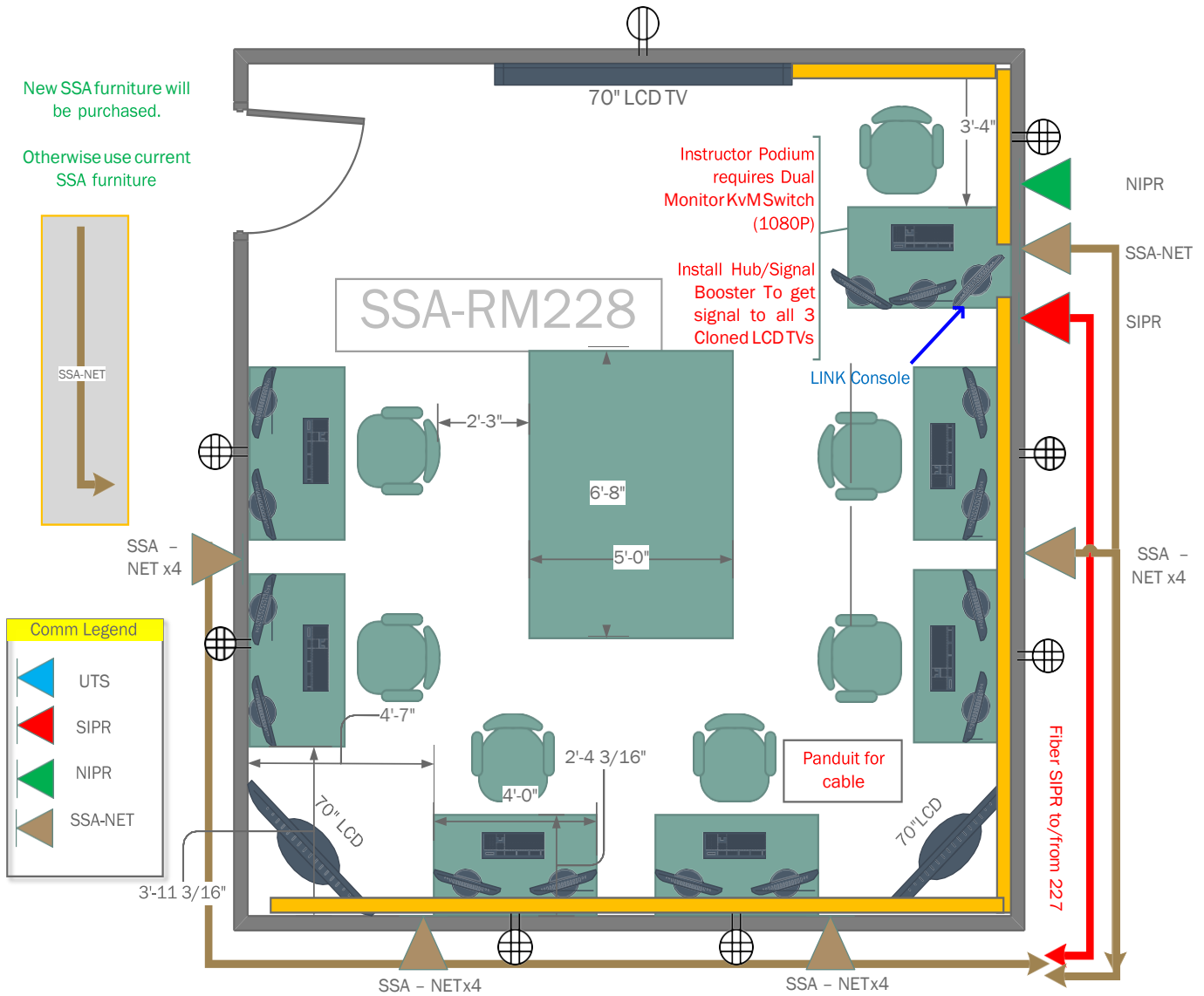
Attachment 2 – OM3 50/125-micron MM FO AFTAC SSA-NET Locations and Quantities of Client Drops

Building	Room	# Drops Building
3453	228	17
	<b>TOTAL</b>	<b>17</b>

Attachment 3: Estimated Cable Lengths and Quantities **(All measurements are in feet)**

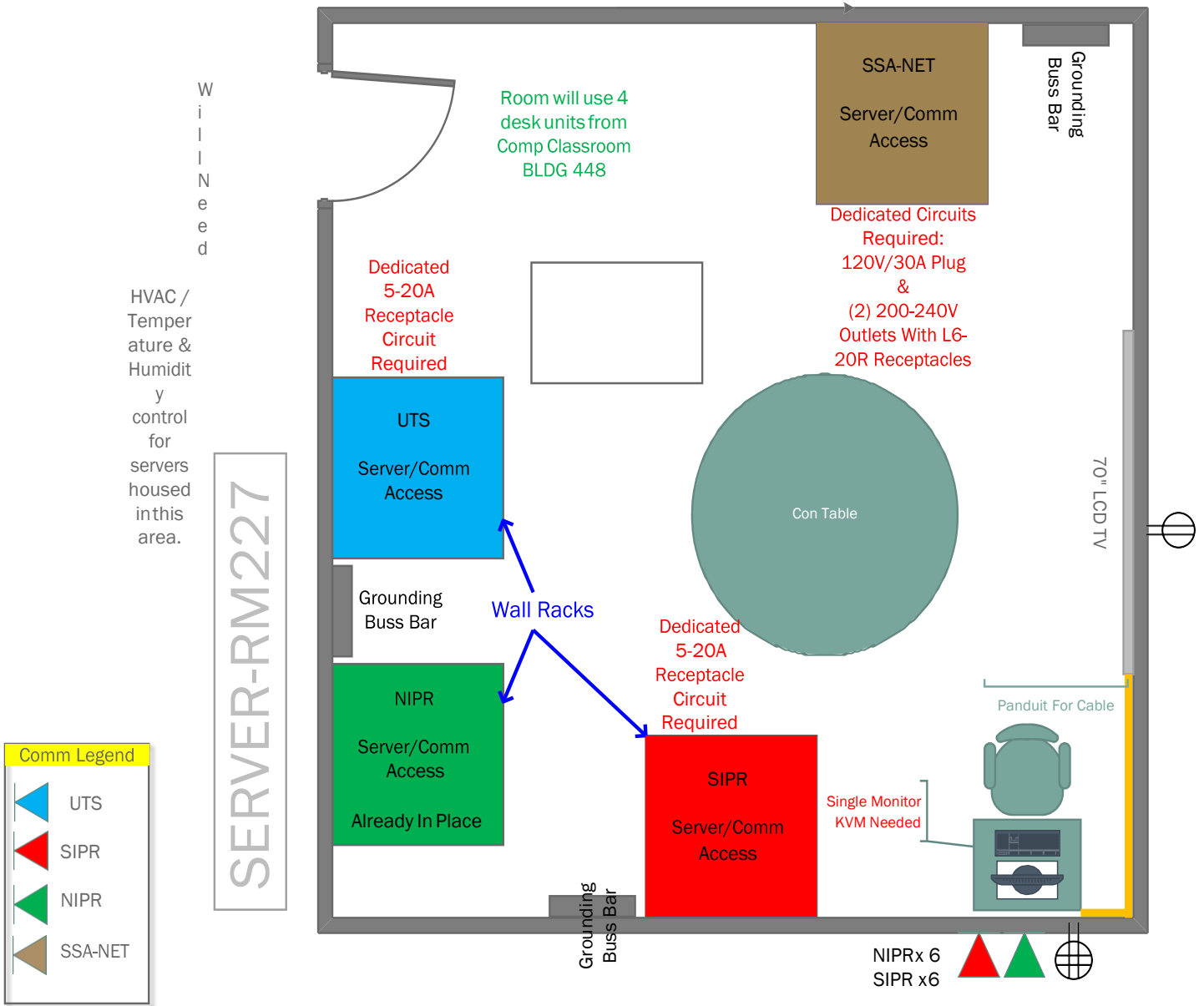
Rooms	Length	Width	Cinder?	Pos. #	Cable Distance	
3453 Comm Rm 227			(17x20)			
228	19	19	Y	17	80	1,360
		Total:		17		1,360

Attachment 4: Communications Floor Plans **(Please note that ALL power receptacles are shown for information only, refer to electrical drawings for electrical requirements)**



**B3453 South Annex, Rm. 228 (361 S.F.)**





**B3453 South Annex, Rm. 228 (371 S.F.)**



1.2 Electrical Work: Refer to SOW Sequence of Work in Table 1.4.1 for work requirements. All electrical work is 60 Hz. and 277/480 and 120/208 volts secondary. All work shall comply with the most up to date edition of the National Electric Code (NEC) and in accordance with product manufacturer directions. Provide warning signs for the enclosures of all electrical equipment and products as required.

