DIRECTORATE OF PUBLIC WORKS
ENGINEERING DIVISION
FORT BENNING, GEORGIA

Project #: 44117

STATEMENT OF WORK

1. General Information

a. Repair by replacing Hook Range CTA:

The project objective is to repair by replacing Hook Range Covered Training Area (CTA). Existing CTA will be removed by the end user prior to work. Canopy is pre-engineered metal building system designed by structural engineer. Concrete slab and foundation to be designed by structural engineer.

b. Project Information:

i. Schedule

Contract Period	180
z e z Contractor's Project Walk	TBD
Proposal Due	TBD
Contract Start/Award Date	TBD
Construction Start Date	TBD
Construction Completion Date	TBD

ii. Liquidate Damages

1. In the event the contractor exceeds the completion date established per the Request for Task Order Proposal (RTOP), liquidated damages will be imposed on the contractor. The amount to be paid daily, will be $1531.56 per day.

c. Document Level:

i. Document level will vary from 0% to approximately 35%. It is the contractor's responsibility to bring all documents to 100% released for construction. Providing complete document per all applicable codes and USACE standard.

d. Bid Documents:

i. Statement of Work

ii. Schematic Drawings

iii. FB-144R (record of Environmental Consideration)

MCLEOD.STEVEN.W.1362116399

Digitally signed by MCLEOD.STEVEN.W.1362116399
Date: 2020.08.20 11:13:18 -04'00'

iv. Specifications outline (Guide Specifications and List at construction detailed requirements)

e. Options / Alternates

i. Provide new option for exterior ceiling sound absorption, Typ.
ii. Provide new option for exterior artificial turf on new concrete floor, Typ.

f. Bidding Questions

i. All questions should be submitted in written form either by hand delivered hard copies, facsimile (fax) or electronic mail (e-mail). The Contracting Officer (KO / COR) shall determine the final date for submission of questions.

2. General Requirements

a. Project Description:

i. General Information

1. The Design, Work/Construction contract requirements are described herein this Statement of Work (SOW) and on the drawings, specifications (as provided, or per the guide specification), and FB-144R prepared by The Directorate of Public Works (DPW) which is conveyed as a 35% design.

2. In addition to the SOW, Drawings, Specifications, FB-144R, the contractor will use when asked to provide 100% designs the resources located on the Whole Building Design Guide website and the Fort Benning – Installation Design Guide

3. The SOW, drawings, and specifications may not identify all procedures (means and methods) or requirements necessary to accomplish the work. The contractor is expected to follow industry standards or manufactures instructions/recommendations.

4. The contractor will provide all required supervision, labor, materials, and equipment to complete the work.

5. The superintendent will be an individual with a minimum 5 years of experience with jobs of similar type and size. Provide resume of job site supervisors and key personnel. The superintendent will be on the job site when work is being performed and will be available to the Government representatives.

ii. General Description

The project objective is to repair by replacing eight training covers in warrior training center facility.

b. General Execution Requirements:

i. The Work will be performed in accordance with the approved A/E firm's drawings and specifications, approved construction submittals, and generally based on the Directorate of Public Works (DPW) 0-35% drawings, specifications, and statement of works (SOW).

ii. All work will be performed per industry standards or to meet federal, state, or local codes and regulation. Work will not be sloppy or carelessly performed.

c. Design and Engineering:

i. General

1. Department of Public Works will provide the Contractor a set of schematic documents (schematic drawings, specifications outline, and a Scope of work) varying from 0% to 35% complete. It is the contractor's responsibility to bring all documents to 100% completion. The provided drawings, specifications, and statement of work only convey the Government's concept / intent of the project. It is the Contractor and Architectural and Engineering (A/E – designer of record) firm responsibility to provide items listed in section ii, subsection 1, 100% submittal. Once the 100% submittal has been approved by the Government, work may begin. If the contractor is provided written approval prior to the start of the work, the contractor may not be required to provide a 100% submittal. The items listed below will be used as a guide for the Contractor and A/E in items that may be needed in the 100% submittal.

a. DRAWINGS

i. The A/E firm will update, provide additional information, and add drawings as required to take the construction documents provided by the Government to a 100% set of drawings. Below is a list of drawings that may need to be provided to accomplish a 100% drawing set:

1. All disciplines: completed plans (site and floor), elevations (interior and exterior), sections (site, building and wall), enlarged plans, details (project specific and standard), schedules.*

*The items listed above may not address every drawing requirement for a project and is not intended to limit the number of drawings to be provided. Additionally the items listed above may not be required for every project. Contractor's submittals / shop drawings are not considered part of the 100% drawing set.

b. SPECIFICATIONS

i. The Contractor and A/E will provide complete specifications for the project. Also the Contractor and A/E will update any specification that requires to be changed due to drawings or other specifications provided by the A/E.

c. CALCULATIONS / PRODUCT INFORMATION

i. The Contractor and A/E will provide all calculation and product information for the project when not provided in the Government provide information. Calculations and product information may be required for the following, but this list will not limit the requirements to: Civil, Structural, Architectural, Mechanical, and Electrical. Calculations and product information will be provided in an organized, logical, and understandable manner.

d. COLOR BOARD

i. Contractor and A/E will provide a color board showing colors or materials selected by the contractor or A/E for the project. Color board will address all items (wall ceiling or trim paint, wood or concrete stain, base material or color, ceiling color or material, etc.) required for the project. Government approval is required prior to start of the work, unless written approval from the government is provided.

e. CD

i. The contractor and A/E firm will provide a CD with PDFs of the 100%; drawings, specifications, calculations and product information. Also on the CD the contractor will provide CAD files of the 100% drawings.

