



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

May 28, 2020

SUBJECT: FAI Route 90/94
Project NHPP-J7VU(032)
Section 2014-015R&B-R
Cook County
Contract No. 60X94
Item No. 161, June 12, 2020 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised the Schedule of Prices.
2. Revised Pages 278-281 of the Special Provisions.
3. Revised Sheets 11, 303, 305, 308, 310, 339, 345, 348, 349, 351, 352, 377, 386, 388, 391, 392, 427, 430, 431, 433, 434, 466, 478, 487, 492, 496, 500, 511, 513, 519, 520, 355, 353, 546 & 547 of the Plans.
4. Added additional geotechnical information for Adams St. Bridge SN016-1701 to the Additional Information folder on the website.

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Jack A. Elston'.

Jack A. Elston, P.E.
Bureau Chief, Design and Environment

MTS

MECHANICALLY STABILIZED EARTH RETAINING WALL, SPECIAL

Description. This work shall consist of preparing the design, furnishing the materials, and constructing the mechanically stabilized earth (MSE) retaining wall to the lines, grades and dimensions shown in the contract plans and as directed by the Engineer. The work shall be done in accordance with the applicable portions of Section 522 of the Standard Specifications, as described herein, as detailed in the plans and as directed by the Engineer.

The MSE wall consists of a MSE wall design, concrete leveling pad, precast concrete face panels, textured formliners for precast concrete face panels, architectural treatment, sacrificial fascia, a soil reinforcing system, concrete coping and any other construction accessories necessary to construct the wall.

Submittals. The wall system supplier shall submit complete design calculations and shop drawings to the Engineer per Article 522.05 of the Standard Specifications no later than 90 days prior to beginning construction of the wall. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. All submittals shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

(a) Plan, elevation and cross section sheet(s) for each wall showing the following:

- (1) A plan view of the wall indicating the offsets from the construction centerline to the face of the wall at all changes in horizontal alignment. The plan view shall show the limits of soil reinforcement and stations where changes in length and/or size of reinforcement occur. The centerline shall be shown for all drainage structures or pipes behind or passing through and/or under the wall.
- (2) An elevation view of the wall indicating the elevations of the top of the panels. These elevations shall be at or above the top of exposed panel line shown on the contract plans. This view shall show the elevations of the top of the leveling pads, all steps in the leveling pads and the finished grade line. Each panel type, the number, size and length of soil reinforcement connected to the panel shall be designated. The equivalent uniform applied service (unfactored) nominal bearing pressure shall be shown for each designed wall section.
- (3) Elevation views of entire wall indicating layout of all panel types and architectural treatment and formliner.
- (4) A listing of the summary of quantities shall be provided on the elevation sheet of each wall.

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- (5) Typical cross section(s) showing the limits of the reinforced fill volume included within the wall system, soil reinforcement, embankment material placed behind the fill, precast face panels, and their relationship to the right-of-way limits, excavation cut slopes, existing ground conditions and the finished grade line.
- (6) All general notes required for constructing the wall.
- (b) All details for the concrete leveling pads, including the steps, shall be shown. The top of the leveling pad shall be located at or below the theoretical top of the leveling pad line shown on the contract plans. The theoretical top of leveling pad line shall be 3.5 ft. (1.1 m) below finished grade line at the front face of the wall, unless otherwise shown on the plans.
- (c) Where concrete coping or barrier is specified, the panels shall extend up into the coping or barrier as shown in the plans. The top of the panels may be level or sloped to satisfy the top of exposed panel line shown on the contract plans. Cast-in-place concrete will not be an acceptable replacement for panel areas below the top of exposed panel line. As an alternative to cast in place coping, the Contractor may substitute a precast coping, the details of which must be included in the shop drawings and approved by the Engineer.
- (d) All panel types shall be detailed. The details shall show all dimensions necessary to cast and construct each type of panel, architectural treatment, all reinforcing steel in the panel, and the location of soil reinforcement connection devices embedded in the panels. These panel embed devices shall not be in contact with the panel reinforcement steel.
- (e) All details of the wall panels and soil reinforcement placement around all appurtenances located behind, on top of, or passing through the soil reinforced wall volume such as parapets with anchorage slabs, approach slabs, coping, foundations, and utilities etc. shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular system shall also be submitted.
- (f) When specified on the contract plans, all details of architectural panel treatment, including color, texture and form liners shall be shown.
- (g) The details for the connection between cast-in-place concrete fascia, embed devices, and soil reinforcement shall be shown.

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- (h) When sleeves are specified, the sleeve material, shape, and wall thickness shall be submitted to the Engineer for approval. It shall have adequate strength to withstand the fill pressures without collapse until after completion of the wall settlement. The annulus between the pile and the sleeve shall be as small as possible while still allowing it to be filled with the concrete after wall erection.
- (i) Sample: 2'x2' sample for each formliner type indicated on drawings for approval of texture and finish. If the test samples are not approved, additional samples shall be furnished until a satisfactory texture and finish is obtained, at no additional cost to the Department.
- (j) Mock up: Full size sample of panel types 1, 2, 2R, 3, 4, 5, and 6, including final appearance of texture and finish. The mock-up approved by the Engineer shall then be the standard of comparison for the remaining finishes

The initial submittal shall include three sets of shop drawings and one set of calculations. One set of drawings will be returned to the Contractor with any corrections indicated. After approval, the Contractor shall furnish the Engineer with ten (10) sets of corrected plan prints for distribution by the Department. No work or ordering of materials for the structure shall be done until the submittal has been approved by the Engineer.

Materials. The material shall be in accordance with the applicable portions of Article 522.02 of the Standard Specifications except as modified herein:

- (a) Lightweight fill, defined as the material placed in the reinforced volume behind the precast panels, shall be according to the Special Provision for LIGHTWEIGHT CELLULAR CONCRETE FILL (D-1).

Design Criteria. MSE wall shall be designed according to Article 522.09 of the Standard Specifications and shall include additional loading from the Noise Abatement Wall. Soil Retention System, located behind MSE wall, shall not be included for any internal stability aspect of the wall design.

Construction. MSE wall shall be constructed according to Article 522.09 of the Standard Specifications. Lightweight fill shall be placed according to the Special Provision for LIGHTWEIGHT CELLULAR CONCRETE FILL (D-1).

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Method of Measurement. Mechanically Stabilized Earth Retaining Wall, Special will be measured for payment in square feet (square meters). The MSE retaining wall will be measured from the top of exposed panel line to the theoretical top of leveling pad line for the length of the wall as shown on the contract plans.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for MECHANICALLY STABILIZED EARTH RETAINING WALL, SPECIAL.

Furnishing and placing Lightweight Cellular Concrete Fill shall be as measured and paid in accordance with the special provision LIGHTWEIGHT CELLULAR CONCRETE FILL (D-1).

Concrete coping, when specified on the plans, will not be paid separately. Other concrete appurtenances such as anchorage slabs, approach slab, parapets, abutment caps, etc. will not be included in this work, but will be paid for as specified elsewhere in this contract, unless otherwise noted on the plans.

Excavation necessary to place the fill for the MSE wall shall be paid for as STRUCTURE EXCAVATION, according to Section 502.

Obstruction mitigation will be paid for according to Article 109.04.

Any costs related to obtaining technical assistance for the construction a wall system from a particular supplier will not be paid for separately.

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