

April 11, 2016

#### Addendum No. 1

RE: Contract # C203849
WBS # 2016CPT.09.18.10291.1, Etc.
STATE FUNDED
Davidson County
1 Section Of US-64, 2 Section of NC-8, And 8 Sections of Secondary Roads

## April 19, 2016 Letting

To Whom It May Concern:

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

The following revisions have been made to the plans (Sketch Maps):

The Project WBS numbers have been changed on all sheets. Please discard the Sketch Map sheets you previously received (entire package) and replace with the revised set. Only the WBS numbers were changed.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 04-11-16", also the WBS numbers were revised
R-8 and R-9	Replaced the project special provision entitled "Non-Tracking Hot Applied Tack Coat (Entire Project)" with the project special provision entitled "Non-Tracking Tack Coat"

The WBS number was revised in the header on all pages of the proposal. Please discard the proposal we originally sent you and use the revised proposal we are providing by way of this addendum. Other than the changes listed in the above table, only the WBS number was revised on the other pages.

The contract will be prepared accordingly.

Sincerely,

R. A. Garris, PE Contract Officer

RAG/jag

cc:

Mr. Ron Hancock, PE

Mr. Pat Ivey, PE

Mr. Rodger Rochelle, PE

Mr. R.E. Davenport, PE

Mr. Ken Kennedy, PE

Ms. Lori Strickland

Project File (2)

Mr. Ray Arnold, PE

Ms. Theresa Canales, PE

Ms. Marsha Sample

Mr. Mike Gwyn

Ms. Jaci Kincaid

Ms. Penny Higgins

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

# **PROPOSAL**

# **INCLUDES ADDENDUM No. 1 DATED 04-11-16**

DATE AND TIME OF BID OPENING: APRIL 19, 2016 AT 2:00 PM

CONTRACT ID

C203849

**WBS** 

2016CPT.09.18.10291.1, 2016CPT.09.19.20291.1

FEDERAL-AID NO. STATE FUNDED

**COUNTY** 

DAVIDSON

T.I.P. NO.

MILES

18.729

ROUTE NO.

US 64

**LOCATION** 

1 SECTION OF US-64, 2 SECTIONS OF NC-8, AND 8 SECTIONS OF

SECONDARY ROADS.

TYPE OF WORK

MILLING, RESURFACING, AND SHOULDER RECONSTRUCTION.

#### 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 ROADWAY PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

# **NON-TRACKING TACK COAT:**

(1-2-14)(Rev. 4-19-16)

605

SPI 6-13A

Revise the 2012 Standard Specifications as follows:

Page 6-4, SECTION 605 ASPHALT TACK COAT, line 29, after Section 605, add the following:

# SECTION 606 NON-TRACKING ASPHALT TACK COAT

#### 606-1 DESCRIPTION

Refer to Article 605-1.

Non-tracking tack coat will be required. Notify the Engineer prior to using non-tracking tack coat.

#### 606-2 MATERIALS

Use only products from the "Non-tracking Asphalt Tack Coat" materials on the NCDOT Approved Product List maintained by the Materials and Tests Unit located at the following website:

https://connect.ncdot.gov/resources/Materials/MaterialsResources/Approved%20Non-Tracking%20Tack%20Coat%20Products%20for%20NC.pdf

Use only an approved Hot Applied Tack for the open-graded asphalt friction course (OGAFC), if applicable.

Do not dilute or mix the non-tracking tack coat with water, solvents, or other materials before application.

#### 606-3 WEATHER LIMITATIONS

Refer to Article 605-3 and Article 605-5 for OGAFC requirements.

#### 606-4 SURFACE PREPARATION

Refer to Article 605-4.

#### 606-5 ACCEPTANCE OF ASPHALT MATERIALS

Refer to Article 605-5.

### 606-6 APPLICATION EQUIPMENT

Refer to Article 605-6.

### 606-7 APPLICATION RATES AND TEMPERATURES

Target application rate for EMULSIFIED ASPHALT non-tracking tack shall be in accordance with Table 605-1, Application Rates for Tack Coat, contained elsewhere in this document, and if necessary adjust based on existing pavement conditions, milled surface, and manufacturer's recommendations and approved by the Engineer. Application temperatures shall be in accordance with manufacturer's recommendations. Non-tracking asphalt tack coat shall not be overheated.

Target application rate for HOT APPLIED TACK shall be 0.10 gal/sy and adjusted based on existing pavement conditions, milled surface, and manufacturer's recommendations and approved by the Engineer. Application temperatures shall be in accordance with manufacturer's recommendations. Non-tracking asphalt tack coat shall not be overheated.

#### 606-8 APPLICATION OF TACK COAT

Refer to Article 605-8 except on Page 6-4, Article 605-8, line 6, replace second paragraph with the following:

If public traffic is being maintained, cover the non-tracking tack coat in the same day's operation or provide continual lane closures until the tack is covered. Due to non-tracking tack requiring heat to activate the adhesive properties, the application of temporary granular material will not be allowed. If extended lane closures are required, applicable liquidated damages will apply. To facilitate safe traffic conditions or for other reasons the Engineer may limit the application of non-tracking tack in advance of the paving operation.

### 606-9 MEASUREMENT AND PAYMENT

There will be no direct payment for the non-tracking tack coat and work covered by this section.

Page 6-26, Article 610-8, line 30, replace "Section 605" with "Sections 605 or 606".

Page 6-42, Article 650-5, line 32, replace "Section 605" with "Sections 605 or 606".

Page 6-44, Article 652-1, line 11, replace "Section 605" with "Sections 605 or 606".

# PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:

(11-21-00)

620

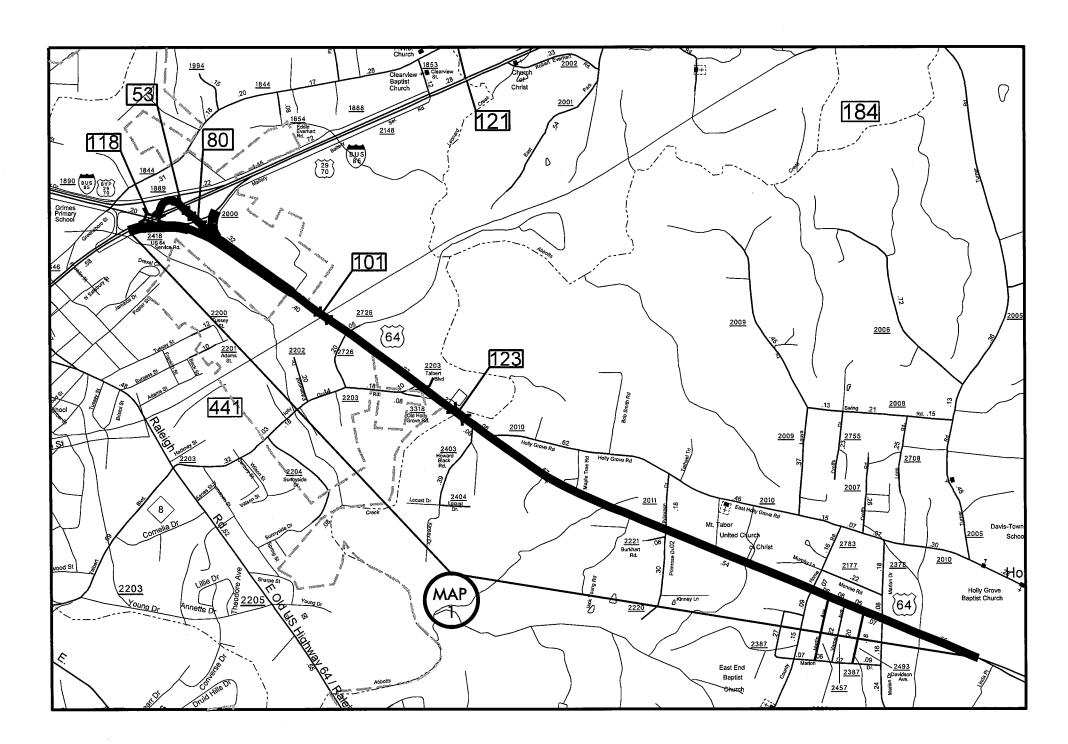
SP6 R25

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 \$ 350.36 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on March 1, 2016.

PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	1





MAP 1 US 64 Mill 1½" Depth full width of pavement, edge of pavement to edge of pavement. SEE SHEET NO. 2 FOR RAMP BEGINNING AND END POINTS.

PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	2





MAP 1 US 64

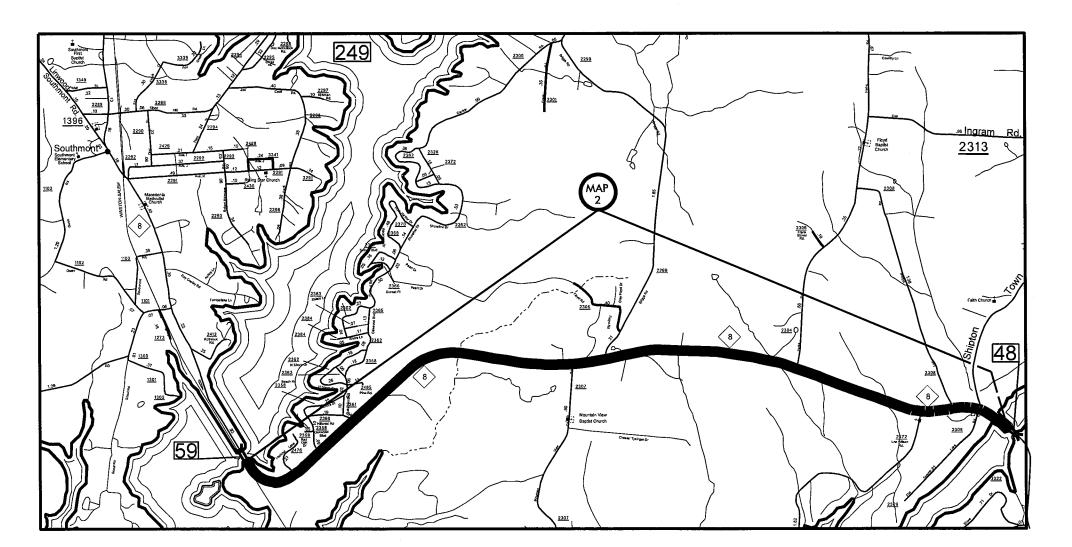
Mill  $1\frac{1}{2}$ " Depth full width of pavement, edge of pavement to edge of pavement.

ALL WORK ON THIS MAP TO BE NIGHT TIME ONLY 7 P.M. TO 6 A.M., Monday–Sunday.

DISTANCE IN ESTIMATE IS TO NOSE OF ISLAND AS SHOWN, QUANTITIES INCLUDE PAVING OF RAMPS AS SHOWN.

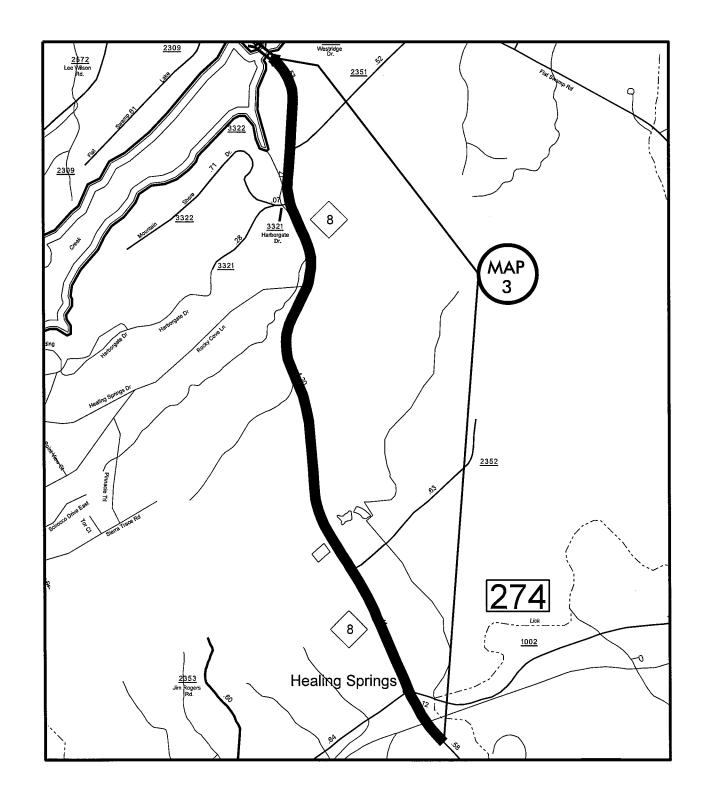
PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	3





MAP 2 NC 8 Mill  $1\frac{1}{2}$ " depth full width of pavement. Pave back with  $1\frac{1}{2}$ " S9.5B

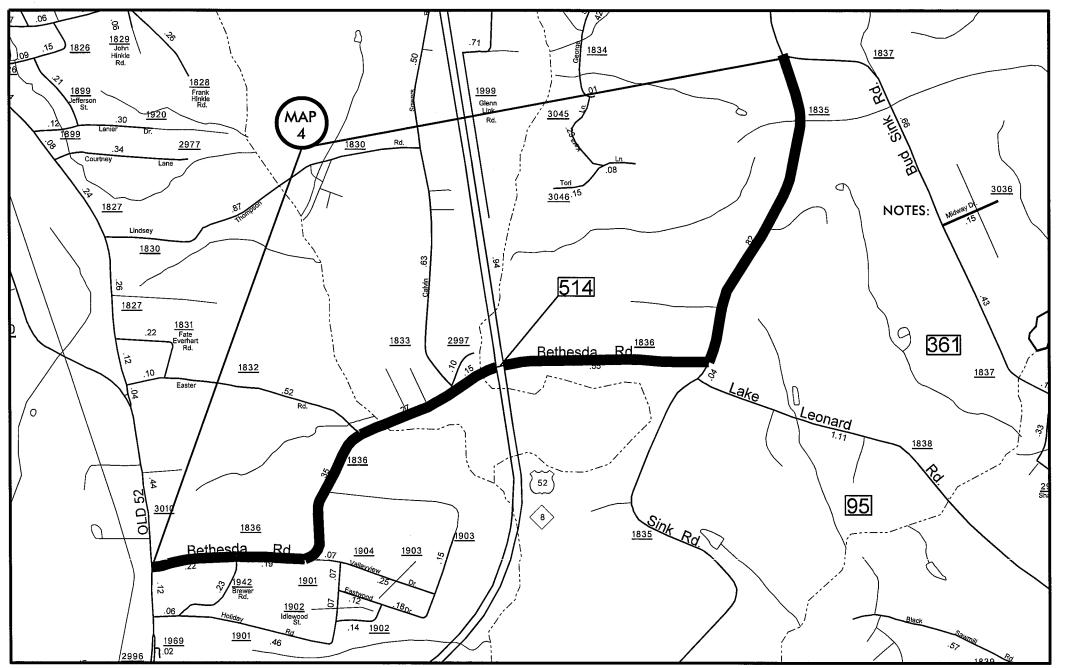
PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	4





MAP 3 NC 8 Mill 1½" depth full width of pavement. Pave back with 1½" S9.5B. Tie in Mill at South end of Map, Map ends Approximately 100 feet south of drive at Street Address "18846 NC 8".

PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1. FTC.	5

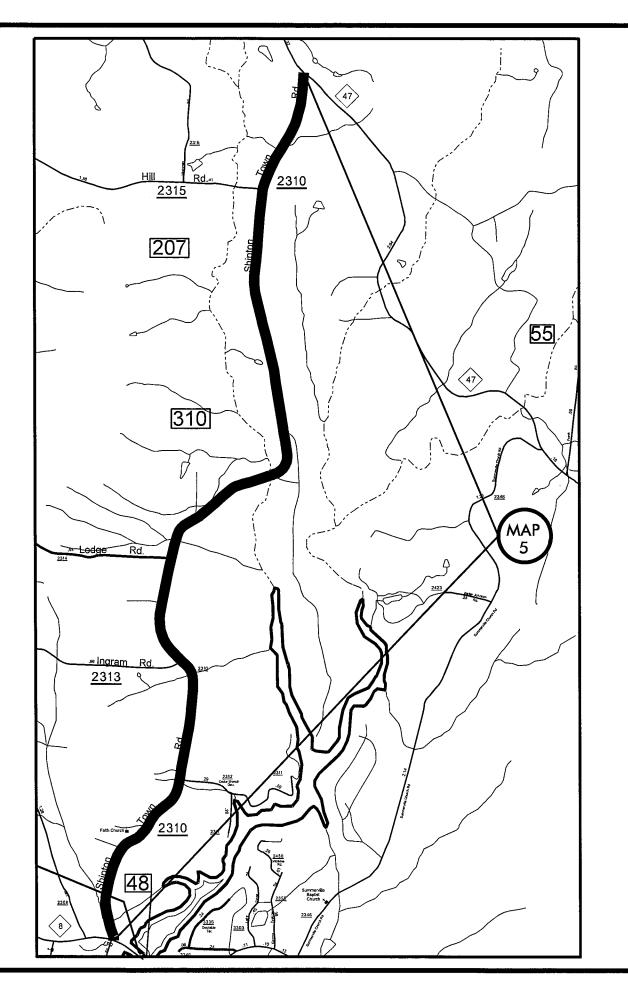




MAP 4 Bethesda Rd. SR 1836

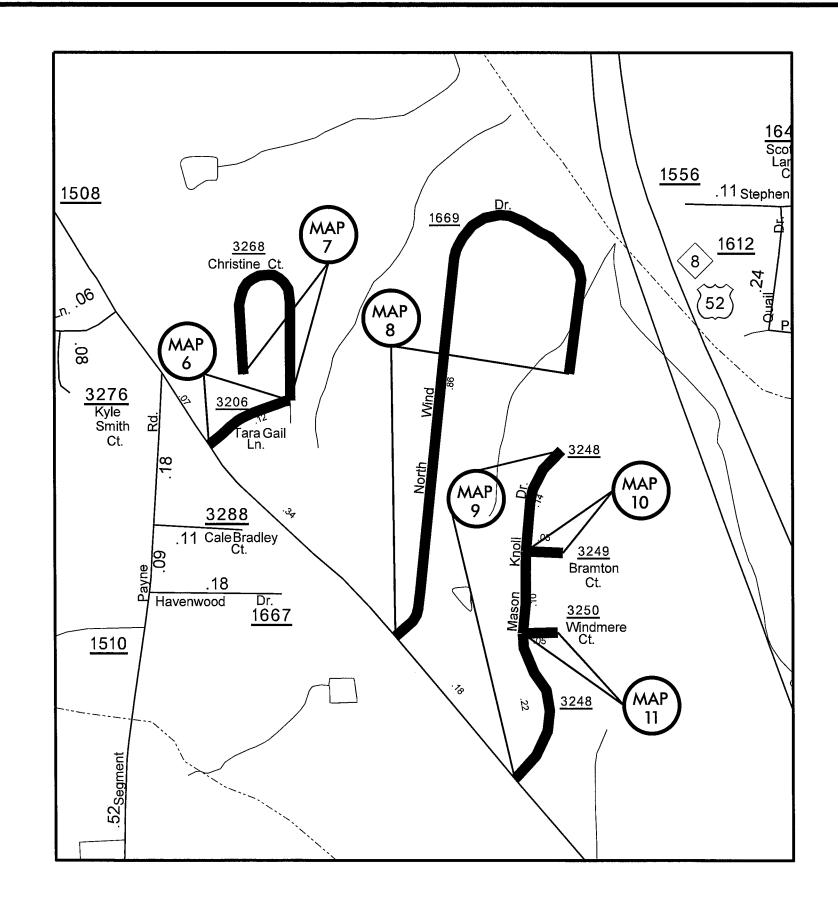
Re–establish crown with 2" in middle and  $1\frac{1}{2}$ " at pavement edge.

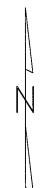
PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	6





PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	7



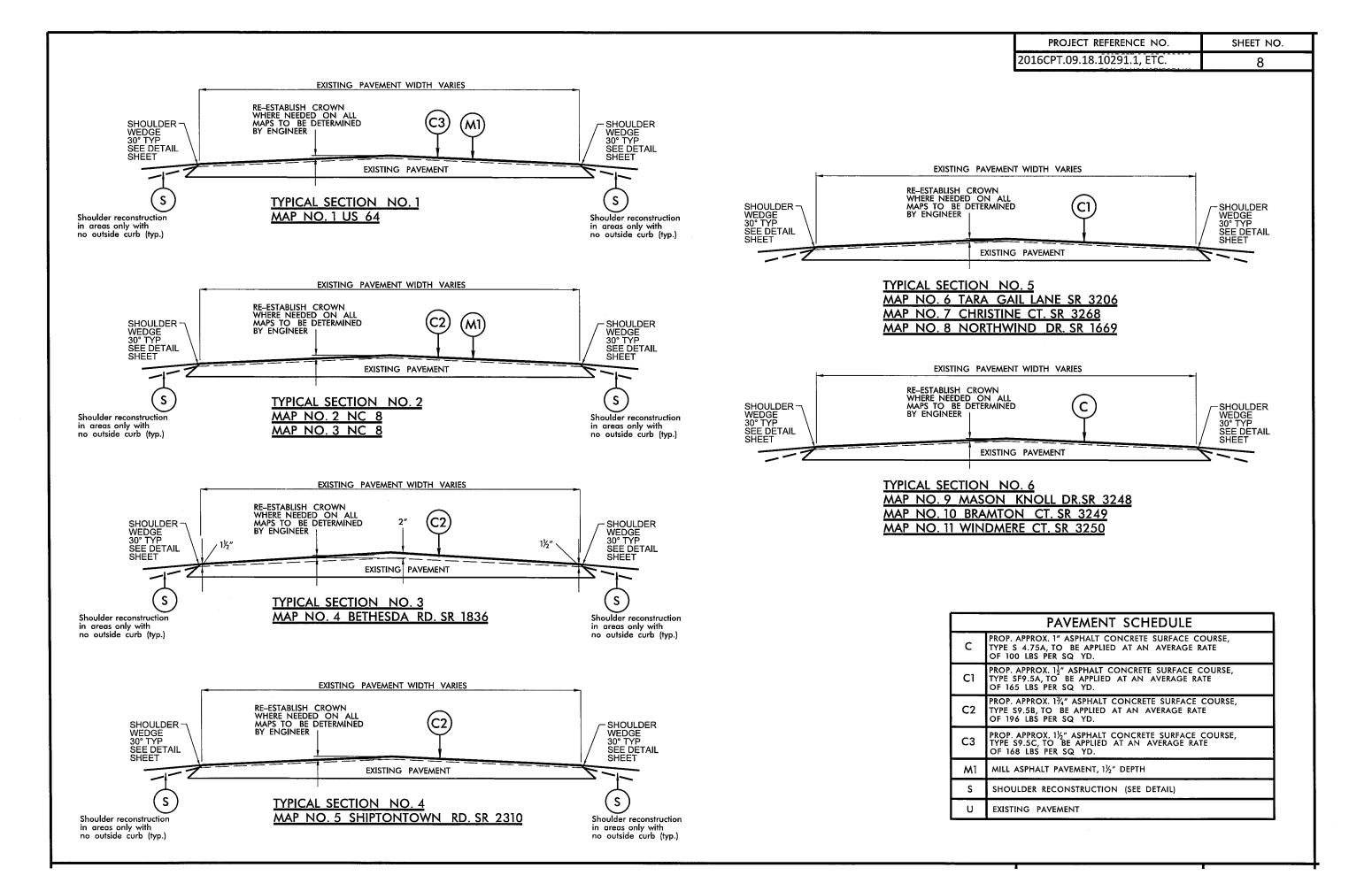


MAP 6 Tara Gail SR 3206 MAP 7 Christine Ct. SR 3268 MAP 8 North Wind Dr. SR 1669 PAVE WITH 11/2" SF9.5A NO PAVEMENT MARKINGS REQUIRED.