The Contractor shall field verify all existing electrical systems prior to start of construction.

The Contractor shall provide electrical components of all proposed mechanical equipment, such as motors, motor starters (except starters/controllers which are indicated as part of a motor control center), control or push-button stations, integral disconnects, and other devices functioning to control mechanical equipment, as well as control wiring and conduit for circuits rated 100 Volts or less.

General power in South Annex of Building 3453 is fed from Panel RP4. Panel RP4 is 120/208 VAC, 60 Hz. 3 Phase, 42 space.

### 1.3 Submittals:

1.3.1 Work Plan: The Contractor shall submit a Work Plan that fully describes the means to perform all electrical work including, but not limited to, providing all equipment, tools, materials, supplies, transportation, supervision, management, proposed project schedules, sequence of work plans, and associated configurations for all new electrical, mechanical, and communications infrastructure. The Contractor shall provide site surveys and other incidentals necessary to provide, test, and commission all new electrical, mechanical, and communication systems as listed in this Scope of Work (SOW).

1.3.2 Shop Drawings: The Contractor shall provide shop drawings for all electrical work to include wiring diagrams and installation details of equipment indicating the proposed location, layout and arrangement, control panels, accessories, conduit, and other items that must be shown to ensure a coordinated installation. Wiring diagrams shall identify circuit terminals and indicate the internal wiring for each item of equipment and the interconnection between each item of equipment. Shop drawings shall indicate adequate clearance for operation, maintenance, and replacement of all operating equipment devices.

1.3.3 Product Data: Submit manufacturer's catalog data for all electrical products and include performance and characteristic curves.

## 2. PRODUCTS:

2.1 Surface Mounted Metal Raceway: Surface Mounted Metal Raceways shall be UL 5 standard, two-piece painted steel, totally enclosed, snap-cover type. Provide multiple outlet-type raceway with grounding-type receptacle where indicated. Receptacles shall be as specified herein and shall be spaced at a minimum of one every 18 inches.

2.2 Outlet Boxes and Covers: Outlet Boxes and Covers shall comply with the UL 514A standard cadmium or zinc-coated, if made of ferrous metal. Outlet Boxes and Covers shall comply with the UL 514C standard, if made of nonmetallic material.

2.3 Power Poles: Power Poles shall be aluminum “ALTP Series round TELE-Power” poles with Communications Chase Space or an approved equal as described on the plans.

2.4 Conductors: All electrical power wire shall be single conductor, THHN or THWN rated for 600 Volts AC, rated for 90 °C, uncoated copper, polyvinyl chloride insulated in accordance with NEC. All conductors shall be copper only. Conductors #12 THHN AWG copper and larger shall be solid. Minimum acceptable size for power cables shall be #12 THHN AWG copper, except that conductors for remote control, alarm, and signal circuits, classes 1, 2, and 3, shall be stranded unless specifically indicated otherwise. Each circuit will have its own grounded conductor; there shall be no sharing of grounded conductors. Each circuit will have a grounding conductor wire ran in the conduit with the circuit. Wires and cables shall meet applicable requirements of NFPA 70 and UL for type of insulation, jacket, and conductor specified or indicated.

2.5 Conduit: Conduits shall be ¾”, but no smaller than ½” diameter, electrical metallic tubing (EMT) in accordance with NEC requirements for location and use. If conduit runs penetrate firewalls, steel conduit shall be used a minimum of three feet on each side. Metal-clad (type MC) cable is not acceptable except for use a whips for lighting and limited to 6 ft. in length. No exposed conduit or piping shall be permitted on exterior of building surface.

2.6 Device Plates: Provide UL listed, one-piece device plates for outlets to suit installed devices. For metal outlet boxes, plates on unfinished walls shall be of zinc-coated sheet steel having round or beveled edges. For nonmetallic boxes and fittings, other suitable plates may be provided. Plates on finished walls shall match existing construction conditions. Screws shall be machine-type with countersunk heads in color to match finish of plate.

2.7 Lighting Switches: For non-dimmable lights, toggle switches shall be NEMA WD 1, UL 20, single pole, double pole, three-way, and four-way, totally enclosed with bodies of thermoplastic or thermoset plastic and mounting strap with grounding screw. For dimmable switches, switches with sliders shall be utilized. All light switches are to be ivory in color, 20 Amp, and commercial rates unless otherwise specified.

2.8 Wiring Terminals: Wiring terminals shall be screw-type, side-wired. Contacts shall be silver-cadmium and contact arm shall be one-piece copper alloy. Switches shall be rated quiet- type AC only, 120/277 volts, with current rating and number of poles indicated. Provide toggle switches at all interior door entry locations as described on the plans.

2.9 Receptacles: Receptacles shall be UL 498, hard use, heavy-duty, grounding-type. Type, ratings and configurations shall be as described on the plans. Face and body shall be thermoplastic supported on a metal mounting strap. All receptacles and covers are to be ivory in color, 20 Amp, and commercial rated unless specified otherwise. Install duplex and quadplex 120 V, 20 A receptacles as required in the furniture layout plan. At a minimum, receptacles shall

be installed so that at no point measured horizontally along the floor line of any wall space is more than six feet from a receptacle unless specified otherwise. No more than 4 receptacles shall be installed at each circuit unless otherwise specified.

2.10 Disconnect Switches: NEMA KS 1. Provide heavy duty-type switches in accordance with NEC, where switches are rated higher than 240 volts, and for double-throw switches. Switches serving as a means for motor-disconnect shall be horsepower rated. Provide switches in NEMA 1, 3R, 4, or 4X enclosures as indicated per NEMA ICS 6. Exterior disconnect switches shall be a maximum for 42" above grade.

2.11 Panelboards: Panelboards shall be manufactured by Square D or equivalent manufacturer and shall have a short-circuit current rating under UL 50 and UL 67 as indicated and have a main breaker. Panelboards for use as service disconnecting means shall additionally conform to UL 869A. Panelboards shall be circuit breaker-equipped unless indicated otherwise.

Directories shall be updated to identify each circuit and indicate load served by each circuit in the panelboard. Directories shall also indicate the source of service to panelboard.

2.12 Enclosures: Enclosures shall meet the requirements of UL 50. All cabinets shall be fabricated from sheet steel of not less than No. 10 gauge if flush-mounted or mounted outdoors, and not less than No. 12 gauge if surface-mounted indoors, with full seam-welded box ends. Cabinets mounted outdoors or flush-mounted shall be hot-dipped galvanized after fabrication.

Outdoor cabinets shall be of NEMA 3R construction and watertight with conduit hubs welded to the cabinet. Flush doors shall be mounted on hinges that expose only the hinge roll to view when the door is closed. Each door shall be fitted with a combined catch and lock.

2.13 Circuit Breakers: Circuit breakers shall be UL 489, thermal magnetic-type or solid state-type having a minimum short-circuit current rating equal to the short-circuit current rating of the panelboard in which the circuit breaker shall be mounted. Breaker terminals shall be UL listed as suitable for type of conductor provided. Provide circuit breakers with shunt trip devices as required per NEC.

2.14 Multipole Breakers: Common trip-type multipole breakers with single operating handle shall be provided. Breaker design shall be such that overload in one pole automatically causes all poles to open.

2.15 Circuit Breakers for HVAC Equipment: Circuit breakers for HVAC equipment having motors (group or individual) shall be marked for use with HACR type and UL listed as HACR type.

2.16 Enclosed Circuit Breakers: Enclosed Circuit Breakers shall comply with UL 489 standards. Individual molded case circuit breakers with voltage and continuous current ratings, number of poles, overload trip setting, and short circuit current interrupting rating as indicated. Enclosure type shall be as indicated.

2.17 Surge Protection Devices: Provide parallel replaceable large block utility grade 40mm module type surge protective devices which comply with and are listed per UL 1449, 2nd Edition (Rev. 2.5 listed for 200kA short circuit current) and UL 1283 4th Edition, in a NEMA 1 enclosure per NEMA ICS 6, at locations indicated. Modules shall be individually fused and rated for 5000 Category C3 (C High) impulses with <10% drift. Suppressor shall have (Light Emitting Diode) LED and audible alarms with silence switch for audible alarm. Provide surge protectors in accordance with NEMA ICS 6.

2.18 Lighting: All lighting shall be LED.

2.18.1 Light Emitting Diode Lamps (LED): All 4' by 2', tubular LED fixtures. Power for lighting fixtures will not be daisy chained nor hard piped. Individual fixtures will be connected by flexible whip to a junction box for the lighting circuit. All lighting shall match existing lighting color and brightness to ensure uniform room lighting.

