OCTOBER 31, 2018

I-84 RESURFACING, BRIDGE REHABILITATION, AND SAFETY IMPROVEMENTS

FEDERAL AID PROJECT NO. 0842(310) STATE PROJECT NO. 0096-0200

TOWN OF NEWTOWN

ADDENDUM NO. 4

This Addendum addresses the following question and answer contained on the "CT DOT QUESTIONS AND ANSWERS WEBSITE FOR ADVERTISED CONSTRUCTION PROJECTS":

Question and Answer No. 54.

SPECIAL PROVISION REVISED SPECIAL PROVISION

The following Special Provision is hereby deleted in their entirety and replaced with the attached like-named Special Provision:

• <u>ITEM #0980001A – CONSTRUCTION STAKING</u>

The Bid Proposal Form and Detailed Estimate Sheets are not affected by this change.

There will be no change in the number of calendar days due to this Addendum. The

foregoing is hereby made a part of the contract.

ITEM #0980001A – CONSTRUCTION STAKING

Work under this item shall conform to the requirements of Section 9.80 amended as follows:

9.80.01 – Description: Add the following after the last paragraph:

Work under this item also consists of the Contractor, or the Contractor's representative, completing a ground survey of the existing roadway surface for all roads within this Contract that will be rehabilitated. The intent of this item is for the Contractor to identify areas where greater than the specified milling depth of 2.5 inches will be required to construct the proposed pavement structure to the proposed grades.

Work under this item also consists of the Contractor, or the Contractor's representative, completing an as-built survey after paving the 2.5-inch intermediate course for all roads within this Contract that will be rehabilitated. The intent of this item is for the Contractor to determine if the intermediate course pavement has the correct cross-slopes and grades according to the plans and these special provisions. In areas where the cross-slopes and grades of the intermediate course pavement do not comply with the plans and these special provisions, a wedge course shall be installed on the intermediate course pavement prior to paving the surface course. The wedge course shall provide the correct cross-slopes and grades according to the plans and these special provisions. The as-built survey information shall be used to determine the thickness(es) of wedge course to be installed.

9.80.03 – Construction Methods: Add the following after the last paragraph:

Ground and Roadway As-Built Surveys: The existing roadway surface and intermediate course pavement surveys shall follow the requirements and descriptions of the specified services located in the Digital Mapping Symbols Specifications for Survey and Photogrammetry Existing Features dated September 2003 and Location Survey Manual dated June 1997, unless otherwise specified herein.

The Ground and Roadway As-Built Surveys shall consist of spot elevations that conform to a "Class T-1" horizontal and vertical standard, shall have a vertical accuracy of +/-0.02 feet (0.25 inches), and shall reference the control points defined in the construction plans. The Land Surveyor shall record the elevation of the same location on the intermediate course pavement surface where required.

The Contractor shall establish new control points as necessary to complete the work. Any new control points shall be horizontally and vertically referenced to the Connecticut NAD83 and NAVD88 datum.

The survey shall record horizontal and vertical data for the existing roadway surface and intermediate course pavement surface along the proposed roadway baselines, proposed lane lines, and the proposed edges of pavement at the following intervals:

- 1. Along tangent roadway sections: at 100-foot intervals that correspond to the roadway stationing.
- 2. Along curved roadway sections: at 50-foot intervals, starting at the super-elevation transition station, that correspond to the roadway stationing.

Ground survey will be required to record the horizontal and vertical data of the existing surface prior to milling. The survey is to document the roadway elevations to ensure that the appropriate milling depth will be provided to result in the proposed finished surface grades after placement of the (as-needed) shim course and 4.5 inches of HMA.

Survey will be required to record the horizontal and vertical data of the intermediate course pavement surface prior to installing the wedge course. The survey is to document the roadway cross slopes to ensure that the proposed cross-slopes and finished surface grades can be achieved before the placement of the surface course pavement. If the surface course cannot be installed as specified due to the grades of the intermediate course pavement surface, the Contractor is to develop a corrective action plan to shim the intermediate course surface prior to placing the surface course pavement. This shim course is the wedge course included in the project, quantified and paid under Item No. 0406173 - HMA S0.25.

Upon completion, the Ground and Roadway As-Built Surveys shall be reviewed and have their accuracy certified by a Connecticut-licensed Land Surveyor. The Land Surveyor shall provide a certification as to the accuracy of the data being submitted. The documents shall be stamped and signed. Upon receiving this certification, the Ground and Roadway As-Built Survey shall be submitted by the Contractor to the State for review and approval.

The Contractor shall present the ground and as-built survey information to the State in a clear and concise manner that includes the proposed and as-built information listed below. The data shall be provided in Microsoft Excel or a compatible file format. Prior to the beginning of construction work, the Contractor shall submit to the State for approval a spreadsheet indicating the data and format that will be submitted following the completion of the as-built survey. At a minimum, the as-built survey data presented to the State shall include the following:

- Proposed and existing/as-built intermediate course pavement elevations at the baseline;
- Proposed and existing/as-built intermediate course pavement elevations at the edges of pavement;
- Proposed and existing/as-built intermediate course pavement elevations at the shoulder lines;
- Proposed and existing/as-built intermediate course pavement elevations at the lane lines;
- Stationing and offsets for all points;
- Comparison between the proposed and existing/as-built intermediate course pavement elevations indicating whether each point meets the tolerances included in the project specifications.

The data is to be formatted as noted in the sample included at the end of this section to allow for data scoring.

Only after the Contractor has received the approval of the Ground/Roadway As-Built Survey from the State may the Contractor proceed to pave the surveyed length of roadway.

The Contractor's attention is directed to the 15-day limitation for milled roadways noted in the plans.

9.80.05 – Basis of Payment: The first paragraph shall be amended as follows:

Construction staking shall be paid for at the Contract lump sum price for "Construction Staking," which price shall include all survey work, establishment of geodetic control points, data processing, drafting, certification, and all work associated with obtaining approval of the ground/as-built survey from the State, as well as all maintenance, materials, tools, equipment, labor, and work incidental thereto, including the removal of materials. The contractor shall submit to the Department a schedule of payment values for review and comment prior to payment.

Pay Item 0980001A Construction Staking

<u>Pay Unit</u> L.S. Roadway As-Built Survey I-84 resurfacing, Bridge Rehabilitation, and Safety Improvements State Project No. 96-200 Newtown, Connecticut

Roadway:

Approximate limits of survey:

Date of survey completion:

Feature	Station	Offset	RT/LT	Proposed Elevation (feet)	As-Built Elevation (feet)	Difference (feet)	Proposed Cross Slope	As-Built Cross Slope	Difference
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Edge of pavement	10+00	17.00 ft	LT	35.00	35.02	0.02	n/a	n/a	n/a
Shoulder	10+00	12.00 ft	LT	34.53	34.50	-0.03	3.125%	3.467%	0.342%
Baseline	10+00	0.00 ft		34.53	34.53	0.00	3.125%	3.267%	0.142%
Shoulder/Climbing Lane/Ramp	10+00	12.00 ft	RT	34.53	34.53	0.00	3.125%	3.267%	0.142%
Shoulder/Ramp	10+00	N/A	RT						
Edge of pavement	10+00	22.00 ft	RT	34.53	34.53	0.00	3.125%	3.267%	0.142%
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