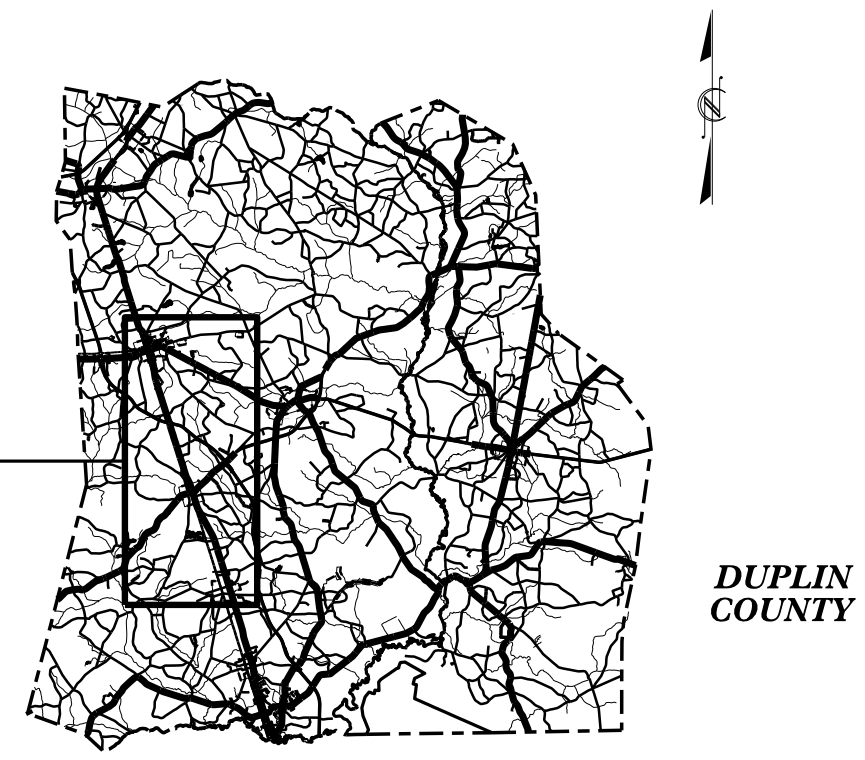
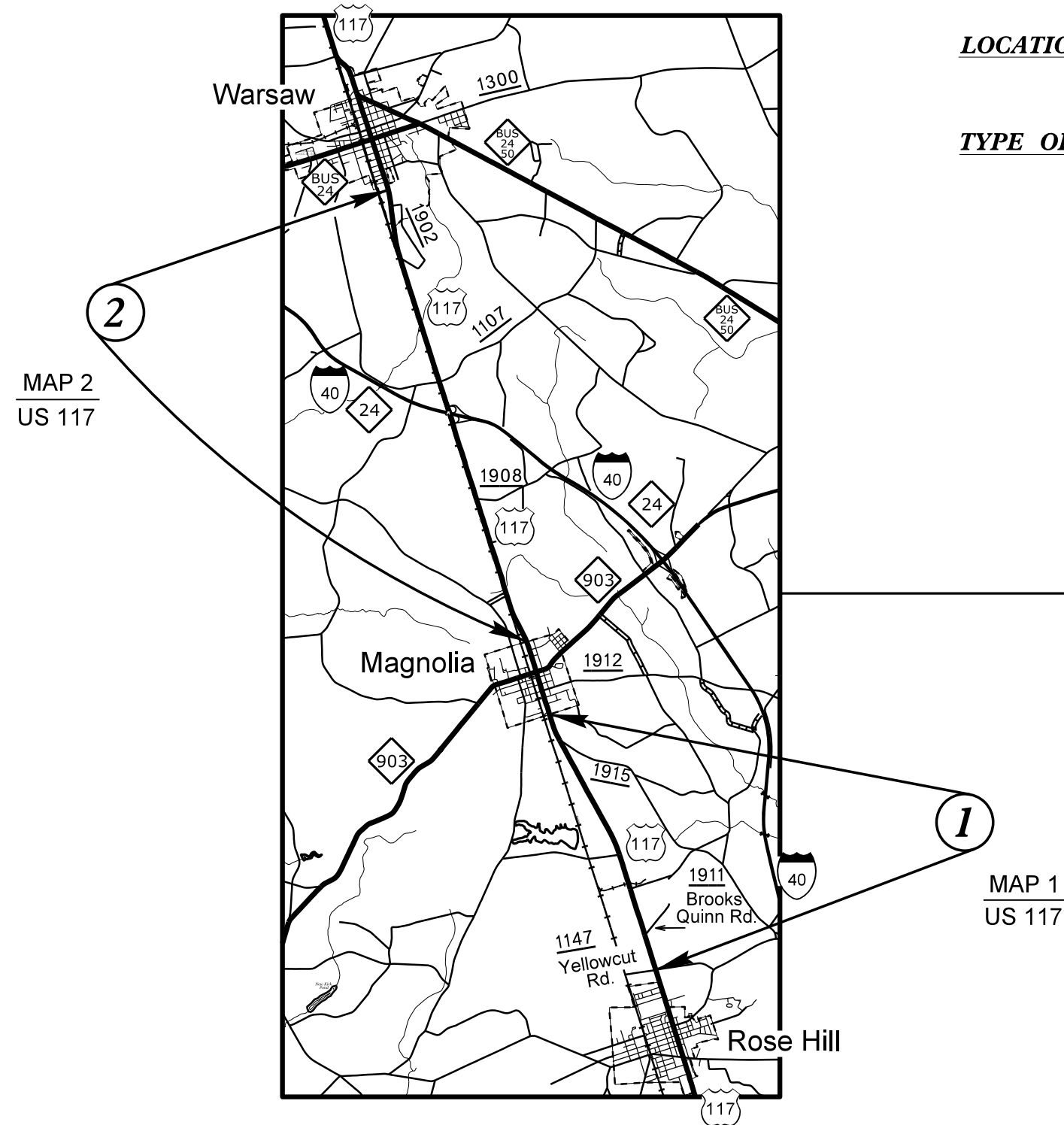


