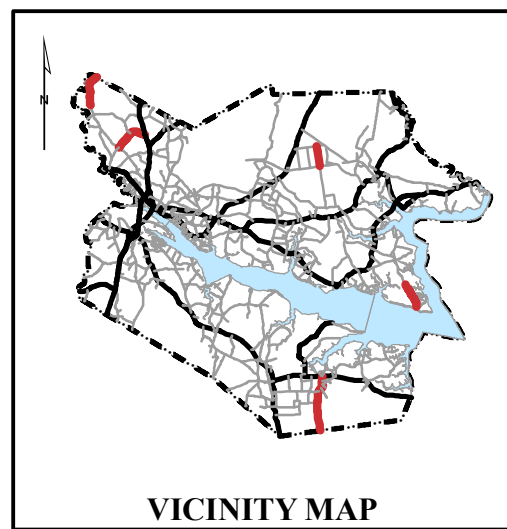


PROJECT REFERENCE NO.	SHEET NO.
2017.CPT.02.02.20071.1	1

BEAUFORT COUNTY

RESURFACING CONTRACT: DB00306

WBS: 2017.CPT.02.02.20071.1

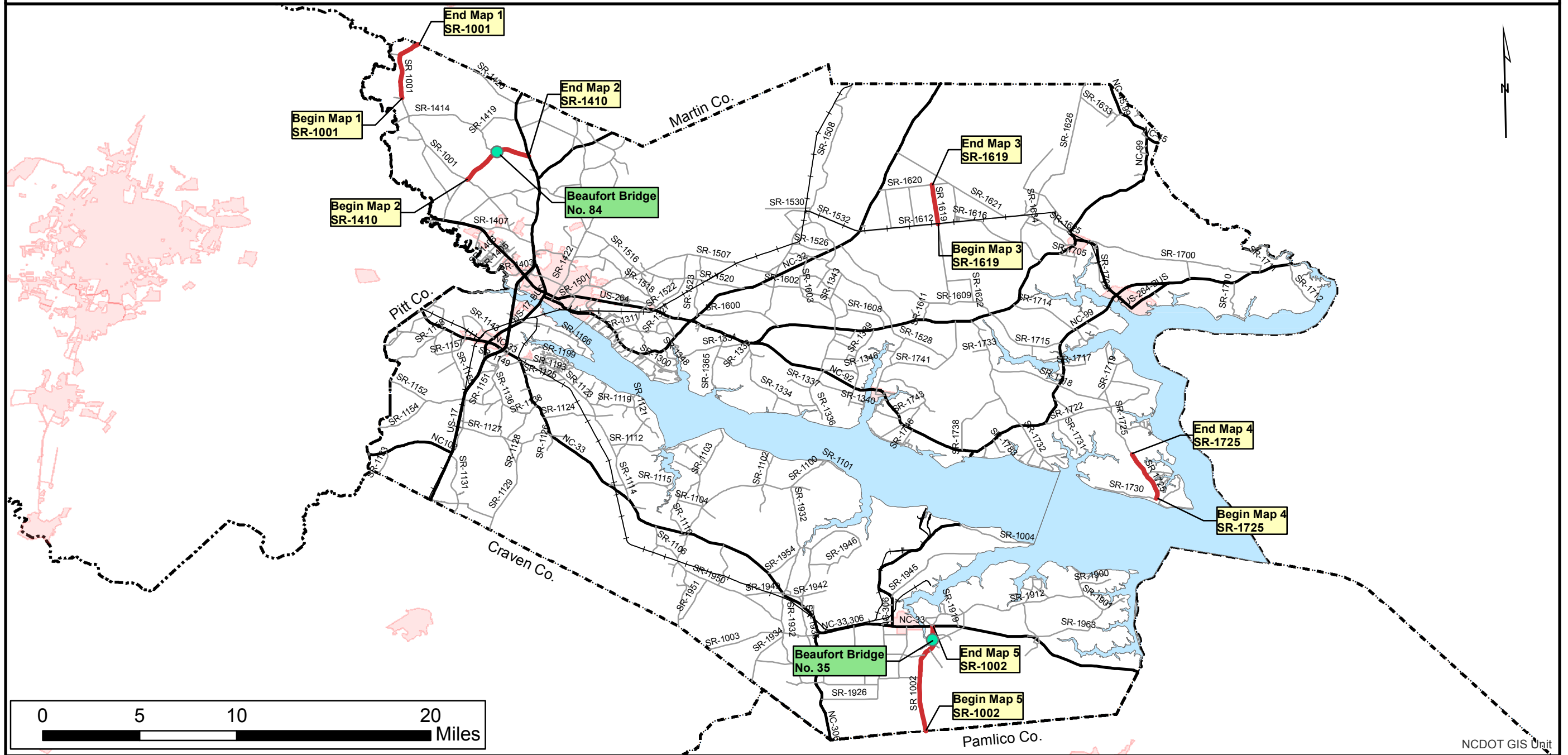


LOCATION:
MAP 1 - SR-1001 FROM SR-1415 TO THE MARTIN CO. LINE.
MAP 2 - SR-1410 FROM SR-1001 TO EDGE LINE OF US-17 S.
