

OCTOBER 3, 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. 2

SPECIAL PROVISIONS

NEW SPECIAL PROVISIONS

The following Special Provision is hereby added to the Contract:

- NOTICE TO CONTRACTOR – PENETRATING SEALER PROTECTIVE COMPOUND
- ITEM #0819002A – PENETRATING SEALER PROTECTIVE COMPOUND

CONTRACT ITEM

NEW CONTRACT ITEM

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>
<u>0819002A</u>	<u>PENETRATING SEALER PROTECTIVE COMPOUND</u>	<u>S.Y.</u>	<u>1880</u>

PLANS

REVISED PLANS

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

02.01.A2, and 09.02.A2.

The Bid Proposal Form has been revised to reflect these changes.

The Detailed Estimate Sheets do not reflect these changes.

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.

NOTICE TO CONTRACTOR – PENETRATING SEALER PROTECTIVE COMPOUND

The Contractor is hereby advised that a recently established Department standard practice requires that penetrating sealer protective compound be applied to new and existing concrete elements of State owned bridges which could be subjected to salt spray or potential leakage at deck joints.

Within the limits of this Project, the following State-owned infrastructure shall have penetrating sealer protective compound applied at the locations noted:

Site No.	Bridge No.	Parapet Inside Vertical Face and Top Surfaces	Top Surfaces of Substructure
1	00897	180 SY	45 SY
2	00898	190 SY	55 SY
3	01210	200 SY	45 SY
4	01211	190 SY	50 SY
5	01212	290 SY	55 SY
6	01213	250 SY	50 SY
7	00505	-----	105 SY
8	01206	-----	65 SY
9	01207	-----	30 SY
10	01208	-----	20 SY
11	01214	-----	60 SY

Top surfaces of substructure include the entire top of all pier caps and the sides of each pier cap at a distance not to exceed six inches from the top.

Please note that Department preference is that this sealer be applied prior to placing HMA.

ITEM #0819002A - PENETRATING SEALER PROTECTIVE COMPOUND

Description: Work under this item shall consist of cleaning concrete surfaces of dirt, dust and debris, and furnishing and applying a clear, penetrating sealer where shown on the plans, to provide a hydrophobic barrier against the intrusion of moisture. This work also includes furnishing, installing and removing platforms, scaffolding, ladders and other means of access as well as shields, as required, to protect adjacent areas from overspray. Penetrating sealer shall not be applied to concrete surfaces that have been previously treated with coatings or curing compounds that would hinder penetration of the sealer into the concrete.

Materials: The penetrating sealer shall be a single component, 100% silane or silane siloxane from the list of materials below. The material shall be selected in anticipation of the expected ambient and surface temperature at the time of installation.

The following products may be used when ambient and surface temperatures are 40°F and above:

SIL-ACT ATS-100 (Silane)
Advanced Chemical Technologies, Inc.
9608 North Robinson Ave.
Oklahoma City, OK 73114
405-843-2585
www.advchemtech.com

Armor SX 5000 EXT-100 or SX 5000 WB (Silane Siloxane)
Foundation Armor, LLC.
472 Amherst St. STE 14
Nashua, NH 03063
866-306-0246
www.foundationarmor.com

Aquinil Plus 100 (Silane)
ChemMasters
300 Edwards Street
Madison, OH 44057
440-428-2105, 800-486-7866
www.chemmasters.net/Aquanil100.php

The following product may be used when ambient and surface temperatures are 20°F and above:

Certi-Vex Penseal 244 100% (Silane)
Vexcon Chemicals
7240 State Road
Philadelphia, PA 19135
888-839-2661
www.Vexcon.com

Construction Methods:

Submittals: The Contractor shall submit to the Engineer Safety Data Sheets (SDS) and product literature for the selected product. The literature shall include written instructions how to apply the product to vertical and horizontal surfaces, and where required, overhead surfaces.

The Contractor shall submit to the Engineer, in accordance with Article 1.05.02, written procedures for cleaning the concrete surfaces. The submittal shall include proposed equipment and materials and shall address how adjacent traffic and other areas shall be protected from dust, debris and overspray during the cleaning and application processes. Where the sealer is to be applied to parapets before pavement is placed, the submittal shall address protecting the deck and curb to which membrane waterproofing will be applied. Should the membrane already be present, the submittal shall address protecting the membrane. It shall also indicate how vegetation shall be protected from overspray. The submittal shall address the conditions under which work may proceed, including wind speed, temperature and precipitation. It shall also include procedures to be followed to protect the work should unfavorable weather conditions occur before the product has been absorbed.

The Contractor shall inspect the surfaces to be sealed to identify surface cleaning needs before submitting the procedures. The Contractor shall identify conditions that need repair or surfaces that may require special attention or cleaning procedures. Such observations shall be addressed in the written procedures.

Surface Preparation: Concrete surfaces to which penetrating sealer will be applied shall be dry, clean and free of grease, oil and other surface contaminants. New concrete and newly placed repair concrete shall be allowed to cure for at least 28 days before applying sealer. After rain or water cleaning, allow existing concrete surfaces to dry for at least 8 hours before applying sealer. Dry surfaces may be cleaned by sweeping with brushes or brooms, and blowing clean with oil-free, compressed air. The Contractor shall take care not to damage the concrete surface finish during cleaning operations. Care shall be taken so that cleaning methods do not damage joint sealant or other components of the structure.

Application: Application of the sealer can only begin after the Engineer evaluates the concrete surfaces for cleanliness and moisture, and determines that conditions are appropriate for application.

The sealer shall saturate the concrete surface with a rate of application of 200 square feet per gallon of sealer. The dispersion shall run six to eight inches down a vertical surface from the spray pattern. The maximum run-down is 12 inches. The Contractor shall monitor and record the number of square feet per gallon of sealer used to verify that the required application rate is being met. Additional sealer may be needed if surfaces are porous, rough or textured.

The Engineer will inspect the concrete surface during application and after the sealer has had adequate time to penetrate. As a test, water sprayed from a bottle on the sealed surface shall bead up and not be absorbed. Should water be absorbed into the concrete at a test area, additional areas shall be tested to determine which areas should receive additional application of sealer. The

Contractor shall apply additional sealer to the identified areas until absorption of water is prevented.

Method of Measurement: This work will be measured for payment by the actual number of square yards of concrete, coated completely and accepted, within the designated limits. The area will be measured once, regardless of the number of applications required.

Basis of Payment: This work will be paid for at the Contract unit price per square yard for “Penetrating Sealer Protective Compound,” complete, which price shall include all equipment tools, labor and materials, incidental thereto, including the preparation of the concrete surfaces and proper disposal of debris.

Pay Item	Pay Unit
Penetrating Sealer Protective Compound	s.y.