



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lt. Governor

Department of Administrative Services

KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management

BRUCE WHITTINGTON
Interim Director

Addendum No. 1

Date: September 9, 2015

To: Design/Build Teams

From: Wayne Smith – Project Manager, DFCM

Reference: Camp Williams 3 Phase to ISBC Range
Utah National Guard
DFCM Project No. 15081480

Subject: **Addendum No. 1**

Pages	Addendum Cover Sheet	1 page
	Engineer's Addendum No. 1	4 pages
	<u>Revised Cost Proposal</u>	<u>3 pages</u>
	Total	8 pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

1.1 SCHEDULE: There are no project schedule changes.

1.2 GENERAL ITEMS:

1.2.1 See Engineer's Addendum No. 1 dated September 9, 2015.

1.2.2 Revised Cost Proposal.

See the Light...



Ken Garner Engineering, Inc.
ELECTRICAL CONSULTING ENGINEERS

Camp Williams 3 Phase Power

Addendum

09-09-2015

This Addendum shall be considered part of the Contract Documents and Project Manual for the above mentioned project and modifies the original construction documents and all subsequent addenda up to this point. This Addendum shall take precedence over any supplementary information that differs from those of the original Contract Documents and Project Manual.

ANSWERS TO QUESTIONS

Q: On sheet EX101 Switch SW-W03 it is asking for SF6 gas. This is being deregulated due to environmental concerns. E-200 or Mineral oil is not however. Are you sure you want the SF-6?

A: Yes, SF6 gas is requested. See below for approved FR3 Oil alternative.

Q: The sectionalizers do not state an amperage rating. Are they 200 Amp or 600 amp?

A: 200 amp sectionalizers are acceptable.

Q: On sheet EX101 Switch SW-W03 there is a symbol "a square with an x in it" it is not in the legend. What is it?

A: This symbol is a vacuum fault interrupter breaker

Q: The plans and specs state S&C switches, are Cooper Power Systems approved? See attached cut sheet info.

A: Yes, but only with additional equipment. See prior approval paragraph below.

Q: Is there a buried water line we will need to cross at the gun range? If so who is responsible for getting it staked?

A: water line utilities are unknown at this time. The design-build contractor will need to research all available plans, including those of the handgun range where water is apparent in the Latrine. The Guard will assist in staking known utilities.



Q: The switch located at the bottom of the road going up to the Mortar range is drawn to be 3 phase in, 3 phase up to the range and 1 phase to continue on up the road east. It would seem a better option and not much more cost to make it 3 phase in all directions but only hookup the single phase going east.

A: The intent is to have 3 phase into the switch from the east, 3phase out of the switch to the AT4 location heading north, and a 3 phase future connection to the west. Temporarily, a single phase operation to connect to the existing west single phase line will be done.

A. PRIOR APPROVAL TO BID

The following manufacturers are prior approved to bid the project. All manufacturers must bid an equal to that specified, as determined by the Engineer. Products approved, but later proving not to be equal, may be disqualified at a later date, and the contractor shall then supply the original specified products. Products not listed did not meet the prior approval deadline, or are not considered equal to those specified.

26 03 19 SF6 Load Break VFI Switches, Base Bid and Alternate No 2

The Guard has gone through a very detailed analysis of available technologies, including size, insulating mediums, switching mechanisms, fault interruption, and safety and location of switching. They have reviewed actual working models of switches specified. The spec has been written around S&C Vista because that is their number one choice in balancing their need for safety, standing on the opposite side of the terminations for switching operation, and reduced maintenance of the insulating medium, SF6 gas, and cost of the switch. The smaller tank size of SF6 gas and the rounded reduced seem construction of the Vista stainless tank helps reduce the risk of leaking and cost of refilling.

Any alternates must closely represent the safety and operating characteristics of the S&C Vista. In order to do this, it will be required to have a 3 position with ground position switch on all ways, incoming line and load side positions. In addition, each alternate shall have the ability to stand on the opposite side of the terminations or on the side in a separate location from the high voltage compartment, either by placing switch operation opposite or in separate cabinet of medium voltage wire terminations, or by using a motor operator and tether if necessary, to ensure the safety of the operator. Note that S&C inherently meets this requirement as originally designed, motor operators are not required for S&C.

Any approval is tentative, pending a trailer set demonstration provided by the factory during the design and submittal portion of the design-build contract. The Guard reserves the right to reject any approvals as unequal to the specified switch if they do not meet basic safety and operating characteristics. If rejected, the design-build contractor shall provide an alternate at no added cost to the project, so design-build contractors are encouraged to get pricing of all approved and carry contingency for rejected samples.