2. Upon completion of the work the contractor will provide As-Builts (drawing set located on site marked up in red ink with changes) and Record Documents (final set of all documents with all changes incorporated) consisting of items listed under section ii, subsection 2, Record Document Submittal. The Record Document Submittal will reflect the final design of the facility at the completion of the work.*

a. AS-BUILTS

i. Contractor will provide the government approved hard copy of the 100% drawings keep at the site. The hard copy from the site (As-Built) will show any changes or modifications made during construction. Changes or modifications will be marked in red ink on the hard copy.

b. DRAWINGS

i. The Contractor and A/E firm will provide PDFs, hard copies, and CAD files of Record Documents drawings reflecting changes or modifications noted on

the As-Builts. Any changes or modification will be clouded on the Record Documents drawings.

c. SPECIFICATIONS

i. The contractor and A/E firm will provide complete specifications addressing any changes or modifications made during construction.

d. CD

i. The contractor and A/E firm will provide a CD with PDFs of the Record Documents; drawings and specifications, and the As-Builts from the job site. Also on the CD the contractor and A/E firm will provide CAD files of the Record Document drawings.

*The contractor will provide complete sets of drawings, specifications, and As-Builts, not just drawing sheets or specifications sections that have changed.

ii. Design and Engineering Submittal Requirements

1. 100% Submittal

Deliverables	To - DPW
Drawings	2 Full Size set and CAD Files
Specifications	1 Set
Calculation / Product Information	1
Color Board	1
CD with all 100% submittal Documentation*	1

*CD will include PDFs of all files (Drawings, Calculation / Product Information and Specifications) and CAD files of the Drawings

2. Record Document Submittal

Deliverables	To - DPW
As-Built (Red Lined set from construction site)	1 set
Drawings (adjusted per As-Built)	1 Full Size, 1 Half Size, and CAD Files
Specifications	1 Set
CD with all Record Document submittal Documentation*	1

*CD will include PDFs of all files (Drawings, Specifications, and As-Builts) and CAD files of the Drawings

iii. The contractor will submit a Construction Schedule that includes major benchmarks and milestones to provide knowledge of the project and objectives to be completed within the construction time scheduled. The Construction Schedule will be submitted to the Government within 5 (five) days of the

notice to proceed for review. The contractor will provide an update schedule if the original schedule is impacted for any reason or if requested by the Government.

iv. At the pre-construction meeting the contractor will arrange to have a representative of the A/E firm to be present. At the meeting the A/E representative will satisfy themselves with the requirements of the Design and Engineering submittals and the expectations of the Government.

d. Codes and Standards:

i. All work shall be In Accordance With (IAW) all applicable Federal, State, and Local codes and standards including but not limited to:

1. National Fire Protection Association 101
2. International Building Code (IBC)
3. National Electrical Code
4. International Fire Alarm/Protection Code
5. International Mechanical Code
6. International Plumbing Code
7. UFC 1-200-01, General Building Requirements
8. UFC 1-200-02 High performance and sustainable building requirements, with change 4.
9. UFC 1-300-02 Unified facilities guide specifications (UFGS) format standard, with change 2.
10. UFC 1-3-101-01, Architecture.
11. UFC 1-300-08, Criteria for Transfer and Acceptance of Military Real Property
12. UFC 3-120-01 Design: Sign standards, with changes 3.
13. UFC 3-301-01, Structural Engineering
14. UFC 3-410-01, Heating, Ventilation, and Air Conditioning Systems
15. UFC 3-560-01, Electrical Safety, O&M
16. UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings

17. TM 111 Guidance provided in Fort Benning Environmental Considerations as listed on the projects FB-144R.

18. Installation Design Guide

19. Fort Benning Environmental Considerations as listed on the FB-144R comply with all local, state and federal NPDES laws and guidelines.

20. USACE, safety and health requirements manual EM 385-1.

e. Specifications:

i. Refer to the Guide Specifications and the following specification prior to and during all phases of the work:

1. 01 33 00 Submittal Procedures

2. 01 35 26 Governmental Safety Requirements

3. 01 45 00.00 10 Quality Control

4. 01 57 20 00 10 Environmental Protection

5. 01 74 19 Construction and Demolition Waste Management

6. 01 78 00 Closeout Submittals

7. 01 78 23 Operation and Maintenance Data

ii. When written specifications are not furnished by the Government the contractor's A/E firm will provide missing specifications. Standards of work will be in accordance with industry standards and Fort Benning guide specs as issued by the Savannah District Corps of Engineer.

iii. Contractor or A/E will deliver any specifications not provided in the bid document specifications. The A/E specifications will be combined with the bid specifications and submitted as one specifications book for the 100% submittal and Record Document submittal.

f. Preparation:

i. Contractor will be responsible for field/site visit to obtain and verify measurements, existing site conditions, dimensions and structural support requirements IAW accepted local, state and federal building practices. All drawings provided to the contractor are for reference/information only and may or may not be current or to scale. Contractor shall provide for any/all deviations to accepted

local, state and federal building practices/codes and bring these to the attention of the Construction Inspector and Contracting Officers Representative for review/consideration by the government. Review the project's FB-144R; Record of Environmental Consideration for compliance prior to initiating any work.

ii. The Contractor will test for lead and asbestos to determine the abatement requirements. The Contractor shall abate any lead/asbestos encountered during demolition and repair work. One of the scope is painting exterior and interior walls so check and abate lead paints when identified.