2.18.2 Lighting Fixtures: All light fixtures will be rated for commercial use, Insulation Contact (IC) rated, dimmable, have a white finish, have a minimum 5 year limited manufacturer's warranty with a 10 year warranty for luminaires, have a minimum lifespan of 50,000 average hours, have a color temperature between 3300K – 4100 K, have a total current harmonic distortion (THD) less than or equal to 20% at full and 50% output, have a power factor (PF) greater than or equal to 0.9 at full and 50% output, have a Color Rendering Index (CRI) of not less than 80, and be integrated unless stated otherwise. All lighting fixtures shall match existing room fixtures or equal to parabolic louver with 27 cell, low iridescent, specular silver, or match existing lighting in appearance as required.

Emergency lighting shall be installed as required by NFPA 101 and NEC. Emergency lighting shall be incorporated into troffer light fixtures and wired on the same circuit as the rest of the fixture, but ahead of the lighting control switch.

2.18.3 Lighting Control System: Provide lighting control system as described in the plans. Lighting control equipment shall include, if indicated: control modules, power packs, dimming ballasts, and light level sensors. All lighting controls in classrooms will be dimming unless otherwise specified. All dimmer switches used in LED lighting control are to be NEMA SSL 7A compliant.

2.18.4 Exit lights: All EXIT lights shall be of the high intensity LED type with the following standard features: universal/dual voltage (120/277V); polymeric diffuser; white face with 6" red high letters; single face or double face and directional arrows as required; 3 watts maximum (for either single or double face version) or match existing signs if applicable.

### 3. EXECUTION:

3.1 General Requirements: All electrical installations shall conform to IEEE C2, NEC and NFPA 70, and to the requirements specified herein.

Electrical installations, including weatherproof and hazardous locations and ducts, plenums and other air-handling spaces, shall conform to requirements of NFPA 70 and IEEE C2 and to requirements specified herein.

3.2 Fire Alarms: Any work to include temporary removal or reconnection of fire alarm devices will be performed by a licensed fire alarm technician. The Fire Dispatch and Civil Engineer Alarm Shop of the 17th Civil Engineer Squadron shall be notified prior to any work performed on the fire alarm system.

3.3 Lighting: Ensure all room lighting is uniform. Coordinate all light switch locations with architectural plans.

3.3.1 Lighting Fixtures: Set lighting fixtures plumb, square, and level with ceiling and walls, in alignment with adjacent lighting fixtures, and secure in accordance with manufacturers' directions and approved drawings. Installation shall meet requirements of NFPA 70. Mounting heights specified or indicated shall be to the bottom of fixture for ceiling-mounted fixtures and to center of fixture for wall-mounted fixtures. Obtain approval of the exact mounting.

3.3.2 Lighting Control Panel: General lighting in South Annex of Building 3453 is fed from Panel LDP5. Panel LDP5 is 277/480 V, 60 Hz, 3 Phase, 42 space. Install metal oxide varistor (MOV) type SPD per UFC 3-530-01 requirements.

3.3.3 Lighting Illuminance Levels: For individual offices, horizontal illuminance shall be 300 lux (30 fc) at 2'6" Above Finish Floor (AFF) and vertical illuminance shall be 150 lux (15 fc) at 3'6" AFF. For classrooms and training rooms, horizontal illuminance shall be 400 lux (40 fc) at 2'6" AFF and vertical illuminance shall be 300 lux (30 fc) at 3'6" AFF.

3.3.4 Field Testing Lighting: All lighting shall be tested and demonstrated to be fully operational. Exit lighting shall be demonstrated to operate satisfactorily in the presence of Goodfellow AFB Fire personnel.

3.4 Wiring Methods: Provide insulated conductors installed in rigid steel conduit, IMC, rigid nonmetallic conduit, or EMT, except where specifically indicated or specified otherwise or required by NFPA 70 to be installed otherwise. Grounding conductor shall be separate from electrical system neutral conductor. Provide insulated green equipment grounding conductor for circuit(s) installed in conduit and raceways. Shared neutral, or multi-wire branch circuits, are not permitted. Minimum conduit size shall be in diameter for low voltage lighting and power circuits. Conduit which penetrates fire-rated walls, fire-rated partitions, or fire-rated floors shall be fire stopped as required.

3.5 Conduit Support: Support conduit by pipe straps, wall brackets, hangers, or ceiling trapeze. Fasten by wood screws to wood, by toggle bolts on hollow masonry units, by concrete inserts or expansion bolts on concrete or brick, and by machine screws, welded threaded studs, or spring-tension clamps on steel work. Threaded C-clamps may be used on rigid steel conduit only. Do not weld conduits or pipe straps to steel structures. Fasteners attached to the ceiling shall be vibration resistant and shock-resistant.

Holes cut to depth of more than 1-1/2 inches in reinforced concrete beams or to depth of more than 3/4 inch in concrete joints shall not cut main reinforcing bars. Fill unused holes. In partitions of light steel construction, use sheet metal screws. In suspended-ceiling construction, run conduit above ceiling. Do not support conduit by ceiling support system.

All electrical systems shall field tested and commissioned to ensure full operation and in accordance NEC and NFPA 70 requirements.

### 3.6 Room 234 South Annex:

Replace 150 Amp 480/277V 3 Phase breaker with a new 200 Amp 480/277V 3 Phase breaker. Replace 75 KVA transformer T5 with a new 100 KVA 480 – 208/120V 3 Phase Delta Wye transformer. Size all conductors for appropriate current as per NEC. New 100 KVA transformer shall power existing panel RP4 208/120V 3 Phase 225 Amp and the new 42 space 225 Amp 208/120V 3 Phase panel. All new circuits within the South Annex shall feed from the new panel. Contractor shall identify and label all new circuits for the new panel.

- End -



**ATTACHMENT H**  
**MECHANICAL**  
**FOR**  
**REPAIR-RENOVATE BUILDING 3453**  
**to SUPPORT “SPINSTRAS” MOVE**  
**PROJECT No. 1060124**

1. GENERAL:

1.1 Publications: The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. Unless otherwise noted, all publications shall be the latest edition in effect on the date of solicitation.

**AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS (ASHRAE)**

ASHRAE Guideline 0-2005 The Commissioning Process

ASHRAE Guideline 1.1-2007

ASHRAE 52.2	HVAC&R Technical Requirements for the Commissioning Process Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size (ANSI Approved)
ASHRAE 62.1	Ventilation for Acceptable Indoor Air Quality
ASHRAE 70	Method of Testing the Performance of Air Outlets and Air Inlets
ASHRAE 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings

**ASHRAE EQUIPMENT HANDBOOK**

**SHEET METAL AND AIR CONDITIONING CONTRACTORS’ NATIONAL ASSOCIATION (SMACNA)**

SMACNA 1143 HVAC Air Duct Leakage Test Manual

SMACNA 1966 HVAC Duct Construction Standards – Metal and Flexible

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)**

ASME B31.3 Process Piping Code

**MANUFACTURERS STANDARDIZATION SOCIETY (MSS)**

MSS SP-69 Pipe Hangers and Supports – Selection and Application (ANSI-approved American National Standard)

AMERICAN WELDING SOCIETY (AWS)

AWS WHB-2.9 Welding Handbook Volume 2 – Part 1: Welding Processes

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA MG 1 Motors and Generators

NEMA MG 10 Energy Management Guide for Selection and Use of Fixed  
Frequency Medium AC Squirrel-Cage Polyphase Induction Motors

NEMA MG 11 Energy Management Guide for Selection and Use of Single-Phase  
Motors

UL

UL 181 Standard for Factory-Made Air Ducts and Air Connectors

UL 555S Standard for Smoke Dampers

UL 586 Standard for Safety for High-Efficiency, Particulate, Air Filter Units

UL 900 Standard for Air Filter Units

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 90A Installation of Air-Conditioning and Ventilating Systems

AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC. (AMCA)

AMCA 210 Laboratory Methods of Testing Fans for Ratings

AMCA 500-D Laboratory Methods of Testing Dampers for Rating

DEPARTMENT OF DEFENSE (DoD)

DoD Manual 5200.01 DoD Information Security Program: Protection of Classified  
Information

ASTM INTERNATIONAL

ASTM C1071 Standard Specification for Fibrous Glass Duct Lining Insulation  
(Thermal and Sound Absorbing Material)

AIR-CONDITIONING, HEATING, & REFRIGERATION INSTITUTE (AHRI)

AHRI 410 Forced-Circulation Air-Heating and Air-Cooling Coils

1.1 Basic Mechanical Materials and Equipment:

Refer to SOW Sequence of Work in Table 1.4.1 for work requirements. This Scope of Work is intended to convey scope and general arrangement only. The drawings do not necessarily indicate every required duct, pipe, offset, fitting, transition, or other equipment items regardless how indicated. The Contractor shall coordinate the piping, ductwork, and equipment locations and routes IAW all manufacturer's recommendations and as required to provide a complete system and service. Also provide alternate piping routes, ductwork routes, additional offsets as required for ductwork and piping. Also, where existing mechanical systems and motor-operated equipment require modifications, provide electrical components in accordance with the Electrical requirements of this SOW and IAW manufacturer directions. Contractor shall provide final plans showing actual tie-ins and ductwork and piping routing.