DUPLIN COUNTY

LOCATION: 2 SECTIONS OF US 117 FROM SR 1147 (YELLOWCUT RD.) TO SOUTHERN TOWN LIMITS OF MAGNOLIA AND FROM NORTHERN TOWN LIMITS OF MAGNOLIA TO SOUTHERN TOWN LIMITS OF WARSAW

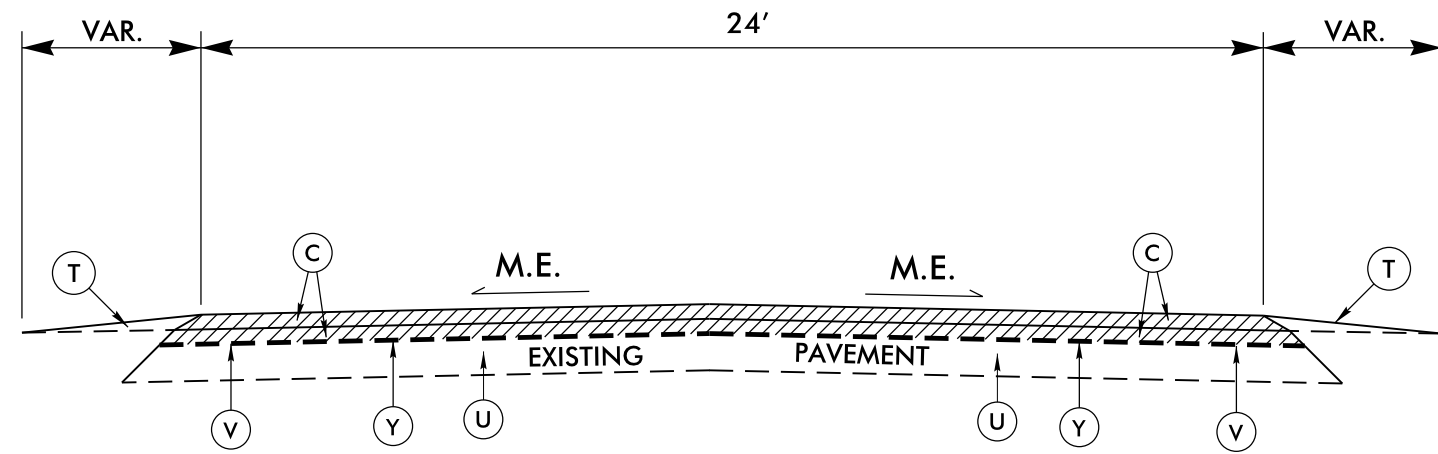
TYPE OF WORK: MILLING, PAVEMENT INTERLAYER, RESURFACING & THERMOPLASTIC PAVEMENT MARKINGS, ETC.



INDEX OF SHEETS	
SHEET NO.	SHEET
1	INDEX OF SHEETS & TITLE SHEET
2 - 7	PAVEMENT SCHEDULE, TYPICAL SECTIONS & DETAIL SHEETS
8 - 11	SUMMARY OF QUANTITIES
12	TRAFFIC CONTROL DETAIL

MAPS N.T.S.

I4-MAR-2017 15:18
 S:\Division\Resurfacing\Resurfacing Data\2017
 Resurfacing\Duplin_Co\DC00179_US_117_ADDITIONAL_SECTION\2017CPT.03.12.10311_Rd.dwg
 \$\$\$\$\$\$



TYPICAL SECTION NO. 1

MAP NO. 1
US 117
MP 8.984 – MP 12.630

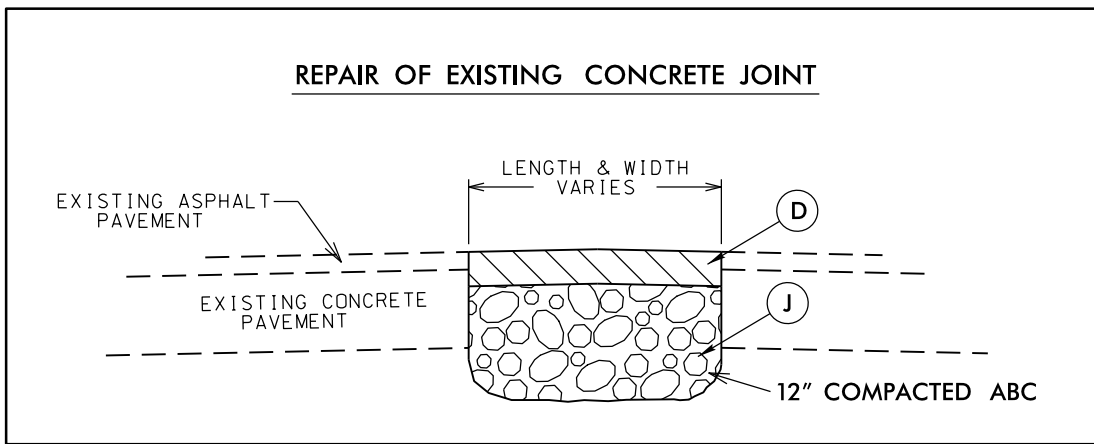
MAP NO. 2
US 117
MP 13.691 – MP 20.005

PAVEMENT SCHEDULE	
C	PROP. APPROX. 3" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS
D	PROP. APPROX. 4" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS.PER SQ.YD.
J	AGGREGATE BASE COURSE
T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT, 1½" DEPTH
Y	PAVEMENT INTERLAYER

PAVEMENT EDGE SLOPES ARE 1:1, EXCEPT FINAL SURFACE COURSE. SEE SHOULDER WEDGE DETAIL.

