

February 10, 2012

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION  
DEPARTMENT OF TRANSPORTATION  
RHODE ISLAND CONTRACT NO.2011-CH-108  
FEDERAL-AID PROJECT NO. FAP Nos: NHSG-RESF(222), NHS-RESF(221)

**Improvements to Route 138**

RI Route 138 WB STA. 593+50 to Route 138 STA. 741+40 and RI Route 1A on and off Ramps.

CITY/TOWN OF North Kingstown

COUNTY OF WASHINGTON

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. Plans**

1. Sheet No. 7 Job Specific Plan Symbols Legend and Notes

Delete Sheet No. 7 in its entirety and replace with revised Sheet No. 7 (R-1) attached to this Addendum No. 1. The Job Specific Legend has been revised. Note 7 under the Job Specific Traffic Notes has been added.

2. Sheet No. 8 Typical Details 1

Delete Sheet No. 8 in its entirety and replace with revised Sheet No. 8 (R-1) attached to this Addendum No. 1. The tolerance for micro milling depth has been added.

**B. Contract Documents**

1. General Provisions - Contract Specific
  - a. Delete Page CS-3 in its entirety and replace with revised Page CS-3 (R-1) attached to this Addendum No. 1. A reference to the Section 17 of the General Provisions Contract Specifics has been added to the Sequence of Construction/Maintenance and Movement of Traffic section.
  - b. Delete Page CS-5 in its entirety and replace with revised Page CS-5 (R-1) attached to this Addendum No. 1. Language requiring the use of temporary median barriers where existing guardrail is removed for overhead sign structure installation has been added.
  - c. Insert Page CS-5a attached to this Addendum 1. Language requiring the use of temporary median barriers where existing guardrail is removed for overhead sign structure installation has been added; Section 17 of the General Provisions Contract Specifics has been repaginated.
  - d. Delete Page CS-6 in its entirety and replace with revised Page CS-6 (R-1) attached to this Addendum No. 1. The requirement for paving of milled areas has been revised; the tolerance for micro milling depth has been added; longitudinal drop-off requirement has been revised.
  - e. Delete Page CS-7 in its entirety and replace with revised Page CS-7 (R-1) attached to this Addendum No. 1. The survey requirements have been revised.
2. Specification/Job Specific
  - a. Delete Index Page JS-ii in its entirety and replace with revised Index Page JS-ii (R-1) attached to this Addendum No. 1. Item Code 820.9901 has been added.
  - b. Delete Page JS-2 in its entirety and replace with revised Page JS-2 (R-1) attached to this Addendum No. 1. The completion requirements for Phase 1 Completion and Substantial Completion have been revised.
  - c. Delete Pages JS-14 to JS-18 in their entirety and replace with revised Pages JS-14 (R-1) to JS-18 (R-1) attached to this Addendum No. 1. Item Code 402.0871 has been revised.
  - d. Delete Pages JS-19 to JS-21 in their entirety and replace with revised Pages JS-19 (R-1) to JS-21 (R-1) attached to this Addendum No. 1. Item Code 413 has been revised.
  - e. Delete Page JS-34 in its entirety and replace with revised Page JS-34 (R-1) attached to this Addendum No. 1. The tolerance for micro milling depth has been revised.
  - f. Insert new Page JS-44 attached to this Addendum 1. Item Code 820.9901 has been added.

**C. Distribution of Quantities**

1. Index Page 1 to Index Page 3  
Delete Index Page 1 to Index Page 3 in their entirety and replace with revised Index Page 1 (R-1) to Index Page 3 (R-1) attached to this Addendum No. 1. The index has been revised.
2. Page 26  
Delete Page 26 in its entirety and replace with revised Page 26 (R-1) attached to this Addendum No. 1. Item Code 402.0871 has been revised.

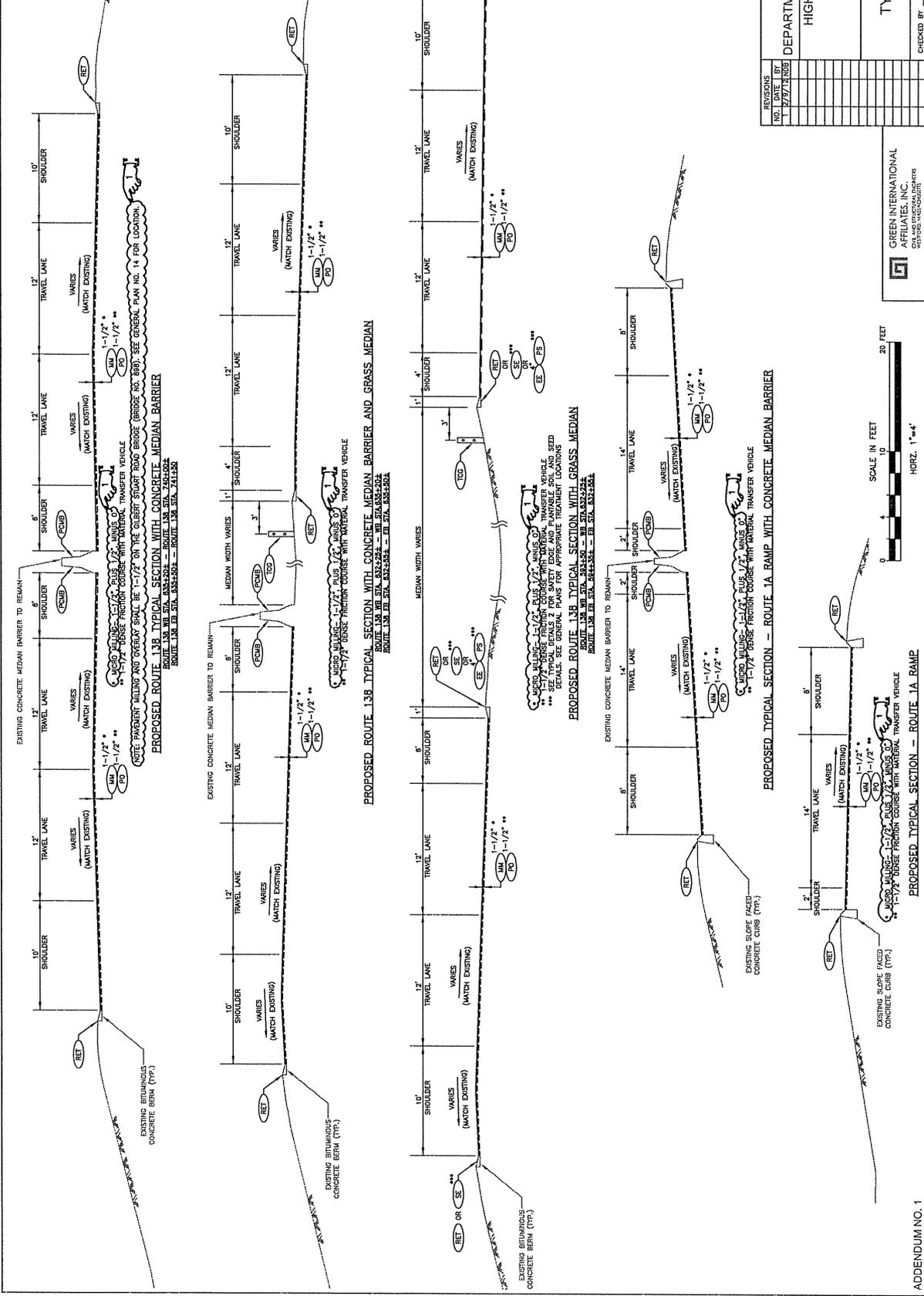
3. Page 27  
Delete Page 27 in its entirety and replace with revised Page 27 (R-1) attached to this Addendum No. 1. Item Code 402.0871 has been revised.
4. Page 43  
Delete Page 43 in its entirety and replace with revised Page 43 (R-1) attached to this Addendum No. 1. Item Code 820.0110 has been deleted.
5. Page 45  
Delete Page 45 in its entirety and replace with revised Page 45 (R-1) attached to this Addendum No. 1. Item Code 901.0901 has been revised.
6. Page 45a  
Insert new Page 45a attached to this Addendum 1. Item Code 901.9902 has been repaginated.
7. Page 64  
Delete Page 64 in its entirety and replace with revised Page 64 (R-1) attached to this Addendum No. 1. Item Code T17.0100 has been revised.
8. Page 64a  
Insert new Page 64a attached to this Addendum 1. Item Code T17.0202 has been repaginated.
9. Page 65  
Delete Page 65 in its entirety and replace with revised Page 65 (R-1) attached to this Addendum No. 1. Item Code T17.9901 has been revised.
10. Page 65a  
Insert new Page 65a attached to this Addendum 1. Item Code T18.0100 has been repaginated.
11. Page 73  
Delete Page 73 in its entirety and replace with revised Page 73 (R-1) attached to this Addendum No. 1. Item Code 205.0250 and 820.9901 have been added.
12. Page 74  
Insert Page 74 attached to this Addendum No. 1. Item Code 926.0130 has been added.

