

April 17, 2015

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION  
DEPARTMENT OF ADMINISTRATION

DIVISION OF PURCHASES BID NO. 7549491

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

RHODE ISLAND CONTRACT NO.2015-CH-041

FEDERAL-AID PROJECT NO. FAP Nos: NHS-0037(009), NHSG-0037(010)

**1R Improvements to Route 37**

Natick Avenue to Post Road (Rte. 1)  
CITY/TOWN OF Cranston, Warwick  
COUNTY OF PROVIDENCE, KENT

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 1 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

**A. Specification-Job Specific**

1. JS-ii

Delete Page JS-ii in its entirety and replace it with revised page JS-ii(R-1) attached to this Addendum No. 1. Code 414 has been added to the index.

2. JS-42 thru JS-45

Delete Pages JS-42 thru JS-45 in their entirety and replace them with revised pages JS-42(R-1) thru JS-45(R-1) attached to this Addendum No. 1. The specification has been revised.

3. JS-78

Delete Page JS-78 in its entirety and replace it with revised page JS-78(R-1) attached to this Addendum No. 1. The specification has been revised.

4. JS-98

Insert new Page JS-98 attached to this Addendum No. 1. Code 414 has been added to the contract.

  
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RI Department of Transportation  
Chief Engineer

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SPECIFICATIONS – JOB SPECIFIC**

**(R-1)**

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**402.9901**  
**FRICITION COURSE**

**DESCRIPTION:** Friction Course shall be produced in accordance with the Rhode Island Standard Specifications for Road and Bridge Construction with the following exceptions:

**MATERIALS:**

1) Performance Graded Binder

The binder shall meet the requirements of PG 64E-28 as specified in AASHTO M 320 and R 29 and shall incorporate at least 2.0% SBS polymer. The nonrecoverable creep compliance versus percent recovery of the binder shall fall above the curve in Figure X1.1 in Appendix X1 of M 332 when plotted. Re-refined engine oil bottoms (REOB) shall not be used in the binder. The Contractor may use an approved warm mix additive (WMA) in conformance with Section 414 of these specifications.

The mix design shall be a 50 blow Marshall mix meeting the following requirements:

2) Gradation and Asphalt Content Master Range

Sieve Size	Percent Passing
¾"	100
½"	95-100
3/8"	70-100
#4	25-45
#8	20-35
#30	8-15
#50	5-12
#200	2-6
%AC	5.0-7.0
Marshall Stability	750 Minimum
%Voids	5 Minimum
Flow	8-16

3) Mix Production – Lots and Sublots

A standard subplot is 600 tons for HMA sampled at the plant for each production run. A standard lot for each mix is ten sublots. A sample will be randomly selected and tested for each subplot. At least five sublots will be used when calculating pay adjustments.

If the quantity of HMA needed to finish a production run is projected by the Contractor to be less than the standard subplot size of 600 tons, the projected tonnage may be used to select a random sample. If the projected tonnage is not produced or a random sample is unable to be taken, the Engineer may select a sample at the end of the run or at the paver. If no sample is taken, the tonnage will be added to the previous subplot.

Additional samples may be taken at the discretion of the Engineer.

#### Adjustments to Lots

If less than five sublots are tested after the end of the final standard lot, they will be added to that lot. Five or more sublots tested after the end of the final standard lot will constitute a separate lot.

#### Plant Pay Adjustments

(a) Pay adjustments for deviation from the optimum binder content (established by the mix design) in Table 1 will apply:

**Table 1 – OBC Pay Adjustments**

<b>Deviation from Optimum Binder Content</b>	<b>Pay Adjustment</b>
Less than or equal to 0.1 %	+2%
0.2%	+1%
0.3%	0%
0.4%	-5%
0.5%	-15%
0.6%	-30%
0.7%	-40%
Greater than 0.7 %	-50% or Remove and Replace*

\* The decision to make 50% payment or Remove and Replace will be made by the Engineer

Note: All deviation values will be rounded to the nearest 0.1% before applying pay adjustments.

#### (b) Calculation of Pay Adjustments for Production Binder Content

For each test, absolute deviations will be used when determining binder content pay adjustments. Absolute deviations are the values of deviation regardless of sign ( $\pm$ ).

The average of the absolute deviations from the optimum binder content of all of the sublots in each lot will be used to determine the appropriate pay adjustments for the lots. No payment will be made for any pavement that is removed.

All other tolerances shall conform to the RI Standard Specifications.

**Placement:** A material transfer vehicle shall be used for the placement of friction course in all travel lanes. Spreading of the mixture shall be performed carefully and the operation shall be continuous. In the event that unforeseen circumstances cause the paving operation to cease, a minimum of three loaded trucks will be on site before paving will be allowed to resume. Particular attention shall be given to the joints and all irregularities shall be removed before compacting.

After placement, the mixture shall be completely and uniformly compacted with powered steel drum rollers as directed by the Engineer. A minimum of three rollers shall be operated to handle the output of the plant. Rolling shall continue until all roller marks are eliminated, the surface is of uniform texture and true to grade and cross section. At least three passes must be made at all locations on the mat. Each roller shall exert a minimum average force of 150 pounds per inch along the width of each drum. At least two of the rollers must have a minimum operating weight of 20,000 pounds as published by the manufacturer. The first pass with the specified roller shall be completed when the temperature of the layer is 260°F ±20°F.