The following will be considered as tentatively approved alternates, subject to trailer set sample approval, with the additional equipment indicated:

1. G & W Triad Series II, Vantage Series switch, low profile 3 position switches with grounded position on both Line side and Load side switches. Switch will be complete with weather enclosure, and series 3 digital VFI trip units. Switch shall be located opposite of wire terminations, single sided access is prohibited. The tank shall be 304 stainless steel. The tank shall be warranted for 3 years against leaking, with full unit replacement required if it leaks. Rewelding or repairs cannot be considered adequate warranty work.
2. Cooper Oil switches may be substituted for SF6 Gas, using FR3 plant based oil, with low profile 3 position with grounded position switches on both line side and load side switches, complete with weather enclosure. The side operation compartment is required. A large view window for visible break is required. The tank shall be warranted for 3 years against leaking, with full unit replacement required if it leaks. Rewelding or repairs cannot be considered adequate warranty work.

B. General Items

1. Delete Alternate #1 in its entirety – there will be no need to price concrete encased ductbank.
2. Modify Alternate #3, underground option, so that ductbank is installed without encasement.
3. Note that a 1 inch future SCADA conduit, shown on details 6/EX501 under alternates, is required and will remain on all base bid and alternate 3 power conduit ductbanks for future metering/scada connection.
4. A survey is not available. GPS coordinates are also not available. Design-Build teams shall engage services of a Civil Engineer and Survey crew to stake all poles and verify scale of plans. A full survey is not required.
5. Routing shown is general and is parallel with the existing fiber, existing powerline, and roadways. Exact routing to be determined by design-build contractor as to the location between the road and the power line, however, in no case shall a diagonal be cut between the handgun range and the AT4 roadway to avoid the corner cutoff near pole 109. The intent is to extend the 3 phase all the way to the AT4 cutoff road as drawn, for eventual extension west, and to avoid environmental and unexploded ordinance that may be in the gully area – so the route west to the AT4 turnoff, and then north route parallel within 20 feet of the AT4 road is required by the Guard.
6. For Overhead Base bid, the neutral shall be full sized, #1/0 ACSR.
7. For all overhead poles, individual grounding for each pole is required. Alternates such as grounding every 4th pole shall not be considered.



C. Drawing Changes

1. ES103/ES103Alt: Guy and Meter at pole 110C are existing to remain.
2. EX101: All terminations in sectionalizing enclosures are 200 amp load breaks.
3. EX101: SW-W03 shall include two load break switch ways, and two VFI switch ways. VFI ways shall have capability of individual single phase switching, or gang 3 way switching. The box with X in it represents the overcurrent breaker. All ways of switches may be 200 amp load break style.
4. EX101: Loop conductors in all vaults.
5. EX101-ALT: All terminations in switches are 200 amp load break style.
6. EX101-ALT: Switches 01, 02, and 03 shall include two load break switch ways, and two VFI switch ways. VFI ways shall have capability of individual single phase switching, or gang 3 way switching. The box with an X in it represents the overcurrent breaker.
7. EX101-ALT: Switch 04 shall include one load break switch way, and two VFI switch ways. VFI ways shall have capability of individual single phase switching, or gang 3 way switching. The box with an X in it represents the overcurrent breaker.
8. EX501: Modify Detail 2 to eliminate Alternate No. 1 concrete cap and concrete ductbank. Modify detail 6 to eliminate concrete docutbank.
9. EX502: Modify details 1, 2, and 3 to match selected manufacturer dimensions of switch enclosure.
10. EX503/EX504: Modify parts list for appropriate quantities and alternate line hardware manufacturers. Provide raptor protection per military standards.

D. Specification Changes

1. Delete 26 05 34 Ductbanks – no ductbanks required.
2. 26 13 19 SF6 Load Break Switches – Change section 1.10 Warranty to 3 years. Contractor, Distributor, and Factory shall all participate in the warranty and contractor shall provide warranty letters from factory and themselves to the Guard for full replacement upon tank leak.
3. 26 13 19 SF6 Load Break Switches – remove 2.2C blown fuse indication
4. 33 71 01 Overhead Power Distribution – Utilize NESC Heavy Ice and Wind Loading rather than NESC Medium loading. Submit computer based calculations of strength of poles, and arms using NESC criteria. Provide guy calculations. Provide sag data and galloping calculations.
5. 33 71 01 Overhead Power Distribution: Provide Armor rods at all pin insulators. Provide raptor protection for each pole type. Provide inherently safe design with pole top or side post type construction methods and spacing of conductors sufficient to prevent kill of raptors in takeoff.



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

Division of Facilities Construction and Management

COST PROPOSAL
FORM REVISED PER ADDENDUM NO. 1 DATED 9/9/2015

NAME OF PROPOSER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Request for Proposals" for the CAMP WILLIAMS 3 PHASE POWER TO ISBC RANGE - UTAH NATIONAL GUARD - CAMP WILLIAMS, UTAH - DFCM PROJECT NO. 15081480 and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

Base Bid: For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

Additive Alternate No. 1: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide vacuum fault interrupter switches at vaults 1, 2, and 4, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

Additive Alternate No. 2: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide underground power from pistol range to AT4 road, pole numbers 101 through 109, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

PROPOSAL FORM
PAGE NO. 2

I/We guarantee that the Work will be Substantially Complete by **December 31, 2015**, should I/we be the successful proposer and agree to pay liquidated damages in the amount of **\$250.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Proposer

ADDRESS:

Authorized Signature