

Design/Bid/Build Scope of Work –
FY16 Metal Building Sand Sheds
Project # 20746

June 8, 2016

Project Description:

Qualified General Contractors are invited to bid on the construction of four (4) separate pre-engineered metal building sand sheds. These shall be built at various locations throughout the eastern part of the state at existing CDOT maintenance sites. Each structure will consist of concrete retaining walls on each of four (4) sides and a pre-engineered metal building wall and roof structure above. The locations are as follows:

1. **Agate** (39100 County Road 166, Agate, CO 80101)
2. **Kit Carson** (Intersection of US Hwy 287 & US Hwy 40, Kit Carson, CO 80825)
3. **Sterling** (15800 CO-14, Sterling, CO 80751)
4. **Walsenburg** (609 Walsen Ave, Walsenburg, CO 81089)

Estimated Construction Cost: \$1,600,000.00
(\$400,000 each x 4 sites)

Each of the sand sheds shall be 50 feet wide by 80 feet deep.

Time of completion on all of the sand sheds is a critical component of the project.

Construction must be complete within the 180-day time frame from the Notice to Proceed.

Mandatory Pre-Bid meeting will be held at the closed Larkspur Rest Area (located at Interstate 25, mile marker 171.85, Larkspur, CO 80118), where there is an existing sand shed that will be similar to those in this project.

Important Bid Submittal Information:

The sites will not be visited as a group. Bidders will be responsible for making a site visit to each location prior to the question date to clarify any questions they may have regarding the work to be bid. The individual sites will be made available between 8:00 AM and 4:00 PM during the bid period. On-site CDOT personnel will not be able to answer any questions. All questions will need to be submitted prior to the Addendum # 2 Question deadline. There is considerable variation between sites including existing conditions and electrical service.

There will be Liquidated Damages of \$875.00/day. See contract included in Project Manual for additional information.

Scope of Services:

The following documents will be distributed at the mandatory pre-bid meeting: Architectural drawings and specifications by CDOT architect; Civil and Structural drawings and specifications by contracted engineer Anderson and Hastings; Electrical drawings and specifications by contracted engineer Swanson Rink. Geotechnical reports, prepared by Kumar and Associates, for each site are provided at the end of the specifications. Contractor to contract and pay for independent excavation and compaction observations and materials testing to be provided by the geotech firm of record, with reports provided to Owner/Architect. The Scope of Work, bid drawings and specifications should all be referenced during bidding and any contradictory information should be brought to the attention of CDOT; misunderstanding of any of the bid drawings, specifications and/or Scope of Work will not be grounds for change orders after the bid question period.

The Contractor shall submit four copies of stamped, signed metal building drawings and specifications for each site to CDOT, who will forward them to C-West code consultants for review. CDOT must receive a Compliance Notice for the Contractor's metal building drawings from C-West prior to the start of construction. The Contractor is responsible for obtaining (and paying for) permits from the State Electrical Inspector. C-West will perform additional inspections to be paid for by CDOT. By statute, local buildings departments do not have jurisdiction over State Property, so no municipal building permits will be required.

The Contractor will be responsible for locating all utilities prior to performing any site work. Engagement of a private utility locate company shall be required to locate all existing utilities and the cost is the responsibility of the contractor.

Refer to the Project Drawings, Specifications, Contract and General Conditions for additional details and requirements of the project.

Site Work:

1. There is a site plan for each new sand shed location. See the Civil Drawings; these shall be the basis for bidding excavation and grading scope. The Contractor's Bid shall include excavation based on the existing contours shown on all Civil Drawings and all specified operations to bring the sites up to finish grade.
2. CDOT will remove, prior to the start of construction, any stockpiles of salt/sand/gravel where applicable from the work areas. CDOT will also remove all miscellaneous devices or stored materials such as barriers, signs, etc.
3. Temporary utilities: Contractor may pull off of existing building for temp power, where it is available. If it is not available, contractor must arrange for temp power.

Pre-Engineered Metal Building (PEMB):

4. Each of the sand sheds are 50 foot wide by 80 foot long pre-engineered metal buildings and are to sit on a 10 foot high concrete foundation wall.
5. All sand shed buildings are required to be designed as “Partially Enclosed” for wind load determination and lateral design with an internal pressure coefficient of ± 0.55 per ASCE 7-10. All lateral load and other parameters for building design are shown on the structural drawings.
6. The maximum eave height for all sand sheds shall be 22 feet - 4 inches above the finished floor elevation.
7. The structure shall be comprised of a pre-engineered metal building, from CDOT's approved vendor list as specified in Section 13122.
8. The roof on the Agate and Sterling sand sheds shall be a simple gable-style roof with a 2:12 roof pitch with a maximum eave height of 26 feet – 4 inches above the finished floor elevation. The roof on the Kit Carson and Walsenburg sand sheds shall be a simple shed-style roof with a 2:12 pitch with a maximum eave height of 30 feet – 10.25 inches above the finished floor elevation. The roof over the sand storage must be the specified concealed fastener system.
9. All structural steel shall be galvanized per the specifications.
10. Only the specified Hylar/Kynar finishes are acceptable for exterior metal panels. Silicon resin exterior finishes are not acceptable and will not be approved.
11. Project schedule will not be extended due to delay from or caused by the preengineered metal building manufacturer. The schedule on this project is critical and Liquidated Damages of \$875 per day will be enforced.
12. The wall panels shall be comprised of minimum 26 gauge, prefinished, steel siding. The roof panels shall be comprised of minimum 24 gauge, prefinished, metal roofing. Trim, flashing, and expansion joint covers to match adjacent metal panel.