CONSTRUCTION SEQUENCE:

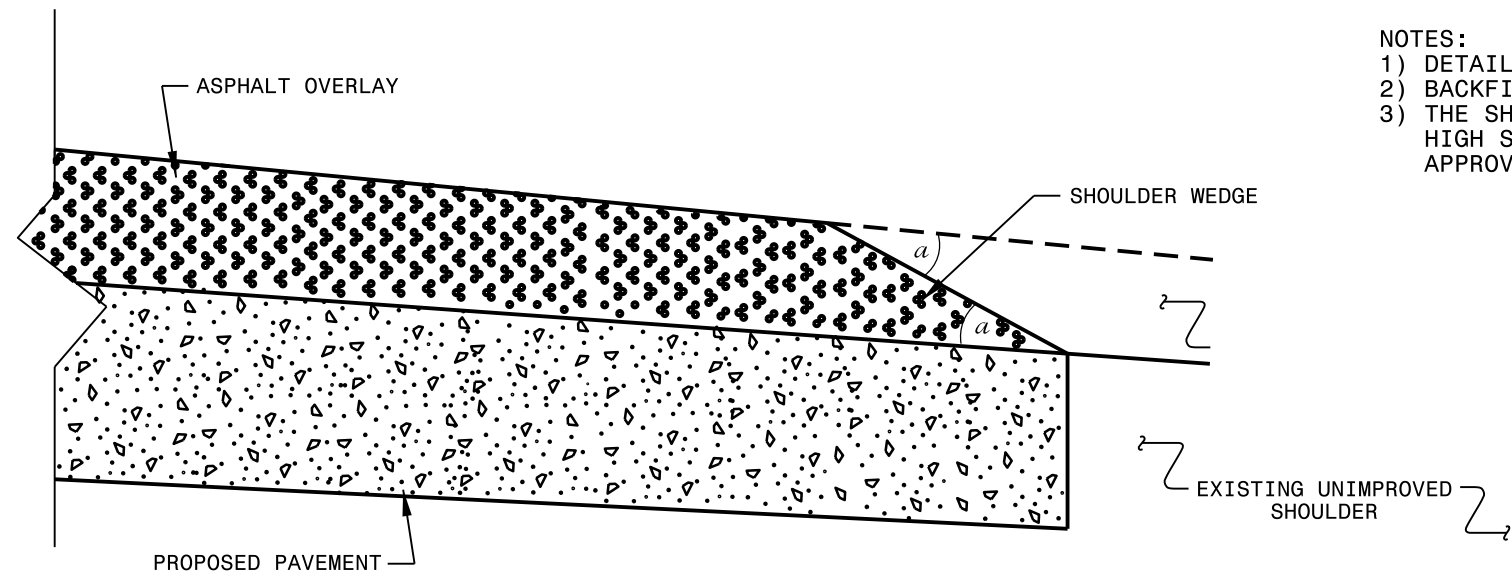
- REPAIR EXISTING CONCRETE JOINTS
- MILL 1.5" DEPTH
- PLACE PAVEMENT INTERLAYER
- RESURFACE S9.5B (2 LIFTS 1.5" EACH)



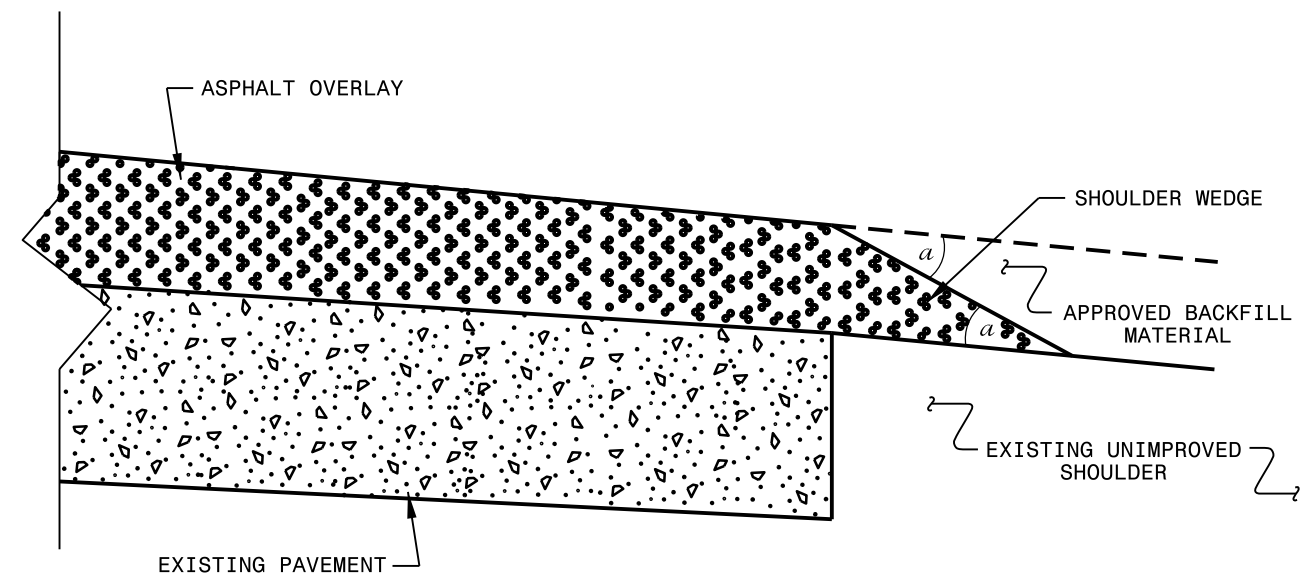
DETAIL NO. 1 (MAP 1 & 2)

NOTES:

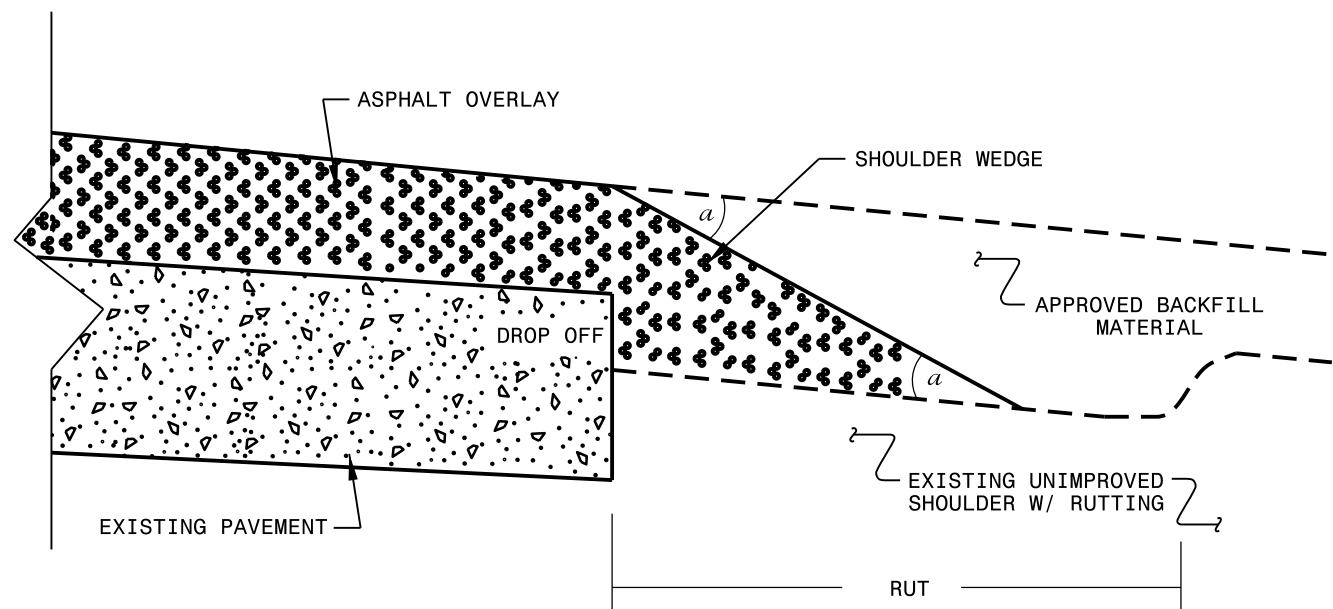
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ Widening or
 with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

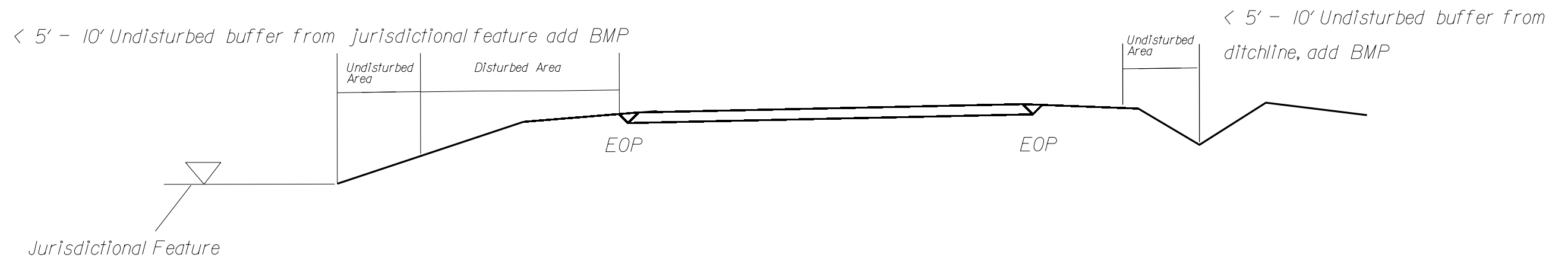
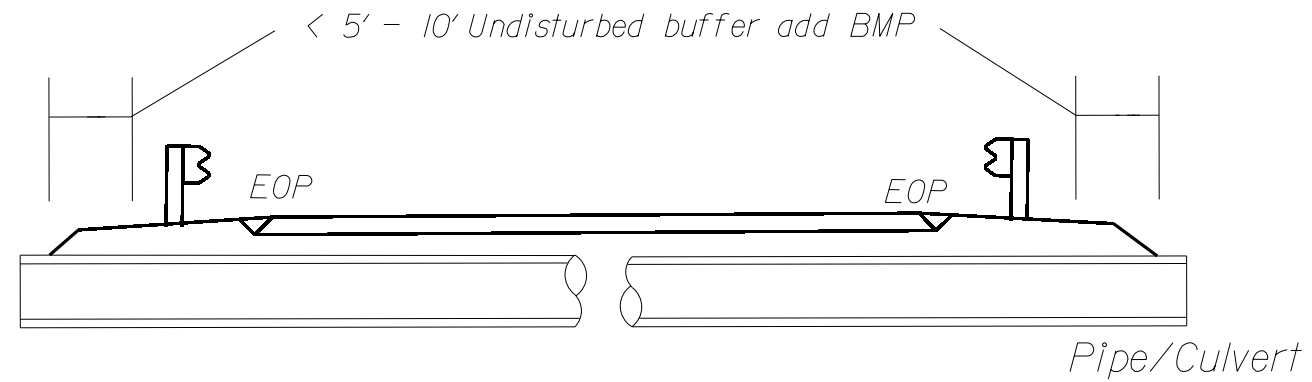
CONTRACT STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SHOULDER WEDGE DETAILS			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 2/2/16		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN
 USER NAME