  
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RI Department of Transportation  
Chief Engineer



NO.	DATE	BY	REVISION
1	11/11/11	RL	ISSUE FOR CONSTRUCTION

NO.	DATE	BY	REVISION
2	12/12/11	RL	REVISED FOR R-1



NO.	DATE	BY	REVISION
1	12/27/2008		

RHODE ISLAND  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY IMPROVEMENTS  
ROUTE 138  
NORTH KINGSTOWN, R.I.

TYPICAL DETAILS 1

GREEN INTERNATIONAL  
AFFILIATES, INC.  
CIVIL AND TRANSPORTATION ENGINEERS  
100 STATE STREET, SUITE 200  
PROVIDENCE, RI 02902

SCALE: VERT. 1" = 4'  
HORIZ. 1" = 4'



APPENDIX NO. 1

CHECKED BY: K.L. DATE: 01/26/11 V:\\_GRL\PROJECTS\08017\JOB01

**6. SEQUENCE OF CONSTRUCTION/MAINTENANCE AND MOVEMENT OF TRAFFIC:**

A. Action Required by Contractor:

Approval of the work sequence and time schedule is required before the start of all construction or other work associated with this contract. The proposed construction and time schedule must consider and address the safe vehicle passage through the project.

The Contractor shall be responsible for coordinating with the Town of North Kingstown.

During pavement removal operations, no over breakage into existing operational travel lanes will be allowed.

The paving of all ramps must be completed prior to the main line paving so as to not track tack coat onto the new main line pavement.

Paving operations are restricted to night time hours only, between 8 PM and 6 AM. Paving operations are not permitted on Sunday nights. The cost of the work zone lighting required for nighttime operations shall be incidental to the contract in accordance with Section T.22 Lighting for Night Work Operations in the Standard Specifications. No separate payment will be made for lighting of the work zone during nighttime operation.

All deviations from the requirements stated here or detailed in the plans, as well as all deviation from the approved construction sequence and time schedule, must be submitted to the Engineer in writing for approval as required in the R.I. Standard Specifications for Road and Bridge Construction.

Locations of surface features of utilities shown on the plans are approximate. The Contractor shall check and verify the exact location of all existing utilities, both underground and overhead, with Dig Safe. The cost to repair all damages to utilities shall be the Contractor's responsibility.

All work shall be completed in accordance with the Traffic – Related Work Restrictions indicated in the Transportation Management Plan.

The Contractor shall restore complete operation on Route 138 and the RI Route 1A on and off-ramps by the appropriate time as stated in the TMP.

Refer to paragraph 17 for additional requirements.

**7. CONTRACTOR'S RESPONSIBILITY FOR DAMAGED STORM DRAINS**

The Contractor shall use care when working within or in the vicinity of existing drainage structures. All drainage structures, pipes or culverts damaged during the disposal of, cleaning of, installation of, or while making repairs to drainage structures, pipes or culverts, or carrying out all other work on this contract, shall be the Contractor's responsibility. All pipe/culvert damaged by the Contractor while carrying out this contract shall be replaced or repaired by the Contractor to the satisfaction of the Engineer at no additional charge to the State.

properties and shall promptly repair (in-kind), at his own expense, all damage to such pavement, utilities or private property to the satisfaction of the engineer.

#### **14. CLEANING DRAINAGE STRUCTURES**

The Contractor shall clean drainage structures as directed by the Engineer upon completion of the roadway paving. The Contractor shall provide erosion and sedimentation control measures for all drainage structures during construction as directed by and to the satisfaction of the Engineer. No cleaning shall take place where sediment from construction activities might enter the structure during the cleaning process.

The Contractor shall make every effort to prevent debris from falling into catch basins. Should debris fall inside a structure, it shall be removed immediately.

#### **15. ADJUSTING UTILITY STRUCTURES**

The Contractor shall adjust all utilities on the roadway. Drums and cones shall not be used in lieu of adjusting utility manholes and gates.

#### **16. PROTECTION OF EXISTING DELINEATORS**

The Contractor shall cover and protect all existing delineators attached on the concrete median barrier during cleaning and painting of concrete median barrier and uncover it when the work is completed. Any damage to existing delineators shall be replaced in kind with no additional cost to the state. The cost associated with the covering, protecting and uncovering (after the completion on work) of these delineators shall be incidental to the cost of the item Concrete Surface Treatment (Protective Coating).

#### **17. SIGNS**

The location of all new or relocated signs shall be installed within ten (10) feet of the existing sign location unless otherwise noted on the plans or as directed by the Engineer. The contractor shall mark the location of the proposed sign in the field for approval by the Engineer prior to installation. The Contractor shall refer to the Signing and Striping Plan.

The Contractor shall furnish and install new posts and hardware for all signs that are to be removed and relocated/reset. The cost for removal and disposal of the existing post(s) and hardware, furnishing and installing new post(s) and hardware, and installing the existing sign panel on the new post(s) will be considered incidental to the item bid price for removing and resetting signs.

The Contractor shall not remove/relocate existing signage until the new sign/post(s) are furnished and ready to be installed. The work to remove and replace the bridge mounted signs shall be completed in the same working day or night.