Furnish ductwork, piping offsets, fittings, and accessories as required to provide a complete installation. Coordinate the work of the different trades to avoid interference between piping, equipment, structural, and electrical work. Provide all necessary offsets in piping, ductwork, all fittings, and other components, complete and in place as required to install the work as indicated and specified.

## 1.2 Posted Operating Instructions:

Provide for each system and principal item of equipment as specified in the technical sections for use by operation and maintenance personnel. The operating instructions shall include the following:

- a. Wiring diagrams, control diagrams, and control sequence for each principal system and item of equipment.
- b. Start up, proper adjustment, operating, lubrication, and shutdown procedures.
- c. Safety precautions.
- d. The procedure in the event of equipment failure.
- e. Other items of instruction as recommended by the manufacturer of each system or item of equipment.

Print or engrave operating instructions and frame under glass or in approved laminated plastic. Post instructions where directed. For operating instructions exposed to the weather, provide weather-resistant materials or weatherproof enclosures. Operating instructions shall not fade when exposed to sunlight and shall be secured to prevent easy removal or peeling.

1.3 Energy Star: Where applicable, provide equipment that is an ENERGY STAR Qualified product or a Federal Energy Management Program (FEMP) designated product.

## 1.4 High Efficiency Motors:

1.4.1 High Efficiency Single-Phase Motors: Unless otherwise specified, single-phase fractional-horsepower alternating-current motors shall be high efficiency types corresponding to the applications listed in NEMA MG 11.

### 1.4.1.1 High Efficiency Polyphase Motors:

Unless otherwise specified, select polyphase motors based on high efficiency characteristics relative to the applications as listed in NEMA MG 10. Additionally, polyphase squirrel-cage medium induction motors with continuous ratings shall meet or exceed energy efficient ratings in accordance with Table 12-6C of NEMA MG 1.

#### 1.4.1.2 Three-Phase Motor Protection

Provide controllers for motors rated one horsepower and larger with electronic phase-voltage monitors designed to protect motors from phase-loss, undervoltage, and overvoltage. Provide protection for motors from immediate restart by a time adjustable restart relay.

1.4.1.3 Provide motor torque capable of accelerating the connected load within 20 seconds with 80 percent of the rated voltage maintained at motor terminals during one starting period. Provide motor starters complete with thermal overload protection and other necessary appurtenances. Fit motor bearings with grease supply fittings and grease relief to outside of the enclosure.

Where two-speed or variable-speed motors are indicated, solid-state variable-speed controllers are allowed to accomplish the same function. Use solid-state variable-speed controllers for motors rated 10 hp or less and variable frequency drives for larger motors.

1.5 Submittals: Submit the following in accordance with SOW Submittal Procedures paragraph:

#### 1.5.1 Shop Drawings:

1.5.1.1 Equipment and Ductwork: Submit detailed shop drawings showing equipment performance data, equipment layout, catalog data including assembly and installation details and electrical connection diagrams, ductwork layout showing the location of all supports and hangers, typical hanger details, gauge reinforcement, reinforcement spacing, rigidity classification, static pressure, and seal classifications. Include any information required to demonstrate that the system has been coordinated and functions properly as a unit on the drawings and show equipment relationship to other parts of the work, including clearances required for operation and maintenance. Submit drawings showing bolt-setting information, and foundation bolts prior to concrete foundation construction for all equipment indicated or required to have concrete foundations. Submit function designation of the equipment and any other requirements specified throughout this SOW with the shop drawings.

1.5.1.2 For connections to existing systems, provide sufficient layout information to identify line sizes, duct sizes, electrical connections, controls and other information.

1.5.1.3 Chilled Water Piping (Use Copper Type "L" unless otherwise noted): Submit detailed shop drawings for all piping, valves and specialties showing conformance with the referenced standards contained within this section. Submit the following items: pipe size, shape, dimensions, temperature ratings, vibration, thrust limitations, minimum burst pressures, shut-off and non-shock pressures, and weld characteristics. Include any information required to demonstrate that the system has been coordinated and functions properly as a unit on the drawings and show equipment relationship to other parts of the work, including clearances required for operation and maintenance. Submittal shall include, but not be limited to, Certificates of Compliance for Hydrostatic Testing, Valve Operating Tests, and Operational Testing.

1.5.1.4 Provide cutoff valves for all equipment such as fan coils, air handlers packaged equipment connections and other HVAC hydronics. Provide balancing valves on all zones. Provide bleeder vents for all coils at the highest points in the system. Submit Connection Diagrams for pipes, valves, and specialties indicating the relations and connections of devices and apparatus by showing the general physical layout of all controls, the interconnection of one system (or portion of system) with another, and internal tubing, wiring, and other devices.

1.5.1.5 Condensate Drain Lines: Provide and install condensate drainage for each item of equipment that generates condensate. Condensate shall drain to a suitable system environmentally acceptable for such byproducts.

1.5.1.6 Backflow Preventers: IAW manufacturer directions. Backflow preventers shall be installed at all main water sources.

1.5.1.7 Insulation: IAW ASHRAE Handbook. All chilled water and heating water piping shall be insulated.

1.5.1.8 Testing and Commissioning Procedures: Submit proposed testing and commissioning procedures for all new equipment, ductwork, and piping. Submittal shall include, but not be limited to, ductwork leak test results, piping pressure tests, and performance tests and commissioning of all new systems and existing systems that have been tied into. Note: Testing and commissioning procedures submittals shall be submitted at least 14 calendar days prior to system testing and commissioning.

Note, Testing and Commissioning only applies to new HVAC equipment/systems in this project scope and not the entire building 3453.

1.5.1.9 Operation and Maintenance (O&M) Data, Manuals, and Training: Submit complete Manufacturer Data, Manuals, and Training for all new equipment, ductwork, and piping. Provide training to owner to cover all new equipment and systems installed. This training shall occur on site once the systems have been commissioned.

1.5.1.10 As-Built Drawings: Refer to SOW Submittals paragraph for submittal requirements.

1.5.1.11 Submit installation drawings for air-diffusion devices. Indicate on drawings overall physical features, dimensions, ratings, service requirements, and equipment weights.

1.5.1.12 Testing, Adjusting and Balancing (TAB): Submit plan and final report IAW ASHRAE Guidelines 0-2005 and 1.1-2007. HVAC system shall be commissioned as a prerequisite of final acceptance. Provide full documentation to support testing.

1.5.1.13 Direct Digital Control (DDC) Points: Report on calibration, adjustment, and commissioning. Verify sequences of operation perform as specified. Document any changes to the sequences.

1.6 Delivery, Storage, and Handling: Protect stored equipment at the jobsite from the weather, humidity and temperature variations, dirt and dust, or other contaminants. Additionally, cap or plug all pipes until installed.

1.7 Anchor Bolts: Provide anchor bolts for equipment placed on concrete equipment pads or on concrete slabs. Bolts to be of the size and number recommended by the equipment manufacturer and located by means of suitable templates. Installation of anchor bolts shall not degrade the surrounding concrete.

1.8 Indoor Air Quality: Provide equipment and components that comply with the requirements of ASHRAE 62.1. Provide any CO<sub>2</sub> monitoring to verify indoor air quality. This shall be provided in densely populated classroom related to the SPINSTRA area in the South Annex.

## 2.0 PRODUCTS:

### 2.1 Duct Systems:

2.1.1 Metal Ductwork: Provide metal ductwork construction, including all fittings and components, that complies with SMACNA 1966, as supplemented and modified by this SOW.

2.1.2 Metallic Flexible Duct: Provide duct that conforms to UL 181 and NFPA 90A standards with factory-applied insulation, vapor barrier, and end connections. Provide duct assembly that does not exceed 25 for flame spread and 50 for smoke developed. Flexible duct connections shall be limited to no more than 10 feet in length and in low pressure ductwork only.

2.1.3 All ductwork shall be metal. Insulation material shall not be fiberglass or friable in any manner. Main ductwork shall be rated for medium pressure up to the zones. Downstream from the zones low pressure duct is suitable.

2.1.4 Duct Access Doors: Provide hinged access doors conforming to SMACNA 1966 in ductwork and plenums where indicated and at all air flow measuring primaries, automatic dampers, fire dampers, coils, thermostats, and other apparatus requiring service and inspection in the duct system. Provide access doors upstream and downstream of air flow measuring primaries and heating and cooling coils. Provide doors that are a minimum 15 by 18 inches, unless otherwise shown. Where duct size does not accommodate this size door, make the doors as large as practicable.

2.1.5 Manual Balancing Dampers: Furnish manual balancing dampers with accessible operating mechanisms. Use chromium plated operators (with all exposed edges rounded) in finished portions of the building. Provide manual volume control dampers that are operated by locking-type quadrant operators. Install dampers that are 2 gauges heavier than the duct in which installed. Unless otherwise indicated, provide opposed blade type multileaf dampers with maximum blade width of 12 inches. Provide access doors or panels for all concealed damper operators and locking setscrews.