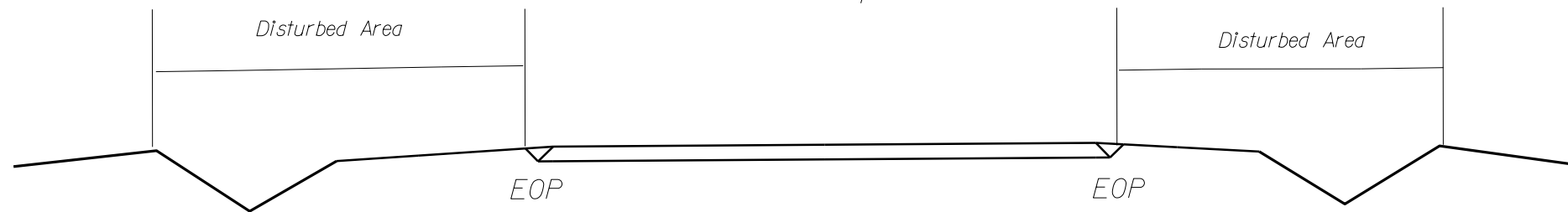
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

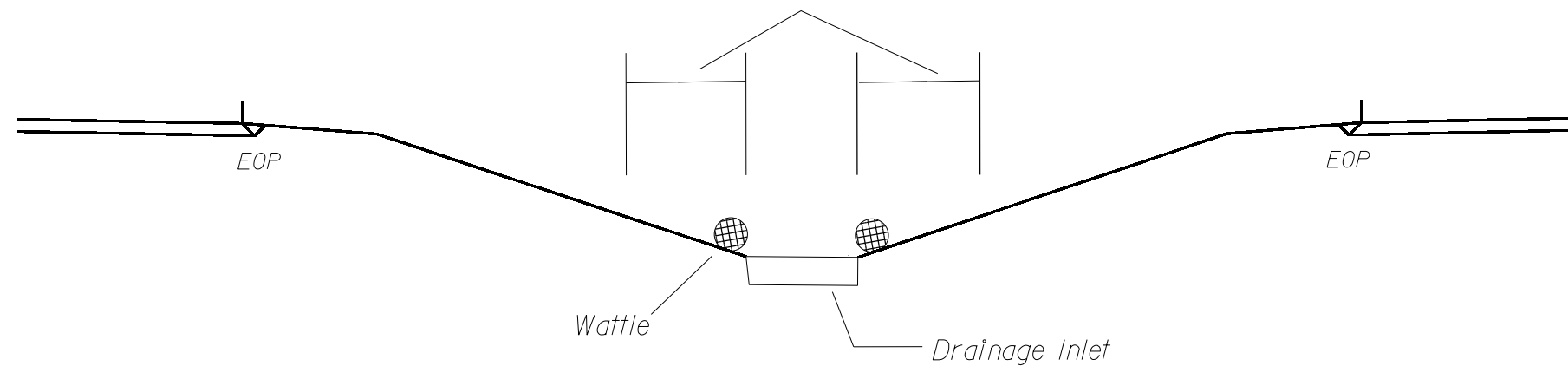
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



