



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

April 15, 2015

**Addendum No. 1**

Contract No.: DA00223

WBS Element: 1C.028043, ETC.

*Repair of Jointed Concrete Pavement Slabs on SR 1116 (Airport Rd.) in Dare County*

To Whom It May Concern:

Reference is made to the proposal and plans previously furnished for this project.

The following revision has been made to the proposal and plans:

Page No. 7, "Intermediate Contract Time Number 1 And Liquidated Damages" has been revised to remove the reference to "and/or alter the traffic flow". Please void existing Page No. 7 and staple revised Page No.7 thereto.

Page No. 26 - 28, "Repair of Jointed Concrete Pavement Slabs" has been revised to clarify the contractor's responsibility concerning "Class IV Subgrade Stabilization" and "Concrete Strength Requirements". Please void existing Page No. 26 - 28 and staple revised Page No.26 - 28 thereto.


Page No. 72, "Bid Form" has been revised to remove the Line Items for "Class IV Subgrade Stabilization" and "Polyurea Pavement Marking Lines (4" – Highly Reflective Elements)". Please void existing Page No. 72 and staple revised Page No. 72 thereto.

Plan Sheet #2, "Typical Section" notes have been revised to clarify the contractors responsibility concerning "Undercut Excavation & Geotextile for Soil Stabilization" and the "Dowel Bar" requirements. Please void existing Plan Sheet #2 and staple revised Plan Sheet #2 thereto.

Plan Sheet #3, "Summary of Quantities" has been revised to remove the Line Items for "Class IV Subgrade Stabilization" and "Polyurea Pavement Marking Lines (4" – Highly Reflective Elements)". Please void existing Plan Sheet #3 and staple revised Plan Sheet #3 thereto.

If you elect to prepare your bid electronically, place file DA00223.001 in the same folder with DA00223.EBS, so that Expedite Bid will properly apply the addendum.

Please acknowledge receipt of Addendum #1 in the space provided on the Addendum Acknowledgement Form.

Sincerely,  
DocuSigned by:  
  
99A5A272ED6A447...  
W. B. Hobbs, PE  
Division Project Manager

WBH  
Attachment

cc: S. D. Baker, PE  
C. S. Mebane, PE  
R. W. Midgett, PE

REVISED 4/15/2015

**INTERMEDIATE CONTRACT TIME NUMBER ONE AND LIQUIDATED DAMAGES:**

(2-20-07)

108

SPI G14 A

The Contractor shall not perform any work, except work zone traffic control, on this project during the following time restrictions:

**DAY AND TIME RESTRICTIONS**

**MONDAY-THURSDAY FROM THIRTY (30) MINUTES BEFORE SUNSET  
TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING DAY**

**AND**

**FRIDAY FROM THIRTY (30) MINUTES BEFORE SUNSET  
TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING MONDAY**

In addition, the Contractor shall not perform any work on this project on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

**HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS**

1. For any **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer
2. For **New Year's Day**, between the hours of **30 minutes before sunset** December 31st and **30 minutes after sunrise** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **30 minutes after sunrise hour** the following Tuesday.
3. For **Easter**, between the hours of **30 minutes before sunset** Thursday and **30 minutes after sunrise** Monday.
4. For **Memorial Day**, between the hours of **30 minutes before sunset** Friday and **30 minutes after sunrise** Tuesday.
5. For **Independence Day**, between the hours of **30 minutes before sunset** the day before Independence Day and **30 minutes after sunrise** the day after Independence Day. If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **30 minutes before sunset** the Thursday before Independence Day and **30 minutes after sunrise** the Tuesday after Independence Day.
6. For **Labor Day**, between the hours of **30 minutes before sunset** Friday and **30 minutes after sunrise** Tuesday.
7. For **Thanksgiving Day**, between the hours of **30 minutes before sunset** Tuesday and **30 minutes after sunrise** Monday.
8. For **Christmas**, between the hours of **30 minutes before sunset** the Friday before the week of Christmas Day and **30 minutes after sunrise** the following Tuesday after the week of Christmas Day.