The Contractor shall temporarily remove existing guardrail as required to facilitate the installation of overhead sign structures. The Contractor shall provide temporary concrete median barriers where guardrail is removed. The face of the concrete median barrier shall be placed in line with the face of the existing guardrail. The leading end of temporary barriers shall be tapered behind the existing guardrail such that no blunt end of concrete median barrier

is exposed to oncoming traffic. The Contractor shall remove the concrete median barrier and reset existing guardrails at the completion of the overhead sign structure installation

The contractor shall be responsible for notifying the Engineer at least one week in advance of the erection of the overhead sign structures. The contractor shall be permitted to close Route 138 for a duration not to exceed fifteen (15) minutes to allow for the erection of the portions of the sign structures which are directly over Route 138.

**18. SPECIAL REQUIREMENTS FOR MICRO MILLING AND PAVING OPERATIONS**

The Contractor shall pave to the cut and match lines on side ramps simultaneously with the main line paving. Paving work required to be performed by hand methods shall be paid under Item Code 401.9901 Bituminous Asphalt for Miscellaneous Work.

No drainage structure or paved waterway shall be blocked by the new pavement overlay. The new pavement shall be graded towards the inlet opening and towards paved waterways or catch basins adjacent to the shoulder. This task shall be considered incidental to the pavement laying operation and there shall be no separate payment for this work.

The Contractor shall be required to use a material transfer vehicle (MTV) for installation of the friction course in accordance with Section 401.03.2(a).

The Contractor shall submit a paving schedule to the Engineer seven (7) days prior to the proposed paving start date.

The existing pavement surface will be micro milled with equipment designed specifically for grinding asphalt surfaces to close tolerances without tearing and gouging the surface.

All micro milled areas are to be paved within 12 calendar days.

A 30 foot skid is required for micro milling operations.

The Contractor shall remove the existing pavement to a depth of 1.50 inches plus 0.5 inch, minus 0 inch and place the final 1.50 inches of dense friction course over the milled surface.

Longitudinal drop-offs for friction course will be permitted.

The Contractor shall apply the asphalt emulsion tack coat to the existing pavement. No tack coat shall be left exposed to traffic. Therefore, the Contractor shall apply the tack coat only to the area which he expects to complete the final riding surface course by the end of the day's operations.

The paving of ramps must be completed prior to the main line paving so as to not track tack coat on the new main line pavement.

**19. RIDEABILITY**

Pavement smoothness will be determined by the Engineer for all lanes. Price adjustments will be made to the unit price of the HMA based on the results of the tests.

**20. SAFETY EDGES**

At locations where shoulders are less than 10 feet wide, safety edges shall be installed where indicated on the plans and/or as directed by the engineer.

**21. SURVEY**

The contractor is responsible for providing all the survey required to complete work in this contract. The contractor shall be responsible for providing all the survey required for layout and overhead clearances for sign structures and foundations. This work shall be performed in accordance with Section 934 of the latest Compilation of Approved Specifications. The survey shall be done by a Professional Land Surveyor registered in the State of Rhode Island and the cost shall be considered incidental to the work under this project.

**22. PLACEMENT OF TEMPORARY PAVEMENT MARKINGS**

“Temporary Waterborne Pavement Marking Paint - 16 mils” shall be placed in accordance with Section T20.03.4 of the Standard Specifications on all milled surface of roadways that will be open to traffic at the completion of each day’s milling operation.

“Temporary Waterborne Pavement Marking Paint - 8 mils” shall be placed in accordance with Section T20.03.4 of the Standard Specifications on the final riding surface of roadways that will be open to traffic at the completion of each day’s paving operation.

“Temporary Epoxy Resin Pavement Markings” shall be placed in accordance with Section T20.03.4 of the Standard Specifications. Prior to Winter Shutdown, “Temporary Epoxy Resin Pavement Markings” shall be placed on final riding surface of roadways that will be open to traffic at the completion of the construction season and shall remain in place during the entire winter season. “Temporary Epoxy Resin Pavement Markings” shall be placed no sooner than 2 weeks but no later than 4 weeks from the completion of the paving operation.

**23. SHOP DRAWINGS**

Shop drawing submittals by the Contractor shall be distributed as follows:

- One copy to the Green International Affiliates, Inc. (239 Littleton Road, Suite 3, Westford, MA 01886 Phone: 978-923-0400 Attn: Erik Atkins, P.E.)
- Seven copies to the Resident Engineer

**24. TRANSPORTATION MANAGEMENT PLAN**

Included as an Appendix to these Contract Specific General Provisions is the Transportation Management Plan (TMP) for this project. The TMP lays out the set of coordinated transportation management strategies that will be used to manage the work zone safety and mobility impacts of this project. In the event of a discrepancy between information in the TMP and information elsewhere in the Contract Documents, the former shall govern.

The Contractor’s attention is called to **SECTION 12.103 – AWARD AND EXECUTION OF THE CONTRACT**, which describes the requirements for the Contractor’s designation of a TMP Implementation Manager for the Contract.

The Contractor’s attention is called to **SECTION 12.105 – CONTROL OF WORK**, which describes the requirements for the training of all Contractor and Subcontractor personnel involved in the work zone design, implementation, operation, inspection, management, and/or enforcement.

L02.1000	Seeding	JS-37
T17.9901	Overhead Sign Panels – Bridge Mounted	JS-38
T20.9901	6 Inch Temporary Epoxy Resin Pavement Markings White	JS-39
T20.9902	12 Inch Temporary Epoxy Resin Pavement Markings White	JS-39
T20.9903	6 Inch Temporary Epoxy Resin Pavement Markings Yellow	JS-39
T20.9904	Temporary Epoxy Resin Pavement Marking - Yield Line	JS-39
T20.9913	Temporary Epoxy Resin Pavement Marking – Straight, Left, Right, or Combined Standard 20.1.0	JS-39
T20.9905	6 Inch White Temporary Waterborne Pavement Marking Paint – 8 Mils	JS-42
T20.9906	12 Inch White Temporary Waterborne Pavement Marking Paint – 8 Mils	JS-42
T20.9907	6 Inch Yellow Temporary Waterborne Pavement Marking Paint – 8 Mils	JS-42
T20.9908	White Temporary Waterborne Pavement Marking Yield Line Symbol – 8 Mils	JS-42
T20.9909	6 Inch White Temporary Waterborne Pavement Marking Paint – 16 Mils	JS-42
T20.9910	12 Inch White Temporary Waterborne Pavement Marking Paint – 16 Mils	JS-42
T20.9911	6 Inch Yellow Temporary Waterborne Pavement Marking Paint – 16 Mils	JS-42
T20.9912	White Temporary Waterborne Pavement Marking Yield Line Symbol – 16 Mils	JS-42
T20.9914	White Temporary Waterborne Pavement Marking Straight, Left, Right, or Combined Standard 20.1.0 – 8 Mils	JS-42
T20.9915	White Temporary Waterborne Pavement Marking Straight, Left, Right, or Combined Standard 20.1.0 – 16 Mils	JS-42
820.9901	Concrete Median Barrier Surface Treatment (Protective Coating)	JS-44

**JOB SPECIFIC  
R.I. CONTRACT NO. 2011-CH-108**

**CODE 12.108.1000  
PROSECUTION AND PROGRESS**

In accordance with Section 12.108.08, Failure to Complete on Time, Para. a., Phased Completion, Interim Completion and Substantial Completion the following defines the Interim and Substantial Completion Dates and Associated Liquidated Damages:

**1. Phase 1 Completion: October 19, 2012**

Any and all work shall be completed except for installation of overhead sign structures and panels, installation of ground mounted primary directional sign panels and supports, landscaping and loaming and seeding.