MAP 3 - SR-1619 FROM SR-1612 TO SR-1620.
MAP 4 - SR-1725 FROM SR-1730 MILE POST 2.8.
MAP 5 - SR-1002 FROM THE PAMLICO CO. LINE TO NC-33.

TYPE OF WORK: RESURFACING, SHOULDER RECONSTRUCTION & PAVEMENT MARKINGS.

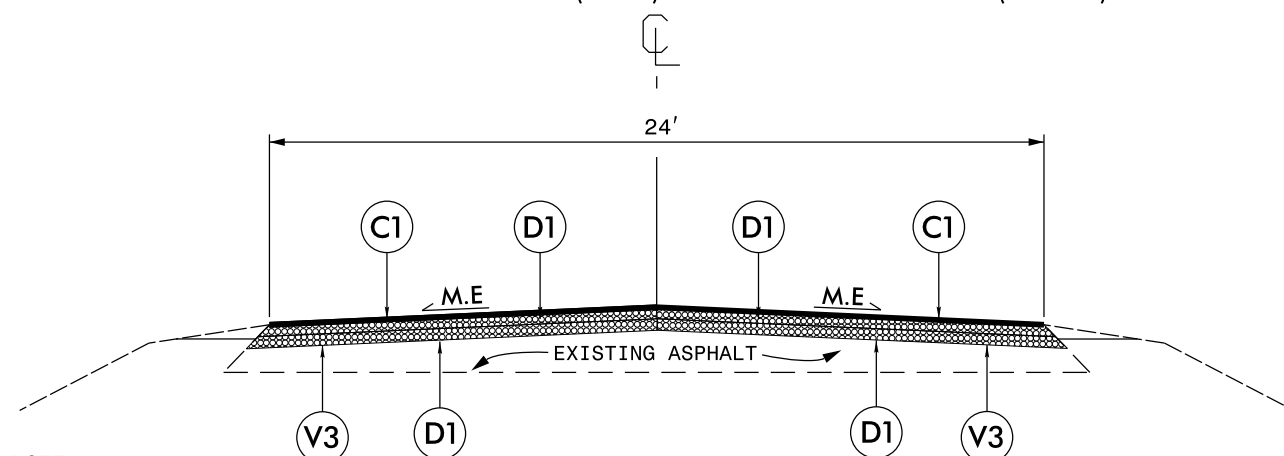


NCDOT
DIVISION 2



TYPICAL SECTION NO. 1

MAP 1 - SR-1001 FROM SR-1415(0+00) TO THE MARTIN CO. LINE(168+48).