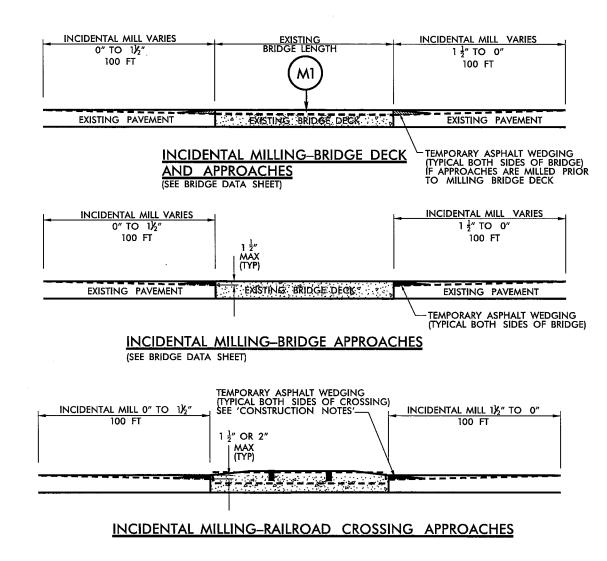
MAP 9 Mason Knoll SR 3248 MAP 10 Bramton Ct. SR 3249 MAP 11 Windemere Ct. SR 3250 PAVE WITH 1" S4.75A NO PAVEMENT MARKINGS REQUIRED.

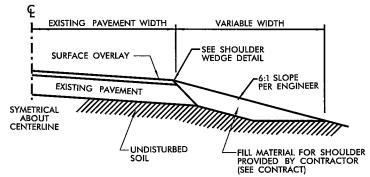
# All Maps

- NO MILLING NO PAVEMENT MARKINGS NO SHOULDER RECONSTRUCTION
- PAVE ONLY

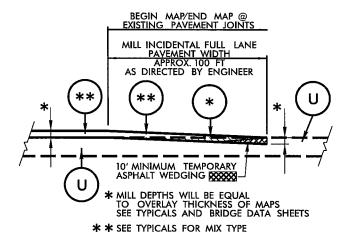


PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	9



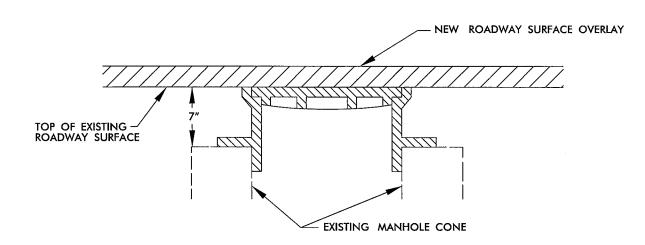


# SHOULDER RECONSTRUCTION

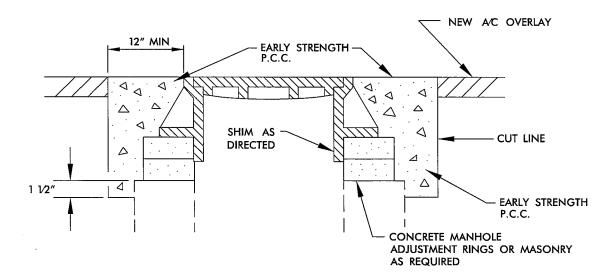


# INCIDENTAL MILLING AT TIE-IN DETAIL

	PAVEMENT SCHEDULE				
С	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S 4.75A, TO BE APPLIED AT AN AVERAGE RATE OF 100 LBS PER SQ YD.				
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.				
C2	PROP. APPROX. $1\frac{3}{4}$ " ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, TO BE APPLIED AT AN AVERAGE RATE OF 196 LBS PER SQ YD.				
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.				
M1	MILL ASPHALT PAVEMENT, 1½" DEPTH				
S	SHOULDER RECONSTRUCTION (SEE DETAIL)				
U	EXISTING PAVEMENT				



## STEP 1



## STEPS 2,3, & 4

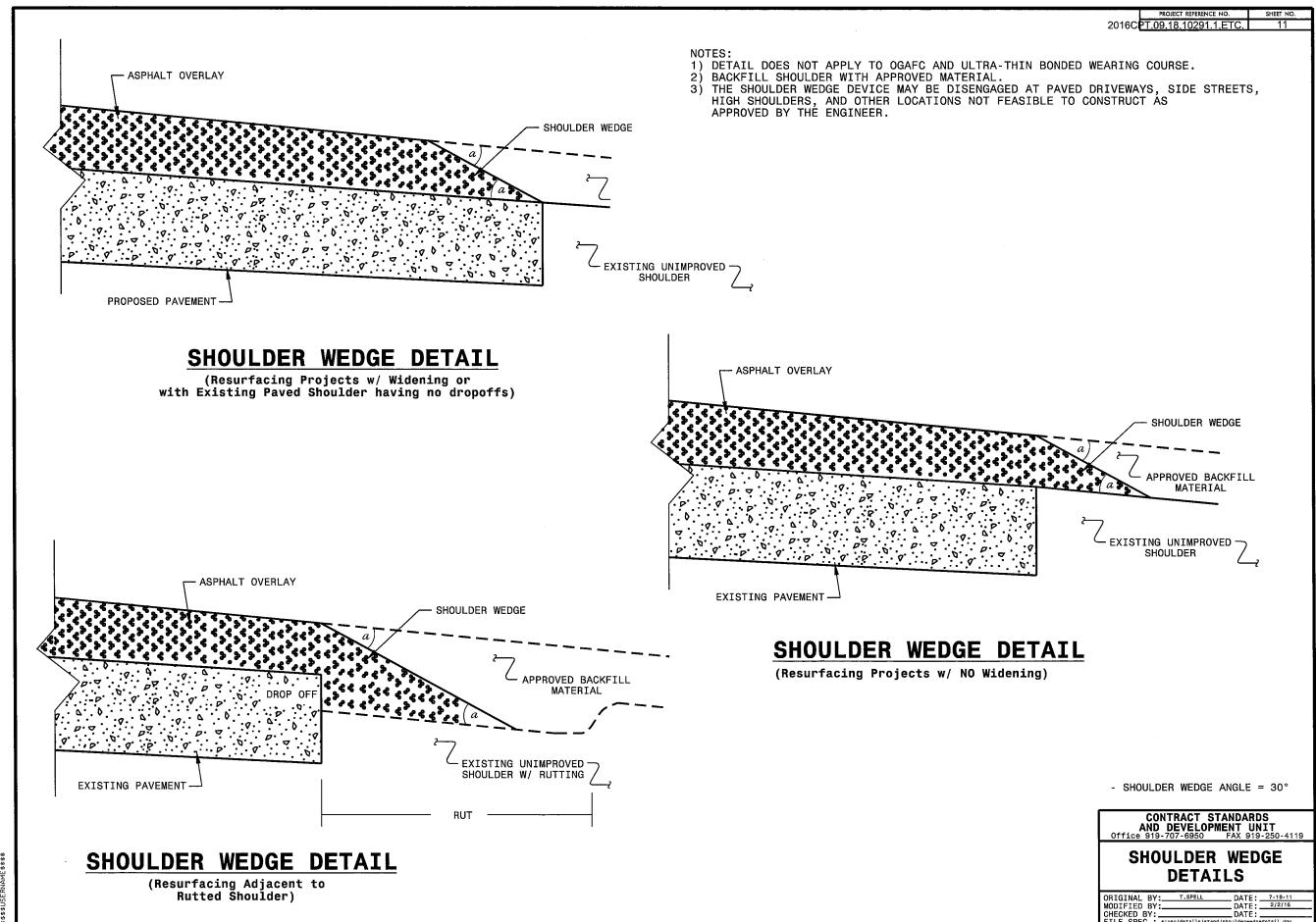
- STEP 1 COVER EXISTING MANHOLE WITH APPROVED MATERIAL AND CONSTRUCT OVERLAY ACROSS TOP OF MANHOLE
- STEP 2 SAW CUT EXCAVATION AROUND MANHOLE 12" MIN. FROM MANHOLE FRAME.
- STEP 3 RAISE MANHOLE FRAME RINGS TO FINISH PAVEMENT PROFILE AND CROSS SLOPE.
- STEP 4 BACKFILL WITH EARLY STRENGTH P.C.C. TO DEPTHS AS DIRECTED.