Concrete Foundation:

13. Foundations for the main sand storage sheds will be comprised of 10 foot high walls per the structural drawings and specification. These walls will sit on thick, continuous pad footings with shear keys at all sites.
14. See Specification Section 03300 (Cast-In-Place Concrete) for details on wall and interior floor sealants.
15. Paint 4-inch horizontal stripe around perimeter of concrete walls at 9 foot above finish floor and on concrete slab-on-grade 5 feet from overhead doors, using Tnemec brand concrete paint, color safety yellow, as specified. Add words, 6

inches in size, "No Sand Above/Beyond This Line" above stripe. See Painting Section 09900 for more details.

Overhead Door and Bollards:

16. Overhead doors shall be commercial **roll-up** overhead doors at Agate, Kit Carson and Walsenburg, powder coated white. Overhead door at Sterling shall be a commercial **sectional** overhead door, powder coated white. Door shall have both hand chain and wall-mount motor operation. Each overhead door shall be operated via a unique hand-held remote device as well as a waterproof interior operator panel and motor with typical 3-button stations. All motors, accessories and wiring shall be appropriate for wet conditions.
17. Pipe bollards shall be installed in and around the building, at corners for protection of the structure, as shown on the drawings. The pipe bollards shall be isolated from the surrounding slab, filled with concrete, and painted per the specification.

Man Door/Windows:

18. There is one solid core metal man door set in a hollow metal frame with specified hardware. Provide lever hardware as specified in Hardware Group 1 in Specification Section 08710 and the specified CDOT card/keypad lock system.
19. Sand Sheds have one fixed hollow metal window frame with 1/8 inch polycarbonate to comply with fire department access requirements.

Concrete:

20. The building shall have a concrete vehicular approach apron that extends 20 feet - 0 inches and runs the width of the building.
21. Both the interior slab and the approach apron shall be capable of supporting the wheel load from an HS20 truck.
22. Concrete floors shall have sawn shrinkage control joints as shown on Structural Drawings. All interior floors/exterior apron shall be cured and sealed with penetrating sealer. The sand shed slab shall be hard troweled. The vehicle approach apron shall be broom finished. The interior surfaces of the walls in the sand storage building shall be sealed per the specification. Exterior exposed concrete walls and apron shall be sealed per the Specification, refer to Section 03300, Cast-in-Place Concrete.

Electrical:

23. New electric service to be run to new sheds per electrical site plans and electrical one-line diagrams specific to each site. Contractor shall provide panel mounted as shown on Electrical Drawings. Contractor to provide trench and install PVC conduit from existing service location shown on Electrical Drawings to panel. Contractor to provide proper wiring for new service, to extend from existing service location to new panel
24. Power distribution as follows: (120 volts unless noted otherwise)
- a. Various locations and quantities of exterior NEMA rated 20 amp duplex (water proof) receptacles, located per Electrical Drawings.
 - b. Two (2) additional 120 volt, 20 amp duplex electrical receptacle located inside building, per Electrical Drawings.
25. Exterior outlets at sand shed to be recessed and sealed in concrete wall. Conduit for exterior outlets at sand shed to be routed vertically on center line of and within concrete wall. Conduit within concrete walls is limited to 2 inch diameter max. and spacing of 12 inches on center minimum. Outlets to be thermostat controlled as indicated on electrical drawings.
26. Refer to plans and specifications for lighting plans and requirements.
27. Lighting: ceiling-mounted LED lights, LED emergency lighting and LED wall packs and mounting as indicated on drawings.
28. Provide new feeders and panels to the sand shed building from existing service location shown on the drawings. Refer to individual site electrical plans for additional detail.

Stormwater Quality Permit:

29. Because the area of disturbance for each site is less than an acre, a construction Storm Water Quality Permit with Colorado Department of Public Health and Environment (CDPHE) is NOT required. Contractor is required to follow the Storm Water Management BMP Drawing and details provided in the Civil drawings and follow the requirements included on the 8-tab Notebook for Storm Water Management, included on the disc with all of the other Project Documents

End of Scope of Work