Each lane may be paved so that a longitudinal drop-off remains until the next paving session. Each subsequent paving operation shall proceed adjacent to the previous. No more than one day of paving shall be completed before the adjacent lane is paved. A longitudinal drop-off will not be allowed on both sides of a lane. Longitudinal joints shall be brushed or sprayed with tack coat. Transverse joints shall be manually brushed with tack coat. Signs conforming to the MUTCD shall be placed in advance of longitudinal drop offs.

The tack coat shall be RS-1 or RS-1h and shall be uniformly applied at a rate of 0.08 +0.02/-0.00 gallons per square yard to the entire surface to be paved.

**Weather Limitations:** Friction course shall not be placed on a wet or damp surface or when the temperature of the surface to be paved, in the shade, is less than 55° F, measured prior to placement. It shall only be placed when the air temperature, in the shade, is at least 55° F. If a WMA (warm mix additive) is used both the air and surface temperature in the shade shall be 45° F or greater.

If the Contractor mobilizes and the Weather Limitations come into effect the Contractor shall bear all costs associated with the stopping, delaying or canceling of operations.

**Time Limitations:** Unless directed otherwise by the Engineer, the Contractor shall schedule paving activities such that no location that has had pavement removed is left without new HMA

pavement for more than fourteen (14) consecutive calendar days. This means that once the Contractor commences the removal of existing pavement at any location within the project, the placement of HMA pavement at that particular location must be completed within fourteen (14) consecutive calendar days.

**METHOD OF MEASUREMENT:**

**Tolerance Limitation.** Pavement will be considered acceptable when meeting the specifications. Pavement that is not accepted will be excluded from the tolerance allowance. When delivery tickets are directly collected by the Engineer from each truck prior to placing in the hopper, the delivery tickets may be used in the determination of total tonnage delivered and placed. Delivery tickets not collected directly by the Engineer prior to placing in the hopper will not be used to determine tonnage.

When delivery tickets are not used to determine tonnage, the accepted total tonnage delivered and placed will be calculated according to the following formula: [final surface course width] x [project length] x [specified pavement thickness] x [the average unit weight of all acceptance density cores] = contract tonnage. If density cores are not required then 96% of the average unit weight of the plant produced Marshall cores shall be used.

Payment will be made at full contract unit bid prices with pay adjustments for all accepted HMA up to 105% of the contract quantity tonnage. Accepted HMA quantities above 105% and up to 110% of the contract quantity tonnage will be paid at 50% of the contract unit bid prices with additional pay adjustments as applicable.

**BASIS OF PAYMENT:**

The accepted quantity of the HMA will be paid for at its respective contract unit price per ton as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment, and for all incidentals required to finish the work, complete and accepted by the Engineer.

Pay adjustments for binder content will be applied to the unit bid price for the applicable item code using a Record of Change.

**Failure to Comply:** If the Engineer determines that the Contractor has failed to complete the placement of any portion of HMA pavement in accordance with this specification, or as directed, the daily charge set forth in Special Provision Code 402.1000 will be deducted from monies then due the Contractor as a charge for failure to comply with this Specification. Moreover, the stated daily charge will continue each consecutive calendar day thereafter until the HMA pavement is placed.

**CODE 808.9901**  
**CAST-IN-PLACE CONCRETE MEDIAN BARRIER**

**DESCRIPTION.** This work consists of the provision of cast-in-place concrete median barriers at the locations identified on the Plans, or as directed by the Engineer, all in accordance with these Specifications.

**MATERIALS.** All Materials shall be as detailed on RI Std. 40.1.0 and in accordance with the applicable sections of 808.02, from Section 808.02.1 to 808.03.10, of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended August 2013, with all Revisions.

**FILM-FORMING SEALER:** shall be in accordance with Section M.12.03 and M.12.03.1 of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended August 2013, with all Revisions.

**CONSTRUCTION METHODS.** The cast-in-place median barrier shall be constructed to the lines and dimensions as shown on RI Std. 40.1.0 and in accordance with the applicable sections of 808.03 and 809.03.7 and Section 820 of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended August 2013, with all Revisions.

**METHOD OF MEASUREMENT.** "Cast-In-Place Concrete Median Barrier" will be measured by the number of cubic yards of such concrete actually provided in accordance with the Plans and/or as directed by the Engineer.

**BASIS OF PAYMENT.** The accepted quantity of "Cast-In-Place Concrete Median Barrier" will be paid for at the respective contract unit prices per cubic yard as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, concrete, reinforcement, joint fillers, joint sealants, concrete surface finish, full depth pavement sawcutting, trimming and fine grading of subbase, film-forming sealer, materials and equipment, and all other incidentals required to finish the work, complete and accepted by the Engineer.

## SECTION 414

### WARM MIX ADDITIVE

**414.01 DESCRIPTION.** This work consists of incorporating a WMA (Warm Mix Additive) in HMA (Hot Mix Asphalt).

**414.02 MATERIALS.** One unit of WMA shall be added to each ton of HMA. All WMA shall be selected from the RIDOT Approved Materials List and shall be added at a dosage rate recommended by the manufacturer.

**414.03 CONSTRUCTION METHODS.** If HMA is designated as "with WMA", the Contractor shall use a WMA. If HMA is not designated as "with WMA", the Contractor may request to use a WMA at his own discretion and cost. Additionally, the Engineer may direct the Contractor to use a WMA. If a WMA is used it shall be for an entire day's production for that class of HMA.

**414.04 METHOD OF MEASUREMENT.** WMA will be measured by the number of units actually used in accordance with the specifications and/or as directed by the Engineer.

**414.05 BASIS OF PAYMENT** The accepted quantity of the WMA will be paid for at its respective contract unit price per each as listed in the Proposal.