2.1.6 Automatic Smoke-Fire Dampers: Provide multiple blade type, 180 °F fusible fire

damper link, smoke damper assembly to include pneumatically powered operator. Utilize UL 555 standard as a 1.5 hour rated fire damper; further qualified under UL 555S as a leakage rated damper. Provide a leakage rating under UL 555S that is no higher than Class II at an elevated temperature Category B (250 °F for 30 minutes). Ensure that pressure drop in the damper open position does not exceed 0.1-inch water gauge with average duct velocities of 2500 feet per minute (fpm).

2.1.7 Fire Dampers: Provide fire dampers for any duct penetrations through fire rated walls and corridors.

2.1.8 Air Supply And Exhaust Air Dampers: Where outdoor air supply and exhaust air dampers are required they shall have a maximum leakage rate when tested in accordance with AMCA 500-D as required by ASHRAE 90.1 - IP, including: Maximum Damper Leakage at 1.0 inch w.g. is 10 cubic feet per minute (cfm) per square foot of damper area for motorized dampers and for 20 cfm per square foot of damper area for non-motorized dampers. Dampers smaller than 24 inches in either direction may have leakage of 40 cfm per square foot.

Any exterior penetrations in the SPINTRA area greater than 96 square inches shall be shall be hardened in accordance with Military Handbook 1013/1A and in accordance with DoD Manual 5200.01 Physical Security Standards.

2.1.9 Air Deflectors and Branch Connections: Provide air deflectors at all duct mounted supply outlets, takeoff or extension collars to supply outlets, duct branch takeoff connections, and 90 degree elbows, as well as locations as indicated on the drawings or otherwise specified. Conical branch connections or 45 degree entry connections are allowed in lieu of deflectors for branch connections. Furnish all air deflectors, except those installed in 90 degree elbows, with an approved means of adjustment. Provide easily accessible means for adjustment inside the duct or from an adjustment with sturdy lock on the face of the duct.

2.1.10 Sound Attenuation Equipment: Provide sound absorbing material conforming to ASTM C1071, Type I or II, in any areas where noise levels exceed 50 decibels.

## 2.2 Diffusers, Registers, and Grilles:

Provide factory-fabricated units of aluminum that distribute the specified quantity of air evenly over space intended without causing noticeable drafts, air movement faster than 50 fpm in occupied zone, or dead spots anywhere in the conditioned area. Provide outlets for diffusion, spread, throw, and noise level as required for specified performance. Certify performance according to ASHRAE 70. Provide sound rated and certified inlets and outlets according to ASHRAE 70. Provide sound power level as indicated. Provide diffusers and registers with volume damper with accessible operator, unless otherwise indicated, or if standard with the manufacturer, an automatically controlled device is acceptable. Provide opposed blade type volume dampers for all diffusers and registers, except linear slot diffusers. Provide linear slot diffusers with round or elliptical balancing dampers. Where the inlet and outlet openings are located less than 7 feet above the floor, protect them by a grille or screen according to NFPA 90A.

2.2.1 Diffusers: Furnish ceiling mounted units with anti-smudge devices, unless the diffuser unit minimizes ceiling smudging through design features. Provide diffusers with air deflectors of the type indicated. Provide air handling troffers or combination light and ceiling diffusers conforming to the requirements of UL Electrical Construction for the interchangeable use as cooled or heated air supply diffusers or return air units. Install ceiling mounted units with rims tight against ceiling. Provide sponge rubber gaskets between ceiling and surface mounted diffusers for air leakage control. Provide suitable trim for flush mounted diffusers. For connecting the duct to diffuser, provide duct collar that is airtight and does not interfere with volume controller. Provide return or exhaust units that are similar to supply diffusers.

2.2.2 Registers and Grilles: Provide units that are four-way directional-control type, except provide return and exhaust registers that are fixed horizontal or vertical louver type similar in appearance to the supply register face. Furnish registers with sponge-rubber gasket between flanges and wall or ceiling. Install wall supply registers at least 6 inches below the ceiling unless otherwise indicated. Locate return and exhaust registers 6 inches above the floor unless otherwise indicated. Achieve four-way directional control by a grille face which can be rotated in 4 positions or by adjustment of horizontal and vertical vanes. Provide grilles as specified for registers, without volume control damper.

2.2.3 Louvers: Provide louvers for installation in exterior walls that are associated with the air supply and distribution system. Style of louvers shall match existing on the building.

2.2.4 Air Vents, Penthouses, and Goosenecks: Fabricate air vents, penthouses, and goosenecks from galvanized steel [or aluminum] sheets with galvanized [or aluminum] structural shapes. Provide sheet metal thickness, reinforcement, and fabrication that conform to SMACNA 1966. Accurately fit and secure louver blades to frames. Fold or bead edges of louver blades for rigidity and baffle these edges to exclude driving rain. Provide air vents, penthouses, and goosenecks with bird screen.

## 23 Equipment:

2.3.1 Fans: Test and rate fans according to AMCA 210.

2.3.2 Centrifugal Fans: Provide fully enclosed, single-width single-inlet, or double-width double-inlet centrifugal fans, with AMCA Pressure Class I, II, or III as required. Provide automatically operated outlet dampers. Unless otherwise indicated, provide motors that do not exceed 1800 rpm and have totally enclosed enclosures. Provide reduced-voltage-start type motor starters with general-purpose enclosure.

2.3.3 Coils: Provide fin-and-tube type coils constructed of seamless copper tubes and aluminum fins mechanically bonded or soldered to the tubes. Provide copper tube wall thickness that is a minimum of 0.020 inches. Provide aluminum fins that are 0.0055-inch minimum thickness. Provide casing and tube support sheets that are not lighter than 16 gauge galvanized steel, formed to provide structural strength. When required, provide multiple tube supports to prevent tube sag. Test each coil at the factory under water at not less than 400 psi air pressure and make suitable for 200 psi working pressure and 300 °F operating temperature unless otherwise stated. Mount coils for counterflow service. Rate and certify coils to meet the requirements of AHRI



410. Provide automatic bleeder vents for all coils. Maximum air velocity across any coil shall be limited to 500 fpm.

#### 2.3.4 Condenser systems:

2.3.4.1 Water Coils: Install water coils with a pitch of not less than 1/8 inch/foot of the tube length toward the drain end. Use headers constructed of cast iron, welded steel, or copper. Furnish each coil with a plugged vent and drain connection extending through the unit casing. Provide removable water coils with drain pans.

235 Air Filters: List air filters according to requirements of UL 900, except list high efficiency particulate air filters of 99.97 percent efficiency by the DOP Test method under the Label Service to meet the requirements of UL 586. All air handling units and packaged equipment shall have pre-filters and final filters.

236 Replaceable Media Filters: Provide dry-media type replaceable media filters, of the size required to suit the application. Provide filtering media that is not less than 2 inches thick fibrous glass media pad supported by a structural wire grid or woven wire mesh. Enclose pad in a holding frame of not less than 16 gauge galvanized steel, equipped with quick-opening mechanism for changing filter media. Base the air flow capacity of the filter on net filter face velocity not exceeding 300 fpm, with initial resistance of 0.13 inches water gauge. Provide MERV that is not less than 8 when tested according to ASHRAE 52.2

237 Fan Coil Units (FCU): In the rooms listed in the Mechanical Drawings, provide Fan Coil Units with the required cooling capacities, air flowrates, and static pressures. Provide new supply diffusers, return registers, temperature sensors, and rectangular, round, and z ducting required for conditioning the listed spaces.

238 Chilled Water Pump: In the listed room, provide a new chilled water pump with a variable frequency drive with the listed water flowrate, hydraulic head, and suction and discharge line size.

2.4 Backflow Preventers: Provide backflow preventers IAW manufacturer directions and with appropriate pressure reducers.

2.5 Insulation: All piping and ductwork shall be insulated, identified, and properly labelled.

2.6 Direct Digital Controls: Refer to the project drawings for summary of control points to be reused and relocated as well as new control points. Provide new direct digital control (DDC) system and connect to an existing base DDC system including associated equipment and accessories. The DDC system shall be a complete system suitable for the heating, ventilating and air conditioning (HVAC) system. This DDC system shall be fully 100% compatible with the existing base wide front-end Energy Monitoring and Control System (EMCS) currently installed on Goodfellow Air Force Base. This existing front-end EMCS system is manufactured by Automated Logic Corporation, Marietta, Georgia. Goodfellow AFB personnel will work with the DDC Controls Contractor on commissioning of the DDC Control System.

DDC shall utilize BACnet open protocol standard communication. Controllers shall be fully

programmable and application specific. Manufacturer supplied controllers with packaged equipment shall be fully BACnet compatible and shall integrate both readable and writable information into an Automated Logic front end application. All software and tools to support programming and controller configurations shall be provided.