< 5' - 10' Undisturbed buffer from inlet, add wattle



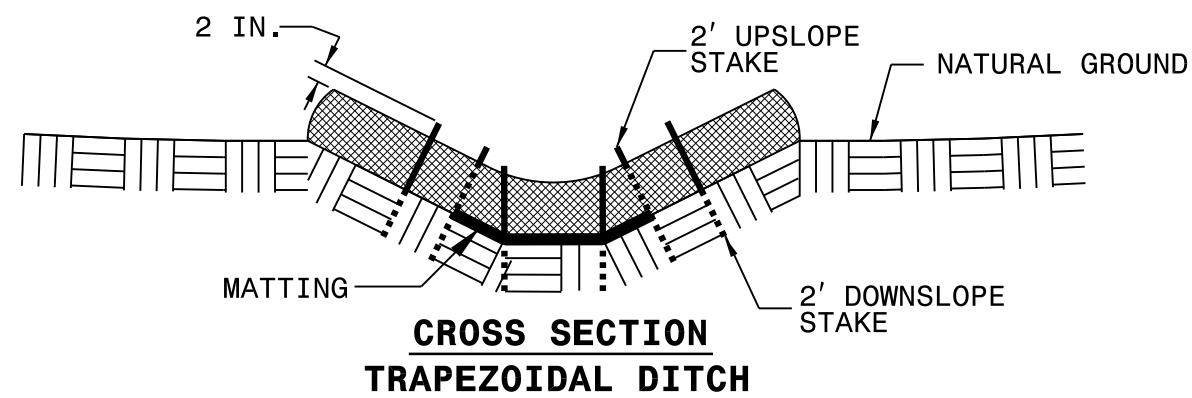
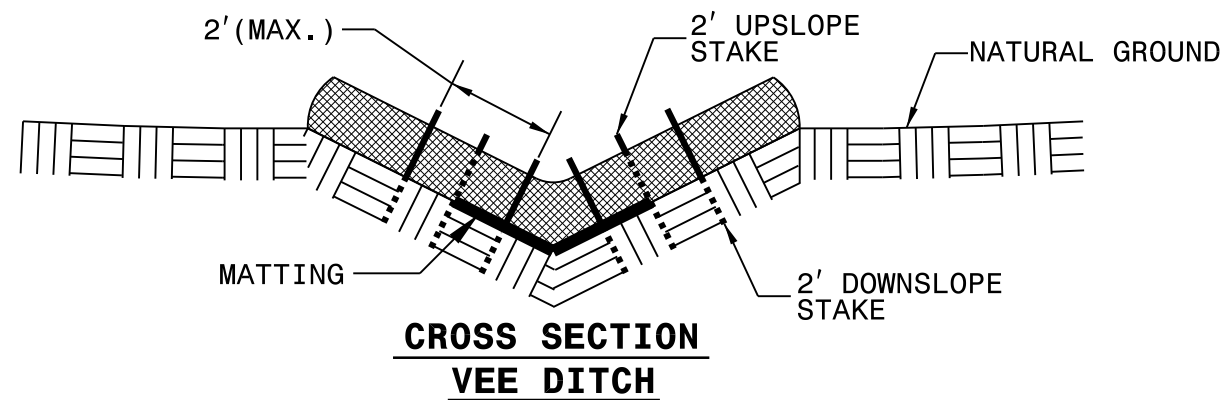
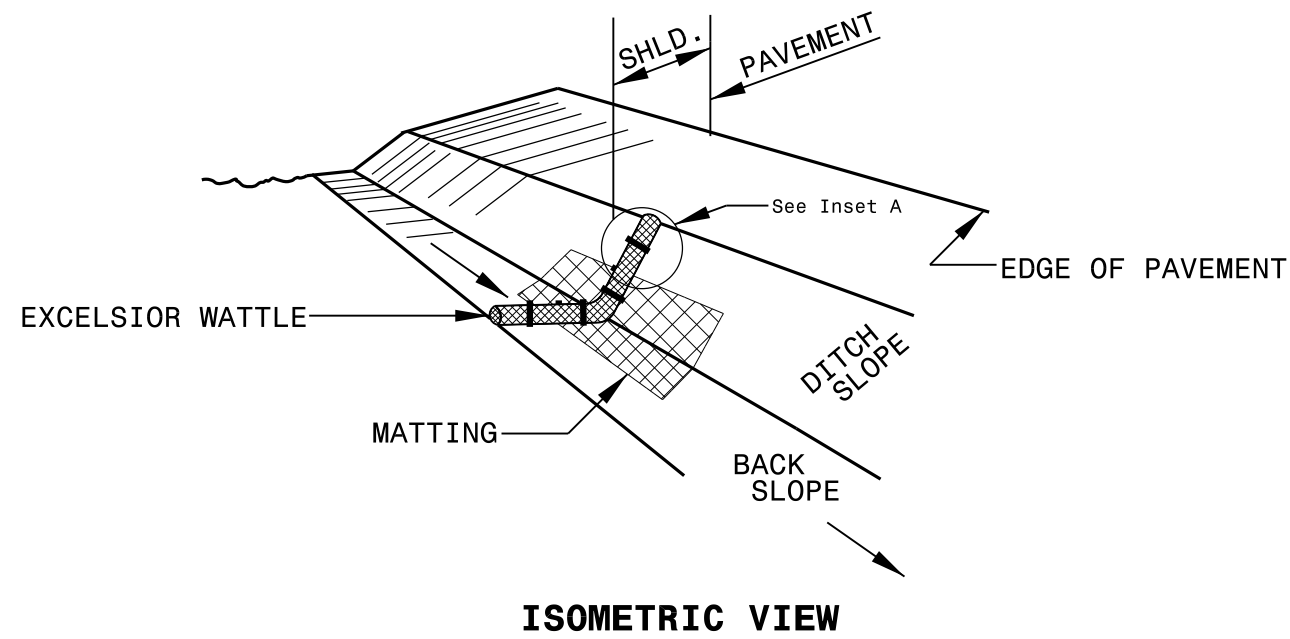
NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

WATTLE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

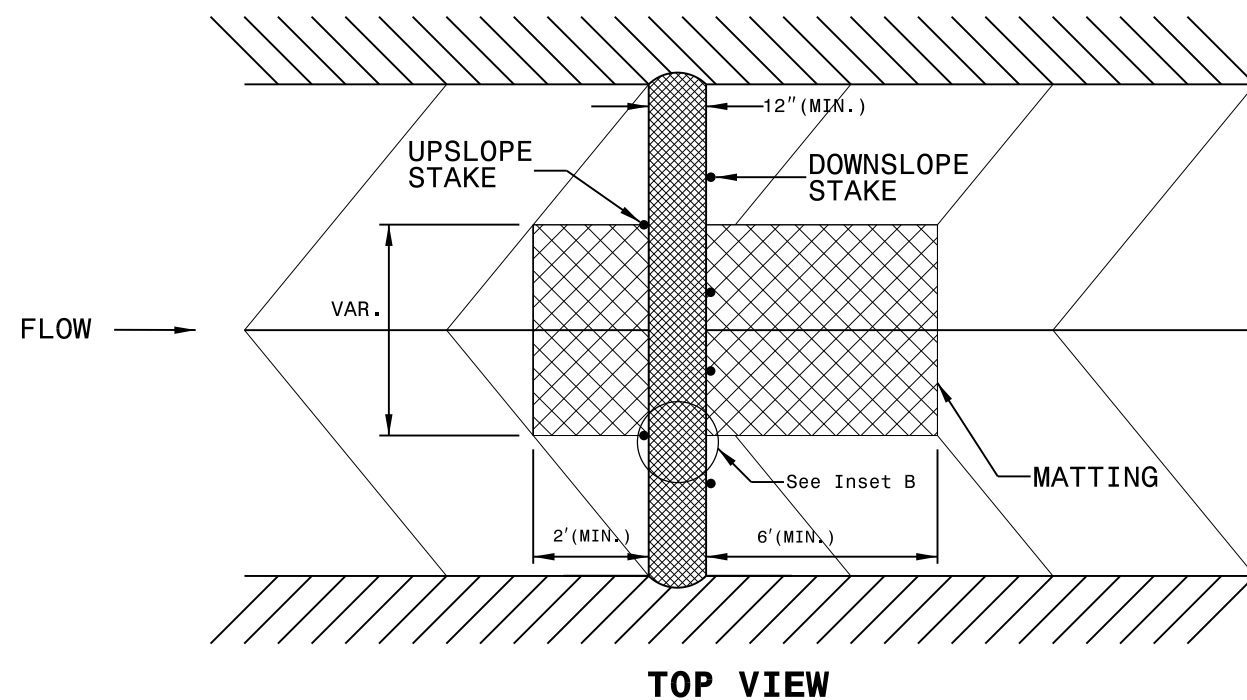
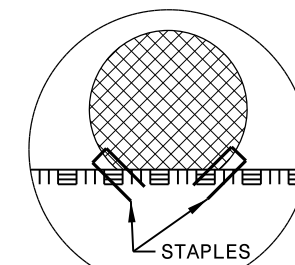
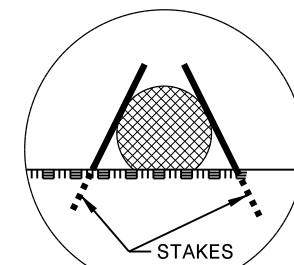
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



