STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

September 24, 2014

Addendum No. 1
RE: Contract ID C203394
WBS # 34745.3.S2
State Funded
Durham County (U-0071)
East End Connector From North Of NC-98 To NC-147
(Buck Dean Freeway) In Durham

November 18, 2014 Letting (Advertisement extended from the October 21, 2014 Letting)

To Whom It May Concern:

This project was originally scheduled for an October 21, 2014 bid opening. It was decided to extend the advertisement and open bids on **Tuesday, November 18, 2014.**

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Roadway plans:

Sheet No.	Revisions
Title Sheet	Revised project Letting Date
2-B and 2-E	Revised to add curb and gutter and sidewalk along left side of SR1 adjacent to parcel 247
3-D and 3-R	Drainage revisions associated with adding curb and gutter and sidewalk along left side of SR1
6	Revised to add curb and gutter and sidewalk along left side of SR1 adjacent to parcel 247
TMP-4.9	Revised station and quantity for shoring location 1
TMP-4.16	Revised stations and quantity for shoring location 5
TMP-4.35	Added offset and revised quantity for shoring locations 10A, 10B and 10C
TMP-4.36	Added offset for shoring location 6
TMP-5.8	Revised quantity for shoring location 8
TMP-9.14	Revised stations and quantity for shoring location 9
UC-03	Revised Note 2 to more specifically describe where ductile iron

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT UNIT
1591 MAIL SERVICE CENTER
RALEIGH NC 27699-1591

TELEPHONE: 919-707-6900
FAX: 919-250-4119

WEBSITE: www.NCDOT.GOV

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Sheet No.	Revisions
	pipe is required. Added Note 15 specifying the use of a concrete cradle
UC-3E	Added detail for 7' Dia. Precast Concrete Manhole
UC-13	Added 16" Encasement Pipe between SMH G-3 and G-4 and between SMH G-3 and the matchline to Sheet UC-14
UC-14	Added 16" Encasement Pipe from matchline to Sheet UC-13 and SMH G-2
UC-19	Added second 8" gravity sewer line and 16" Encasement Pipe offset 10 Ft. in parallel between SMH L-1 and SMH L-2. Revised SMH L-1 and SMH L-2 from 4' Dia. Manholes to 7' Dia. Manholes
UC-26	Revised the profile to show encasement pipes from UC-13 and UC-14
UC-29	Added Notes 1 and 2. Revised the size of SMH L-1 and SMH L-2 from 4' Diameter to 7' Diameter

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the Roadway Cross Section plans:

Sheet No.	Revisions
X-91, X-92 and X-282 thru X-284	Revisions associated with adding curb and gutter and sidewalk along left side of SR1 adjacent to parcel 247

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the Structure plans:

Sheet No.	Revisions
Title Sheet	Revised project Letting Date
S-203	Corrected some dimensions in Table A-B
S-541	Removed column for "Grooving Bridge Floors" and revised the last note on the sheet
S-547	Original sheet PE seal was not signed and dated. No other changes were made to this sheet except the PE seal signed and dated
S-577	Removed column for "Grooving Bridge Floors" and revised the last note on the sheet

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	The bid opening date has been revised from October 21, 2014 to **November 18, 2014**
Table of Contents	The second page of the Table of Contents has been revised to include the below mentioned provision being added on New Pg. 48A

Page No.	Revisions
4	A change was made to the second sentence of the first paragraph of the project special provision entitled "Intermediate Contract Time Number 4 and Liquidated Damages"
15	The project special provision entitled "Delay In Right Of Entry" has been revised. Some parcels have been removed and most of the delay dates have changed. Also the first sentence of the first paragraph of the project special provision entitled Railroad Coordination has been revised
17	Revised Line #'s within the project special provision entitled "Major Contract Items" due to adding two new utility items
18	Revised Line #'s within the project special provision entitled "Specialty Items" due to adding two new utility items. Also, updated the base index price for diesel fuel within the project special provision entitled "Fuel Price Adjustment"
48A	Added the project special provision entitled "Subletting Of Contract"
49 and 50	The list of buildings to be removed has been revised within the project special provision entitled "Building Removals"
60 and 62	The revision date of the project special provision entitled "Asphalt Pavements-Superpave" has been changed. Also, "Table 610-5 Placement Temperatures For Asphalt" has been revised within the same project special provision
64	Updated the base price index for asphalt binder within the project special provision entitled "Price Adjustment-Asphalt Binder For Plant Mix"
105 and 105A	The project special provision entitled "Automated Machine Guidance" has been added
210 and 211	The project special provision entitled "Utility Construction" has been revised
245	The first paragraph of the project special provision entitled "Fabric Insert Inlet Protection Device (High Flow)" has been revised
254	The second sentence of the first paragraph under section "2. Insurance Requirements" of the Signals special provisions has been revised
356	Corrected station number in the third sentence of the first paragraph of the project special provision entitled "Construction, Maintenance and Removal Of Temporary Structure At Station 34+62.88-DFEB-
492	Corrected the web address in the project special provision entitled "Managing Bridge Wash Water".
636	Removed the phrase "…or a designated NCDOT representative" in two places in the first paragraph of the project special provision entitled "Railroad Detour Track Roadbed"
639	Removed the phrase "…or a designated NCDOT representative" in two places in the first paragraph of the project special provision entitled "Railroad Detour Track To Be Constructed and Removed"

Please void the above listed pages in your proposal and replace with the attached revised pages.