Fan coils shall use application specific controllers which communicate BACnet master slave token passing (MSTP) protocol. Fully programmable controllers shall utilize BACnet IP and shall be Automated Logic. Packaged equipment shall utilize BACnet IP or MSTP protocol. Contractor shall provide all the required BACnet routers to fully integrate the system into the Goodfellow Automated Logic head end application.

Control logic shall employ energy savings strategies, optimize operations, and integrate equipment. Provide sufficient sensors and head end information for all air and water flows, air and water pressures, VFD speeds, damper position, compressor loads, condenser head pressure, air and water temperature, valve position, energy consumption, and other data to fully operate, troubleshoot, and manage the equipment and systems.

### PART 3 EXECUTION

3.1 After becoming familiar with all details of the work, verify all dimensions in the field, and advise the Contracting Officer of any discrepancy before performing the work.

- a. Installation: Install materials and equipment in accordance with the requirements of the contract drawings and approved manufacturer's installation instructions. Accomplish installation by workers skilled in this type of work. Perform installation so that there is no degradation of the designed fire ratings of walls, partitions, ceilings, and floors.
- b. Condensate Drain Lines: Provide water seals in the condensate drain from all units.
- c. Equipment and Installation: Provide frames and supports for tanks, compressors, pumps, valves, air handling units, fans, coils, dampers, and other similar items requiring supports. Floor mount or ceiling hang air handling units as indicated. Anchor and fasten as detailed. Set floor-mounted equipment on not less than 6 inch concrete pads or curbs doweled in place unless otherwise indicated. Make concrete foundations heavy enough to minimize the intensity of the vibrations transmitted to the piping, duct work and the surrounding structure, as recommended in writing by the equipment manufacturer.
- d. Access Panels: Install access panels for concealed valves, vents, controls, dampers, and items requiring inspection or maintenance of sufficient size, and locate them so that the concealed items are easily serviced and maintained or completely removed and replaced.
- e. Flexible Duct: Install pre-insulated flexible duct in accordance with the latest printed instructions of the manufacturer to ensure a vapor tight joint. Provide hangers, when required to suspend the duct, of the type recommended by the duct manufacturer and set at the intervals recommended.
- f. Metal Ductwork: Install metal ductwork according to SMACNA 1966 unless otherwise

indicated. Install duct supports for sheet metal ductwork according to SMACNA 1966, unless otherwise specified. Do not use friction beam clamps indicated in SMACNA 1966. Anchor risers on high velocity ducts in the center of the vertical run to allow ends of riser to move due to thermal expansion. Erect supports on the risers that allow free vertical movement of the duct. Attach supports only to structural framing members and concrete slabs. Do not anchor supports to metal decking unless a means is provided and approved for preventing the anchor from puncturing the metal decking. Where supports are required between structural framing members, provide suitable intermediate metal framing. Where C- clamps are used, provide retainer clips.

3.2 Equipment Pads: Provide equipment pads to the dimensions shown or, if not shown, to conform to the shape of each piece of equipment served with a minimum 3-inch margin around the equipment and supports. Allow equipment bases and foundations, when constructed of concrete or grout, to cure a minimum of 14 calendar days before being loaded.

3.3 Cleaning: Thoroughly clean surfaces of piping and equipment that have become covered with dirt, plaster, or other material during handling and construction before such surfaces are prepared for final finish painting or are enclosed within the building structure. Before final acceptance, clean mechanical equipment, including piping, ducting, and fixtures, and free from dirt, grease, and finger marks.

3.4 Color Coding Scheme for Locating Hidden Utility Components: Use scheme in buildings having suspended grid ceilings. Provide color coding scheme that identifies points of access for maintenance and operation of components and equipment that are not visible from the finished space and are accessible from the ceiling grid, consisting of a color code board and colored metal disks.

Provide identification tags made of brass, engraved laminated plastic, or engraved anodized aluminum, indicating service and item number on all valves and dampers. Provide tags that are 1-3/8 inch minimum diameter with stamped or engraved markings.

3.5 Ductwork Leak Test: Perform ductwork leak test for the entire air distribution and exhaust system, including fans, coils, filters, and other equipment. Provide test procedures, apparatuses, and reports that conform to SMACNA 1143.

3.6 Testing, Adjusting, and Balancing (TAB): Begin testing, adjusting, and balancing only when the air supply and distribution, including controls, has been completed, with the exception of performance tests. Provide copies of the TAB report for all air and hydronic systems. Any systems that have been used to tie new equipment shall be completely tested and be balanced back to the main sources. Testing and Balancing contractor shall provide the location and differential pressure setting to the controls contractor for all VFD controlled devices.

3.7 Performance Testing: After testing, adjusting, and balancing is complete as specified, test each system as a whole to see that all items perform as integral parts of the system and temperatures and conditions are evenly controlled throughout the building. Record the testing during the applicable season. Make corrections and adjustments as necessary to produce the conditions indicated or specified. Conduct capacity tests and general operating tests by an

experienced engineer. Provide tests that cover a period of not less than 2 days for each system and demonstrate that the entire system is functioning according to the specifications. Make coincidental chart recordings at points indicated on the drawings for the duration of the time period and record the temperature at space thermostats or space sensors, the humidity at space humidistats or space sensors and the ambient temperature and humidity in a shaded and weather protected area.

Submit test reports for the ductwork leak test, and performance tests in booklet form, upon completion of testing. Document phases of tests performed including initial test summary, repairs and adjustments made, and final test results in the reports.

3.8 Cleaning and Adjusting: Provide a temporary bypass for water coils to prevent flushing water from passing through coils. Inside of room fan-coil units air terminal units, thoroughly clean ducts, plenums, and casing of debris and blow free of small particles of rubbish and dust and then vacuum clean before installing outlet faces. Wipe equipment clean, with no traces of oil, dust, dirt, or paint spots. Provide temporary filters prior to startup of all fans that are operated during construction, and install new filters after all construction dirt has been removed from the building, and the ducts, plenums, casings, and other items specified have been vacuum cleaned. Maintain system in this clean condition until final acceptance. Properly lubricate bearings with oil or grease as recommended by the manufacturer. Tighten belts to proper tension. Adjust control valves and other miscellaneous equipment requiring adjustment to setting indicated or directed. Adjust fans to the speed indicated by the manufacturer to meet specified conditions. Maintain all equipment installed under the contract until close out documentation is received, the project is completed and the building has been documented as beneficially occupied.

3.9 Flushing: Systems shall be flushed, filled and inhibitors replaced when tapping into for new equipment. Assure that all air has been purged from system upon filling. Provide copies of water treatment reports after the system is restored.

3.10 Pipe Installation: Fabricate and install piping systems in accordance with ASME B31.3, MSS SP-69, and AWS WHB-2.9. Securely support piping systems with due allowance for thrust forces, thermal expansion and contraction, and shall not be subjected to mechanical, chemical, vibrational or other damage as specified in ASME B31.3. Installation shall conform to manufacturer's instructions.

3.11 Valves: Provide valves in piping mains and all branches and at equipment where indicated and as described in the plans. Provide valves to permit isolation of branch piping and each equipment item from the balance of the system. Riser and down-comer drains above piping shutoff valves in piping 2-1/2 inches and larger shall be provided. All valves shall be ball valves.

Valves unavoidably located in furred or other normally inaccessible places shall be provided with access panels adequately sized for the location and located so that concealed items may be serviced, maintained, or replaced. Provide vibration isolation supports where needed.

3.12 Penetrations: Effective sound stopping and adequate operating clearance shall be

provided to prevent structure contact where piping penetrates walls, floors, or ceilings into occupied spaces adjacent to equipment rooms; where similar penetrations occur between occupied spaces; and where penetrations occur from pipe chases into occupied spaces. Occupied spaces shall include space above ceilings where no special acoustic treatment of ceiling is provided. Penetrations shall be finished to be compatible with surface being penetrated.

3.13 Sleeves: Provide sleeves where piping passes through roofs, masonry, concrete walls and floors.

3.14 Escutcheons: Provide escutcheons at all penetrations of piping into finished areas.

3.15 Fire calk any fire rated wall penetrations.

3.16 Certify air diffusion devices having been tested and rated in accordance with ASHRAE EQUIP IP HDBK, Chapter 17.

3.16.1 Preclude flutter, rattle, or vibration on air-diffusion device construction and mounting. Modify devices and provide accessories necessary for mounting in indicated surface construction. Ensure air-diffusion device volume and pattern adjustments can be made from the face of the device. Provide aluminum construction. Install equipment as indicated and specified and in accordance with manufacturer's recommendations.

3.17 Fan coils: In rooms indicated on Mechanical drawings, fan coils shall be replaced with listed equipment within manufacturer's specifications or equivalent.