I:\FFB-2015\1141\01\Resurfacing\Plan_Sheets\3CR.20711.173. EC RESURF. 2015.dgn
 Date: 11/19/2015 11:41 AM
 User: jfanning

PROJECT NO.	SHEET NO.
2017CPT.03.12.10311	8

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW EXC. CY	INC. STONE BASE TON	SHOULDER RECONST. SMI	1 1/2" MILLING SY	INC. MILLING SY	SURFACE COURSE, S9.5B TON	LEVELING COURSE, S9.5B TON	ASPHALT FOR PAVEMENT INTERLAYER (SA-1) GENERIC TON	ASPHALT BINDER FOR PLANT MIX TON	ASPHALT PLANT MIX, PAVEMENT REPAIR TON	PATCHING EXISTING PAVEMENT (MILL) GENERIC TON	AGGREGATE BASE COURSE, PAVEMENT REPAIR (GENERIC) TON	GENERIC PAVING ITEM PAVEMENT INTERLAYER SY	6" CONCRETE DRIVEWAY SY	TEMP. SILT FENCE LF
2017CPT.03.12.10311	Duplin	1	US 117	FROM SR 1147 (YELLOWCUT RD) TO SOUTHERN TOWN LIMITS OF MAGNOLIA (MP 8.984 - MP 12.630)	1	2	2WU	YES	NO	3.646	24	335	200	7.30	58,270	275	9,695	20	200	597	50	200	25	56,762	50	365
TOTAL FOR MAP NO. 1										3.646		335	200	7.30	58,270	275	9,695	20	200	597	50	200	25	56,762	50	365
2017CPT.03.12.10311	Duplin	2	US 117	FROM NORTHERN TOWN LIMITS OF MAGNOLIA TO SOUTHERN TOWN LIMITS OF WARSAW (MP 13.691 - 20.005)	1	2	2WU	YES	NO	6.314	24	580	215	12.62	98,307	275	16,441	20	300	1,009	100	200	50	96,295	50	630
TOTAL FOR MAP NO. 2										6.314		580	215	12.62	98,307	275	16,441	20	300	1,009	100	200	50	96,295	50	630
TOTAL FOR PROJ NO. 2017CPT.03.12.10311										9.960		915	415	19.92	156,577	550	26,136	40	500	1,606	150	400	75	153,057	100	995
GRAND TOTAL										9.960		915	415	19.92	156,577	550	26,136	40	500	1,606	150	400	75	153,057	100	995

PROJECT NO.	SHEET NO.
2017CPT.03.12.10311	9

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	STONE FOR EC CLASS B TON	SEDIMENT CONTROL STONE TON	TEMP. MULCHING ACR	SEED FOR TEMP. SEEDING LBS	FERTILIZER FOR TEMP. SEEDING TON	MATTING FOR EROSION CONTROL SY	1/4" HARDWARE CLOTH LF	WATTLE LF	SEED & MULCHING AC	SEED FOR REPAIR SEEDING LB	FERTILIZER FOR REPAIR SEEDING TON	RESPONSE FOR EROSION CONTROL EA
2017CPT.03.12.10311	Duplin	1	US 117	FROM SR 1147 (YELLOWCUT RD) TO SOUTHERN TOWN LIMITS OF MAGNOLIA (MP 8.984 - MP 12.630)	1	2	2WU	YES	90	90	2.65	185	1.00	30	185	60	2.65	185	1.00	2
TOTAL FOR MAP NO. 1									90	90	2.65	185	1.00	30	185	60	2.65	185	1.00	2
2017CPT.03.12.10311	Duplin	2	US 117	FROM NORTHERN TOWN LIMITS OF MAGNOLIA TO SOUTHERN TOWN LIMITS OF WARSAW (MP 13.691 - 20.005)	1	2	2WU	YES	158	158	4.59	315	1.50	40	316	100	4.59	316	1.60	3
TOTAL FOR MAP NO. 2									158	158	4.59	315	1.50	40	316	100	4.59	316	1.60	3
TOTAL FOR PROJ NO. 2017CPT.03.12.10311									248	248	7.24	500	2.50	70	501	160	7.24	501	2.60	5
GRAND TOTAL									248	248	7.24	500	2.50	70	501	160	7.24	501	2.60	5

