



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

April 01, 2024

NOTICE TO PROSPECTIVE BIDDERS

Contract Number: DH00552
TIP Number: N/A
WBS Number: 2024CPT.08.10.10772, 2024CPT.08.10.20772, 2024CPT.08.10.20632, 8.207711, and 8.206311
County: Moore and Richmond
Description: Asphalt Surface Treatment

Subject: Addendum #1

The following revisions have been made to the project proposal associated with the above referenced project:

- The Special Provision for **HOT PORED RUBBER ASPHALT JOINT SEALER:** was not included in the original Proposal. Please insert pages 35A, 35B, and 35C after page 35 in the Proposal.

If this office can provide additional information, please contact me at (910) 773-8034 or cgbrown1@ncdot.gov.

Sincerely,

DocuSigned by:
Chad G. Brown
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Chad G. Brown
Division Proposal Engineer

cc: File ec: Mr. J. A. Dietrich

Prospective Bidders

Plan Rooms

HOT POURED RUBBER ASPHALT JOINT SEALER:

(2-24-14)(Rev. 1-16-24)

657

SPD 6-420

Description

The work covered by this provision consists of sealing existing longitudinal and transverse pavement cracks with using Sealant Type I, PS/AR (hot poured asphalt rubber) joint sealant, hereafter identified as PS/AR sealant.

This applied PS/AR sealant shall form a complete watertight bond with a high degree of elasticity, with maximum flexibility and longevity under extreme temperature ranges.

Materials

Refer to Division 10 of the *Standard Specifications*.

Item

PS/AR Sealant

Section

1028-2

The PS/AR shall also meet all requirements of ASTM D6690 (AASHTO M 324), Type I, "Joint and Crack Sealants, Hot-applied, for Concrete and Asphalt Pavements", (formerly ASTM D1190, AASHTO M 173) and Federal Specification SS-S-164. Detailed specifications are as follows:

TEST	ASTM D6690 - AASHTO M324, TYPE I SPEC. LIMITS
Cone Penetration	90 max.
Flow	5 mm max.
Softening Point	176°F
Bond, 0°F, 50% Ext.	Pass 5 Cycles
Asphalt Compatibility	Pass
Recommended Pour Temperature	380°F
Safe Heating Temperature	410°F

PS/AR sealant shall have a blended wetting agent to act as an internal primer to increase adhesion of the heated PS/AR sealant to the sides of the joints and a skid resistance factor of not less than 45 BPN when tested to meet ASTM E303.

PS/AR sealant setting time when tested to meet ASTM D711 shall have a maximum traffic no-pickup time of 10 minutes at 75°F.

PS/AR sealant shall withstand repeated freezing and thawing cycles without loss of adhesion to the pavement surface. It shall have a "Pot Life" of 16 hours min., and must be able to be reheated.

PS/AR sealant must be able to withstand asphalt plant mix overlays and bituminous surface treatments without excessive pulling, bumping or overlay shoving.

Ensure PS/AR sealant supplied for use has the proper temperature performance limits to form an adhesive and flexible compound that resists cracking in the winter and is resistant to flow in the summer for the temperature range common to the Coastal Plain of North Carolina.

PS/AR Sealant Application Process

All longitudinal and transverse cracks greater than 1/4 inch shall be forced open and cleaned warm and dry before the application of the pre-heated PS/AR sealant to ensure maximum joint sealing.

An HCA (hot compressed air) lance shall be used at all times to blast out any vegetation, dirt, dampness and loose materials from the cracks. The concentrated hot air jet shall not be less than 3,000°F and shall have a blasting air jet velocity of at least 3,000 feet per second.

PS/AR sealant shall be pre-heated to the required temperature using the air jacketed flow method to prevent the burning of the modified rubber in the PS/AR sealant. This shall be done using a safety tested PS/AR sealant pre-heater melter kettle which has a horizontally mounted, full sweep, double paddle agitator.

PS/AR sealant shall be applied into the prepared pavement joints with a pressure screed shoe, completely filling the joint and leaving a sealed 2 inch overband, no higher than 1/8" above the pavement surface, at a temperature between a minimum of 370°F, and a maximum of 420°F. Excessive overbanding or wasting of PS/AR sealant will not be tolerated. Immediately squeegee the crack seal material to minimize the height of the overband.

After the crack has been sealed, promptly remove surplus sealer on the pavement. The joint sealer shall be allowed to dry tack free prior to placing traffic on sealed areas of roadway.

Treating Sealed Joints

In heavy traffic areas where fast sealant drying times are needed, or in warm weather conditions where sealant drying times are prolonged, or in other situations as Engineer deems appropriate, Contractor shall use sand or manufacture's recommended material to treat sealed joints and prevent traffic pick-up. Contractor shall be responsible for monitoring the roadway conditions, and shall continue to treat the sealed joints, until such time as traffic may re-enter roadway. In extreme cases, Contractor may have to limit the length of roadway treated at any given time to facilitate drying and prevent excessive traffic delays.

Under no circumstances shall Contractor be allowed to aid curing by blowing trash, debris, grass, etc., off of shoulder onto roadway.

No direct payment will be made for treating sealed joints. The cost of this work shall be incidental to the contract unit price bid per pound for Rubber Asphalt Joint Sealer.

Pavement Temperatures

PS/AR sealant shall be applied only when the surface temperature of the pavement is above 40°F. If weather forecasts are such that cold temperatures will remain for extended periods, the pavement may be warmed with a HCA lance prior to placing sealant, with Engineer's permission. However, under no circumstances shall sealant be applied when the surface temperature of the pavement is below 32°F.

Packing and Storing PS/AR Sealant

The PS/AR sealant is to be packaged and stored in closed polyethylene bags. The contractor will be permitted to use NCDOT Maintenance Facilities for storage of product during the life of the contract.

Measurement and Payment

The quantity of PS/AR sealant to be paid for at the contract unit price per pound of joint sealant will be the actual number of pounds of joint sealant that has been satisfactorily used to seal pavement joints in the designated section of road. Any joint sealant which has been spilled, wasted, misapplied, used in excessive overbanding or used unsatisfactorily in any way will be determined by the Engineer and deducted from the total number of pounds of joint sealant used and the quantity to be paid for at the contract unit price per pound of joint sealant. The Engineer's decision on the quantity to be paid for at the contract unit price per pound of joint sealant will be final and binding.

The contract unit price per pound of joint sealant will be full compensation for all work required to seal the pavement joints, including but not limited to: furnishing, hauling, loading, unloading and storage of all sealant and required materials, routing, cleaning and preparation of the joints to be sealed, application of the sealant material in the prepared joints, clean-up of the work site and any incidentals necessary to satisfactorily complete the work.

Payment will be made under:

Pay Item

Hot Poured Rubber Asphalt Joint Sealer, Type I

Pay Unit

Pound