On the item sheets the following pay item quantities have been revised or added. The line numbers are referenced to the new item sheets:

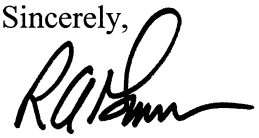
Item	Description	Old Quantity	New Quantity
030-0199000000-E-SP	Temporary Shoring	22,200 SF	20,884 SF
034-0318000000-E-300	Foundation Conditioning Material, Minor Structures	5,470 Ton	5,480 Ton
035-0320000000-E-300	Foundation Conditioning Geotextile	17,210 SY	17,220 SY
040-0343000000-E-310	15" Side Drain Pipe	5,184 LF	5,232 LF
042-0345000000-E-310	24" Side Drain Pipe	1,556 LF	1,568 LF
065-0448400000-E-310	24" RC Pipe Culverts, Class IV	1,280 LF	1,276 LF
097-1275000000-E-600	Prime Coat	5,320 Gal	4,235 Gal
101-1498000000-E-610	Asphalt Concrete Intermediate Course, Type I-19.0B	19,950 Ton	20,730 Ton
134-2286000000-N-840	Masonry Drainage Structure	442 Ea	444 Ea
136-2308000000-E-840	Masonry Drainage Structure	383.2 LF	386.1 LF
145-2374000000-N-840	Frame w/ Grate and Hood, Std. 840.03, Type (F)	30 Ea	31 Ea
147-2396000000-N-840	Frame W/ Cover, Std. 840.54	34 Ea	35 Ea
156-2549000000-E-846	2'-6" Concrete Curb and Gutter	19,180 LF	19,370 LF
159-2591000000-E-848	4" Concrete Sidewalk	7,620 SY	7,720 SY
401-5691300000-E-1520	8" Sanitary Gravity Sewer	6,001 LF	6,501 LF
404-5774000000-E-1525	7' Dia. Utility Manhole	**NEW ITEM**	2 Ea
405-5775000000-E-1525	4' Dia. Utility Manhole	31 Ea	29 Ea
407-5780000000-E-1525	Utility Manhole Wall, 7' Dia.	**NEW ITEM**	12.2 LF
419-5835700000-E-1540	16" Encasement Pipe	666 LF	1,792 LF
539-1121000000-E-520	Aggregate Base Course	205,000 Ton	205,300 Ton

541-1575000000-E-620	Asphalt Binder For Plant Mix	16,225 Ton	16,260 Ton
544-1121000000-E-520	Aggregate Base Course	115,800Ton	116,100 Ton
546-1575000000-E-620	Asphalt Binder For Plant Mix	18,310 Ton	18,350 Ton
614-8147000000-E-420	Reinforced Concrete Deck Slab	219,499 SF	241,974 SF
615-8161000000-E-420	Grooving Bridge Floors	310,120 SF	283,154 SF
679-8867000000-E-SP	4'-0" Dia. LFD Drilled Piers In Soil (**Change to 4'6" Dia. LFD Drilled Piers In Soil**)	103.8 LF	103.8 LF
680-8867000000-E-SP	4'-0" Dia. LFD Drilled Piers Not In Soil (**Change to 4'6" Dia. LFD Drilled Piers Not In Soil**)	208 LF	208 LF

The Contractor's bid must be based on these revised pay item quantities and include the new pay items. The contract will be prepared accordingly.

Please delete the EBS file you previously downloaded for the October 21, 2014 letting and download the new EBS file listed for the November 18, 2014 letting. This new EBS file will contain the above listed pay item changes. Bid Express will not accept your bid unless the new EBS file associated with the November 18, 2014 letting is used.

Sincerely,



R. A. Garris, PE
Contract Officer

RAG/jag
Attachments

cc: Mr. Ron Hancock, PE
Mr. Wally Bowman, PE
Ms. D. M. Barbour, PE
Mr. Rodger Rochelle, PE
Mr. Stewart Bourne, PE
Mr. R.E. Davenport, PE
Mr. G. R. Perfetti, PE
Project File (2)
Mr. Ray Arnold, PE
Ms. Natalie Roskam, PE
Mr. Ronnie Higgins
Mr. Mike Gwyn
Ms. Marsha Sample
Ms. Lori Strickland
Ms. Jaci Kincaid

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

Revised 9-24-14

DATE AND TIME OF BID OPENING: **NOVEMBER 18, 2014 AT 2:00 PM**

CONTRACT ID	C203394
WBS	34745.3.S2

FEDERAL-AID NO.	STATE FUNDED
COUNTY	DURHAM
T.I.P. NO.	U-0071
MILES	4.009
ROUTE NO.	
LOCATION	EAST END CONNECTOR FROM NORTH OF NC-98 TO NC-147 (BUCK DEAN FREEWAY) IN DURHAM.
TYPE OF WORK	GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS $30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A <u>ROADWAY & STRUCTURE</u> PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

6. For **Labor Day**, between the hours of **6:00 AM** Friday and **8:00 PM** Tuesday.

7. For **Thanksgiving Day**, between the hours of **6:00 AM** Tuesday and **8:00 PM** Monday.

8. For **Christmas**, between the hours of **6:00 AM** the Friday before the week of Christmas Day and **8:00 PM** the following Tuesday after the week of Christmas Day.

9. For **Duke University Fall Student Move-in**, between the hours of **6:00 AM** the Friday before the event and **8:00 PM** the Monday after the event.

10. For **Duke University Spring Graduation**, between the hours of **6:00 AM** the Friday before the event and **8:00 PM** the Monday after the event.

11. For **N. C. Central University Spring Graduation**, between the hours of **6:00 AM** the Friday before the event and **8:00 PM** the Monday after the event.

12. For events at the **Durham Bulls Athletic Park and Durham Performing Arts Center**, between the hours of **8:00 PM** the day of the event and **10:30 PM** the day of the event, **(SB NC 147 only)**

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the Engineer.