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 work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

## PROJECT ROADWAY PROVISIONS

REVISED 4/15/2015

### REPAIR OF JOINTED CONCRETE PAVEMENT SLABS:

(4-15-08) (Rev. 6-26-14)

SPI 7-8

#### **Description:**

The work covered by this provision consists of the removal and satisfactory disposal of the existing damaged jointed concrete pavement slabs, furnishing and placing new jointed concrete pavement slabs as shown in the plans or as directed by the Engineer.

#### **Materials:**

Refer to Divisions 6, 7, and 10 of the *Standard Specifications*.

<b>Item</b>	<b>Section</b>
Portland Cement Concrete	1000
Curing Agents	1026
Water	1024-4
Select Material, Class IV	1016
Dowels and Tie Bars	1070-6
Geotextile for Soil Stabilization	270

Use Select Material, Class IV for Class IV Subgrade Stabilization. If Class IV Subgrade Stabilization does not meet the requirements of Article 1010-2 of the *Standard Specifications*, the Engineer, at his discretion, may consider the material reasonably acceptable in accordance with Article 105-3 of the *Standard Specifications*.

#### **Methods of Production:**

The repair of jointed concrete pavement slabs shall meet the applicable requirements of Section 700 of the *Standard Specifications* and the following provisions:

The concrete shall achieve a compressive strength of 3,000 psi at 3 days and a compressive strength of 4,500 psi at 28 days. Upon verification of achieving 3,000 psi for a given section, the Contractor shall restore traffic on that section within 24 hours.

The work shall be accomplished with other operations in progress in the same area.

In all cases of slab removal, the Contractor shall remove the entire lane width and a minimum of 6 ft in the travel direction. Any remaining portion of a slab that is removed shall not be less than 6 ft in the travel direction.

As a result of the full depth sawing of the existing pavement to remove the distressed area, saw cuts that extend into the adjacent pavement shall be filled with epoxy prior to placing traffic on the new area. The epoxy shall meet the requirements of Section 1081 Type 3 of the *Standard Specifications*.

The Contractor shall take necessary measures to protect the exposed subgrade and base from damage resulting from surface water and/or rain during the period between the pavement removal and replacement. The Contractor shall submit his plan for removing the pavement areas to the Engineer for approval. The removal method shall minimize damage to the subgrade and to adjacent pavement and shoulders.

**REVISED 4/15/2015**

At locations as directed by the Engineer, the Contractor shall undercut the subgrade, place Geotextile for Soil Stabilization and backfill with Class IV Subgrade Stabilization.

The Geotextile for Soil Stabilization shall conform to the requirements of Section 270 of the *Standard Specifications*.

The Contractor shall thoroughly tamp any loosened subgrade or base material to the satisfaction of the Engineer before the pavement is replaced. New pavement shall be cast to match the thickness of the adjacent slabs.

Pneumatic or hydraulic drills and bits that will drill a hole in the existing concrete faces for placement of the dowels at location specified on the Plans shall be used. The equipment shall be operated so as to prevent damage to the pavement being drilled. The drilling procedure shall be approved by the Engineer. The drilled holes shall be thoroughly cleaned of all contaminants and the dowels of specified type and size shall then be set into the hardened concrete face of the existing pavement with an epoxy bonding compound meeting the requirements of a Type 3A epoxy detailed in Section 1081 of the *Standard Specifications*. The specified dowels shall be placed at locations noted on Plan details with one-half of dowel protruding beyond the hardened face of existing pavement and placed at correct horizontal and vertical alignment with misalignment not to exceed 0.4 inches in the vertical or oblique plane. The epoxy shall be allowed to harden sufficiently prior to placing concrete to prevent any movement of the dowels during the placement of the concrete. A sufficient amount of epoxy must be placed in the back of the hole so that the entire cavity around the dowel is completely filled upon insertion of the dowel bars. Any excess epoxy shall be removed. The epoxy adhesive must be packaged in a cartridge with a mixing nozzle that thoroughly mixes the two components as they are dispensed (the mixing nozzle must be a minimum of 8 inches long) or may be placed with a machine which mixes the two components thoroughly and to the proper ratio as the material is being placed.