Liquidated Damages: \$1,500.00 per calendar day.

**Substantial Completion: May 17, 2013**

Any and all Contract work, including installation of overhead sign structures and panels, installation of ground mounted primary directional sign panels and supports, landscaping and loaming and seeding work shall be completed.

Liquidated Damages: \$900.00 per calendar day.

Date: 02/03/12

Page: 1 of 4

**JOB SPECIFIC  
R.I. CONTRACT NO. 2011-CH-108  
CODE 402.0871  
DENSE FRICTION COURSE WITH MATERIAL TRANSFER VEHICLE**

**402.01 DESCRIPTION.** This work shall consist of placing a friction course on prepared, sound, dense surfaces of bituminous concrete at the locations and to the thicknesses indicated on the Plans or as directed by the Engineer, all in accordance with these Specifications.

This material shall conform to the requirements of the RI Standard Specifications for Road and Bridge Construction with the following exceptions and modifications.

**402.02 MATERIALS:** The binder shall meet the requirements of PG 64-28, Grade V as specified in AASHTO M 320 and MP 19. It shall have a minimum elastic recovery of 60% at 100C when tested in accordance with AASHTO T 301. A PG64-28 shall be used during the mix design process. An antistrip additive will not be required. The mixing temperature at the plant shall be as recommended by the supplier of the binder.

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

Gradation and Asphalt Content Master Range

Sieve Size	Percent Passing
3/4"	100
1/2"	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

Date: 02/03/12

Page: 2 of 4

The following tolerances and pay adjustments will apply to the HMA during production:

Deviation from OAC ( $\pm$ %)	Pay Adjustment per Sublot
Less than or equal to 0.2	1.04
Greater than 0.2 but less than or equal to 0.3	1.02
Greater than 0.3 but less than or equal to 0.4	1.00
Greater than 0.4 but less than or equal to 0.5	0.90
Greater than 0.5 but less than or equal to 0.6	0.80
Greater than 0.6 but less than or equal to 0.7	0.60
Greater than 0.7 but less than or equal to 0.8	0.30
Greater than 0.8 but less than or equal to 0.9	0.00
Greater than 0.9	Remove and replace the sublot

A standard sublot of HMA sampled at the plant will be 500 tons. In the event HMA production ceases before a standard sublot is completed the remaining HMA will be added to the previous sublot if it is less than 250 tons or will be considered a full sublot if it is greater than or equal to 250 tons. A lot will be all of the ½" Dense Friction Course placed on the project.

If a sublot must be removed and replaced, no pay will be given for the original HMA or the removal of the sublot. The replacement HMA will be paid for in accordance with the pay adjustment table with the exception that no bonus will be given.

**Gradation Tolerances:**

Sieves 3/8" and larger	+6%
Sieves less than 3/8" and greater than #30	+5%
Sieves less than or equal to #30 and greater than #200	+4%
#200 Sieve	+1.5%

**Weather Limitations:** Friction course shall not be placed on a wet or damp surface or when the temperature of the air or the surface to be paved, in the shade, is less than 55° F, measured prior to placement. Paving will be allowed at temperatures as low as 45°F with the addition of an approved warm mix additive. No additional payment will be made for the warm mix additive.

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

**402.03 CONSTRUCTION METHODS.**

**402.03.1 General Requirements.** The mixing, placing and finishing of bituminous friction course shall conform to the applicable requirements of Subsection 401.03 of the Specifications, together with the following exceptions and additional conditions:

- a. The mixing temperature of the friction course shall be as specified by the supplier of the modified binder.
- b. The plant shall operate solely for the production of this mixture and exclusively for the State of Rhode Island.
- c. The mixture shall be compacted with adequately ballasted static steel wheel rollers. Adequately ballasted vibratory rollers may be allowed provided crushing of the aggregate does not occur as determined by the Engineer.
- d. The mixture shall be placed as soon as possible after completion of mixing at the plant. It shall be placed within 60 minutes from its time of arrival at the job site, subject to the specified placement temperature range.

**402.03.2 Production and Placement.** When placed on a new or reconstructed surface, the thickness shall be as shown on the Plans with a tolerance of  $\pm 1/4$ -inch. When used to overlay an existing roadway, the thickness shall be minimum of 1-inch and a maximum of 1-3/4-inches to accommodate for rut depths of up to 3/4-inch on the existing pavement.

Spreading of the mixture shall be performed carefully and the operation shall be as continuous as possible. Particular attention shall be given to the joints and all irregularities shall be removed before compacting.

Each lane may be paved so that a 1-1/2" longitudinal drop-off remains until the next paving session. No more than four miles shall be completed before the adjacent lane is paved. Longitudinal drop-offs 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 reading "Uneven Pavement Ahead" and "Stay in Lane" shall be placed on both sides of the road at 500 and 1000 feet before all longitudinal drop-offs and at intervals of 2500 feet while a drop-off is present. A flashing message board shall be placed 1500 feet before all longitudinal drop-offs warning motorists of the uneven pavement.

Excess concentrations of liquid asphalt that can be seen by the Engineer during paving operations shall be removed immediately as directed by the Engineer. The wasted quantity, as determined by the Engineer, will be subtracted from the quantity shipped that day.

Date: 02/03/12

Page: 4 of 4

**402.04 METHOD OF MEASUREMENT.**

**402.04.1 Dense Friction Course with Material Transfer Vehicle.** "Dense Friction Course with Material Transfer Vehicle" will be measured by the number of tons actually placed in accordance with the Plans and/or as directed by the Engineer.

**402.04.2 Five-Percent Tolerance Limitation.** Pavement thickness will be considered acceptable when placed within the tolerances specified. The total tonnage delivered and placed shall not exceed the tonnage calculated from the approved areas measured from the final surface course width, by the project length, and the pavement thickness in the Contract, by more than 5-percent.

A thicker pavement may be acceptable; however, no payment will be made for all quantities of asphalt concrete delivered which exceed 105-percent of the final measured length, multiplied by the measured width, multiplied by the specified thickness, multiplied by the unit weight derived from the density cores, even when the pavement thickness is within tolerances.

**402.05 BASIS OF PAYMENT.** The accepted quantity of "Dense Friction Course with Material Transfer Vehicle" will be paid for at the respective contract unit price per ton as listed in the Proposal. The prices so-stated constitute full and complete compensation for all labor, materials and equipment and all other incidentals required to finish the work, complete and accepted by the Engineer.