g. Cost and Pricing:

i. Within 48 hours of the bid/proposal date and time the contractor will provide to the Architect/Engineer an itemized list of material and labor cost for review prior to award of the contract.

h. Coordination with other contractors:

i. If other contracts and work are subject to be performed or arise to address any issues, at the same time as this contract the contractor will cooperate and coordinate work with all parties involved and is now notified of same.

i. Building Occupancy:

i. General

1. Existing training covers will be unoccupied during the performance of the work.

2. Areas in which work is required may be occupied or have public or Government presence during the performance of work under any Task Order (TO). Every effort will be made to keep unauthorized personnel from accessing work site. Other maintenance and/or repair construction may also be concurrently being performed at the site by other contractors. The Contractor shall cooperate with the Government to minimize conflict, and to facilitate the Government's operations by scheduling the Work to accommodate Government occupancy.

3. The contractor will provide notice 14 days prior to the start of the work for any phase of the project to allow the Government to remove any furniture, materials, lockers, equipment, etc. from designated work areas that may impact the work of the contract. Items left in place will be protected during construction.

ii. Adjacent buildings to construction site will be occupied during construction

1. The contractor will provide notice 14 days prior to the start of the work for any phase of the project to allow the Government to remove any furniture, materials, lockers, equipment, etc. from adjacent area that may impact the work of the contract. Items left in place will be protected during construction.

2. When the contractor is required to perform work that will affect normal operations of adjacent buildings, training fields, traffic, etc. they will submit for approval a request to the government 14 days prior to the start of the work.

j. Selective Demolition:

i. Building – Reference demolition plans and MEP scopes.

1. Existing CTA removed by end user prior to work.

ii. Site – Reference demolition plans including and scopes.

1. Reference civil site scope.

k. Salvage:

i. The contractor will remove and salvage and protect any remaining door, equipment, etc. to complete the work. Items salvage will be reinstalled, and match new finish.

ii. Any items removed and salvaged that gets damaged during removal and is not able to be reinstalled will be replaced by the contractor.

iii. Any items identified as salvage and return to the Government or any phrase with the intent to return items to the Government, those items will be protected during removal. The contractor will coordinate turning over those items to the Government.

l. Disposal of Construction Waste:

i. The Contractor will be responsible for removing and disposal of all debris and hazardous waste created by this project, IAW local, state and federal guidelines and laws. The contractor shall dispose of all debris and hazardous waste created by this project in Georgia/Alabama approved Landfill at the contractor's expense. Contractor shall maintain and provide upon request by the KO or the designated representative receipts and haul tickets or bills of laden that construction debris from this contract has been disposed of IAW with local, state and federal guidelines and laws.

ii. In restrictive areas, for example an airfield, could have special requirements or additional steps for disposing of construction waste. The contractor will verify any special requirements or additional steps prior to the start of the work.

m. Safety:

i. General

1. The contractor will comply with all governing codes and standards. Contractor will comply with Fort Benning Safety and Environmental laws and regulations. The contractor shall perform all work IAW government procedures for entering and working at Fort Benning. The government reserves the right to stop work at any time for safety, security reasons, and for national defense at no cost to the government.

ii. Public

1. The Contractor shall conduct his operations to offer the least possible obstruction and inconvenience to the public, vehicular, and the normal day-to-day routine of the Government installation where work is to be performed. Unless safety otherwise prevents such actions, personnel and traffic shall be permitted to pass through the work area with as little delay as possible. Where the nature of construction operations in progress and the equipment and machinery in use are of such character as to endanger passing traffic, the Contractor shall provide such lights and signs, erect such fences or barriers, and station such guards as may be necessary to give adequate warning and to avoid damage or injury to passing traffic. Signs, flags, lights, and other warning and safety devices shall conform to applicable laws, safety regulations and requirements. All lane closures shall be coordinated in advance with the COR/Inspector, traffic engineer and the DES. All traffic control procedures shall be in accordance with GA and/or FL DOT regulations.

iii. Employee

1. In order to provide safety controls for protection to the life and health of employees, and other persons; for prevention of damage to property, materials, supplies, and equipment; and for avoidance of work interruptions in the performance of this contract, the Contractor shall comply with all pertinent provisions of the U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1, as amended. The Contractor will also take or cause to be taken such additional measures as the KO may determine to be reasonably necessary for the purpose.

n. Accessibility to Work Site:

i. Normal Working hours for the Contractor will be 0800 to 1630, Monday through Friday, excluding Saturdays, Sundays, and Federal Holidays. If the Contractor wishes to work during periods other than above, additional Government inspection forces will be required. The Contractor must notify the Contracting Officer (KO) five (5) working days in advance of his/her intention to work during other periods to allow assignment of additional inspection forces when the Contracting Officer determines that the additional inspection force is reasonably available. All inspections will be done during normal duty hours. Due to certain circumstances (i.e., emergencies or urgent requirements), deviation of contractor's working hours will be as indicated in the RTOR.