Use dowels of the type, size, spacing, and at the location specified in *Roadway Standard Drawing 700.01 Sheet 1 of 2*. At no time shall dowels be driven into a dowel hole with sledge hammers or other devices. In all cases, any dowel which cannot be freely inserted into a dowel hole will be rejected for use.

Prior to placing concrete, the vertical exposed faces of the existing slabs shall be thoroughly cleaned of contaminants using wire brushing or other methods approved by the Engineer. Extra care must be taken to remove all existing silicone or other joint sealant from the exposed concrete faces.

The concrete shall be deposited within the slab replacement area in such manner as to require as little re-handing as possible, to prevent segregation of the mix. Hand spreading shall be minimized as much as possible, but where necessary, shall be done with shovels, not rakes. Workers will not be allowed to walk in the fresh concrete with shoes coated with earth or other foreign substances. The replaced slab area shall be filled with concrete and thoroughly consolidated by rodding, spading, and sufficient vibration to form a dense homogeneous mass throughout the area. The final surface area shall be uniform in appearance and free of irregularities and porous areas.

**REVISED 4/15/2015**

The finished surface, including joints, shall meet a surface tolerance of 1/8 inch in 10 feet in any direction. Any necessary corrections shall be done by grinding. Any replaced slab which is low in relation to adjacent slabs may be ordered replaced by the Engineer. Replacement of such a slab would generally be required if, in the opinion of the Engineer, excessive grinding of the adjacent pavement is necessary to match the profile of the full depth slab replacement or if a drainage problem would be created by grinding the adjacent pavement.

The surface finish of the proposed concrete pavement shall be a burlap drag finish and conform to the cross-section of adjacent pavement. The method of finishing shall be approved by the Engineer. Immediately after finishing operations have been completed and surface water has disappeared, all exposed surfaces of the pavement shall be cured in accordance with the applicable provisions of Section 700-9 "Curing" and Section 1026 "Curing Agents for Concrete" of the *Standard Specifications*.

### **Measurement and Payment**

The quantity of Jointed Concrete Pavement Slab repair to be paid for at the unit price established herein will be the actual number of square yards of jointed concrete pavement with dowels which has been completed and accepted. In measuring this quantity, the width of the repair will be measured perpendicular to the centerline of the lane. The length will be the actual length constructed, measured along the centerline of the pavement.

The unit price for Repair of Jointed Concrete Pavement Slabs will be full compensation for all work covered by this provision, and applicable sections of the *Standard Specifications* for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in placement of the concrete including but not limited to furnishing placing, and curing concrete; dowel bars; sawing and removing concrete; and filling saw cuts around the pavement repair.

The quantity of material removed below the subgrade will be measured and paid for in accordance with Section 225 of the *Standard Specifications* for "Undercut Excavation". No separate payment will be made for Class IV Subgrade Stabilization used to backfill undercut areas as payment at the contract unit price per cubic yard for "Undercut Excavation" will be full compensation for furnishing such material.

The quantity of Geotextile for Soil Stabilization furnished and placed as directed will be measured and paid for in accordance with Section 270 of the *Standard Specifications* for "Geotextile for Soil Stabilization".

Payment will be made under:

#### **Pay Item**

Repair of Jointed Concrete Pavement Slabs  
Undercut Excavation  
Geotextile for Soil Stabilization

#### **Pay Unit**

Square Yard  
Cubic Yard  
Square Yard

County : Dare

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
<b>ROADWAY ITEMS</b>						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0057000000-E	226	UNDERCUT EXCAVATION	220 CY		
0003	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	1,300 SY		
0005	1891000000-E	SP	GENERIC PAVING ITEM (REPAIR OF JOINTED CONCRETE PAVEMENT SLABS)	1,300 SY		
0006	4457000000-N	SP	TEMPORARY TRAFFIC CONTROL	Lump Sum	L.S.	
0007	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM (PORTABLE TRAFFIC SIGNAL SYSTEM)	1 EA		