# MANHOLE ADJUSTMENT DETAIL

PROJECT REFERENCE NO.	SHEET NO.
2016CPT.09.18.10291.1, ETC.	10

#### CONSTRUCTION NOTES:

- 1. ALL QUANTITIES ARE "ESTIMATED" AS INDICATED IN THE "SUMMARY OF QUANTITIES".
- CONSTRUCTION SHALL PROGRESS IN PHASES, IN THE ORDER INDICATED BELOW:
  - PHASE 1 MILLING AND PATCHING (WHEN REQUIRED)
  - PHASE 2 SURFACE OVERLAY
  - PHASE 3 SHOULDER DROP-OFF REPAIR (AS NEEDED AND DIRECTED BY ENGINEER)
  - PHASE 4 UTILITY ADJUSTMENTS (MANHOLE RING/COVER, VALVE/METER BOX RING/COVER, CATCH BASIN GRATE/COVER, DROP INLET GRATE/COVER, ETC.) WHEN REQUIRED.
- 3. BRIDGES THAT HAVE FLOOR DRAINS, SHALL HAVE ALL FLOOR DRAINS LEFT OPEN. EXTRA CARE SHALL BE EXERCISED IN MILLING (IF REQUIRED) AND IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE.
- 4. TEMPORARY ASPHALT WEDGING SHALL BE PLACED ON THE SAME DAY THAT BRIDGE AND/OR RAILROAD APPROACHES ARE MILLED (AND IF APPROACHES ARE MILLED PRIOR TO BRIDGE DECK).
- 5. FOR TWO-LANE ROADWAYS IT SHALL BE UNDERSTOOD THAT TYPICALLY ON A ROADWAY MEASURING 20 FEET OR LESS IN WIDTH, THE CENTER OF THE WHITE EDGELINE SHALL BE LOCATED SIX INCHES FROM THE EDGE OF PAVEMENT ON EITHER SIDE OF THE ROADWAY; ON A ROADWAY MEASURING 22 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 10 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 24 FEET IN WIDTH, TRAVEL LANES SHALL MEASURE 11 FEET AND THE WHITE EDGELINE SHALL BE LOCATED ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE; ON A ROADWAY MEASURING 26 FEET OR MORE IN WIDTH, TRAVEL LANES SHALL MEASURE 12 FEET AND THE WHITE EDGELINE SHALL BE LOCATED NO LESS THAN ONE FOOT FROM THE EDGE OF PAVEMENT ON EITHER SIDE. THIS SHALL BE STANDARD PRACTICE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 6. PAPER JOINTS ARE TO BE PLACED BETWEEN DAYS OF PAVING OPERATIONS AS SPECIFIED IN THE STANDARD SPECIFICATIONS SECTION 610–11.
- 7. ALL MILLED AREAS WILL BE PAVED WITHIN 72 HOURS UNLESS APPROVED BY THE ENGINEER.
- 9. REPLACE ANY PORTION OF STOP BARS AND OTHER PAVEMENT MARKINGS AT ANY INTERSECTION INCLUDING Y-LINES NOT ACTUALLY BEING PAVED OVER, THAT ARE OBLITERATED BY THE PAVING OPERATION EITHER BY HAULING WHEEL TRACKS OR TACK TRUCK BY THE END OF EACH RESURFACING OPERATION



# **Davidson County 2017 Resurfacing Bridges**

								PROJE: 2016CPT.09		\$	SHEET NO.		
•	Route No.									2016CPT.09			12
Map No.		Route Name	Bridge No.	Feature Intersected	Floor Construction	Clear Roadway Width (Ft)	Horizontal Clearance Under (Ft.)	Vertical Clearance Under	Length (Ft)	Posting	Recommended Treatment, From Bridge Maintenance		
1	US 64	US29/70BUS/ 185 NBL	118	US29/70BUS/ I85BUSNBL	6.5 RC, 5" AWS	30	NA	NA	260	NA	INFORMATION ONLY		
1	US 64	US 64 WBL	53	SR 3346 MAIN ST.	6.75 RC, 3" AWS	28	NA	NA	164	NA	MILL 1 1/2" AND PAVE Back 1.5"		
1	US 64	US 64 WBL	80	US 29/70 BUS/ I-85 BUS NBL	6.75 RC 3 AWS	28	NA	NA	130	NA	MILL 1 1/2" AND PAVE Back 1.5"		
1	US 64	US 64	101	SOUTHERN RAILROAD	8.5 RC SLAB	80.1	NA	NA	146	NA	DO NOT MILL OR PAVE		
1	US 64	US 64	123	ABBOTTS CREEK	8 1/2 RC SLAB	80.1	NA	NA	112	SV 33 TTST 40	DO NOT MILL OR PAVE		
2,3	NC 8	NC 8	59	ABBOTTS CREEK	8 1/8 RC SLAB	40	NA	NA	295	NA	DO NOT MILL OR PAVE		
3	NC 8	NC 8	48	HIGH ROCK LAKE	8.5 RC SLAB	40	NA	NA	140	NA	DO NOT MILL OR PAVE		
5	SR 1836	BETHESDA RD.	514	US 52 & NC 8	5.25 RC, 3.5 PPC	31	NA	NA	206	NA	DO NOT MILL OR PAVE		
6	SR 2310	SHIPTONTOWN RD.	310	FOUR MILE CREEK	PPCCS, 3.25 AWS	24.9	NA	NA	97	NA	MILL 1 1/2" AND PAVE Back 1.5"		

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.09.18.10291.1,	13	
2016CPT.09.19.20291.1	15	

# SUMMARY OF QUANTITIES

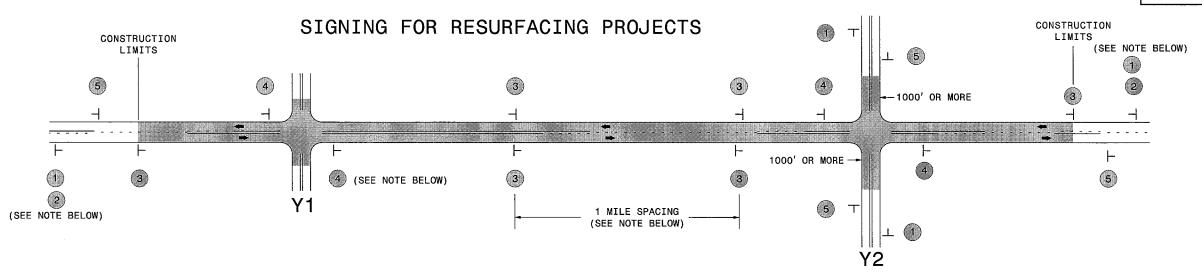
SUMMARY OF QUANTITIES																											
PROJECT	COUNT	Y MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	FINAL	WARM MIX	NON-	LENGTH	WIDTH	BORROW	INCIDENTAL	SHOULDER	MILLING	INCIDENTAL	SURFACE	SURFACE	SURFACE	SURFACE	ASPHALT	PATCHING	ADJ. OF	PORTABLE	TEMP SILT	WATTLE
							TYPE	SURFACE	ASPHALT	TRACKING			EXCAVATION	STONE BASE	RECON-	ASPHALT	MILLING	COURSE,	COURSE,	COURSE,	COURSE,	BINDER FOR	EXISTING	METER OR	LIGHTING	FENCE	
		1 1						TESTING	REQUIRED	ASPHALT				:	STRUCTION	PAVEMENT,		S9.5B	S9.5C	SF9.5A	S4.75A	PLANT MIX	PAVEMENT	VALVE BOX			
								REQUIRED		TACK COAT						1 1/2"DEPTH	ı		1					ŀ			
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NO		NO			NO						MI	FT	CY	TONS	SMI	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	EA	LS	LF	LF
				FROM PAVEMENT JT. AT END OF																							
				MEDIAN AT LINDA PLACE TO NOSE																		ĺ					
				OF CONC. MEDIAN NEAR ENT. TO					1																		ļ
				SMART START OF DAVIDSON CO.																							
		1 1		INCLUDES RAMPS AS SHOWN ON																							
2016CPT.09.18.10291.1	Davidso	n 1	US 64	MAPS	1	5	2WU	NO	NO	YES	2.789	71	540		7.44	133,215			12,888	]		760			1	1,803	181
	TOTAL FO	OR MAP	NO. 1								2.789		540		7.44	133,215			12,888			760			1	1,803	181
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2016CPT.09.18.10291.1			NC 8	FROM BRIDGE # 59 TO BRIDGE # 48	2	2	2WU	NO	NO	YES	4.247	22	510	183	8.49	62,002	ļ	5,538	ļ			332	831	1		1,699	170
	TOTAL FO	OR MAP	NO. 2						<u> </u>		4.247		510	183	8.49	62,002	<b></b>	5,538			ļ	332	831	1	ļ	1,699	170
				FROM BRIDGE #48 TO APPROX. 100													1										
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2016CPT.09.18.10291.1	<del></del>	<del></del>	NC 8	ADDRESS "18846 NC 8"	2	2	2WU	NO	NO	YES	2.3	20	276	207	4.60	28,166		2,737				164	410		ļ	920	92
	TOTAL F				<u> </u>		<u> </u>				2.3		276	207	4.60	28,166		2,737				164	410		ļ	920	92
TOTAL FOI	R PROJ NO	. 2016CP	T.09.18.10291.1	l			ļ			<u> </u>	9.336		1,326	390	20.53	223,383	1	8,275	12,888		L	1,256	1,241	1	1	4,422	443
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2016CPT.09.19.20291.1			SR 1836 BETHESDA RD.	AT BUDD SINK RD. SR 1837	3	2	2WU	NO	NO	YES	2.483	23	298	180	4.97	ļ	1,323	3,800				228	<del> </del>		<b></b>	993	99
	TOTAL F	OR MAP	NO. 4								2.483		298	180	4.97		1,323	3,800			<u> </u>	228	ļ			993	99
				FROM NC 8 EDGE OF PAVEMENT TO		_	l				l	l				1											İ
2016CPT.09.19.20291.			SR 2310 SHIPTONTOWN RD.	NC 47 EDGE OF PAVEMENT	4	2	2WU	NO	NO	YES	5.027	20	603	204	10.05	268	667	5,733				344	ļ			2,011	201
	TOTAL F	JR MAP		FROM A WORK PROFES PROFES PROFES	-		<u> </u>				5.027		603	204	10.05	268	667	5,733	ļ	-		344	ļ		-	2,011	201
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2016CPT.09.19.20291.1	TOTAL F		SR 3206 TARA GAIL LANE	CHRISTINE CT. SR 3268	) 5	2	ZWU	NO	NO	YES	0.105	18		-	-	+	<del> </del>	<del>- </del>	<b></b>	106		7	1		<del> </del>		
	IUIALF	JR IVIAP	NO. 6	FROM TARA GAIL LANE END TO BOTH			-	<u> </u>		<del> </del>	0.105				ļ	+			<del> </del>	106		7			-		ļ
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301 CCDT 00 10 20201			CD 22CD CUDICTINE CT	DIRECTIONS OF CHRISTINE CT.	-	١ ,	214/11			VEC	0.256	1							1								Ì
2016CPT.09.19.20291.2	TOTAL F			INCLUDING CUL-DE-SACS	5	<del></del>	2WU	NO	NO	YES	0.356 0.356	18			<del> </del>	1	<del>                                     </del>	·	<del> </del>	442		30	1	ļ			
	TOTALF	JK IVIAF	NO. 7	FROM HICKORY TREE RD. SR 1508 TO	┝		<u> </u>		1	<b>†</b>	0.330		-	<del> </del>	<del>                                     </del>	+ -	1			442		30		1	<del>                                     </del>		
2016CPT 00 10 20201	Davide		SR 1669 NORTH WIND DR.	END	5	١,	2WU	NO	NO	YES	0.852	19								953		64					
2010CF1.03.13.20231	TOTAL F			LIND	۲	-	2000	INO	140	163	0.852	13		<del>                                     </del>	<del> </del>		<del> </del>	+	-	953	-	64	<del> </del>	1			
	TOTAL	OK WAF		FROM HICKORY TREE RD. SR 1508 TO			<del>                                     </del>		<del> </del>	<del> </del>	0.032				<del> </del>	<u> </u>	<del> </del>	<del> </del>	<u> </u>	933		1 04	<del> </del>		<del> </del>		
2016CPT 09 19 20291	Davids	.n a	SR 3248 MASON KNOLL DR.	END	6	,	2WU	NO	NO	YES	0.454	19									324	22					
20100111031231202311	TOTAL F		<del></del>	Litto	۱Ť	<u> </u>	1	110	110	123	0.454			<del></del>		<del> </del>	<u> </u>	<del>                                     </del>	<del>                                     </del>		324	22	<del>                                     </del>		<del></del>		<del> </del>
	T		l .	FROM MASON KNOLL DR. SR 3248 TO	<del> </del>		<del> </del>			1	0.434				<del> </del> -	<del> </del>	<del></del>	+	<del>                                     </del>		J24		1		1		1
2016CPT 09 19 20291	1 Davids	n 10	SR 3249 BRAMTON CT.	END	1	2	l <sub>2WII</sub>	NO	NO	YES	0.058	18					i		1		66	Ι 4					
201001 11031231202321	TOTAL FO	_		2.10	Ť	-	1	110		1	0.058	10			<b>†</b>	† ·			<del>                                     </del>	·	66	4	<del> </del>				<del>                                     </del>
	1	T	<del>-</del>	FROM MASON KNOLL DR. SR 3248 TO			<del>                                     </del>	<del> </del>		1	1	<del>                                     </del>		İ		<del>                                     </del>	<del>                                     </del>	+	<u> </u>	1	<del></del>	<del>                                     </del>			1	-	<del> </del>
2016CPT.09.19.20291.	1 Davids	on 11	SR 3250 WINDMERE CT.	END	6	2	2WU	NO	NO	YES	0.058	18		1							62	4	-	1			
·	TOTAL FO		<b>.</b>		Ť	<u> </u>	1		<del>                                     </del>	<del>                                     </del>	0.058	<u> </u>				1	1	<del></del>	<del> </del>	1	62	4	1	<del> </del>			<del>                                     </del>
			PT.09.19.20291.1		$\vdash$		$\vdash$	<b></b>	†	<u> </u>	9.393	<del>                                     </del>	901	384	15.02	268	1,990	9,533	<u> </u>	1,501	452	703	<u> </u>	†		3,004	300
				1				·	<del>'</del>			L		1				1 -7			1	.1	<del></del>	<del></del>			1
	GRA	ND TOTA	AL .	<u> </u>	1		1				18.729		2,227	774	35.55	223,651	1,990	17.808	12.888	1,501	452	1,959	1,241	1	1	7,426	743
				<u> </u>	_													1				, -,				,	<del>,</del>

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.09.18.10291.1,	14	
2016CPT.09.19.20291.1	14	

# THERMOPLASTIC AND PAINT QUANTITIES

									IIILI	IVI U F	LAJ I	IC A	ND F	AIN	QUA	. 14 1 1	ILJ										
	COLUMBY								4457000000-N			00000-E	4705000000-E			00000-E	4725000000-E		00000-E							4847110000-E	
PROJECT	COUNTY	MAP ROUTE	DESCRIPTION	TYP			TH WIDT		TEMPORARY	4" X 90 M	4" X 120 M	1	16" X 120 M	l	1	THERMO RXR		4" WHITE	4" YELLOW	8" WHITE	16" WHITE	24" WHITE	PAINT MSG	4" WHITE	4" YELLOW	8" WHITE	SNOW
		ŀ				YPE		ADVANCE/GE	TRAFFIC	WHITE	YELLOW	WHITE	WHITE	WHITE	ONLY 120 M	120 M	ARROW 90	PAINT	PAINT	PAINT	PAINT	PAINT	RXR	POLYUREA	POLYUREA	POLYUREA	PLOWABLE
		}						NERAL WARNING	CONTROL	THERMO	THERMÓ	THERMO	THERMO	THERMO			M			1	ŀ			(HIGHLY REFLECTIVE	(HIGHLY REFLECTIVE	(HIGHLY REFLECTIVE	MARKERS
	- 1			1				SIGNING	1							}				1				ELEMENTS)	ELEMENTS)	ELEMENTS)	i
NO	- 1	NO		NO			- 1	SF	LS	LF	1.5	16	15	LF	EA	EA	EA	LF	16	le le	15	I F	FA.	LF LF	LF LEIVIEWIS)	LF	EA
			FROM PAVEMENT JT. AT END OF	- 1.0					<del>                                     </del>		<del></del>		<del>                                     </del>	<u> </u>			<u> </u>		<del> </del>	<del></del>					-		<del></del>
			MEDIAN AT LINDA PLACE TO NOSE	1 1		- 1	1						1									1				, '	
			OF CONC. MEDIAN NEAR ENT. TO													1										, '	
			SMART START OF DAVIDSON CO.									ļ														, '	
			INCLUDES RAMPS AS SHOWN ON	١								1		ļ							1					, '	
2016CPT.09.18.10291.1		1 US 64	MAPS	1	5 2	WU 2.7	39 71	2,258	1					79	16		88	46,740	41,483	1,669		79		46,740	41,483	1,669	736
	OTAL FOR	MAP NO. 1				2.7	39	2,258	1					79	1,6		88	46,740	41,483	1,669		79		46,740	41,483	1,669	736
		1									1				1		1						1			, '	
2016CPT.09.18.10291.1			FROM BRIDGE # 59 TO BRIDGE # 4	8 2	2 2								ļ		1		ļ	46,122	45,123					46,122	45,123	'	280
	OTAL FOR	MAP NO. 2			$\vdash$	4.2	17	1			-			ļ			1	46,122	45,123	ļ	1			46,122	45,123		280
	j		FROM BRIDGE #48 TO APPROX. 10			1	1		1	Ì	1		1	1	1		1		1	l	1					, ,	1
			FEET SOUTH OF DRIVE AT STREET		١. ا.		.									١.							١ .			'	1
2016CPT.09.18.10291.1		3 NC 8	ADDRESS "18846 NC 8"	12	2 2		3 20		-				50	25	-	2		24,844	24,288	<del> </del>	50	25	2	24,844 24,844	24,288 24,288		152 152
		MAP NO. 3	<del></del>	+	<del>                                     </del>	9.3		2,258	1			<del> </del>	50 50	25 104	16	2	88	24,844 117,706	24,288 110,894	1,669	50 50	25 104	2	117,706	110,894	1,669	1,168
TOTAL FOR	PROJ NO. 2	016CPT.09.18.10291.1		+	<del>                                     </del>	9.3	90	2,256	+			·	30	104		1 <u>2</u> 18	- 00		3,600	1,009	30	104			3,600	1,009	1,100
									·	L	1		1	1		10	l	1 220	,,,,,,	1	<u> </u>	<del></del>		220	3,000		
***************************************	1	1	FROM OLD US 52 TO PAVEMENT JT	r. l	Г			1	1	i	ł .			I	1			I			1						T
2016CPT.09.19.20291.1	Davidson	4 SR 1836 BETHESDA RD.		Э 3	2 2	WU 2.4	33 23			26,717	26,220	92		ì									l	454	454	,	
		MAP NO. 4		十		2.4		1		26,717	26,220	92									1	<del></del>	<del>                                     </del>	454	454		1
			FROM NC 8 EDGE OF PAVEMENT TO	0											i											,	1
2016CPT.09.19.20291.1	Davidson	5 SR 2310 SHIPTONTOWN F		4	2 2	WU 5.0	27 20	i		54,091	53,085	60	1										1			(	i
	OTAL FOR	MAP NO. 5				5.0	27			54,091	53,085	60	ļ				I										
			FROM HICKORY TREE RD. SR 1508 T										1							1						i .	
		6 SR 3206 TARA GAIL LAN	CHRISTINE CT. SR 3268	5	2 2	WU 0.1										<u> </u>				1	<u> </u>	ļ				ļ	
****	OTAL FOR	MAP NO. 6			$\vdash$	0.1	05		<u> </u>							1											
			FROM TARA GAIL LANE END TO BOT	тн	1		- 1	1	1		ı			1				1			İ					i .	
		_	DIRECTIONS OF CHRISTINE CT.	1 _	_  _			1	İ									ł			1			1		i .	
		7 SR 3268 CHRISTINE CT.	INCLUDING CUL-DE-SACS	5	2 2	WU 0.3			<del>                                     </del>	ļ	<u> </u>		1	<del>                                     </del>	<u> </u>					<u> </u>				1	ļ	r	<del></del>
	DIALFOR	MAP NO, 7	EROM HICKORY TREE RD CR 1509 3	ro	-	0,3	56	+	+	-	<b>-</b>	<b> </b>	<del>                                     </del>	-	1		1		ļ	-		· · · · · · · · · · · · · · · · · · ·	<del> </del>				+
2016CPT 00 10 20201 1	Davidson	8 SR 1669 NORTH WIND D	FROM HICKORY TREE RD. SR 1508 T END	۔ [``	١, ١,	.wu 0.8	52 19	1		I		1	1	I			1	1	}	1			1		1	1	
		MAP NO. 8	D. LIND	+-		0.8		+	1	·	1	l		1	+	†	<del> </del>	<u> </u>		t	<del> </del>	<b> </b>		<u> </u>			<del> </del>
			FROM HICKORY TREE RD. SR 1508 T	го	1 1		_		1			1	1	1	1		1			1					T		T
2016CPT.09.19.20291.1	Davidson	9 SR 3248 MASON KNOLL D			2 2	WU 0.4	54 19		1	l	İ	1	1	1		ĺ				i		ļ		1		1	
		MAP NO. 9				0.4																	T				
·			FROM MASON KNOLL DR. SR 3248	то		1				1																1	
		10 SR 3249 BRAMTON CT.	END	6	2 2	WU 0.0				<u> </u>																	<b>_</b>
-	OTAL FOR	MAP NO. 10				0.0	58																		1		
			FROM MASON KNOLL DR. SR 3248		1							1	1				1		ļ				İ			1	
		11 SR 3250 WINDMERE CT	. END	6	2 2	WU 0.0			ļ		ļ	<del> </del>	1			ļ <u>.</u>	<u> </u>	ļ	ļ	ļ	ļ <u>.                                    </u>	<u> </u>	<u> </u>	ļ	ļ		<b></b>
	OTAL FOR	MAP NO. 11		_	<b>                                     </b>	0.0		1	1		1	1		ļ	1	-			<b> </b>	1	ļ	ļ				<del></del>	<del></del>
TOTAL FOR	PROJ NO. 2	016CPT.09.19.20291.1		$\perp$	$\vdash$	9.3	93			80,808	79,305	152	-	<del> </del>		1				-	ļ	-		454	454	<del></del>	ļ
								1		1	J 79	,457		1						I	l .	1			908		<u>i</u>
•			<del>· ,</del>		<del></del>	1	no I	7 2 255		90 005	70.205	152	T ===	104	1 45	7	T	447.705	140.00	1 4 555	50	104	2	440.450	111 240	1.550	1,168
	GRAND	TOTAL		+	1	18.	73	2,258	1 1	80,808	79,305		50	104	16		88		110,894	1,669	50	104			111,348	1,669	1,168
			1		<u> </u>	i			1		1 79	,457	1		1 :	18	1	228	8,600	1	1		L		9,508		

PROJ. REFERENCE NO. SHEET NO. 2016CPT.09.18.10291.1.ETC. TMP-1



LEGEND ⊢ STATIONARY SIGN ← DIRECTION OF TRAFFIC FLOW

# MAINLINE (-L-) SIGNING

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

### PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ROAD ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. FES AND DIRECTION WORK AHEAD W20-1 48" X 48" W7-3aP #2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS) PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART LOW/SOFT SHOULDER THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE NOTI PER I CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER. SIGNING PLACEMENT P THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM ROAD EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT UNDER ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL CONST WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT SP 13106 48"X 48" INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.

END

ROAD WORK G20-2 A 48" X 24"

# NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE

-Y- LINE SIGNING

- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

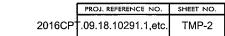


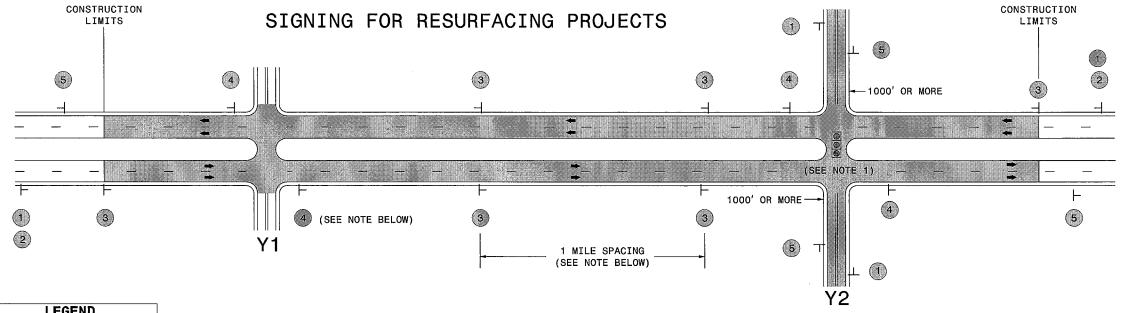


PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.



RESURFACING ADVANCE WARNING SIGNS RURAL AND SUBURBAN 2 LANE ROADWAYS





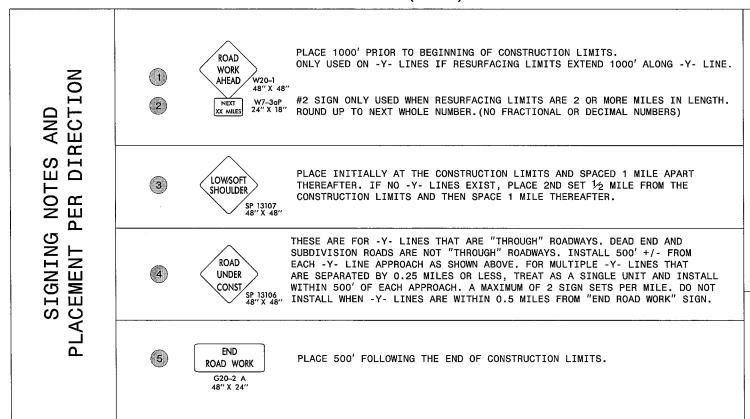
LEGEND

→ STATIONARY SIGN

→ DIRECTION OF TRAFFIC FLOW

# MAINLINE (-L-) SIGNING

# -Y- LINE SIGNING



# NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.





PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

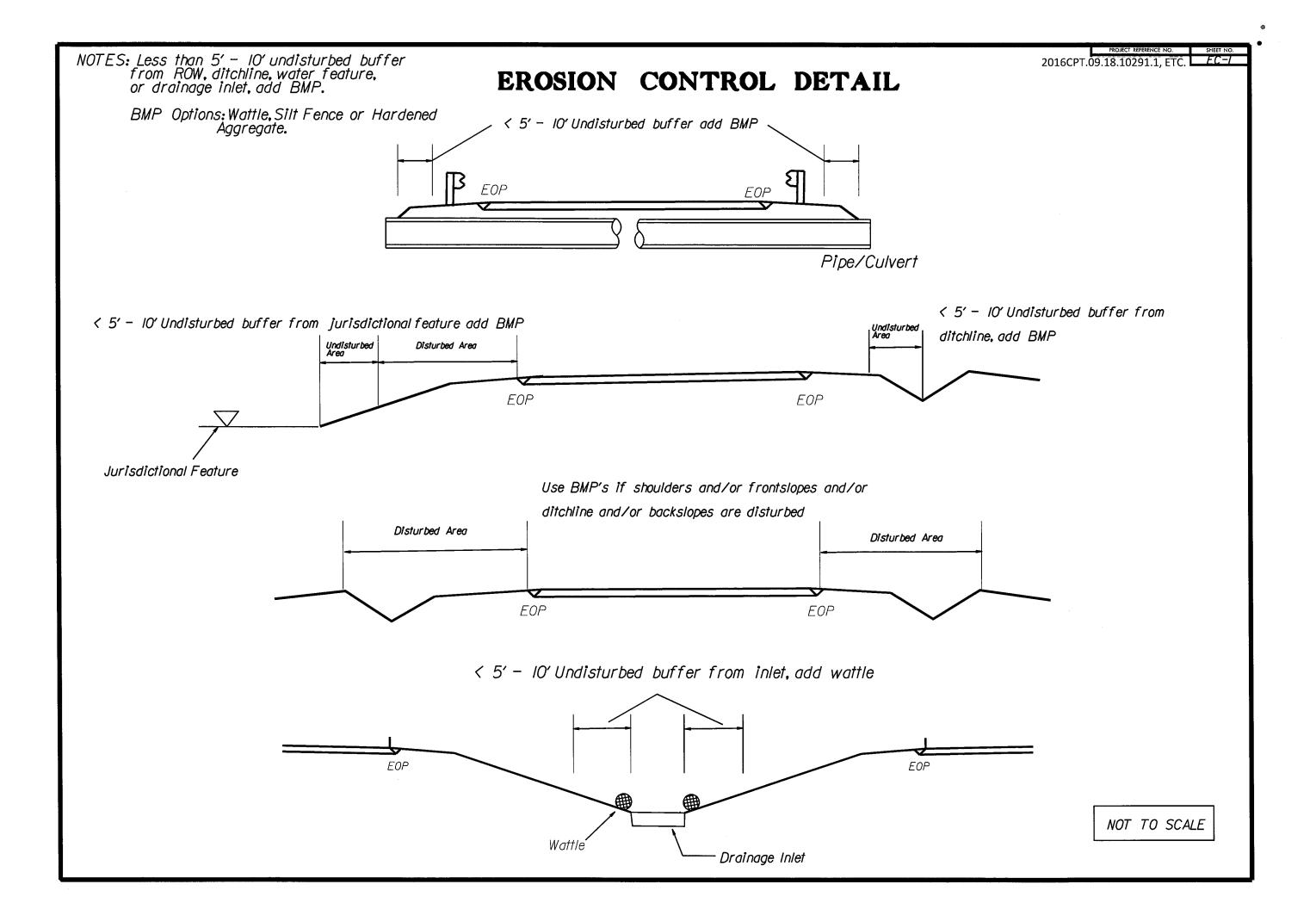
# NOTES:

1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.



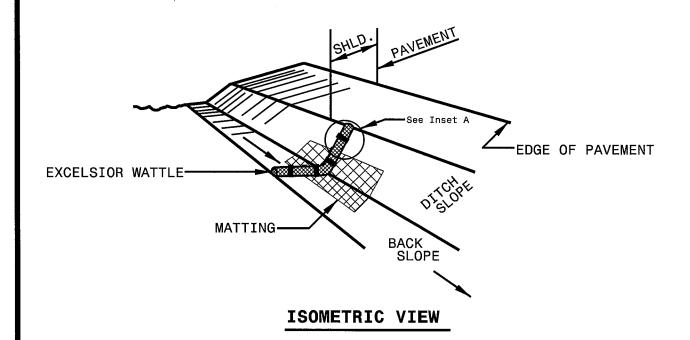
RESURFACING
ADVANCE WARNING SIGNS
FOR RURAL AND SUBURBAN
MULTI-LANE ROADWAYS
W/ SHOULDER SECTIONS

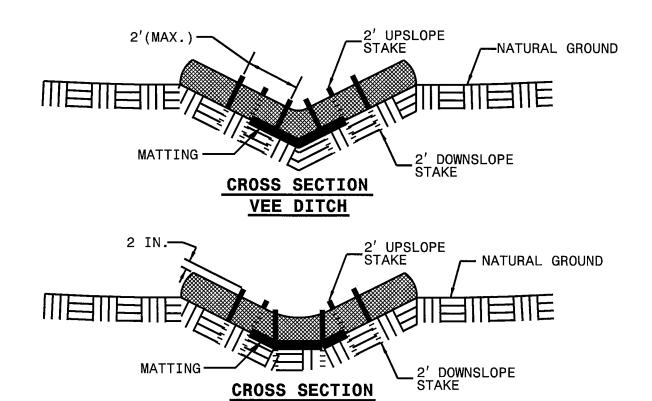
sers)rmgarrett/Downloads\Resurfacing\_AdvWarn\_UrSu\_Shk



2016CPT.09.18.10291.1, ETC.

# WATTLE DETAIL





TRAPEZOIDAL DITCH

#### NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

 $\underline{\text{ONLY}}$  INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