o. Signage

i. General

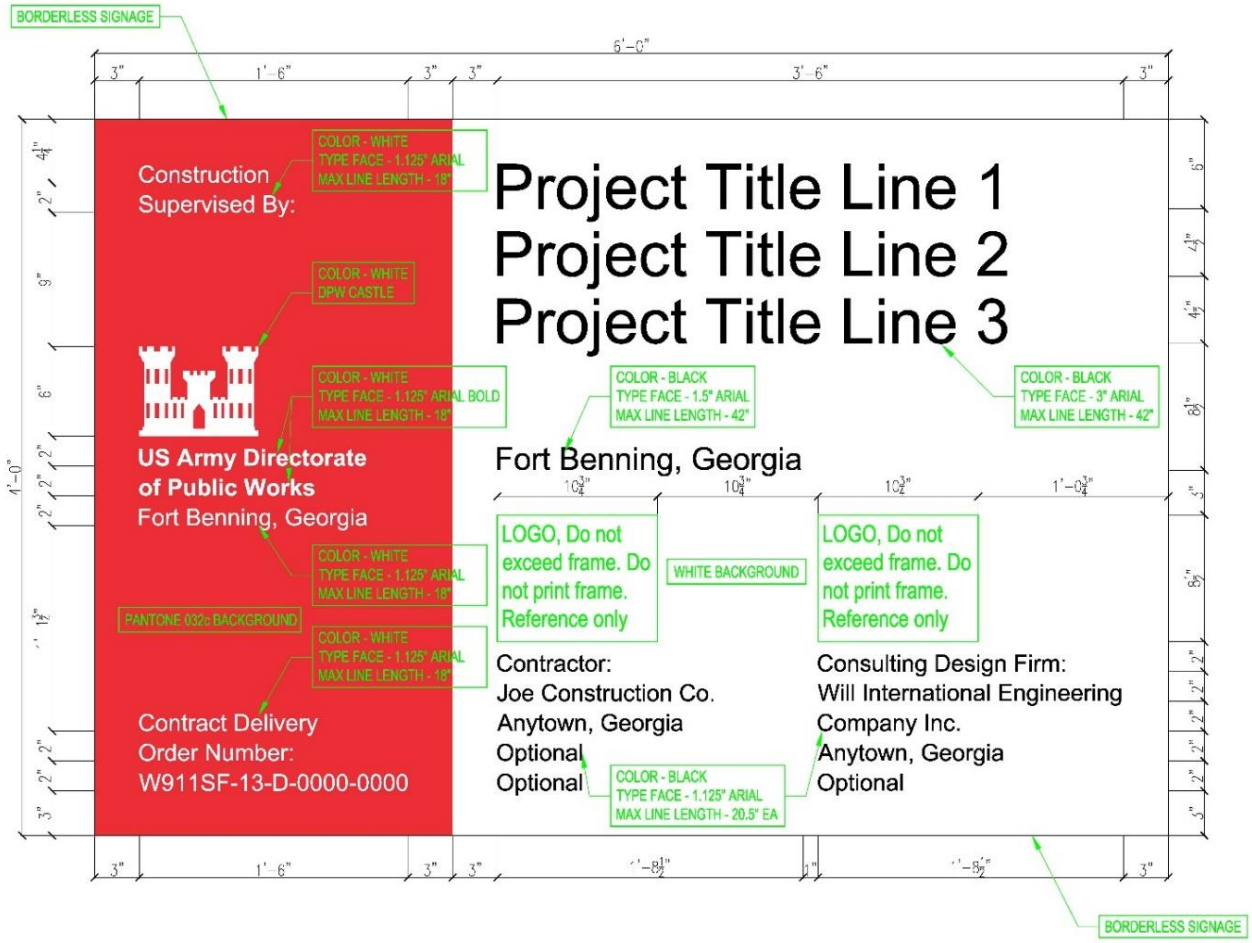
1. If a contractor decides to erect project signage on the job site, they will follow the prescribed design.

2. Special applications or situations not covered in this section of the SOW should be referred to DPW for consideration.

ii. Project Identification Sign

1. This sign is to be displayed at construction sites. It is an important part of efforts to keep the public informed of DPW work. For this purpose, a construction project sign package has been adopted.

2. Below is a sample of the Construction Project Identification sign. The graphic format for this 4'x 6' sign panel follows the legend guidelines and layout as specified below. The large 4'x 4' section of the panel on the right is to be white with black lettering. Company logos will be located in the area designated for logos and will be in color. The 2'x 4' section of the sign on the left is to be Communication Red with white lettering and graphics.



iii. Mounting Guidelines

1. The sign panels are to be fabricated from .75" High Density Overlay Plywood.

2. Sign graphics to be prepared on a white non-reflective vinyl film with repositionable adhesive backing. All graphics except for the Communication Red background are to be die-cut or computer-cut non-reflective vinyl, pre-spaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown.

3. Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

4. Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

5. Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").
6. Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation.

a. Daily Housekeeping:

i. The Contractor shall keep work area clean and remove all unneeded construction debris daily and/or as directed by the Construction Inspector, User, or Contracting Officer's Representative.

b. Required Submittals:

i. The contractor will provide submittals according to the specifications or noted elsewhere in this Statement of Work.

ii. The Contractor's personnel will compile submittals based on the Specifications or other sections in this Statement of Work. Submittals will be complete before submitting to the Government for review. A complete submittal will consist of all items required for a submittal. Sending information incrementally for one submittal is unacceptable.

iii. The contractor's personnel or A/E firm will indicate which product will be used when multiple products are listed on a submittal.

iv. Failure to comply with i-iii may result in a disapproved submittal.

c. Special Instruction:

i. Contractor will insure that all individuals associated with the Work adhere to all safety regulations and codes. Construction debris waiting removal from the site will be stored per regulations and codes. Contractor will walk the site prior to leaving for the day to ensure all debris is picked up and disposed of properly.

ii. The contractor will verify that all Federal, State, Local, and Fort Benning (144R) environmental regulations and code are being followed.

iii. Omissions from the drawings or specifications or the wrong description of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or incorrectly described details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

3. Construction Detailed Requirements

01 General Requirements

i. Summary of Work - Reference plans and MEP scopes.

The project objective is to repair by replacing Hook Range Covered Training Area (CTA). Existing CTA will be removed by the end user prior to work. Canopy is pre-engineered metal building system designed by structural engineer. Concrete slab and foundation to be designed by structural engineer.

1. Grading per civil scope. Slope to drain away from the building perimeter, Typ.
2. New slab on grade concrete foundation, Typ. Control joints and seal finish, Typ. Coordinate civil scope. Slope to drain, Typ.
3. New reinforced concrete foundations and steel column connections, Typ.
4. New curve concrete step edge, Typ. Coordinate civil scope and existing shooting pads and concrete radius, Typ.
5. New steel column framing, typ. Special inspections per IBC. Light beige exterior paint finish to match existing CTA, Typ.
6. New metal gutter, downspout and splash blocks, Typ. Light beige finish, Typ.
7. New steel roof framing, Typ. Special inspections per IBC. Dark brown exterior paint finish to match existing CTA, Typ.
8. New standing seam metal roof, typ. Dark brown finish to match existing CTA, Typ.
9. New exterior ceiling fans, Typ. Coordinate electrical scope.
10. New exterior aluminum bleachers, Typ. Coordinate electrical lightning protection scope.
11. New option for exterior ceiling sound absorption, Typ.
12. New provide option for exterior artificial turf on new concrete floor, Typ.
13. New light fixtures, Typ. Reference electrical scope.
14. Coordinate demolition and new scopes of civil, electrical and architectural, Typ.
15. Steel frame structure designed by structural engineer comply to International Building Code.
16. Provide design and construction per special inspection provisions of International Building Code.
17. Perimeter grade of building sloped to drain away, Typ.
18. Remove existing trees. Coordinate civil and electrical scopes, Typ.
19. Provide options for exterior artificial turf and sound attenuation ceiling.

20. Existing CTA demolished and removed by the end user.

Reference current Unified Facilities Guide Specifications (UFGS) and CDC standards; Reference MEP scope and specifications to coordinate work.

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
00 01 15 LIST OF DRAWINGS

DIVISION 01 - GENERAL REQUIREMENTS
01 11 00 SUMMARY OF WORK
01 14 00 WORK RESTRICTIONS
01 33 00 SUBMITTAL PROCEDURES
01 35 40.00 20 ENVIRONMENTAL MANAGEMENT
01 62 35 RECYCLED/RECOVERED MATERIALS
01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT
01 78 00 CLOSEOUT SUBMITTALS
01 78 23 OPERATION AND MAINTENANCE DATA

DIVISION 02 - EXISTING CONDITIONS
02 41 00 DEMOLITION AND DECONSTRUCTION
02 82 00 ASBESTOS REMEDIATION
02 83 00 LEAD REMEDIATION
02 85 00 MOLD REMEDIATION

DIVISION 03 – CONCRETE
03 30 00 CAST-IN-PLACE CONCRETE

DIVISION 05 - METALS
05 12 00 STRUCTURAL STEEL
05 21 00 STEEL JOIST FRAMING
05 40 00 COLD-FORMED METAL FRAMING

DIVISION 07 - THERMAL AND MOISTURE PROTECTION
07 60 00 FLASHING AND SHEET METAL
07 61 14.00 20 STEEL STANDING SEAM ROOFING
07 92 00 JOINT SEALANTS

DIVISION 09 – FINISHES
09 84 20 ACOUSTICAL WALL PANELS
09 90 00 PAINTS AND COATINGS

09 97 13.00 40 STEEL COATINGS

DIVISION 10 – SPECIALTIES
10 14 00.10 EXTERIOR SIGNAGE

DIVISION 13 – SPECIAL CONSTRUCTION
13 34 19 METAL BUILDING SYSTEM
13 34 30 GRANDSTANDS AND BLEACHERS

DIVISION 32 – EXTERIOR IMPROVEMENTS MANUFACTURERS
32 8 13 SYNTHETIC GRASS SURFACING

4. Electrical Requirements

026 Electrical

Scope of Work

Electrical Guidelines (New Work):

Electrical new work shall comply with the design criteria specified in Technical Instructions TI 800-01 Design Criteria, TI 800-03 Technical Requirements for Design-Build, UFGS 26-51-00 Interior Lighting, UFGS 26-56-00 Exterior Lighting, Technical Manual TM 5-811-1 Electric Power Supply and Distribution, TM 5-811-2 Electrical Design - Interior Electrical System, National Electrical Codes (NEC) and all referenced documents, as well as the following lists of Unified Facilities Criteria:

1. UFC 1-200-01 DoD Building Code
2. UFC 1-200-02 High Performance & Sustainable Building Requirement
3. UFC 3-501-01 Electrical Engineering
4. UFC 3-520-01 Interior Electrical System
5. UFC 3-530-01 Interior & Exterior Lighting System & Controls
6. UFC 3-560-01 Operation & Maintenance Electrical Safety

Electrical Demolition Work:

1. Field verify the location and equipment feeding from the existing 100A, single-phase power circuit in the 200A panelboard. Coordinate with the user to determine the possibility to shut down the power service to that location and equipment. Provide emergency back-up power service to that location and equipment if necessary.