The time of availability for this intermediate contract time will be the time the Contractor begins to install traffic control devices required for the lane closures according to the time restrictions stated herein.

The completion time for this intermediate contract time will be the time the Contractor is required to complete the removal of traffic control devices required for the lane closures according to the time restrictions stated herein and restore traffic to the existing traffic pattern.

The liquidated damages are **Two Thousand Five Hundred Dollars ($2,500.00)** per **fifteen (15)-minute time period**.

INTERMEDIATE CONTRACT TIME NUMBER 4 AND LIQUIDATED DAMAGES:
(2-20-07) 108 SP1 G14 C

The Contractor shall complete the required work of installing, maintaining and removing the traffic control devices for lane closures and restoring traffic to the existing traffic pattern. **In addition to other day and time restrictions herein, the Contractor shall not close or narrow a lane of traffic on the work areas involved for Intermediate Contract Time Numbers 13, 14, 17 and 18** during the following time restrictions:

DAY AND TIME RESTRICTIONS

From Monday at 5:00 AM until Friday at 9:00 PM

to stabilize the soil) and no erodible areas exist within the project limits, the Contractor will be notified to remove the remaining erosion control devices that are no longer needed. The Contractor will be responsible for, and shall correct any areas disturbed by operations performed in permanent vegetation establishment and the removal of temporary erosion control measures, whether occurring prior to or after placing traffic on the project.

Payment for *Response for Erosion Control*, *Seeding and Mulching*, *Repair Seeding*, *Supplemental Seeding*, *Mowing*, *Fertilizer Topdressing*, *Silt Excavation*, and *Stone for Erosion Control* will be made at contract unit prices for the affected items. Work required that is not represented by contract line items will be paid in accordance with Articles 104-7 or 104-3 of the *2012 Standard Specifications*. No additional compensation will be made for maintenance and removal of temporary erosion control items.

DELAY IN RIGHT OF ENTRY:
(7-1-95) (Rev. 7-15-14) 108 SP1 G22

The Contractor will not be allowed right of entry to the following parcel(s) prior to the listed date(s) unless otherwise permitted by the Engineer.

Parcel No.	Property Owner	Date
037	StoneMor North Carolina, LLC	10/6/14
049	MCC Outdoor advertising DBA Fairway Outdoor Advertising, LLC	10/31/14
061	FMO Real Estate, LLC, A subsidiary of Fairway Outdoor Advertising, LLC	10/24/14
068	Fairway Outdoor Advertising, LLC	10/24/14
128	William E. Andrews	10/27/14
166	Village MP, LLC	10/10/14
198	Interstate Outdoor, Inc.	11/7/14
928	Phillip C. Ransdell, II	10/31/14
290	Mittie Merritt Heirs	10/20/14
293	Chung Fat Investors	10/27/14
417	The City of Durham	10/30/14

RAILROAD COORDINATION:

CSX

CSX Transportation (CSXT) requires a specific advance notice one (1) month before the Contractor anticipates each of Operations A-B below to begin. In addition, anticipated

The pre-bid conference will include a thorough discussion of the plans, contract pay items, special provisions, etc.

Only bidders who have attended and properly registered at the above scheduled pre-bid conference and who have met all other prequalification requirements will be considered prequalified to bid on this project. A bid received from a bidder who has not attended and properly registered at the above scheduled pre-bid conference will not be accepted and considered for award.

Attendance at the pre-bid conference will not meet the requirements of proper registration unless the individual attending has registered at the pre-bid conference in accordance with the following:

(A) The individual has signed his name on the official roster no later than thirty (30) minutes after the above noted time for the beginning of the conference.

(B) The individual has written in the name and address of the company he or she represents.

(C) Only one company has been shown as being represented by the individual attending.

(D) The individual attending is an officer or permanent employee of the company they are representing.

Attendance at any prior pre-bid conference will not meet the requirement of this provision.

MAJOR CONTRACT ITEMS:
(2-19-02) 104 SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the *2012 Standard Specifications*):

Line #	Description
537	Unclassified Excavation
538	Borrow Excavation
614	Reinforced Concrete Deck Slab
	or
542	Unclassified Excavation
543	Borrow Excavation
614	Reinforced Concrete Deck Slab

SPECIALTY ITEMS:
(7-1-95)(Rev. 1-17-12) 108-6 SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the *2012 Standard Specifications*).

Line #	Description
177 thru 199 & 218	Guardrail
200 thru 217 & 644	Fencing
227 thru 288	Signing
313 thru 324 & 326, 328 thru 330, 339 thru 340	Long-Life Pavement Markings
325, 327, 331	Removable Tape
346 thru 347	Permanent Pavement Markers
350 thru 379 & 381 & 656	Lighting
382 thru 428	Utility Construction
429 thru 463, 465 thru 467	Erosion Control
464	Reforestation
468 thru 536	Signals/ITS System
602 thru 610, 675 thru 680, 683 thru 686	Drilled Piers

FUEL PRICE ADJUSTMENT:
(11-15-05) (Rev. 2-18-14) 109-8 SP1 G43

Revise the *2012 Standard Specifications* as follows:

Page 1-83, Article 109-8, Fuel Price Adjustments, add the following:

The base index price for DIESEL #2 FUEL is **$ 2.9552** per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

Description	Units	Fuel Usage Factor Diesel
Unclassified Excavation	Gal/CY	0.29
Borrow Excavation	Gal/CY	0.29
Class IV Subgrade Stabilization	Gal/Ton	0.55

SUBLETTING OF CONTRACT:
(11-18-2014) 108-6 SP1 G186

Revise the *2012 Standard Specifications* as follows:

Page 1-66, Article 108-6 Subletting of Contract, line 37, add the following as the second sentence of the first paragraph:

All requests to sublet work shall be submitted within 30 days of the date of availability or prior to expiration of 20% of the contract time, whichever date is later, unless otherwise approved by the Engineer.