3.18 Variable Frequency Drives (VFDs): All motors 5 HP and larger shall be VFDs and controlled by differential pressure sensors. VFDs shall be utilize BACnet protocol and all points integrated into the head end application.

3.19 Closed loop hydronic systems: Any closed loop hydronic systems opened for new equipment shall be flushed, filled, provided with chemical treatment, air bled and rebalanced upon completion.

- END -

## ATTACHMENT I PROJECT CLOSEOUT CHECKLIST

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

Project Manager: \_\_\_\_\_ Date: \_\_\_\_\_

	APPLICABLE		DATE
	YES	NO	COMPLETED
Red Zone Meeting	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inspections/Walk-through by CE Shops	<input type="checkbox"/>	<input type="checkbox"/>	_____
Final Inspection and punch list items	<input type="checkbox"/>	<input type="checkbox"/>	_____
Final Inspection Letter	<input type="checkbox"/>	<input type="checkbox"/>	_____
Submittal Register – All items submitted and accepted	<input type="checkbox"/>	<input type="checkbox"/>	_____
Receipt for extra stock materials	<input type="checkbox"/>	<input type="checkbox"/>	_____
Operation and Maintenance Manuals	<input type="checkbox"/>	<input type="checkbox"/>	_____
Guarantees and Extended Warranties	<input type="checkbox"/>	<input type="checkbox"/>	_____
Training for CE personnel on all new equipment	<input type="checkbox"/>	<input type="checkbox"/>	_____
Acceptance testing/certificates:			
Fire Alarms and Mass Notification Systems	<input type="checkbox"/>	<input type="checkbox"/>	_____
Security Alarm Systems	<input type="checkbox"/>	<input type="checkbox"/>	_____
Service Inspection Certification for Public Water System (PWS)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Copper and Lead Test	<input type="checkbox"/>	<input type="checkbox"/>	_____
Contractor's Material and Test Certificate for Aboveground Piping	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical Treatment for Mechanical Systems	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pressure Test for Gas Line Systems	<input type="checkbox"/>	<input type="checkbox"/>	_____
Water Quality Tests by Bioenvironmental	<input type="checkbox"/>	<input type="checkbox"/>	_____
Backflow Prevention Assembly Test for Fire Protection	<input type="checkbox"/>	<input type="checkbox"/>	_____
Backflow Prevention Assembly Test for Irrigation System	<input type="checkbox"/>	<input type="checkbox"/>	_____
Backflow Prevention Assembly Test for Boiler	<input type="checkbox"/>	<input type="checkbox"/>	_____
DD Form 1354 Checklist and DOD Form 1354 for Real Property	<input type="checkbox"/>	<input type="checkbox"/>	_____
Notification of Termination (NOT) – Storm Water	<input type="checkbox"/>	<input type="checkbox"/>	_____

Hazardous Wastes Disposal Records



\_\_\_\_\_

APPLICABLE  
YES NO

DATE  
COMPLETED

Contractors Environmental Reporting Entry



\_\_\_\_\_

All Environmental Emissions Reports



\_\_\_\_\_

Final Inspection Punch List Cleared



\_\_\_\_\_

Certificate of Substantial Completion



\_\_\_\_\_

BOD acceptance letter



\_\_\_\_\_

As-Built Drawings – (1) Electronic & (1) Set Hardcopy



\_\_\_\_\_

Final Acceptance Letter to Contracting



\_\_\_\_\_

Final CE Closeout Letter



\_\_\_\_\_

Performance Evaluations for Vendors & Subs



\_\_\_\_\_

**ATTACHMENT J**  
**Prevailing Wage Rates**

General Decision Number: TX180336 01/05/2018 TX336

Superseded General Decision Number: TX20170336

State: Texas

Construction Type: Building

Counties: Irion and Tom Green Counties in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/05/2018

BOIL0074-003 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 28.00	22.35

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 ENGI0178-005 06/01/2014

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane.....	\$ 29.00	10.60
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic		
Crane 60 tons and above.....	\$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under.....	\$ 27.50	10.60



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 \* IRON0084-011 06/01/2017

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 23.27	7.12

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 PLUM0404-001 07/01/2016

	Rates	Fringes
PLUMBER.....	\$ 25.91	9.40

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 SUTX2014-062 07/21/2014

	Rates	Fringes
BRICKLAYER.....	\$ 20.00	0.00
CARPENTER, Excludes Drywall Hanging, and Metal Stud Installation.....	\$ 13.82	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 13.76	0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 16.72	0.00
ELECTRICIAN.....	\$ 23.18	6.31
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation).....	\$ 19.77	7.13
IRONWORKER, REINFORCING.....	\$ 12.27	0.00
IRONWORKER, STRUCTURAL.....	\$ 22.16	5.26
LABORER: Common or General.....	\$ 9.74	0.00
LABORER: Mason Tender - Brick...	\$ 11.38	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 10.58	0.00
LABORER: Pipelayer.....	\$ 12.49	2.13
LABORER: Roof Tearoff.....	\$ 11.28	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 14.25	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 13.93	0.00
OPERATOR: Bulldozer.....	\$ 18.29	1.31
OPERATOR: Drill.....	\$ 16.22	0.34

OPERATOR: Forklift.....	\$ 14.83	0.00
OPERATOR: Grader/Blade.....	\$ 13.37	0.00
OPERATOR: Loader.....	\$ 13.55	0.94
OPERATOR: Mechanic.....	\$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 16.03	0.00
OPERATOR: Roller.....	\$ 12.70	0.00
PAINTER (Brush, Roller, and Spray).....	\$ 15.00	0.73
PIPEFITTER.....	\$ 25.80	8.55
ROOFER.....	\$ 13.17	0.26
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 22.73	7.52
SHEET METAL WORKER, Excludes HVAC Duct Installation.....	\$ 15.00	0.00
TILE FINISHER.....	\$ 11.22	0.00
TILE SETTER.....	\$ 14.74	0.00
TRUCK DRIVER: Dump Truck.....	\$ 12.39	1.18
TRUCK DRIVER: Flatbed Truck.....	\$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck.....	\$ 12.50	0.00
TRUCK DRIVER: Water Truck.....	\$ 12.00	4.11

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 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
 for Federal Contractors applies to all contracts subject to the  
 Davis-Bacon Act for which the contract is awarded (and any  
 solicitation was issued) on or after January 1, 2017. If this  
 contract is covered by the EO, the contractor must provide  
 employees with 1 hour of paid sick leave for every 30 hours  
 they work, up to 56 hours of paid sick leave each year.  
 Employees must be permitted to use paid sick leave for their  
 own illness, injury or other health-related needs, including  
 preventive care; to assist a family member (or person who is  
 like family to the employee) who is ill, injured, or has other  
 health-related needs, including preventive care; or for reasons

resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the

wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request

review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Checklist for Required Certifications and Documentation:

- PROPOSAL COST WORKSHEET**
- PROPOSAL BOND**
- REFERENCES**
- INSURANCE CERTIFICATION OR BINDER CERTIFICATION**
- WORKERS' COMPENSATION AFFIDAVIT**
- CIVIL RIGHTS COMPLIANCE**
- FORM 1295 – TEXAS ETHICS COMMISSION**
- GOVERNMENT CODE 2270 AFFIDAVIT**
- CHILD SUPPORT STATEMENT**
- NON-COLLUSION STATEMENT/SUBMISSION AFFIDAVIT**

**EXHIBIT A**

**VENDOR REFERENCES**

Please list at least three (3) companies or governmental agencies where the same or similar products and/or services as contained in this specification package were recently provided.

*THIS FORM MUST BE RETURNED WITH YOUR PROPOSAL.*

**Reference One**

Government/Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person and Title: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Contract Period: \_\_\_\_\_ Scope of Work: \_\_\_\_\_

**Reference Two**

Government/Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person and Title: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Contract Period: \_\_\_\_\_ Scope of Work: \_\_\_\_\_

**Reference Three**

Government/Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person and Title: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Contract Period: \_\_\_\_\_ Scope of Work: \_\_\_\_\_

**EXHIBIT B**

***Attach Insurance Certification or Binder Certification***

I, \_\_\_\_\_, as a duly authorized representative of \_\_\_\_\_,  
(full name) (name of firm)

certify that evidence of required general liability, worker’s compensation, and professional liability insurance for personnel assigned to the project and automobile insurance for any vehicles used for the project in the amounts in this RFP shall be provided to the issuer of this RFP within 10 calendar days of any Notice of Award.