2. Completely remove existing mounting rack, 200A panelboard and power meter base from the location as indicated on the drawing. It includes removing power service cables, wiring, conduits, junction boxes, mounting rack, panelboard, and power meter base.
3. Existing 100A, single-phase, power circuit shall be remain in place and shall be reconnected back to the new 200A, 120/204V, single-phase panelboard mounted on the Covered Training Area (CTA) column.
4. Completely remove existing power service to the existing Covered Training Area. It includes removing all existing light fixtures, wiring, conduit, j-boxes and all electrical equipment.
5. It shall be the responsibility of the contractor to remove existing equipment as required to accomplish the new work as shown or reasonably implied. The contractor shall refer to the new architectural, plumbing, fire protection, mechanical, electrical, etc. plans for work shown to determine the extent of demolition required.
6. When removing electrical equipment and systems. All precautions shall be taken to prevent structural damage to the building. The contractor shall coordinate installation of any structural supports required, temporary or permanent.
7. The contractor shall coordinate and schedule all power interruptions with the DPW project manager and DPW electrical engineer in writing.
8. The contractor shall take all necessary precautions during demolition and construction to maintain the integrity and operation of existing life safety and emergency egress equipment.

Electrical New Work:

1) Contractor shall visit the site and carefully examine the site location affected by this work before submitting proposals, so as to become familiar with the existing conditions and difficulties that will affect execution of the work. Submission of a proposal will be construed as evidence that such examination has been made and later claims for labor, equipment or materials required because of difficulties encounter shall not be recognized.
2) This is a 35% electrical design bid documents. Contractor is required to submit the 100% electrical design for the government approval before starting their work.
3) 100% design submittal and engineered as-built construction documents shall include all final design materials, modifications and revisions during the construction process.
4) The contractor shall have his/her design professional, project manager and superintendent available for design meeting with DPW during the design review process.
5) Provide and install a 200A main circuit breaker, 120/240V, single-phase, 3-wire panel-board with 20-circuit spaces on the column in the Covered Training Area. The new panelboard shall be in the NEMA 3R enclosure.
6) Provide and install a Surge Protective Device (SPD) on the incoming entrance service to the Covered Training Area. Connect the power service entrance's (Panel-board's ground) ground to the near-by lightning protection system grounding rods.
7) Contractor shall obtain the power meter base from Flint Electric and install the meter base on the column in the Covered Training Area.
8) Provide and install the surface-mount, low-profile enclosed and gasketed industrial FEM LED light fixture (Fixture A) as indicated on the drawing. The LED light fixtures shall be UL listed and suitable for wet location operation. Install the light fixtures to the beam structure and provide power service to the LED light fixtures per manufacturer's recommendations.

9) Provide and install the weatherproof three-way switch control boxes on the columns as indicated on the drawing. Mount the three-way switch control boxes 48-inch above finished floor. Install the light switches and provide power service to the light switches per manufacturer's recommendations.
10) Provide and install 120V, 20A weatherproof GFI duplex receptacle outlet on each column. Mount the receptacles 30-inch above the finished floor. Install the receptacle outlets on the columns and provide power service to receptacle outlets per manufacturer's recommendations.
11) Provide and install a 7 foot diameter industrial ceiling fan (Big-Ass-Fan: Model I6) to the beam structure as indicated on the drawing. Provide and install power service to the industrial ceiling fans per manufacturer's recommendations.
12) Provide and install weatherproof remote controller in NEMA-3R enclosure on the columns to control the ceiling fans. Provide and install power service to the remote controllers per manufacturer's recommendations.
13) New conduits under the covered Training Area (under the roof) shall be electrical Metallic tubing (EMT) conduit.
14) Install all wiring in EMT conduit unless specifically indicated otherwise.
15) All branch current circuitries will be copper wiring within the covered training area, and sized to accommodate voltage drop.
16) Electrical Metallic Tubing (EMT) will be used for all branch circuit and feeder wiring in dry location.
17) Rigid galvanized steel conduit will be used for branch circuit and feeder wiring located in damp or wet locations.
18) All conduits shall be electrical metallic tubing (EMT), with flexible liquid tight metal conduit for mechanical equipment.
19) All EMT fittings will be steel compression type; set screw type fittings will not be used.
20) All electrical equipment will be identified to indicate the equipment name, power branch from which served, voltage and panel/circuit number from which served. Contractor shall label all new circuits on each new panel.
21) The identification labels will be laminated plastic labels with 1/4-inch high lettering and will be color-coded. Additionally, conductor color coding will permanently posted at panels and other locations where conductors are accessible in accordance with NFPA 70.
22) All bleachers shall be bonded to the lightning protection system. In this case, the user will move the bleachers frequently; therefore, our design is to install the tie down ground rods in the concrete pad allowing the user to tie the bleachers to the lightning protection system when required.
23) Provide and install the tie down ground rods (3/4" X 10' long) as indicated on the drawing. Place the top of the tie down ground rods 2-inch below the concrete pad with the 4-inch diameter opening. Provide and install the 4-inch cover plate on the opening. See drawing sheet E-4, detail 4 for more details.
24) Provide and install lightning protection system for the Covered Training Area at Hook Range. The following items are the air terminals lightning protection system requirements:

    a) The building will be provided with a lightning protection system including air terminals, connector bonding, ground rods, primary and secondary conductors. The system will be

installed per UL 96A and NFPA 780. Upon completion, the lightning protection system must obtain the "Master Label" certification.