0946/Apr15/Q2823.0/D11201100000/E6

Total Amount Of Bid For Entire Project :

6/2/09

# PAVEMENT SCHEDULE

REVISED: 04/15/15

A	PROPOSED APPROX. 7" PORTLAND CEMENT CONCRETE PAVEMENT (W/DOWELS), MATCH DEPTH OF ADJACENT EXISTING CONCRETE PAVEMENT.
T	EARTH MATERIAL, BACKFILL AFTER FORM REMOVAL.
U	EXISTING CONCRETE PAVEMENT TO BE REMOVED IN AREAS APPROVED BY ENGINEER.

**NOTE:**

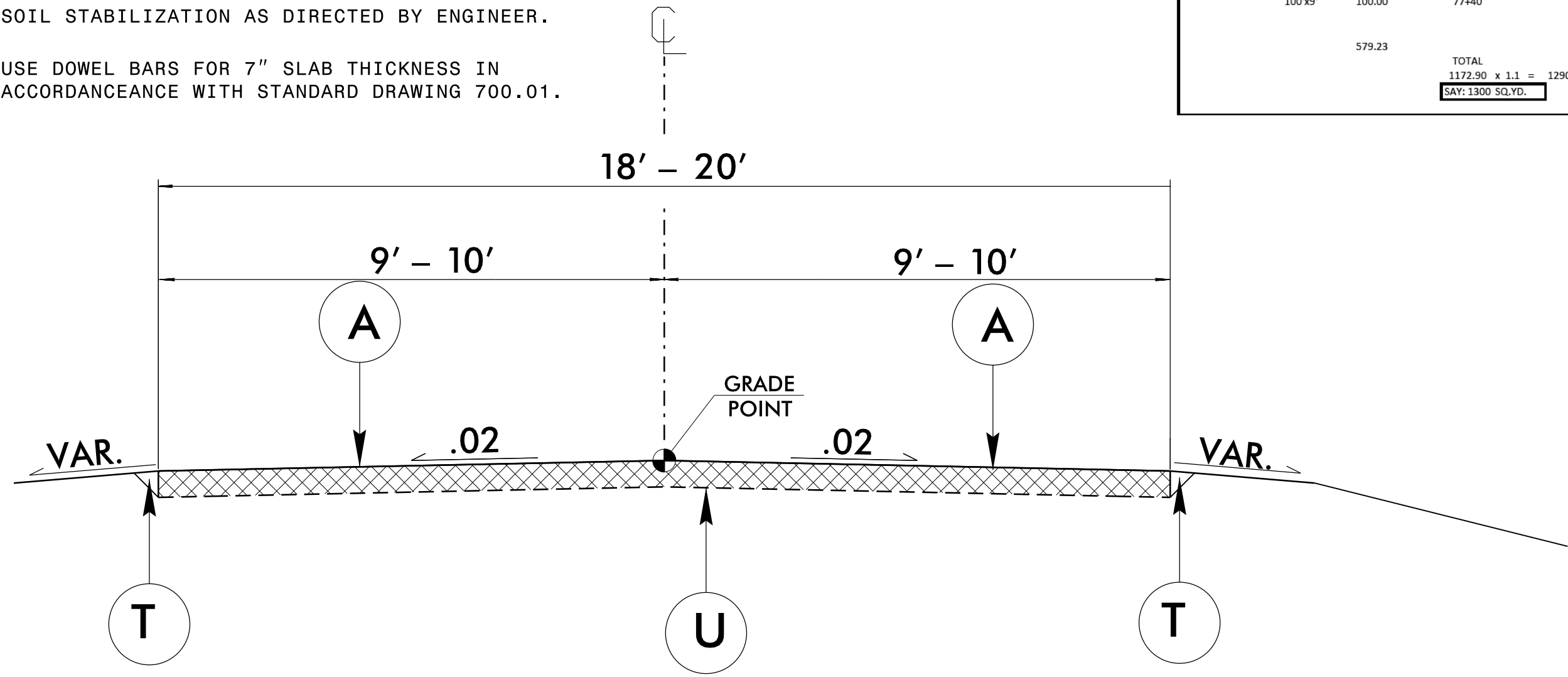
PERFORM WORK USING PORTABLE TRAFFIC SIGNAL SYSTEM.