**DELETED PAGE**

Date: 02/03/12

Page: 1 of 3

**JOB SPECIFIC  
R.I. CONTRACT NO. 2011-CH-108**

**CODE 413  
RIDEABILITY**

**413.01 Description.** This specification covers pavement rideability as determined by the Engineer and unit price adjustments in accordance with the rating scale based on final rideability determination.

**413.02 Surface Tolerances.** Pavement rideability will be determined by the engineer using a profiler on all lanes. The profiler will meet all requirements of ASTM E 950 for a Class 1 profiler. ASTM E950 may be purchased by the contractor at <http://www.astm.org/Standards/E950.htm>. A 10-foot straightedge will be used to test intersections, transition lanes and pavement within 20 feet of bridge approach slabs.

The friction course ride quality acceptance will be based on the average International Roughness Index (IRI) for each 0.1-mile section tested in accordance with ASTM E950, conducted by the Engineer and reported for each travel lane.

**413.03 Acceptance.** An IRI number in inches per mile will be established using software supplied by the profiler manufacturer for each 0.1-mile long section for each wheel path in each travel lane. Each travel lane will be considered a subplot. A lot will be the total roadway segment. The sections before and after a bridge, and the section at the end of the paving limit will be added to the previous subplot if they are less than 0.05 miles or will be considered a full subplot if they are greater than or equal to 0.05 miles.

Areas excluded from testing by the profiler may, at the Engineer's discretion, be tested using a 10-foot maximum straightedge. The variation of the surface between any two contacts along the straightedge shall not be more than 1/8 inch. Humps and depressions exceeding the specified tolerances shall be subject to correction as directed by the Engineer, at no additional cost to the State.

Table 1 provides the contract unit price adjustment and corrective action criteria based upon the IRI established for each subplot. The IRI for each subplot will be determined by taking the average of the two IRI's (one in each wheel path) if each IRI is 70 or less, or by using the greater of the two numbers if either is greater than 70.

Date: 02/03/12

Page: 2 of 3

<b>Table 1</b>	
<b>IRI</b>	<b>Contract Unit Price Adjustment</b>
<b>(Inches Per Mile)</b>	<b>(Percent Pavement Unit Price)</b>
45.0 and Under	105 not to exceed \$275.00 per sublot
45.1 - 55.0	103 not to exceed \$165.00 per sublot
55.1 - 70.0	100
70.1 - 80.0	90
80.1 - 90.0	80
90.1 - 100.0	70
100.1 - 120.0	50
Over 120.0	Corrective Action Required

The incentive (contract unit price adjustment) will be based on the following:

- 1) The average IRI of the lot must be less than or equal to 70, and
- 2) The price adjustments will be applied to the unit price of the HMA for the theoretical tonnage for each sublot. The theoretical tonnage is obtained by taking the measured length, multiplied by the measured width, multiplied by the measured thickness, multiplied by the unit weight derived from the average of the theoretical maximum densities obtained at the plant. The price adjustments will not exceed the dollar amounts listed on Table 1.
- 3) The total contract unit price adjustment will be paid from item 413.9901 "Rideability Price Adjustment" at the amount determined per each dollar owed the Contractor as calculated herein.

When corrections to the pavement surface are required, the Engineer will approve the Contractor's method of correction. In order to produce a uniform cross section, the Engineer may require corrections to the adjoining lanes and shoulders. Corrections to the pavement surface and adjoining traffic lanes and shoulders shall be at no cost to the State. The method of correction shall be limited to removing and replacing and/or AC overlay.

Where corrections are made after the official Department test, the pavement will be retested by the Engineer to verify that corrections have produced the acceptable ride surface. No incentives will be provided for sections on which corrective actions are performed. In the event the corrective action(s) do not result in an IRI of less than 100 in each wheel path, the Contractor will be assessed an adjustment based on Table 2.

Date: 02/03/12

Page: 3 of 3

IRI After Completion (Inches Per Mile)	Contract Unit Price Adjustment (Percent Pavement Unit Price)
100.1 – 120.0	60
120.1 - 140.0	40
140.1 - 160.0	20
Over 160.0	0

Pay adjustments will be applied to the theoretical tonnage of the bituminous material for the subplot affected, as described above.

This rideability specification does not relieve the Contractor from responsibility concerning workmanship in accordance with the requirements of the Specifications, and other contract requirements.

Date: 02/03/12  
Page: 1 of 1

**JOB SPECIFIC  
R.I. CONTRACT NO. 2011-CH-108**

**CODE 935.9901  
MICRO MILLING**

This Job specific shall conform to section 935.99 Removing Bituminous Pavement by Micro-Milling of the STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION INCLUDING ALL REVISIONS with the following modification.

**935.01 Description:** This work consists of the removal of bituminous Material using micro-milling to a depth specified on the Plans plus up to an additional 1/2 inch, as directed by the Engineer, all in accordance with these Specifications.

**935.04 Method of Measurement:** "Micro-Milling" will be measured by the number of square yards of said pavement actually removed to the depth required to remove the entire depth of existing top course plus up to an additional 1/2 inch, minus 0 inch, regardless of how many passes are made in accordance with the plan and/or as directed by the Engineer.

**935.05 Basis of Payment:** The accepted quantity of "Micro-Milling" will be paid for at the contract unit price per square yard as listed in the Proposal. The Price so-stated constitutes full and complete compensation for all labor, materials, equipment, and all other incidentals required to micro mill the entire depth of existing top course plus an additional 1/2 inch, minus 0 inch and/or as directed by the Engineer, complete and accepted by the Engineer regardless of the number of passes required to do so.

**Date: 02/03/12**  
**Page 1 of 1**

**JOB SPECIFIC**  
**R.I. CONTRACT NO. 2011-CH-108**

**CODE 820.9901**  
**CONCRETE MEDIAN BARRIER SURFACE TREATMENT (PROTECTIVE COATING)**

**DESCRIPTION:** This work shall consist of providing a uniform coating to the concrete median barrier surface indicated on the plans or as directed by the Engineer and shall conform to Section 820 of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition, and all revisions and following.

The Contractor shall cover and protect all existing delineators attached on the concrete median barrier during cleaning and painting of concrete median barrier and uncover it when the work is completed. Any damage to existing delineators shall be replaced in kind with no additional cost to the state. The cost associated with the covering, protecting and uncovering (after the completion on work) of these delineators shall be incidental to the cost of this item.

## Table of Contents - Distribution of Quantities

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

ItemCode	Description	Page
201.0402	REMOVE AND DISPOSE CONCRETE CURB	1
201.0407	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE	1
201.0409	REMOVE AND DISPOSE FLEXIBLE PAVEMENT	1
201.0415	REMOVE AND DISPOSE GUARDRAIL AND POST ALL TYPES	1
201.0428	REMOVE AND DISPOSE FRAME AND GRATE OR FRAME AND COVER	2
201.0431	REMOVE AND DISPOSE CONCRETE MEDIAN MARKER	4
201.0601	REMOVE AND DISPOSE GROUND MOUNTED SIGNS	4
201.0604	REMOVE AND DISPOSE GROUND MOUNTED SIGN POSTS	5
201.0605	REMOVE AND DISPOSE GROUND MOUNTED SIGN BASES	5
201.0610	REMOVE AND DISPOSE DIRECTIONAL, WARNING, REGULATORY, SERVICE, AND STREET SIGNS	6
201.0623	REMOVE AND DISPOSE OVERHEAD SIGN STRUCTURE	8
201.9901	CLEAN PAVED WATERWAYS	8
201.9902	REMOVE AND STOCKPILE FLEXIBLE DELINEATORS	11
201.9903	LOCATE AND ADJUST CATCH BASINS	12
202.0100	EARTH EXCAVATION	12
202.0800	GRAVEL BORROW	13
204.0100	TRIMMING AND FINE GRADING	14
206.9901	COMPOST FILTER SOCK	17
209.0110	BALED HAY CATCH BASIN INLET PROTECTION STANDARD 9.8.0	20
209.9901	FILTER BAG FOR CATCH BASIN	20
212.2000	CLEANING AND MAINTENANCE OF EROSION CONTROLS	24
302.0100	GRAVEL BORROW SUBBASE COURSE	24
401.0100	BITUMINOUS BASE COURSE	24
401.9901	BITUMINOUS ASPHALT FOR MISCELLANEOUS WORK	24
<b>402.0871</b>	<b>DENSE FRICTION COURSE WITH MATERIAL TRANSFER VEHICLE</b>	<b>26</b>
403.0300	ASPHALT EMULSION TACK COAT	27
601.0200	CLASS XX PORTLAND CEMENT CONCRETE	28
702.0513	FRAME AND GRATE STANDARD 6.3.1	28
702.0522	FRAME AND COVER STANDARD 6.2.1	30
702.0840	ALTERNATE TOP COVER ROUND PRECAST MANHOLES AND CATCH BASINS STANDARD 4.7.2	30
704.0100	RECONSTRUCT CATCH BASIN/CORBEL CONES	32
704.0300	RECONSTRUCT CATCH BASIN/VERTICAL WALLS	34
707.1900	ADJUST FRAME & COVER TO GRADE	34
707.2000	ADJUST FRAME AND GRATE TO GRADE	34
708.9040	CLEANING AND FLUSHING PIPE ALL SIZES	36
708.9041	CLEANING CATCH BASINS ALL TYPES AND SIZES	41
708.9042	CLEANING MANHOLES ALL TYPES AND SIZES	43
<b>820.0110</b>	<b>** ITEM DELETED **</b>	<b>43</b>
820.0200	HIGH PRESSURE WATER CLEANING OF CONCRETE SURFACES	44
821.1690	SAW & SEALING JOINTS IN BITUMINOUS CONCRETE PAVEMENT	44
901.0101	GUARDRAIL STEEL BEAM SINGLE FACE EARTH AND ASPHALT	44
901.0111	GUARDRAIL STEEL BEAM DOUBLE FACE EARTH AND ASPHALT	44
901.0151	TERMINAL END SECTION SINGLE FACE STANDARD 34.3.2	45
<b>901.0901</b>	<b>REMOVE AND RESET GUARDRAIL ALL TYPES</b>	<b>45</b>
901.9901	GUARDRAIL END TREATMENT - NON-ENERGY ABSORBING TERMINAL	45
901.9902	GUARDRAIL END TREATMENT - ENERGY ABSORBING TERMINAL	45
901.9903	TENSIONED CABLE GUARDRAIL	46
901.9904	TENSIONED CABLE GUARDRAIL TERMINAL	46
901.9905	STEEL THRIE BEAM GUARDRAIL SINGLE FACE RI STD 34.5.3	46
901.9906	STEEL THRIE BEAM GUARDRAIL DOUBLE FACE RI STD 34.5.4	46
906.0230	CEMENT CONCRETE SLOPE FACE CURB PRECAST STRAIGHT STANDARD 7.2.0	46
906.9901	SAFETY EDGE	47
907.0100	WATER FOR DUST CONTROL	47

## Table of Contents - Distribution of Quantities

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

ItemCode	Description	Page
910.9901	CUTTING BITUMINOUS RUMBLE STRIPS	47
914.5010	FLAGPERSONS	48
914.5020	FLAGPERSONS - OVERTIME	48
916.0650	REMOVE, RELOCATE AND RESET SHOCK ABSORBING BARRIER MODULES	48
919.0101	TEST PITS	48
920.0050	PLACED STONE RIPRAP R-1, R-2 STANDARD 8.3.0	49
920.0135	BEDDING FOR RIPRAP FS-2 STANDARD 8.3.0	49
922.0100	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1	49
923.0105	DRUM BARRICADE STANDARD 26.2.0	50
923.0200	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0	50
924.0113	ADVANCE WARNING ARROW PANEL	50
925.0112	PORTABLE CHANGEABLE MESSAGE SIGN	50
928.0800	TRUCK MOUNTED ATTENUATOR WITH TRUCK MOUNTED FLASHING ARROW BOARD	50
929.0100	FIELD OFFICES 240 SQUARE FOOT MINIMUM	50
931.0110	CLEANING AND SWEEPING PAVEMENT	51
932.0100	CUTTING AND MATCHING ASPHALT	51
932.0200	FULL-DEPTH SAWCUT OF BITUMINOUS PAVEMENT	52
932.0210	FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT AND RIGID BASE	54
935.9901	MICRO MILLING	54
936.0110	MOBILIZATION	55
937.0200	MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION	55
943.0100	TRAINEE MAN-HOURS	55
L01.0104	PLANTABLE SOIL 4 INCHES DEEP	56
L02.0101	GENERAL HIGHWAY SEEDING (TYPE 1)	56
T05.0200	PRECAST TYPE H HEAVY DUTY HANDHOLE STANDARD 18.2.1	57
T05.1030	ADJUST HANDHOLE TO GRADE	58
T15.0100	DIRECTIONAL REGULATORY AND WARNING SIGNS	59
T15.0110	GUIDE SIGNS STANDARD 29.2.0	61
T15.0200	REMOVE AND RELOCATE DIRECTIONAL REGULATORY AND WARNING SIGN	63
T16.0100	GROUND MOUNTED PRIMARY DIRECTIONAL SIGN PANELS EXTRUDED ALUMINUM	63
T16.0300	GROUND MOUNTED PRIMARY DIRECTIONAL SIGN POST-STEEL BREAKAWAY	64
<b>T17.0100</b>	<b>OVERHEAD SIGN PANELS</b>	<b>64</b>
T17.0202	OVERHEAD SIGN STRUCTURE 21-25 FOOT CANTILEVER- STEEL	64
T17.0205	OVERHEAD SIGN STRUCTURE 36-40 FOOT CANTILEVER - STEEL	65
T17.0215	OVERHEAD SIGN STRUCTURE 86-90 FOOT SPAN - STEEL	65
<b>T17.9901</b>	<b>OVERHEAD SIGN PANELS - BRIDGE MOUNTED</b>	<b>65</b>
T18.0100	FLEXIBLE DELINEATOR POST	65
T20.1000	REMOVE EXISTING PAVEMENT MARKINGS	66
T20.9901	6 INCH TEMPORARY EPOXY RESIN PAVEMENT MARKINGS WHITE	66
T20.9902	12 INCH TEMPORARY EPOXY RESIN PAVEMENT MARKINGS WHITE	67
T20.9903	6 INCH TEMPORARY EPOXY RESIN PAVEMENT MARKINGS YELLOW	67
T20.9904	TEMPORARY EPOXY RESIN PAVEMENT MARKING - YIELD LINE	68
T20.9905	6 INCH WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 8 MILS	68
T20.9906	12 INCH WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 8 MILS	69
T20.9907	6 INCH YELLOW TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 8 MILS	69
T20.9908	WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT YIELD LINE SYMBOL - 8 MILS	70
T20.9909	6 INCH WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 16 MILS	70

**Table of Contents - Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

<b>ItemCode</b>	<b>Description</b>	<b>Page</b>
T20.9910	12 INCH WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 16 MILS	71
T20.9911	6 INCH YELLOW TEMPORARY WATERBORNE PAVEMENT MARKING PAINT - 16 MILS	71
T20.9912	WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT YIELD LINE SYMBOL - 16 MILS	72
T20.9913	TEMPORARY EPOXY RESIN PAVEMENT MARKING - STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0	72
T20.9914	WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0 - 8 MILS	72
T20.9915	WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0 - 16 MILS	73
205.0250	TRENCH ROCK EXCAVATION (7-12')	73
820.9901	CONCRETE MEDIAN BARRIER SURFACE TREATMENT (PROTECTIVE COATING)	73
926.0130	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL STANDARD 40.5.0	74

**Distribution of Quantities**

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
024	401.9901 Cont.	STA. 733+03 RT (CBRHA)		1.04	0005	01
		WB STA. 605+15 RT (CBRHA)		1.04	0005	01
		WB STA. 612+38 RT (CBRHA)		1.04	0005	01
		WB STA. 616+58 RT (CBRHA)		1.04	0005	01
		WB STA. 628+86 LT (CBRHA)		1.04	0005	01
		WB STA. 631+06 LT (CBRHA)		1.04	0005	01
		WB STA. 633+34 LT (CBRHA)		1.04	0005	01
		WB STA. 635+71 LT (CBRHA)		1.04	0005	01
		ROUTE 138 (CBRHC)				
		STA. 728+53 RT (CBRHC)		1.04	0005	01
<b>Item 401.9901 Total:</b>				<b>75.00</b>		
025	402.0871	DENSE FRICTION COURSE WITH MATERIAL TRANSFER VEHICLE RAMPS (MMPOR)	TON			
		BN-E STA. 200+00 - 212+30 RT (MMPOR)		328.87	0005	01
		BN-W STA. 10+00 - 25+79 RT (MMPOR)		403.38	0005	01
		E-BN STA. 100+00 - 114+42 LT (MMPOR)		360.18	0005	01
		W-BN STA. 50+00-62+54 LT (MMPOR)		311.17	0005	01
		ROUTE 138				
		ADDITIONAL 1/4" D/YMT REMOVAL SEE MICROMILLING SPECS		3,328.00	0005	01
		ROUNDUP		3.14	0005	01
		ROUTE 138 (MMPOB)				
		STA. 672+96 LT/RT - 674+12 LT/RT (MMPOB)		102.11	0005	01
		ROUTE 138 (MMPVO)				
		STA. 594+37 WB - 673+33 LT (MMPVO)		3,539.76	0005	01

**Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
025	402.0871 Cont.	STA. 594+53 EB - 673+07 RT (MMPVO)		3,489.42	0005	01
		STA. 673+73 - 736+81 RT (MMPVO)		2,851.85	0005	01
		STA. 674+02 - 736+60 LT (MMPVO)		2,798.46	0005	01
		STA. 737+43 - 741+40 RT (MMPVO)		160.05	0005	01
		STA.737+21 - 741+40 LT (MMPVO)		167.57	0005	01
		ROUTE 138 (SEdge)				
		EB STA. 596+32 - 619+54 LT (SEdge)		20.54	0005	01
		STA.716+71 - 725+62 LT (SEdge)		7.96	0005	01
		WB STA. 604+01 - 609+65 LT (SEdge)		5.00	0005	01
		WB STA. 606+90 - 618+87 RT (SEdge)		10.54	0005	01
<b>Item 402.0871 Total:</b>				<b>14,560.00</b>		
026	403.0300	ASPHALT EMULSION TACK COAT RAMPS (MMPOR)	SY			
		BN-E STA. 200+00 - 212+30 RT (MMPOR)		3,456.00	0005	01
		BN-W STA. 10+00 - 25+79 RT (MMPOR)		4,239.00	0005	01
		E-BN STA. 100+00 - 114+42 LT (MMPOR)		3,785.00	0005	01
		W-BN STA. 50+00-62+54 LT (MMPOR)		3,270.00	0005	01
		ROUTE 138 (MMPOB)				
		STA. 672+96 LT/RT - 674+12		1,073.00	0005	01

**Distribution of Quantities**

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
036	708.9041 Cont.	WB STA. 598+16 LT		1.00	0005	01
		WB STA. 600+59 LT		1.00	0005	01
		WB STA. 603+15 LT		1.00	0005	01
		WB STA. 612+40 LT		1.00	0005	01
<b>Item 708.9041 Total:</b>				<b>62.00</b>		
037	708.9042	CLEANING MANHOLES ALL TYPES AND SIZES	EACH			
		RAMPS				
		BN-E STA. 202+54 RT		1.00	0005	01
		BN-E STA. 205+52 RT		1.00	0005	01
		ROUTE 138				
		EB STA. 603+99 RT		1.00	0005	01
		EB STA. 606+00 RT		1.00	0005	01
		EB STA. 607+99 RT		1.00	0005	01
		EB STA. 732+91 RT		1.00	0005	01
		WB STA. 603+13 LT		1.00	0005	01
		WB STA. 604+77 LT		1.00	0005	01
		WB STA. 661+99 LT		1.00	0005	01
		WB STA. 730+25 LT		1.00	0005	01
<b>Item 708.9042 Total:</b>				<b>10.00</b>		
038	820.0110	CONCRETE SURFACE TREATMENT (PROTECTIVE COATING)	SF			
		RAMPS				
		BN-E STA. 200+00 - 210+42 RT		2,391.00	0005	01
		BN-W STA. 18+00 - 22+30 RT		2,712.00	0005	01
		ROUTE 138				
		ROUND OFF		550.00	0005	01
		STA. 735+00 - 732+00 LT		2,120.00	0005	01
		WB STA. 412+00 - 414+00		63,798.00	0005	01
<b>Item 820.0110 Total:</b>				<b>**DELETED**</b>		

**Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
042	901.0111	Cont.				
				<b>Item 901.0111 Total:</b>	<b>150.00</b>	
043	901.0151	TERMINAL END SECTION SINGLE FACE STANDARD 34.3.2 ROUTE 138 WB STA. 629+52	EACH			
				<b>Item 901.0151 Total:</b>	<b>1.00</b>	
044	901.0901	REMOVE AND RESET GUARDRAIL ALL TYPES ROUTE 138 AS REQUIRED FOR OVERHEAD SIGN INSTALLATION AS REQUIRED FOR OVERHEAD SIGN INSTALLATION	LF			
				<b>Item 901.0901 Total:</b>	<b>250.00</b>	
045	901.9901	GUARDRAIL END TREATMENT - NON-ENERGY ABSORBING TERMINAL ROUTE 138 EB STA. 615+39 RT EB STA. 624+99 RT STA. 649+72 RT WB STA. 600+96 LT WB STA. 621+28 LT WB STA. 630+71 LT	EACH			
				<b>Item 901.9901 Total:</b>	<b>6.00</b>	
046	901.9902	GUARDRAIL END TREATMENT - ENERGY ABSORBING TERMINAL ROUTE 138 EB STA. 598+20 LT EB STA. 601+39 LT	EACH			

**Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

<u>Item</u> <u>No.</u>	<u>Item Code</u>	<u>Description</u>	<u>UM</u>	<u>Qty.</u>	<u>Pay</u> <u>Code</u>	<u>Seq.</u> <u>No.</u>
046	901.9902 Cont.	EB STA. 601+46 RT		1.00	0005	01
		STA. 676+83 LT		1.00	0005	01
		STA. 722+93 LT		1.00	0005	01

### Distribution of Quantities

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
084	T16.0300	GROUND MOUNTED PRIMARY DIRECTIONAL	EACH			
		SIGN POST-STEEL BREAKAWAY				
		RAMPS				
		S27-3		2.00	0021	02
		S29-29		2.00	0021	02
		S29-7		2.00	0021	02
		ROUTE 138				
		S10-1		2.00	0021	02
		S14-2		2.00	0021	02
		S16-2		2.00	0021	02
		S2-2		2.00	0021	02
		S23-1		2.00	0021	02
		S23-3		2.00	0021	02
		S8-1		2.00	0021	02
		S9-1		2.00	0021	02
<b>Item T16.0300 Total:</b>				<b>22.00</b>		
085	T17.0100	OVERHEAD SIGN PANELS	SF			
		ROUTE 138				
		S18-1/17'X9.5'		161.50	0021	02
		S22-4/14.5'X12.5'		181.25	0021	02
		S24-1/13.5'X11'		148.50	0021	02
		S25-1/15'X5.5'		82.50	0021	02
		S25-1/15'X5.5'		82.50	0021	02
		S6-1/11.5'X10.5'		120.75	0021	02
		S6-3/11.5'X10.5'		120.75	0021	02
		S6-2/14'X11'		134.00	0021	02
		S6-4/14'X11'		154.00	0021	02
<b>Item T17.0100 Total:</b>				<b>848.50</b>		
086	T17.0202	OVERHEAD SIGN STRUCTURE 21-25 FOOT	EACH			
		CANTILEVER- STEEL				
		ROUTE 138				

**Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

<u>Item No.</u>	<u>Item Code</u>	<u>Description</u>	<u>UM</u>	<u>Qty.</u>	<u>Pay Code</u>	<u>Seq. No.</u>
086	T17.0202 Cont.	S22-4		1.00	0021	02
		S24-1		1.00	0021	02
		S25-1		1.00	0021	02

**Distribution of Quantities**

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
086	T17.0202	Cont.		3.00		
Item T17.0202 Total:				3.00		
087	T17.0205	OVERHEAD SIGN STRUCTURE 36-40 FOOT CANTILEVER - STEEL ROUTE 138	EACH			
		S18-1		1.00	0021	02
Item T17.0205 Total:				1.00		
088	T17.0215	OVERHEAD SIGN STRUCTURE 86-90 FOOT SPAN - STEEL ROUTE 138	EACH			
		S6-3/S6-4		1.00	0021	02
Item T17.0215 Total:				1.00		
089	T17.9901	OVERHEAD SIGN PANELS - BRIDGE MOUNTED ROUTE 138	SF			
		S2-1/11.25'X6'		30.00	0021	02
		S2-1/11.25'X6'		67.50	0021	02
		S21-1/15'X10.5'		157.50	0021	02
Item T17.9901 Total:				225.00		
090	T18.0100	FLEXIBLE DELINEATOR POST ROUTE 138	EACH			
		WB STA. 595+01 LT		1.00	0021	02
		WB STA. 595+21 LT		1.00	0021	02
		WB STA. 595+40 LT		1.00	0021	02
		WB STA. 595+60 LT		1.00	0021	02
		WB STA. 595+80 LT		1.00	0021	02
		WB STA. 596+00 LT		1.00	0021	02
		WB STA. 596+19 LT		1.00	0021	02
		WB STA. 596+39 RT		1.00	0021	02
		WB STA. 596+59 RT		1.00	0021	02

**Distribution of Quantities**

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

<u>Item No.</u>	<u>Item Code</u>	<u>Description</u>	<u>UM</u>	<u>Qty.</u>	<u>Pay Code</u>	<u>Seq. No.</u>
090	T18.0100	Cont. WB STA. 596+79 RT		1.00	0021	02

**Distribution of Quantities**

Project Name - Improvements to Route 138  
 Estimate Name - Addendum 1  
 R.I. Contract No. - 2011-CH-108  
 FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
105	T20.9914 Cont.	20.1.0 - 8 MILS RAMPS				
		E-BN STA. 112+80 LT		1.00	0021	02
		W-BN STA. 60+08 LT		1.00	0021	02
<b>Item T20.9914 Total:</b>				<b>2.00</b>		
106	T20.9915	WHITE TEMPORARY WATERBORNE PAVEMENT MARKING PAINT STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0 - 16 MILS RAMPS	EACH			
		E-BN STA. 112+80 LT		1.00	0021	02
		W-BN STA. 60+08 LT		1.00	0021	02
<b>Item T20.9915 Total:</b>				<b>2.00</b>		
107	205.0250	TRENCH ROCK EXCAVATION (7-12') ROUTE 138 AS NEEDED FOR OTHER POSSIBLE SIGN OVERHEAD SIGN INSTALLATION LOCATION S22-4	CY			
				5.00	0021	02
				5.00	0021	02
<b>Item 205.0250 Total:</b>				<b>10.00</b>		
108	820.9901	CONCRETE MEDIAN BARRIER SURFACE TREATMENT (PROTECTIVE COATING) RAMPS	SF			
		BN-E STA. 206+09 - 210+42 RT		2,881.00	0005	01
		BN-W STA. 18+79 - 23+33 RT		2,712.00	0005	01
		ROUTE 138 ROUND UP		550.00	0005	01
		STA. 725+63 - 732+07 LT		2,129.00	0005	01
		WB STA. 632+23 - 741+40		65,728.00	0005	01
<b>Item 820.9901 Total:</b>				<b>74,000.00</b>		

### Distribution of Quantities

Project Name - Improvements to Route 138

Estimate Name - Addendum 1

R.I. Contract No. - 2011-CH-108

FAP Nos: NHSG-RESF(222), NHS-RESF(221)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
109	926.0130	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL STANDARD 40.5.0 ROUTE 138 AS REQUIRED FOR OVERHEAD SIGN INSTALLATION	LF			
Item 926.0130 Total:				250.00		