b) Contractor shall design, provide, and install a lightning protection system in the building per UL96A and NFPA 780.
c) Provide and Install the lightning protection system in according to the manufacturer's written instructions, UL 96A, and NFPA 780, and other referenced codes and standards.
d) Install air terminals at least 12 inches higher than the structure and equipment for which they are protecting.
e) DC resistance of solid wires or stranded cables shall not be greater than 0.176 ohms per 1000 feet.
f) Down conductor bends shall not have a radius less than 8 inches or bends greater than 90 degrees.
g) Any metal object within six (6) feet of the lightning down-lead shall be bonded to the down conductor.
h) The interval between down conductors around the perimeters shall not be less than 50 feet nor greater than 100 feet.
i) Down conductors shall be bonded to the earth electrode subsystem.
j) All bonds between elements of the lightning protection subsystems shall be made by welding or brazing or UL approved high compression clamping devices.
k) A minimum of two (2) conductive paths shall exist between any two (2) air terminals and between any air terminal and the earth electrode subsystem (except for dead ends less than 16 feet).
l) Down conductors connecting cables to the earth electrode subsystem shall be protected against mechanical damage. Connecting cables passing through foundations or footings shall be installed in plastic or non-metallic conduit.
m) All exterior hand rails, ladders, stairways, antenna pedestals, and antenna elements operating at ground potential shall be bonded to the lightning protection subsystem with a No. 6 AWG copper wire or larger.
n) Exposed and underground power lines shall be provided with UL approved lightning arrestors at the point of entrance into the building. The arrestors shall be installed in accordance with Article 280 of the National Electrical Code.
o) All security of perimeter fences shall be grounded in accordance with procedures outlined in MIL-HDBK-419.
p) Ground rods shall be installed at all corners of the building and around the building with maximum spacing 50 feet between ground rods. The minimum separation between any two rods shall be equal to the sum of the rod's length.
q) A ground rod shall be installed at each location and installed at a depth of 10 inches below grade.
r) Each conductor shall be clearly labeled and identified.
s) Bond all metallic underground services entering the building, and other underground and above ground metallic objects within 6 feet of the building.
t) Do not use the building steel framework as a main conductor in lieu of a copper down conductor(s).
u) For externally routed down conductors, protect each conductor from possible damage with an 8 foot-long PVC pipe protector above grade level. Where conductors are run through

metal pipe, or otherwise protected by metal strips, the conductor shall be bonded to each end of the metal pipe.

v) Bond ladders at top and bottom and bond handrails at each end but not more than 50 feet apart. Protect handrails, ladders, HVAC equipment, etc., with air terminals and main conductors when metal thickness is less than 3/16-inch. If HVAC piping or ducting protrudes outside the zone of protection, bond at bottom of pipe/duct and place air terminal at the top of pipe or duct.
w) Attach lightning protection components to HVAC equipment on the roof and wall metallic items with sheet metal screws. Apply sealant to prevent ingress of moisture around screws.
x) Placement of air terminals on roof equipment is identical to that of roof (e.g. air terminals must be within 2 feet of the corner of equipment).
y) Connect guy wire supports for exhaust stacks and poles to the lightning protection system at their lower ends.
z) Position splices flat with roof surface. Install all LPS components to reduce tripping hazard.

5. Civil Requirements

Description of Work:

I. The project is located in the AMU compound at Hook Range off Alamo Road:

a. No ESPCP is required. BMPs are still required in accordance with GADNR.
b. Clear and grub trees shown on drawings. 2 Trees.
c. Area must be surveyed by a licensed surveyor to verify contours and 1% is maintained on slab. Outside the slab must have a minimum of 2% slope graded to drain.
d. Demo concrete sidewalk as shown on drawings. Approximately 43 SY.
e. Install concrete slab and step as shown on drawings. Approximately 140 SY.
f. Install concrete sidewalk as shown on drawings. Approximately 45 SY.
g. Install trench drain with grate covering. Trench drain can be cast-in place fiber concrete or a precast polymer concrete with an appropriate strength. Contractor to size. Approximately 70 LFT.
h. Install HDPE pipe to trench drain. Contractor to size. Approximately 40 LFT.

II. GENERAL:

a. Unless otherwise specified, follow GDOT Standard Specifications Construction of Transportation Systems (Current Edition).
b. Construction to be per Ft. Benning Environmental Protection Requirements, Section 01560.
c. Follow all requirements in the Manual of Uniform Traffic Control Devices (MUTCD).
d. Construction to be per Ft. Benning Material Requirements, Construction Products.
e. Construction to be per DOD criteria, Army criteria, Ft. Benning criteria, International Building Code, NFPA, Life Safety Code, and local requirements, codes, and restrictions.
f. Access to the site shall be coordinated with the DPW Engineering office.

III. DESIGN AND ENGINEERING:

This SOW with identified drawings and sketches represents the 35% design documents for bidding/proposal. The contractor shall provide As-Built Drawings, and an ESPCP Soil Erosion Plan if needed with Noticed of Intent for the project site.

a. All work shall be in accordance with all applicable codes and standards including but not limited to:

   i. GDOT Standard Specifications Construction of Transportation Systems (Current Edition)
   ii. Installation Design Guide.
   iii. Physical Security Regulation ZR190-17.
   iv. TM 111 Guidance provided in Fort Benning Environmental Considerations as listed on the projects FB-144R.

b. The Contractor shall be responsible for all permits, including payment of any associated fees.

c. Any deviations from the design as shown on the 35% design drawings must be reviewed and accepted by DPW Staff.

d. All design drawings shall be generated in either AutoCAD or MircoStation, and shall be geo-referenced to NAD83 Georgia State Plane West. All drawings shall be scaled to fit on Architectural Size D paper using the Sheet Border and Title Block provided by DPW.

e. The “As-Built” drawings shall include plan, profile and cross-section views of the existing and proposed roadway, a grading and drainage plan, plus any needed detail plans, along with the ESPCP plans for obtaining the NOI.

f. Upon completion of the project, the Contractor shall provide as-built drawings in a CAD format (AutoCAD or Micro Station) on a CD, a PDF copy, and two full size paper copies. All changes from the approved 100% design shall be clearly identified on the plans, as well as a log of the changes on each sheet.