\_\_\_\_\_  
Signature – Company Official

\_\_\_\_\_  
Printed/Typed Firm Name

\_\_\_\_\_  
Printed/Typed Name/Title

\_\_\_\_\_  
Date

**Insurance Requirements**

Worker’s Compensation – Statutory Amount

Employer’s Liability - \$500,000.00

Commercial General Liability

Personal injury and property damage:

\$1,000,000.00 combined single limit each occurrence and

\$2,000,000.00 aggregate

Business Automobile Liability for all vehicles

Bodily Injury and property damage:

\$500,000.00 combined single limit any one accident



**EXHIBIT C**

**WORKERS' COMPENSATION AFFIDAVIT**

**STATE OF** \_\_\_\_\_ **§**  
**COUNTY OF** \_\_\_\_\_ **§**

**BEFORE ME**, the undersigned authority, on this day personally appeared \_\_\_\_\_, known to me to be the person whose name is subscribed to the foregoing instrument and, being by me first duly sworn, upon oath declared that the statements and capacity acted in are true and correct.

I, \_\_\_\_\_ am a duly authorized officer of \_\_\_\_\_ and hereby certify that all "persons providing services on the project" will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commissioners' Division of Self-Insurance Regulation. Providing false or misleading information may subject the company to administrative penalties, criminal penalties, civil penalties or other civil actions.

I furthermore certify that the company will provide, to Tom Green County, certificates of coverage showing statutory workers' compensation insurance coverage for all "persons providing services on the project", including all entities.

I hereby acknowledge that "persons providing services on the project" includes all persons or entities performing all or part of the services the company has undertaken to perform on the project, regardless of whether that person contracted directly with the company and regardless of whether that person has employees. This includes, without limitation, independent companies, contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity that furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor transportation, or other service related to the project. "Services" do not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

I furthermore acknowledge that failure to comply with any of these provisions is a breach of contract by the company which entitles Tom Green County to declare the contract void if the company does not remedy the breach within ten days after receipt of notice of breach from Tom Green County.

By: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Company: \_\_\_\_\_

*Subscribed and sworn to before me, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ to certify which witness my hand and seal of office:*

\_\_\_\_\_  
Notary Public

**EXHIBIT D**

**CIVIL RIGHTS COMPLIANCE**

**1. Nondiscrimination**

The Project Delivery Firm, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Project Delivery Firm shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 and Part 710.405(b) of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

**2. Solicitations for Subcontracts Including Procurement of Materials and Equipment**

In all solicitations either by competitive bidding or negotiation made by the Project Delivery Firm for work to be performed under a subcontract including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Project Delivery Firm of its obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.

\_\_\_\_\_  
Signature – Company Official

\_\_\_\_\_  
Printed/Typed Firm Name

\_\_\_\_\_  
Printed/Typed Name/Title

\_\_\_\_\_  
Date

**EXHIBIT E**

GOVERNMENT CODE 2270 AFFIDAVIT

I, \_\_\_\_\_,  
(Person's Name)

the undersigned representative of \_\_\_\_\_  
(Company or Business Name)

(hereafter referred to as company) being an adult over the age of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the company named-above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:

1. Does not boycott Israel currently; and
2. Will not boycott Israel during the term of the contract.

*Pursuant to Section 2270.001, Texas Government Code:*

*1. "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes; and*

*2. "Company" means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or any limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business associations that exist to make a profit.*

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF COMPANY REPRESENTATIVE

On this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared

\_\_\_\_\_, the above-named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

NOTARY SEAL

\_\_\_\_\_  
NOTARY SIGNATURE

\_\_\_\_\_  
Date

**EXHIBIT F**

<b>CONFLICT OF INTEREST QUESTIONNAIRE</b> For vendor or other person doing business with local governmental entity		<b>FORM CIQ</b>
<p><b>This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.</b>            This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).</p> <p>By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>	<b>OFFICE USE ONLY</b> <hr/> Date Received	
<b>1</b> Name of person who has a business relationship with local governmental entity.		
<b>2</b> <input type="checkbox"/> Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)		
<b>3</b> Name of local government officer with whom filer has employment or business relationship.		
_____ Name of Officer		
<p>This section (item 3 including subparts A, B, C &amp; D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?</p> <p style="text-align: center;"> <input type="checkbox"/> Yes      <input type="checkbox"/> No         </p> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?</p> <p style="text-align: center;"> <input type="checkbox"/> Yes      <input type="checkbox"/> No         </p> <p>C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?</p> <p style="text-align: center;"> <input type="checkbox"/> Yes      <input type="checkbox"/> No         </p> <p>D. Describe each employment or business relationship with the local government officer named in this section.</p>		
<b>4</b>		
_____ Signature of person doing business with the governmental entity		_____ Date

**EXHIBIT G**

Form <b>W-9</b> (Rev. December 2014) Department of the Treasury Internal Revenue Service	<b>Request for Taxpayer                  Identification Number and Certification</b>	Give Form to the requester. Do not send to the IRS.
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Print or type See Specific Instructions on page 2.	1	Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2	Business name/disregarded entity name, if different from above	
	3	Check appropriate box for federal tax classification; check only <b>one</b> of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ (Applies to accounts maintained outside the U.S.)
	5	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	6	City, state, and ZIP code	
	7	List account number(s) here (optional)	

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I Instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

<b>Social security number</b>
[ ] [ ] [ ] - [ ] [ ] - [ ] [ ] [ ] [ ] [ ] [ ]
or
<b>Employer identification number</b>
[ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶
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**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at [www.irs.gov/fw9](http://www.irs.gov/fw9).

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

**EXHIBIT H**  
**CHILD SUPPORT STATEMENT FOR**  
**NEGOTIATED CONTRACTS AND GRANTS**

Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, proposals, or application is eligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

List below the name and social security number of the individual or sole proprietor and each partner, shareholder, or owner with an ownership interest of at least 25% of the business entity submitting the proposals or application.

NAME	SOCIAL SECURITY NUMBER

Section 231.006, Family Code, specifies that a child support obligor who is more than 30 days delinquent in paying child support and a business entity in which the obligor is a sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% is not eligible to receive payments from state funds under a contract to provide property, materials, or services; or receive a state-funded grant or loan.

A child support obligor or business entity ineligible to receive payments described above remains ineligible until all arrearage have been paid or the obligor is in compliance with a written repayment agreement or court order as to any existing delinquency.

Except as provided by Section 231.302(d), Family Code, a social security number is confidential and may be disclosed only for the purposes of responding to a request for information from an agency operating under the provision of Parts A and D of Title IV of the federal Social Security Act (42 USC Section 601417 and 651-669).

\_\_\_\_\_  
Signature – Company Official

\_\_\_\_\_  
Printed/Type Firm Name

\_\_\_\_\_  
Printed/Typed Name and Title

\_\_\_\_\_  
Date

**EXHIBIT I**  
**SITE VISIT BASE ACCESS REQUEST FORM**

**TOM GREEN COUNTY**  
**Renovation & Repair of Building 3453 at GAFB**  
**RFP 18-017**

Pre-bid conference date:	July 16, 2018
Visitor's Center:	3:00 P.M.
Building 3543:	3:30 P.M.

To obtain clearance to access GAFB on the date of the pre-bid conference, email the following information along with copies of drivers licenses to [purchasing@co.tom-green.tx.us](mailto:purchasing@co.tom-green.tx.us).

**Information is due by 5:00 p.m. on Tuesday, July 11, 2018.**

**Company Name:** \_\_\_\_\_

**Individual's Name:** \_\_\_\_\_

**Date of Birth:** \_\_\_\_\_

**State/Driver's License Number:** \_\_\_\_\_ / \_\_\_\_\_

### SUBMISSION AFFIDAVIT

**The undersigned certifies that the proposed prices contained in this proposal have been carefully checked and are submitted as correct and final and if proposal is accepted (within 90 days unless otherwise noted by vendor), agrees to furnish any and/or all items upon which prices are offered, at the price(s) and upon the conditions contained in the Specifications.**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_ BEFORE ME, the undersigned authority, a Notary Public in and for the State of \_\_\_\_\_, on this day personally appeared \_\_\_\_\_ who, after having first been duly sworn, upon oath did depose and say;

That the foregoing proposal submitted by \_\_\_\_\_ hereinafter called "Offeror" is the duly authorized agent of said company and that the person signing said proposal has been duly authorized to execute the same. Offeror affirms that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this proposal in collusion with any other offeror, and that the contents of this proposal as to prices, terms or conditions of said proposal have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this proposal.

Respondent hereby assigns to purchaser any and all claims for overcharges associated with this Contract which arise under the antitrust laws of the United States, 15 USCA Section 1 et seq., and which arise under the antitrust laws of the State of Texas, Tex. Bus. & Com. Code, Section 15.01, et seq.

\_\_\_\_\_  
Printed Name of Vendor

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature of Vendor

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address of Vendor

\_\_\_\_\_  
Telephone Number / Fax Number

\_\_\_\_\_  
City, State, Zip

\_\_\_\_\_  
Email Address

Subscribed and sworn to before me by \_\_\_\_\_ on this day of \_\_\_\_\_, 20\_\_.

Notary Public in and for the State of \_\_\_\_\_