Page 1-67, Article 108-6 Subletting of Contract, line 7, add the following as the second sentence of the fourth paragraph:

Purchasing materials for subcontractors is not included in the percentage of work required to be performed by the Contractor. If the Contractor sublets items of work but elects to purchase material for the subcontractor, the value of the material purchased will be included in the total dollar amount considered to have been sublet.

PROJECT SPECIAL PROVISIONS

ROADWAY

CLEARING AND GRUBBING METHODS:

Perform clearing on this project to the limits established by Method "III" as shown on Standard Drawing No. 200.03 of the *2012 Roadway Standard Drawings.* Fence shall be removed outside the clearing and grubbing limits at locations shown in the plans and as directed by the Engineer. No separate measurement will be made for removal of fence. The cost of this work will be included in the lump sum payment for *Clearing & Grubbing.*

BURNING RESTRICTIONS:

(7-1-95) 200, 210, 215 SP2 R05

Open burning is not permitted on any portion of the right-of-way limits established for this project. Do not burn the clearing, grubbing or demolition debris designated for disposal and generated from the project at locations within the project limits, off the project limits or at any waste or borrow sites in this county. Dispose of the clearing, grubbing and demolition debris by means other than burning, according to state or local rules and regulations.

BUILDING REMOVAL:

(1-1-02) (Rev. 4-16-13) 215 SP2 R15 C

Remove the buildings, underground storage tanks and appurtenances listed below in accordance with Section 215 of the *2012 Standard Specifications*:

Building Removal
Parcel 038 – Survey Station 48+00, Survey Line L to Survey Station 57+00, Survey Line L
1S M BUS – office building

Building Removal
Parcel 038 – Survey Station 48+00, Survey Line L to Survey Station 57+00, Survey Line L
Service Garage Facility

Building Removal
Parcel 038 – Survey Station 48+00, Survey Line L to Survey Station 57+00, Survey Line L
Metal Carport

Building Removal
Parcel 096 – Survey Station 34+60 to Survey Station 35+70, Survey Line DFEB
2S F BUS

Building Removal
Parcel 096 – Survey Station 34+60 to Survey Station 35+70, Survey Line DFEB
Shed

Building Removal
Parcel 128
Canopy

Building Removal
Parcel 290 – Survey Station 11+70, Survey Line Y7 Survey Station 15+00, Survey Line Y7 LT
1S F D

Bridge Approach Fill - Sub Regional Tier, Station ____ will be paid at the contract lump sum price. The contract lump sum price for *Bridge Approach Fill - Sub Regional Tier, Station* ____ will be full compensation for labor, tools, equipment and bridge approach fill materials, excavating, backfilling, hauling and removing excavated materials, compacting No. 78M stone, connecting outlet pipes to existing drainage structures and supplying No. 78M stone, filtration geotextiles, drain pipes, pipe sleeves and outlet components and any incidentals necessary to construct all bridge approach fills at each sub regional tier bridge.

Payment will be made under:

Pay Item	**Pay Unit**
Reinforced Bridge Approach Fill, Station ____	Lump Sum
Bridge Approach Fill - Sub Regional Tier, Station ____	Lump Sum

PREPARATION OF SUBGRADE AND BASE:

(1-16-96) 610 SP5 R05

On mainline portions and ramps of this project, prepare the subgrade and base beneath the pavement structure in accordance with the applicable sections of the *2012 Standard Specifications* except use an automatically controlled fine grading machine using string lines, laser controls or other approved methods to produce final subgrade and base surfaces meeting the lines, grades and cross sections required by the plans or established by the Engineer.

No direct payment will be made for the work required by this provision as it will be considered incidental to other work being paid for by the various items in the contract.

TRAPPED WATER BENEATH EXISTING CONCRETE:

Revise the *2012 Standard Specifications* as follows:

Page 5-2, Article 500-4, MAINTENANCE OF THE SUBGRADE, line 16, insert the following as the first sentence of the first paragraph:

Isolated areas of surface water may be trapped underneath the existing concrete pavement on NC 147 and US 70.

ASPHALT PAVEMENTS - SUPERPAVE:

(6-19-12) (Rev. 10-21-14) 605, 609, 610, 650, 660 SP6 R01

Revise the *2012 Standard Specifications* as follows:

Page 6-3, Article 605-7 APPLICATION RATES AND TEMPERATURES, replace this article, including Table 601-1, with the following:

Apply tack coat uniformly across the existing surface at target application rates shown in Table 605-1.

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), replace Table 610-1 with the following:

TABLE 610-1 DESIGN MIXING TEMPERATURE AT THE ASPHALT PLANT[A]		
Binder Grade	**HMA JMF Temperature**	**WMA JMF Temperature Range**
PG 64-22	300°F	225 - 275°F
PG 70-22	315°F	240 - 290°F
PG 76-22	335°F	260 - 310°F

A. The mix temperature, when checked in the truck at the roadway, shall be within plus 15° and minus 25° of the temperature specified on the JMF.

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), lines 4-6, delete first sentence of the second paragraph. Line 7, in the second sentence of the second paragraph, replace "275°F" with "275°F or greater."

Page 6-22, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, lines 15-17, replace the second sentence of the first paragraph with the following:

Do not place asphalt material when the air or surface temperatures, measured at the location of the paving operation away from artificial heat, do not meet Table 610-5.