IV. PREPARATION:

Contractor shall be responsible for field/site visit to obtain and verify measurements, site conditions, and to determine correct site conditions, dimensions, and structural support requirements IAW accepted local, state, and federal building practices. All drawings provided to the Contractor are for reference/information only and may or may not be current or to scale. The Contractor shall provide any/all deviations to accepted local, state, and federal building practices/codes to the attention of the Construction Inspector and Contracting Officers Representative for review/consideration by the government. The Contractor shall be

responsible for obtaining utility spotting/location and permits that may be required by Environmental Considerations FB-144R.

V. FILL SOIL

Upon coordination and approval with the appropriate DPW staff (POC Don Osborne), the contractor may obtain soil backfill material from borrow sites located on Fort Benning for the construction of this project.

VI. DISPOSAL OF CONSTRUCTION WASTE:

The Contractor shall be responsible for removing and disposal of all debris created by this project IAW local, state, and federal guidelines and laws. The Contractor shall dispose of all debris created by this project in Georgia/Alabama approved Landfill at the Contractor's expense. The Contractor shall maintain and provide upon request by the CO or the designated representative that construction debris from this contract has been disposed of IAW local, state, and federal guidelines and laws.

VII. SAFETY:

The Contractor shall comply with all governing codes and standards. The Contractor shall comply with Fort Benning Safety and Environmental laws and regulations. The Contractor shall perform all work IAW government procedures for entering and working at Fort Benning. The government reserves the right to stop work at any time for safety, security reasons, and for national defense at no cost to the government.

VIII. ACCESSIBILITY TO WORK SITE:

Monday-Friday, 0800 to 1730, excluding Federal Holidays or as approved by CO.

IX. DAILY HOUSEKEEPING:

The Contractor shall keep work area clean and remove all unneeded construction debris daily and/or as directed by the Construction Inspector.

X. REQUIRED SUBMITTALS:

100% Design
As-Built Drawings
ESPCP if Required.

6. Anti-Terrorism / Operations Security Requirements

The Contractor shall comply with Government personal identity verification procedures implemented in Homeland Security Presidential Directive (HSPD) – 12, Office of Management

and Budget (OMB) Guidance M-05-24, and Federal Information Processing Standards Publication (FISP PUB) number 201. Contractor and all associated subcontractor employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures provided by government representative. The contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce shall comply with all personal identity verification requirements as directed by Department of Defense (DoD), Headquarters Department of the Army (HQDA) and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

1. AT Level I Training: All contractor employees, to include subcontractor employees, requiring access Army installations, facilities and controlled access areas shall complete AT Level I awareness training within 30 calendar days after contract start date or effective date of incorporation of this requirement into the contract, whichever is applicable. The contractor shall submit certificates of completion for each affected contractor employee and subcontractor employee, to the COR or to the contracting officer, if a COR is not assigned, within 30 calendar days after completion of training by all employees and subcontractor personnel. AT level I awareness training is available at the following website: http://jko.jten.mil. AT Level I training is an annual requirement if option years are exercised.

2. Access and General Protection/Security Policy and Procedures: Contractor and all associated sub-contractors employees shall provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce must comply with all personal identity verification requirements (FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel) as directed by DOD, HQDA and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

2a. Contractors Requiring a Common Access Card (CAC): N/A.

2b. Contractors that do not Require CAC, but Require Access to a DoD Facility or Installation: Contractor and all associated sub-contractors employees shall comply with adjudication standards and procedures using the National Crime Information Center Interstate Identification Index (NCIC-III) and Terrorist Screening Database (TSDB) (Army Directive 2014-05/AR 190-13), applicable installation, facility and area commander installation/facility access and local

security policies and procedures (provided by government representative), or, at OCONUS locations, in accordance with status of forces agreements and other theater regulations.

3. AT Awareness Training for Contractor Personnel Traveling Overseas: N/A.

4. iWATCH Training: The contractor and all associated sub-contractors shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This local developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the COR. This training shall be completed within 30 calendar days of contract award and within 30 calendar days of new employees commencing performance with the results reported to the COR NLT 30 calendar days after contract award.

5. Army Training Certification Tracking System (ATCTS) Registration for Contractor Employees who Require Access to Government Information Systems: N/A.

6. OPSEC Standing Operating Procedure/Plan: The contractor shall adhere to the Government's Operations Security (OPSEC) Standard Operating Procedure (SOP)/Plan during the entire period of performance.

7. Operations Security (OPSEC) Training: N/A.

8. Information Assurance (IA)/Information Technology (IT) Training: N/A.

9. Information Assurance (IA)/Information Technology (IT) certification: N/A.

10. Contractors Authorized to Accompany the Force: N/A.

11. Performance or Delivery in a Foreign Country: N/A.

12. Handling or Access to Classified Information: N/A.

13. Threat Awareness Reporting Program: N/A.

Additionally, the contractor shall adhere and conform to all safety, security and attendance requirements that apply to the supported office. The contractor is required to attend and participate in all organizational meetings, training, and emergency preparedness events and is required to vacate the Government office work site when no sufficient Government oversight is available.

-- End of SOW --