USE EXCAVATED MATERIAL TO BACKFILL AFTER FORM REMOVAL. NO ADDITIONAL COMPENSATION WILL BE PAID. THIS WORK SHALL BE INCIDENTAL TO THE OTHER LINE ITEMS IN THE CONTRACT.

USE UNDERCUT EXCAVATION AND GEOTEXTILE FOR SOIL STABILIZATION AS DIRECTED BY ENGINEER.

USE DOWEL BARS FOR 7" SLAB THICKNESS IN ACCORDANCE WITH STANDARD DRAWING 700.01.

BEGIN AT INTERSECT US 64 STATIONS ARE APPROXIMATE	LT. LANE SQ.YD.	STATION 0+00	RT. LANE SQ.YD.	
		3+84	27.78	25'x10'
6'x10'	6.67	5+62	13.33	12'x10'
		6+52	27.78	25'x10'
10'x10'	11.11	9+60	13.33	12'x10'
		18+86	13.33	12'x10'
		19+16	17.78	16'x10'
20'x10'	22.22	19+46	8.89	8'x10'
15'x10'	16.67	24+70	16.67	15'x10
		29+22	15.56	14'x10'
14'x10'	15.56	34+60		
20'x10'	22.22	38+50	20.00	18'x10'
13'x10'	14.44	49+00	23.33	21'x10'
6'x10'	6.67	53+10		
14'x10'	15.56	60+85	15.56	14'x10'
6'x10	6.67	65+43		
85'x10'	94.44	66+00	53.33	48'x10'
10'x9'	10.00	67+92	10.00	10'x9'
8'x9'	8.00	68+43	8.00	8'x9'
10'x9'	10.00	69+06	10.00	10'x9'
20'x9'	20.00	70+63	20.00	20'x9'
10'x9'	10.00	71+47	10.00	10'x9'
20'x9'	20.00	72+22		
7'x9'	7.00	72+50	7.00	7'x9'
100'x9'	100.00	74+36	100.00	100'x9'
35'x9'	35.00	75+50	35.00	35'x9'
27'x9'	27.00	76+20	27.00	27'x9'
100'x9'	100.00	77+40	100.00	100'x9'
	579.23		593.67	
		TOTAL	1172.90	x 1.1 = 1290.19
			SAY: 1300 SQ.YD.	



**TYPICAL SECTION NO. 1  
USE: FROM US 64 TO AIRPORT ENTRANCE**

I5-APR-2015 10:38  
 C:\Users\Bferwick\Desktop\Projects\Concrete Pavement Repair\Airport Rd\ISP.20285.1.D01.sh2.dgn  
 Bferwick



PROJECT NO.	SHEET NO.
1SP.20285.1 & 1C.028043	3

REVISED 4/15/2015

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	MOBILIZATION	UNDERCUT EXCAVATION CY	GEOTEXTILE FOR SOIL STABILIZATION SY	GENERIC PAVING ITEM (REPAIR OF JOINTED CONCRETE PAVEMENT SLABS) SY	TEMPORARY TRAFFIC CONTROL LS	GENERIC TRAFFIC CONTROL ITEM (PTS SYSTEM) LS
1SP.20285.1	Dare	1	SR 1116 (AIRPORT RD.)	FROM US 64 TO AIRPORT	1	2	2WU	NO	NO	1.49	18-20	1	110	650	650	1	1
1C.028043	Dare	1	SR 1116 (AIRPORT RD.)	FROM US 64 TO AIRPORT	1	2	2WU	NO	NO	1.49	18-20	*	110	650	650	*	*
<b>GRAND TOTAL</b>										<b>1.49</b>		<b>1</b>	<b>220</b>	<b>1,300</b>	<b>1,300</b>	<b>1</b>	<b>1</b>