Page 6-23, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, replace Table 610-5 with the following:

TABLE 610-5 PLACEMENT TEMPERATURES FOR ASPHALT	
Asphalt Concrete Mix Type	**Minimum Surface and Air Temperature**
B25.0B, C	35°F
I19.0B, C, D	35°F
SF9.5A, S9.5B	40°F[A]
S9.5C, S12.5C	45°F[A]
S9.5D, S12.5D	50°F

A. For the final layer of surface mixes containing recycled asphalt shingles (RAS), the minimum surface and air temperature shall be 50°F.

Page 6-26, Article 610-7 HAULING OF ASPHALT MIXTURE, lines 22-23, in the fourth sentence of the first paragraph replace "so as to overlap the top of the truck bed and" with "to".

ASPHALT PLANT MIXTURES:
(7-1-95) 609 SP6 R20

Place asphalt concrete base course material in trench sections with asphalt pavement spreaders made for the purpose or with other equipment approved by the Engineer.

PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:
(11-21-00) 620 SP6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *2012 Standard Specifications.*

The base price index for asphalt binder for plant mix is **$ 630.00** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **September 1, 2014**.

PEDESTRIAN SAFETY RAIL:

Description

Furnish and install, the Pedestrian Safety Rail at the location shown in the plans in accordance with the detail in the plans and as directed by the Engineer.

Measurement and Payment

Pedestrian Safety Rail will be measured along the top handrail to the nearest 0.1 of a foot. Such price and payment will be full compensation for fabricating, finishing, installing, welding, painting and all incidentals necessary to satisfactorily install the Pedestrian Safety Rail.

Payment will be made under:

Pay Item	**Pay Item**
Pedestrian Safety Rail	Linear Foot

8" CONCRETE TRUCK APRON:

Description

Construct 8" Concrete Truck Apron in accordance with the applicable requirements of Section 848 of the *Standard Specifications* as modified by the typical section in the plans and this provision.

Materials

Concrete shall be Class A Concrete meeting the requirements of Section 1000 of the *Standard Specifications*.

and deflection testing on all gravity sewer lines.

PERMANENT SEEDING AND MULCHING:

(7-1-95) 1660 SP16 R02

The Department desires that permanent seeding and mulching be established on this project as soon as practical after slopes or portions of slopes have been graded. As an incentive to obtain an early stand of vegetation on this project, the Contractor's attention is called to the following:

For all permanent seeding and mulching that is satisfactorily completed in accordance with the requirements of Section 1660 in the *2012 Standard Specifications* and within the following percentages of elapsed contract times, an additional payment will be made to the Contractor as an incentive additive. The incentive additive will be determined by multiplying the number of acres of seeding and mulching satisfactorily completed times the contract unit bid price per acre for Seeding and Mulching times the appropriate percentage additive.

Percentage of Elapsed Contract Time	Percentage Additive
0% - 30%	30%
30.01% - 50%	15%

Percentage of elapsed contract time is defined as the number of calendar days from the date of availability of the contract to the date the permanent seeding and mulching is acceptably completed divided by the total original contract time.

AUTOMATED MACHINE GUIDANCE

(1-2-11) SPI 5-5

General

This Special Provision contains requirements to be followed if the Contractor elects to use Global Positioning System (GPS) machine control grading and shall be used in conjunction with Section 801 of the *Standard Specifications*. The use of this technology is referenced as Automated Machine Guidance (AMG).

All equipment using AMG shall be able to generate end results that meet the *Standard Specifications*. Perform test sections for each type of work to be completed with AMG to demonstrate that the system has the capability to achieve acceptable results. If acceptable results cannot be achieved, conform to the requirements for conventional stakeout.

The Contractor shall be responsible for all errors resulting from the use of AMG and shall correct deficiencies to the satisfaction of the Engineer at no cost to the Department.

Submittals

If the Contractor elects to use AMG, a Digital Terrain Model (DTM) of the design surface and all intermediate surfaces shall be developed and submitted to the Engineer for review.

At least 90 days prior to beginning grading operations, the Contractor shall submit to the Engineer an AMG work plan to include, but not limited to, proposed equipment, control software manufacturer and version, types of work to be completed using AMG, project site calibration report, repetitive calibration methods for construction equipment and rover units to be used for the duration of the project, and local GPS base station to be used for broadcasting differential correction data to rover units (this may include the NC Network RTK). All surveys must be tied to existing project control as established by NCDOT.

Inspection

The Engineer will perform quality assurance checks of all work associated with AMG. If it is determined that work is not being performed in a manner that will assure accurate results, the Engineer may require corrective action at no cost to the Department.

The Contractor shall provide the Engineer with one GPS rover unit for use during the duration of the contract. The rover will be loaded with the same model that is used with the AMG and have the same capability as rover units used by the Contractor. The rover will be kept in the possession of the Engineer and will be returned to the Contractor upon completion of the contract. Any maintenance or repairs required for the rover will be the responsibility of the Contractor. Formal training of at least 8 hours shall be provided to the Engineer by the Contractor on the use of the proposed AMG system.

Subgrade and Base Controls

If the Contractor elects to use AMG for fine grading and placement of base or other roadway materials, the GPS shall be supplemented with a laser or robotic total station. Include details of the proposed system in the AMG work plan. In addition, the following requirements apply for the use of AMG for subgrade and base construction.

Provide control points at intervals along the project not to exceed 1,000 feet. The horizontal position of these points shall be determined by static GPS sessions or by traverse connection from the original base line control points. The elevation of these control points shall be established using differential leveling from project benchmarks, forming closed loops where practical. A copy of all new control point information shall be provided to the Engineer prior to construction activities.