PROJECT NO.	SHEET NO.
2017CPT.03.12.10311	10

THERMOPLASTIC AND PAINT QUANTITIES

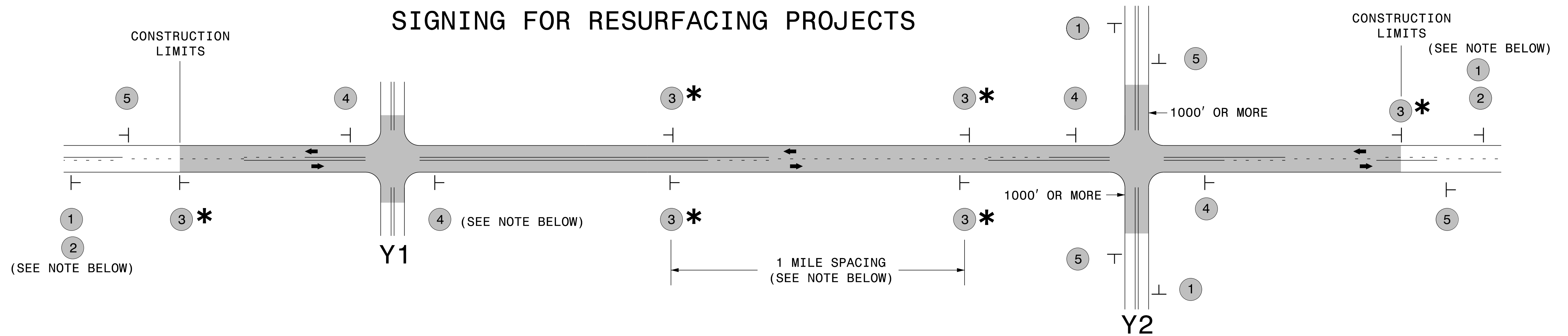
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4686000000-E		4700000000-E	4710000000-E	4725000000-E			4810000000-E		4825000000-E	4835000000-E
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	12" X 90 M YELLOW THERMO	24" X 120 M WHITE THERMO	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	12" YELLOW PAINT	24" WHITE PAINT
										SF	LS	LF	LF	LF	LF	LF	EA	EA	EA	LF	LF	LF	LF
2017CPT.03.12.10311	Duplin	1	US 117	FROM SR 1147 (YELLOWCUT RD) TO SOUTHERN TOWN LIMITS OF MAGNOLIA (MP 8.984 - MP 12.630)	1	2	2WU	3.646	24	416	0.37	39,274	29,090	150	1,088		3	16		39,424	29,090	500	
TOTAL FOR MAP NO. 1							3.646			416	0.37	39,274	29,090	150	1,088		3	16		39,424	29,090	500	
2017CPT.03.12.10311	Duplin	2	US 117	FROM NORTHERN TOWN LIMITS OF MAGNOLIA TO SOUTHERN TOWN LIMITS OF WARSAW (MP 13.691 - 20.005)	1	2	2WU	6.314	24	720	0.63	67,896	47,500	400	4,153	36	6	5	8	68,296	47,500	1,500	36
TOTAL FOR MAP NO. 2							6.314			720	0.63	67,896	47,500	400	4,153	36	6	5	8	68,296	47,500	1,500	36
TOTAL FOR PROJ NO. 2017CPT.03.12.10311							9.960			1,136	1.00	107,170	76,590	550	5,241	36	9	21	8	107,720	76,590	2,000	36
										77,140						38			184,310				
GRAND TOTAL							9.960			1,136	1.00	107,170	76,590	550	5,241	36	9	21	8	107,720	76,590	2,000	36
										77,140						38			184,310				

PROJECT NO.	SHEET NO.
2017CPT.03.12.10311	11

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	4845000000-N			4900000000-N	4905000000-N	
							PAINT RT ARROW	PAINT LT ARROW	PAINT STR ARROW	YELLOW & YELLOW MARKERS	SNOW PLOWABLE MARKERS (Y/Y)	SNOW PLOWABLE MARKERS (C/R)
							EA	EA	EA	EA	EA	EA
2017CPT.03.12.10311	Duplin	1	US 117	FROM SR 1147 (YELLOWCUT RD) TO SOUTHERN TOWN LIMITS OF MAGNOLIA (MP 8.984 - MP 12.630)	1	2	3	16		150	300	4
TOTAL FOR MAP NO. 1							3	16		150	300	4
2017CPT.03.12.10311	Duplin	2	US 117	FROM NORTHERN TOWN LIMITS OF MAGNOLIA TO SOUTHERN TOWN LIMITS OF WARSAW (MP 13.691 - 20.005)	1	2	6	5	8	250	485	24
TOTAL FOR MAP NO. 2							6	5	8	250	485	24
TOTAL FOR PROJ NO. 2017CPT.03.12.10311							9	21	8	400	785	28
							38				813	
GRAND TOTAL							9	21	8	400	785	28
							38				813	


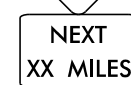


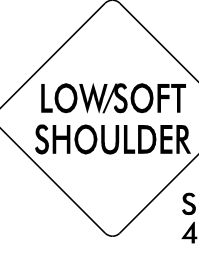
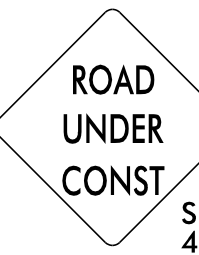
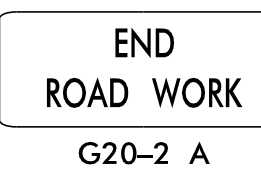
SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

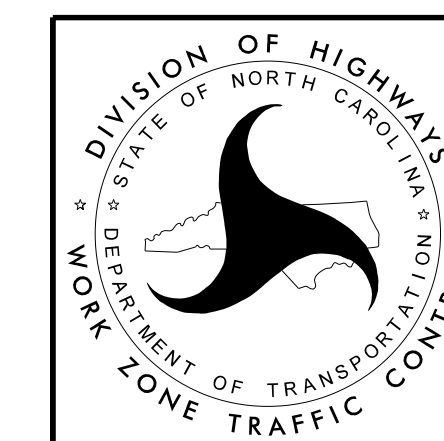
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2	 	<p style="text-align: center;">NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p style="text-align: center;">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.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">  <small>W20-7 A 48" X 48"</small> </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
3 *		
4		
5		

* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS