

**OCTOBER 7, 2021**

**REHABILITATION OF BRIDGE NO. 00653**  
**ROUTE 10 OVER HOP BROOK**

**FEDERAL AID PROJECT NO. 0010(130)**  
**STATE PROJECT NO. 0128-0153**

**TOWN OF SIMSBURY**

**ADDENDUM NO. 1**

This Addendum addresses the following questions and answers contained on the “CT DOT QUESTIONS AND ANSWERS WEBSITE FOR ADVERTISED CONSTRUCTION PROJECTS”:  
Question and Answer No. 1, 3, 4, 5, 7

**SPECIAL PROVISIONS**

**REVISED SPECIAL PROVISIONS**

The following Special Provisions are hereby deleted in its entirety and replaced with the attached like-named Special Provision:

- CONTRACT TIME AND LIQUIDATED DAMAGES
- ITEM NO. 0601107A - HIGH EARLY STRENGTH CONCRETE

**CONTRACT ITEM**

**REVISED CONTRACT ITEM**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ORIGINAL QUANTITY</u>	<u>REVISED QUANTITY</u>
0819002A	PENETRATING SEALER PROTECTIVE COMPOUND	1,409 S.Y.	53 S.Y.

**PLANS**

**REVISED PLANS**

The following Plan Sheets are hereby deleted and replaced with the like-numbered Plan Sheets:

02.01.A1  
04.28.A1

**The Bid Proposal Form has been revised to reflect this change.**

The Detailed Estimate Sheet does not reflect this change.

**The number of calendar days has been revised in this Addendum.**

The foregoing is hereby made a part of the contract.

**CONTRACT TIME AND LIQUIDATED DAMAGES**

Two Hundred Forty Four (244) calendar days will be allowed for completion of the work on this Contract and the liquidated damages charge to apply will be One Thousand Two Hundred Dollars (\$1,200.00) per calendar day.

**ITEM #0601107A- HIGH EARLY STRENGTH CONCRETE**

*Amend Section 6.01 Concrete for Structures as follows:*

**6.01.01—Description:**

*Replace with the following:*

The concrete shall be a High Early Strength Concrete. The use of truck-mixed or transit-mixed concrete is permitted.

**6.01.02—Materials:**

*Add the following:*

The high early strength concrete shall conform to one of the following:

A. The Contractor shall design and submit to the Engineer for approval a high early strength concrete mix. This mix shall be air-entrained, and shall be composed of Portland cement, fine and coarse aggregates, approved admixtures and additives, and water. The mix shall contain between 4% and 7% entrained air, and shall attain a 24 hour compressive strength of 3,000 psi and a 28 day compressive strength 5,000 psi. Additionally, the mix shall contain shrinkage compensating additives such that there will be no separation of the newly cast area from the parent concrete. The shrinkage-compensating additive shall be used so as to produce expansion in the high early strength concrete of no more than 0.3%.

B. In lieu of the above high early strength concrete mix, the Contractor may propose the use of a proprietary type mix that will meet the same physical requirements as those stated above. The mix design shall state the percentage of each component to be used.

Regardless of the type of high early strength concrete proposed by the Contractor, substantive data that demonstrates the ability of the material to meet the specification requirements shall be submitted with the proposed mix design at least 2 weeks prior to its use.

**6.01.03—Construction Methods:**

*Add the following:*

A. Forms shall meet the pertinent requirements of Subarticle 6.01.03-1.

B. Surface Preparation: Existing reinforcing steel, left protruding, shall be cleaned of all concrete. The smaller fragments shall be removed with hand tools or by water blast cleaning.

The newly exposed reinforcing steel and concrete faces shall be cleaned of loose or powder-like rust, oil solvent, grease, dirt, dust, bitumen, loose particles, and foreign matter just prior

to placing the new concrete.

The cleaned concrete surface area against which the new concrete will be placed shall be generously wetted immediately prior to placement of the new concrete. Any standing water in surface irregularities and formwork shall be blown out with compressed air prior to application of the binding grout.

Cement binding grout shall be scrubbed into the concrete bonding surface with stiff bristled brushes. All bonding surfaces shall receive a coating of bonding grout within a time period not to exceed 5 minutes prior to placement of the concrete patch material.

C. Mixing, Placing, and Finishing: Mixing and placing concrete shall be done in accordance with the applicable portions of Article 6.01.03. Mixing and placing shall not begin unless the ambient temperature is above 40°F and rising.

The concrete mix shall be properly placed to ensure complete contact around all reinforcing steel and against existing concrete surfaces and compacted to a level slightly above the surrounding surface. Vibrators of the appropriate size shall be used for all consolidation of the concrete, with no hand tamping or rodding allowed. Concrete may be moved horizontally with the aid of hand tools, but not with the use of vibrators (excessive vibration shall be avoided).

Vibrating plates or vibrating screed shall be used on the surface of all patches for strike off and consolidation. After the concrete has been spread evenly and compacted to a level slightly above the adjacent concrete surface, the vibrating plate or screed shall be drawn over the surface at a uniform speed without stopping, in order to finish the surface smooth and even with adjacent concrete. The surface shall be float finished. Finishing operations shall be completed before initial set takes place.

D. Curing: Immediately after finishing of the closure pour area, a sheet of 4 mil polyethylene shall be placed over the repair area, with insulating curing material. This material shall be a minimum of 2 inch thick closed cell extruded polystyrene insulation board that meets the requirements of ASTM C578. It shall have a minimum certified

R-value of ten (10). The insulating material shall extend a minimum of 12 inches beyond the limits of the patch area, and shall be kept in intimate contact with the surrounding pavement surface to prevent lifting of the material. It shall be weighed down with sandbags weighing at least 15 pounds each. The sandbags shall be placed a minimum of 2 feet on center around the closure pour area.

Cured concrete, having a hollow sound when chain dragged or tapped (indicating delamination), shall be replaced by the Contractor at its expense until a patch acceptable to the Engineer is in place.

E. Tolerances in Finished Patch Surfaces: The surface profile of the closure pour area shall not vary more than 1/8 inch in a distance of 10 feet, when a 10 foot long straightedge is placed on the surface at any angle relative to the centerline of the bridge. Humps in the patch that exceed the 1/8 inch tolerance shall be ground down by equipment acceptable to the Engineer. Sags

or depressions in the surface of the patch area that exceed the 1/8 inch tolerance as determined by the Engineer shall be repaired by removal of the concrete in the depression to a depth of 1 inch and repaired in the previously described manner.

F. Testing: The Contractor shall form, cure and test all concrete test cylinders under supervision of a representative of the Department. The dimensions, type of cylinder mold, number of cylinders, and method of curing shall be as directed by the Engineer.

The Contractor shall provide a portable compressive testing machine, on Site, for the purpose of testing all compressive strength cylinders. All testing shall be in accordance with the requirements of ASTM C39. NOTE: The compressive strength testing machine must be calibrated in accordance with the provisions of Section 5, ASTM C39.

G. Time Schedule: Traffic will not be allowed on any areas where the Contractor has placed and finished concrete until the material has properly cured as specified, and has developed the required strength of 4,000 psi, as determined by the compressive strength test, or until the Engineer authorizes its opening to traffic.

All work shall proceed as required by the "Maintenance and Protection of Traffic" and "Prosecution and Progress" specifications elsewhere within the Contract.

**6.01.04—Method of Measurement:**

*Replace the entire Article with the following:*

This work will be measured for payment by the actual volume in cubic yards of High Early Strength Concrete complete and accepted. No deduction will be made for the volume of reinforcing steel.

**6.01.05—Basis of Payment:**

*Replace the entire Article with the following:*

This work will be paid for at the Contract unit price per cubic yard for "High Early Strength Concrete" complete and accepted in place, which price shall include formwork, surface preparation, cleaning of reinforcing steel, concrete replacement and all equipment, tools, labor and work incidental thereto.

Pay Item	Pay Unit
High Early Strength Concrete	c.y.