Provide control points and conventional survey grade stakes at 500 foot intervals and at critical points such as, but not limited to, PCs, PTs, superelevation transition points, and other critical points as requested by the Engineer.

Provide hubs at the top of the finished subgrade at all hinge points on the cross section at 500 foot intervals. These hubs shall be established using conventional survey methods for use by the Engineer to check the accuracy of construction.

Measurement and Payment

No direct payment will be made for work required to utilize this provision. All work will be considered incidental to various grading operations.

Page 15-6, Article 1510-3 (B), Line 21 and Leakage Formula:
than the following amount when pressurized at 200 +/- 5 psi for 2 hours *in accordance with AWWA C605*,

$$W = LD(\sqrt{P}) \div 148{,}000$$

Page 15-5, Article 1510-2 Materials, Line 23 Add the following sentences to the end of the paragraph:
Use ductile iron Thickness Class 51 restrained joint pipe within the CSXT/NCRR Right-of-Way for the extension of the 12" diameter water line. Use ductile iron Thickness Class 51 pipe for 4" diameter pipe. Use ductile iron Thickness Class 50 pipe for 6" through 24" diameter pipe.

Page 15-6, Article 1510-3 (B), paragraph beginning with Line 28:
Sterilize water lines according to *section .1003 of the Rules Governing Public Water Supply Sections* and AWWA 651. Provide certified bacteriological and contaminant test results from *a state approved or state certified* testing laboratory in accordance with NCDENR requirements. Operate all valves and controls to assure thorough sterilization.

Page 15-6, Article 1510-3 (B), Line 36:
according to AWWA C651 Sections 4.6 and 4.7 *and section 4.4.3, the Continuous Feed Method. Chlorine solution shall start at 50 PPM and maintain a level of at least 10 PPM for the 24-hour process. If chlorine level falls below 10 PPM, then the disinfection needs to be repeated for another 24 hours.*

Page 15-8, Article 1515-3 (A), Line 7:
not in pavement. *All 12" gate valves and 14"/16" butterfly valves shall be enclosed in a precast 4-ft diameter utility manhole. All butterfly valves 18" and larger shall be enclosed in a precast utility vault.*

Page 15-14, Article 1525-3, Add the following paragraph between Lines 2 and 3:
Construct pre-cast concrete sewer manholes of 7ft internal diameter with a minimum wall thickness of 8". 7ft diameter pre-cast concrete manhole tops shall be constructed as a standard flat top with a minimum slab thickness of 8" and an access opening of 24" diameter set in an eccentric position over the manhole steps of the riser sections. 7ft diameter manhole base units shall be pre-cast monolithic units with an 8" minimum base thickness. For manholes 7ft in diameter, construct the invert flow channels as shown on the plans. The lip of the overflow channel shall be one-half the height of the main flow channel.

Division 10 of the Standard Specifications is revised as follows:

Page 10-59, Lines 18 to 20 Article 1036-7 WATER VALVES, (A) Gate Valves:
Use iron body gate valves which conform to ANSI/AWWA *C509 for resilient seat-type valves that are fully bronze mounted.* For buried

Page 10-59, Article 1036-7 WATER VALVES, add the following:
(D) Butterfly Valves
Use butterfly valves which conform to AWWA C504 for Class 250 short body valves. Use butterfly valves with non-rising stems, 2" square operating nuts, open by turning counter clockwise, and are equipped with an indicator arrow on the operating stem which will indicate whether the valve is in the open or closed position. 14" and 16" butterfly valves shall have mechanical joint ends. 20" and 24" butterfly valves shall have standard flange ends conforming to ANSI B16.1 Class 125 cast iron flanges.

Abandon/Remove Sewer Lift Station
The existing Lift Station shown on Parcel 40 shall be abandoned and/or removed as noted on Sheet UC-10 of the Utility Construction Plans, at approximate -L- Station 57+61 LT 11', and as directed by the Engineer.

Abandonment and/or removal of Lift Stations will be measured and paid for at the contract price per each for "Abandon/Remove Sewer Lift Station". Such price and payment will be full compensation for all labor, excavation, disconnection from power source, grouting, plugging of pipes, backfilling, removal and disposal of all the Lift Station components (wet well, interior piping, pumps, floats, control panel, electrical riser, back up generator, any unusable equipment, etc.), and other incidentals necessary to complete the work as required.

FABRIC INSERT INLET PROTECTION DEVICE (HIGH FLOW)

Description

This work shall consist of installing, maintaining, and removing *Fabric Insert Inlet Protection Device* in inlet structures (catch basins, drop inlets, etc) designated in the plans as Rock Inlet Sediment Trap, Type S and in other areas where asphalt or concrete may not be fully removed, or as directed.

Materials

The product shall be a fabric inlet protection device composed of a fitted woven polypropylene geotextile double sewn with nylon thread. The *Fabric Insert Inlet Protection Device* shall be manufactured to fit the opening of the catch basin or drop inlet and will have two dump straps attached at the bottom to facilitate the emptying of the device and shall have lifting loops for lifting the device from the basin. The *Fabric Insert Inlet Protection Device* shall have a restraint cord approximately halfway up the bag to keep the sides away from the catch basin walls.

The stitching shall meet the following physical properties:

Physical	Test Method	English
Average Wide Width Strength	ASTM D-4884	165 lb/in

The fitted filter assembly shall have the following physical properties:

Physical	Test Method	English
Grab Tensile	ASTM D-4632	255 x 275 lbs
Minimum Puncture Strength	ASTM D-4833	125 lbs
Mullen Burst	ASTM D-3786	420 PSI
Minimum UV Resistance	ASTM D-4355	70 %.
Flow Rate	ASTM D-4491	200 gal/min/ft^2
Apparent Opening	ASTM D-4751	20 US Sieve
Permittivity	ASTM D-4491	1.5 sec^{-1}

Construction Methods

Strictly comply with manufacturer's installation instructions and recommendations. Maintenance shall include regular daily inspections and after each qualifying rain event. The *Fabric Insert Inlet Protection Device* shall be emptied, cleaned and placed back into the basin when it reaches 50% capacity or as directed.

Measurement and Payment

This work will be paid for at the contract unit price per *Fabric Insert Inlet Protection Device* of the type specified, complete in place and accepted. Such payment shall be full compensation for

Plan Sheet	Location	Railroad Company
		CSX

2. Insurance Requirements

Provide any required railroad liability insurance in the amount specified prior to commencing any work. The Department will be responsible for compensating for railroad flagmen when required.

In addition to any other forms of insurance or bonds required under the terms of the Contract and the *Standard Specifications*, take out and keep in force from the commencement of all construction on railroad right-of-way until the final inspection and acceptance of the project by the Engineer, insurance of the following kinds and amount. It is understood that the amounts specified are minimum amounts and that larger amounts may be carried if so desired. Any insurance taken out due to these requirements shall be subject to the approval of the Engineer, and the Railroad Company as to form and amount. Furnish satisfactory policies prior to beginning of the work on railroad right-of-way.

Railroad Company	Railroad Protective Liability Insurance	Public Liability and Property Damage Liability Insurance	Protective Public Liability and Property Damage Liability Liability Insurance
CSX Transportation	$5,000,000 each occurrence $10,000,000 aggregate	$3,000,000 per occurrence	$3,000,000 per occurrence

Refer to the following web links for more specific insurance requirements and requirements for working on the rights-of-way of each railroad company. In the event of a conflict between the requirements of one or more railroad companies and the requirements contained in the Plans or these Project Special Provisions, the requirements of the railroad company shall govern.

CSX Transportation, Inc.:

http://www.csx.com/index.cfm/customers/non-freight-services/propertyreal-estate/permitting-utility-installations-and-rights-of-entry/COS_Facility_Application_Information_Packet[1].pdf

i. Public Liability and Property Damage Liability Insurance

Furnish evidence to the Engineer that with respect to the operations you perform on the railroad right-of-way, you carry regular Contractor's Public Liability and Property Damage Liability Insurance providing for bodily injury, death, and property damage in the amount specified in the

Submit plans and calculations for review and approval for protecting traffic and bracing girders, as described herein, at the above station before beginning work at this location. Have the drawings and design calculations prepared, signed, and sealed by a North Carolina Registered Professional Engineer. The approval of the Engineer will not relieve the Contractor of the responsibility for the safety of the method or equipment.

2.0 PROTECTION OF TRAFFIC

Protect traffic from any operation that affords the opportunity for construction materials, equipment, tools, etc. to be dropped into the path of traffic beneath the structure. Based on Contractor means and methods determine and clearly define all dead and live loads for this system, which, at a minimum, shall be installed between beams or girders over any travelway or shoulder area where traffic is maintained. Install the protective system before beginning any construction operations over traffic. In addition, for these same areas, keep the overhang falsework in place until after the rails have been poured.

3.0 BRACING GIRDERS

Brace girders to resist wind forces, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the member during all stages of erection and construction. Before casting of intermediate diaphragms, decks, or connecting steel diaphragms do not allow the horizontal movement of girders to exceed ½ inch.

4.0 BASIS OF PAYMENT

Payment at the contract unit prices for the various pay items will be full compensation for the above work.

CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE AT STATION 34+62.88 -DFEB- **(9-27-12)**

Construct, maintain and afterwards remove a temporary structure in accordance with the applicable parts of the Standard Specifications and this Special Provision (structure only; the approaches are not a part of this pay item). Provide a temporary structure with a minimum overall length of 199 feet. Center the length of the structure about Station 34+19.04 -DETOUR3- with the alignment, grade, and skew as indicated on the Roadway plans. If the skew is not 90°, then lengthening of the structure to accommodate a 90° skew is permitted. Provide a temporary structure with a minimum clear roadway width of 24 feet and an underclearance elevation no less than 420.0. Temporary structures over railroads shall maintain a minimum horizontal clearance of 25' from center of track to any temporary bent.
Design the temporary structure for HL-93 live load in accordance with the current edition of the AASHTO LRFD Bridge Design Specifications. The design of the temporary structure need not satisfy the Extreme Event I Load Combination of the AASHTO LRFD Bridge Design Specifications. Due to the expected issuance of overweight permits by the NCDOT for certain

REMOVAL AND PREPARATION

Prior to any construction, take the necessary precautions to ensure debris from joint construction is not allowed to fall below the bridge deck.

Remove existing joint material by methods approved by the Engineer. Provide a 1" deep saw cut around the perimeter of areas noted for bridge deck removal.

Remove by chipping with hand tools concrete adjacent to the joint to the limits shown on the contract plans. Use a small chipping hammer (15 lb. class) to prepare the edges of the repair area to limit micro fractures. In addition, all loose and unsound concrete shall be removed.

In overhangs, removing concrete areas greater than 0.60 ft2/ft length of bridge will require overhang support. Submit the overhang support method to the Engineer for approval.

Care shall be taken not to cut, stretch, or damage any exposed reinforcing steel. Dispose of the removed concrete.

If the condition of the concrete is such that deep spalls or sheer faces result, notify the Engineer for the proper course of action.

Clean, repair or replace rusted or loose reinforcing steel. Thoroughly clean the newly exposed surface to be free of all grease, oil, curing compounds, acids, dirt, or loose debris.

MEASUREMENT AND PAYMENT

Bridge Joint Demolition will be measured and paid for at the contract unit price bid per square foot and will be full compensation for removal, containment and disposal of existing joint material and concrete and shall include the cost of labor, tools, equipment and incidentals necessary to complete the work.

Pay Item	Pay Unit
Bridge Joint Demolition	Square Feet

MANAGING BRIDGE WASH WATER (SPECIAL)

1.0 Description

Collect and properly dispose of Bridge Wash Water from bridge decks.

2.0 Construction Methods

(A) Prepare a written Bridge Wash Water management plan in accordance with the Guidelines for Managing Bridge Wash Water available at http://www.ncdot.gov/projects/ncbridges/#stats. Submit plan and obtain approval from the Engineer prior to beginning of the bridge cleaning operation.

(B) Prior to final payment, submit a paper copy of all completed records pertaining to disposal of Bridge Wash Water.

PROJECT SPECIAL PROVISIONS

RAILROAD DETOUR TRACK ROADBED **(SPECIAL)**

1 – Description

This work is the installation and removal of the proposed detour track roadbed as indicated on the plans and as directed by the Engineer. Work includes, but is not limited to, furnishing all labor, equipment and all incidentals necessary to complete the work satisfactorily including disposing of all leftover and/or removed materials. Railroad requirements for right-of-entry shall be followed and completed before any work starts within the railroad right-of-way (for either Norfolk Southern or CSXT). These requirements should be coordinated with local railroad representatives and is the responsibility of the Contractor. Railroad flagman services shall be required as directed by either railroad owners. Once right-of-entry is approved by appropriate railroad, and work is to be within the "fouling track" limits, as defined by FRA, flagman services may be required. Coordination on flagman services shall be the responsibility of the Contractor. Once railroad owners have determined a flagman is required for a construction task, no work within "fouling limits" will begin until the designated flagman releases the area for construction.

1.01 SUBMITTALS

The Contractor shall furnish to the Engineer, in writing, copies of the following proposed rail materials: Sub-ballast.

2 – Materials

TRACK SUB-BALLAST

Subballast shall be crusher-run stone (dense graded aggregate), preferably limestone or granite material and shall meet the requirements as set out in Chapter 1, Part 2, Article 2.11, "Specifications for Subballast" of the American Railway Engineering and Maintenance-of-Way Association (AREMA) manual. Grading requirements for this material are as follows:

Sieve Size	2"	1"	3/8"	No. 10	No. 40	No. 200
% Passing Size (optimum)	100	95	67	38	21	7
Permissible Range % Passing	100	90-100	50-84	26-50	12-30	0-10

Subballast shall be spread on a graded roadbed as a base, with sufficient width to accommodate the desired number of tracks. The subballast shall be compacted to 95 percent of its maximum dry density and have a minimum depth of 6 inches.

3 - CONSTRUCTION

3.01 CLEARING AND GRUBBING

This work shall be performed in accordance with Section 200, "CLEARING AND GRUBBING", of the NCDOT Standard Specifications, except that grubbing will be

RAILROAD DETOUR TRACK TO BE CONSTRUCTED AND REMOVED(SPECIAL)

1 – Description

This work is the installation and removal of the proposed detour track and as indicated on the plans and as directed by the Engineer. Work includes, but is not limited to, furnishing all labor, equipment and all incidentals necessary to complete the work satisfactorily including disposing of all leftover and/or removed materials. Railroad requirements for right-of-entry shall be followed and completed before any work starts within the railroad right-of-way (for either Norfolk Southern or CSXT). These requirements should be coordinated with local railroad representatives and is the responsibility of the Contractor. Railroad flagman services shall be required as directed by either railroad owners. Once right-of-entry is approved by appropriate railroad, and work is to be within the "fouling track" limits, as defined by FRA, flagman services may be required. Coordination on flagman services shall be the responsibility of the Contractor. Once railroad owners have determined a flagman is required for a construction task, no work within "fouling limits" will begin until the designated flagman releases the area for construction.

1.01 SUBMITTALS

The Contractor shall furnish to the Engineer, in writing, copies of the following proposed rail materials: Rail, Joint Bars, Tieplates, Rail Anchors, Crossties and Ballast.

2 – Materials

TRACK BALLAST (for Temporary Detour Track)

Ballast material should be clean, crushed granite stone from a NS approved quarry conforming to NS Specification 702. Norfolk Southern #3 Modified Ballast will be used for the temporary detour track construction; Norfolk Southern #5 ballast or AREMA #5 can used for the spur track and will be used for the turnout walkways. Grading requirements for this material are as follows:

Sieve Size	Percent Passing NS # 3(Mod)	Percent Passing NS # 5
2 ½ Inches	100	-
2 Inches	95 - 100	-
1 ½ Inches	30 - 65	100
1 Inch	0 - 15	90 - 100
¾ Inch	-	40 - 75
½ Inch	0 - 5	15 - 35
3/8 Inch	-	0 - 15
No. 4	-	0 - 5
No.200	0.5 Max	0.5 Max

STANDARD TRACK CROSSTIES (Temporary Detour Track)

Crossties should be new and conform to Norfolk Southern specification RT 5/91 for 7" x 9" x 8'6"- Grade 5 for oak and mixed hardwood ties. All ties shall be air dried to a maximum of 50% moisture content for oak and 40% for mixed hardwoods before treatment.