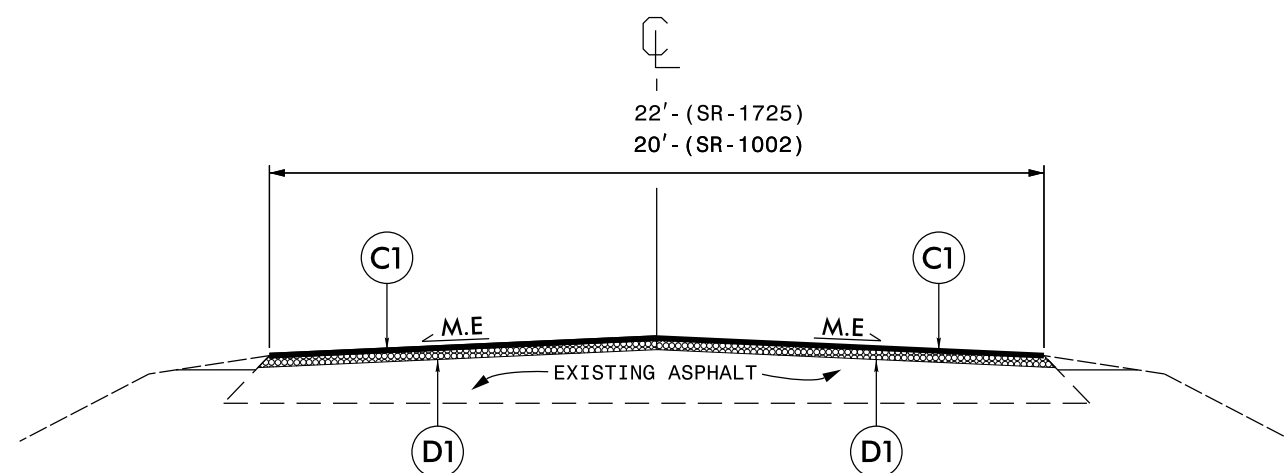


NOTE:

1. INCLUDES 2 1/2" FULL WIDTH MILL & FILL AT THE FOLLOWING LOCATIONS:
- SR-1001 115+60+/- THRU 121+10+/-, AS DIRECTED BY THE ENGINEER.
2. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
3. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
4. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

TYPICAL SECTION NO. 2

MAP 4 - SR-1725 FROM SR-1730(0+00) TO M.P. 2.8(134+70).
MAP 5 - SR-1002 FROM THE PAMLICO CO. LINE(0+00) TO NC-33(297+10).



NOTE:

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

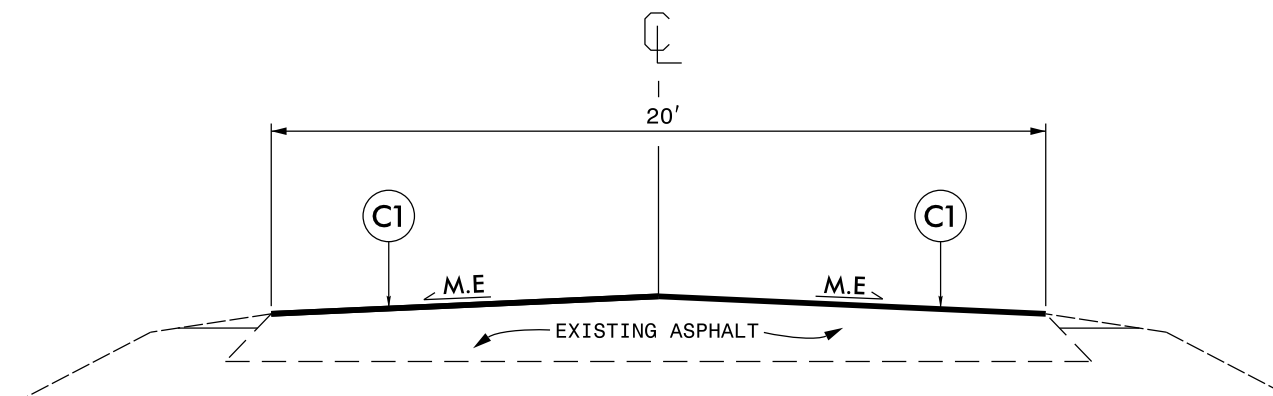
C1	PROP. APPROX. 1 3/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 192.5 LBS. PER SQ. YD.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING.
V2	MILLING DEPTH 1 3/4", FOR THE ENTIRE WIDTH OF THE ROADWAY.
V3	MILLING DEPTH 2 1/2", FOR THE SPECIFIED WIDTHS.

DRAWINGS NOT TO SCALE

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

TYPICAL SECTION NO. 3

MAP 3 - SR-1619 FROM SR-1612(0+00) TO SR-1620(105+30).

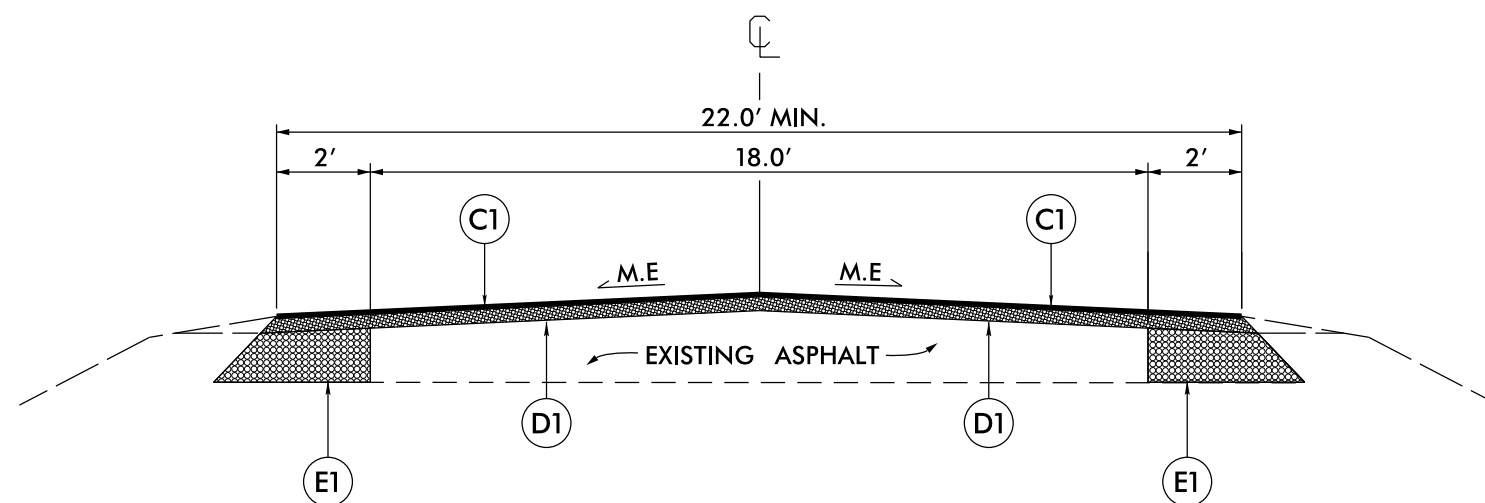


NOTE:

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

TYPICAL SECTION NO. 4

MAP 2 - SR-1410 FROM SR-1001(0+00) TO EDGE LINE OF US-17 S.(177+50+/-).

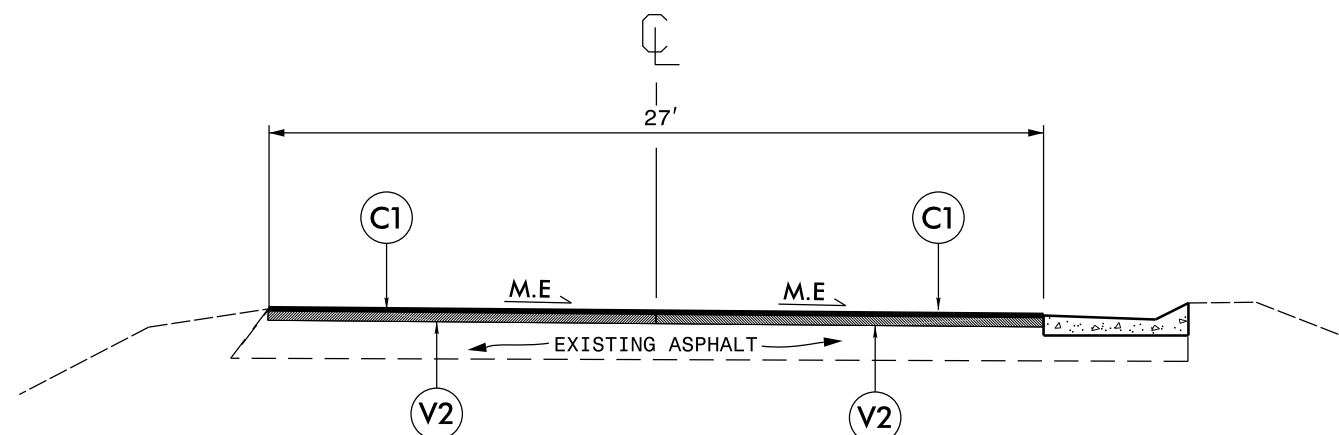


NOTE:

1. PLACE 2' SYMMETRICAL WIDENING. MAKE FLUSH WITH THE EXISTING ASPHALT.
2. TRENCHING SHALL BE PERFORMED USING A MILLING MACHINE OR SIMILAR DEVICE.
3. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH, INCLUDING NEW WIDENING.
4. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1

TYPICAL SECTION NO. 5

MAP 2 - SR-1410 FROM 96+78+/- TO 101+53+/-.



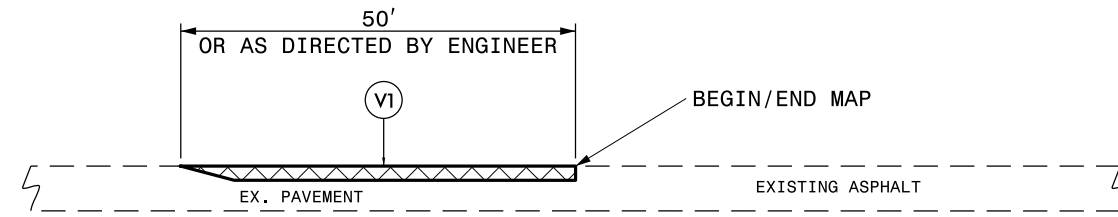
NOTE:

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. INCLUDES 1-3/4" MILLING FOR THE ENTIRE WIDTH OF THE ROADWAY.

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1 3/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 192.5 LBS. PER SQ. YD.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING.
V2	MILLING DEPTH 1 3/4", FOR THE ENTIRE WIDTH OF THE ROADWAY.
V3	MILLING DEPTH 2 1/2", AT SPECIFIED WIDTHS.
DRAWINGS NOT TO SCALE	

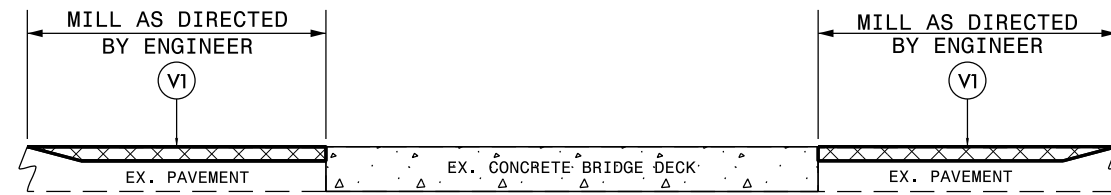
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



DETAIL 1
BEGIN/END MAP TIE-IN

NOTE:

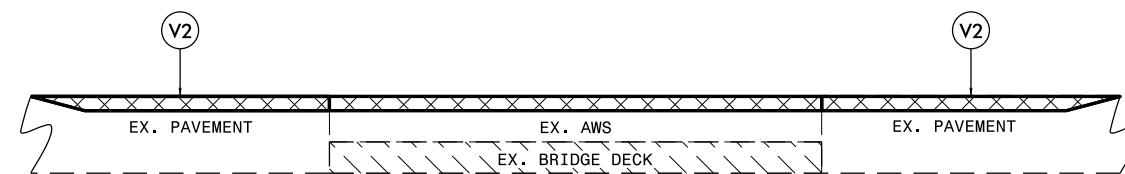
- MILLING SHALL BE PERFORMED AT MAIN LINE TIE-INS AND Y-LINE TIE-INS AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



DETAIL 2
BRIDGE MILLING

NOTE:

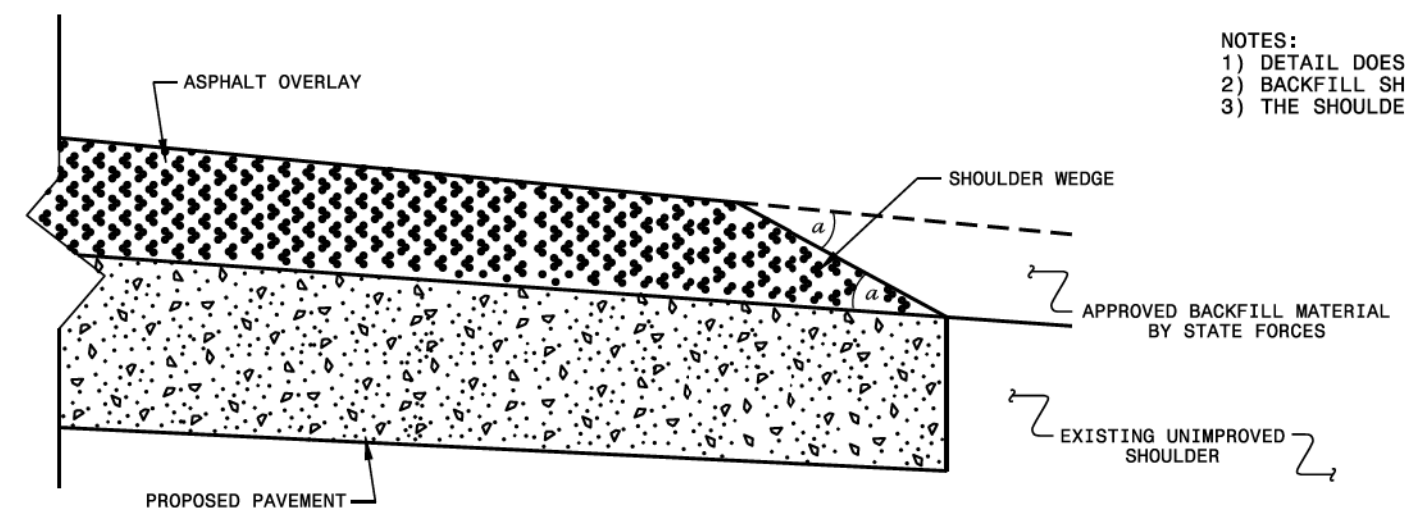
- MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



DETAIL 3
BRIDGE MILLING

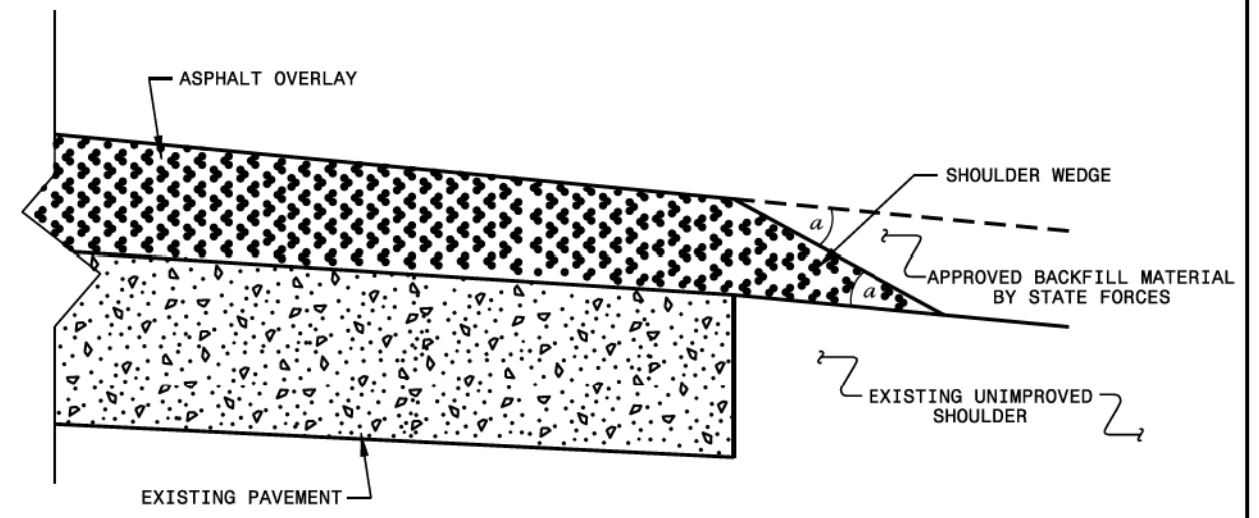
NOTE:

- MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

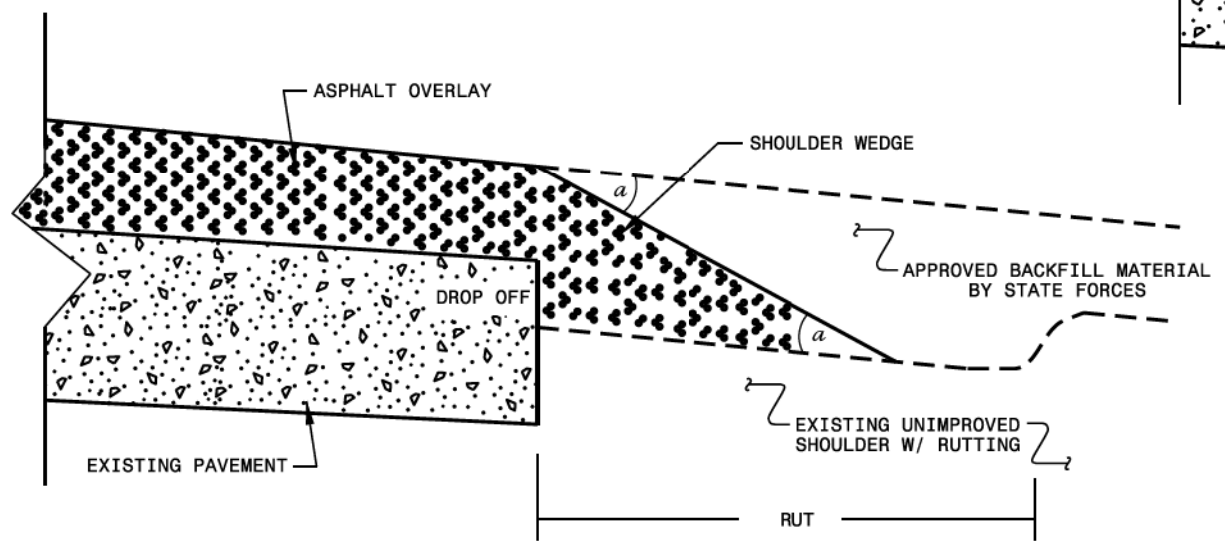


- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.

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°

24-MAR-2016 10:16 AM
 \\server\projects\Resurfacing\Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn
 11/16/12

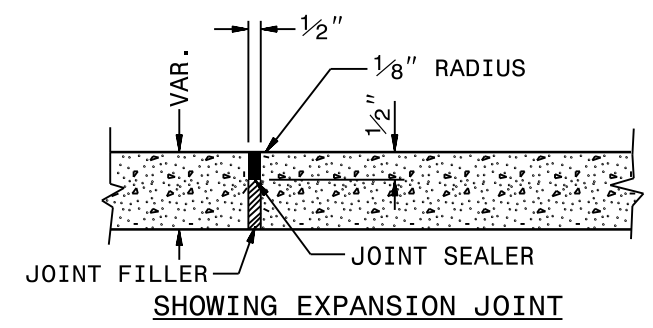
CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119			
SHOULDER WEDGE DETAILS			
ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC:	\\server\data\std\stand\shoulderwedgedetail.dgn		

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

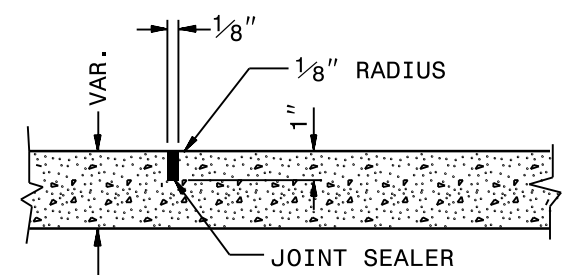
1-12

ENGLISH STANDARD DRAWING FOR
CONCRETE ISLANDS

SHEET 1 OF 1
852.01



SHOWING EXPANSION JOINT



SHOWING GROOVED JOINT

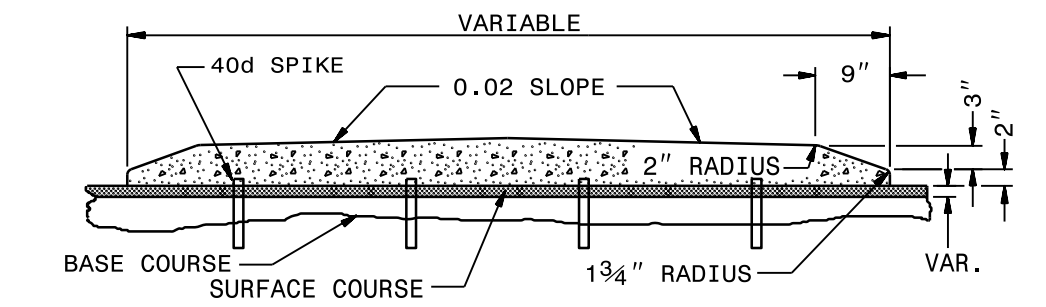
PARTIAL LONGITUDINAL SECTIONS OF PAVED ISLANDS

NOTE:
WHEN MONOLITHIC CONCRETE ISLAND IS ON TOP OF SURFACE COURSE, DRIVE 40d SPIKES INTO SURFACE UNDER MONOLITHIC CONCRETE ISLAND. STAGGER SPIKES ON 2' CENTERS EACH WAY.
IN THE CONCRETE PAVEMENT (ISLAND) AND CONCRETE ISLAND (MONOLITHIC) PLACE 1/2" EXPANSION JOINTS AT 30' INTERVALS AND GROOVED JOINTS 1" DEEP AT 10' INTERVALS BETWEEN EXPANSION JOINTS.
LINE UP THE JOINTS IN THE CONCRETE PAVEMENT (ISLAND) WITH THE JOINTS IN THE CURB OR CURB AND GUTTER.
FILL AND SEAL THE TOP 1/2" OF THE EXPANSION JOINTS AND THE ENTIRE DEPTH OF GROOVED JOINTS WITH JOINT SEALER.
FOR JOINTS IN THE CURB AND/OR CURB AND GUTTER, SEE STANDARD NO. 846.01

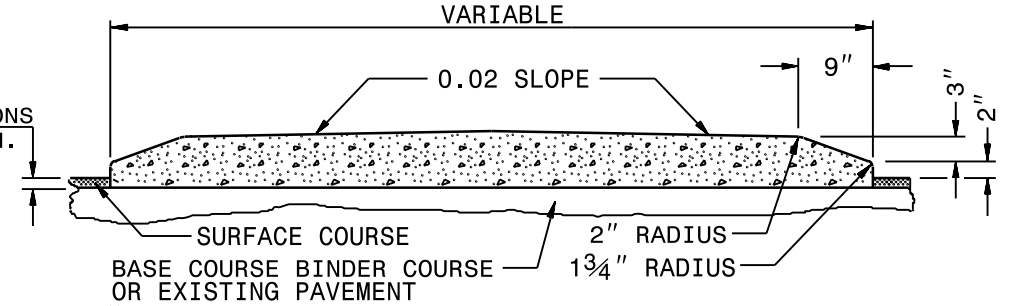
SEE TYPICAL SECTIONS FOR PAVEMENT DEPTH. KEY IN ON THE LAST LAYER OF PAVEMENT SURFACE COURSE

CURB AND GUTTER AS CALLED FOR ON PLANS.

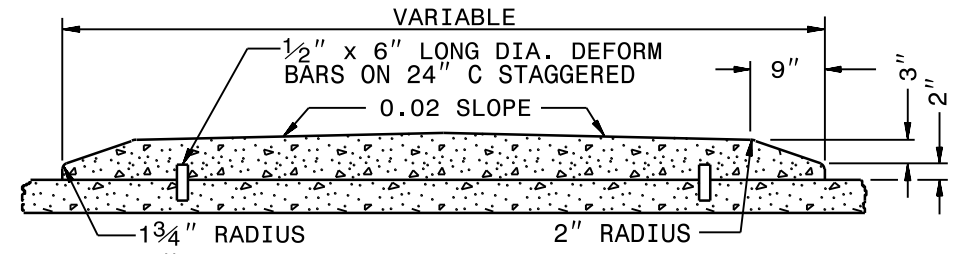
SURFACING



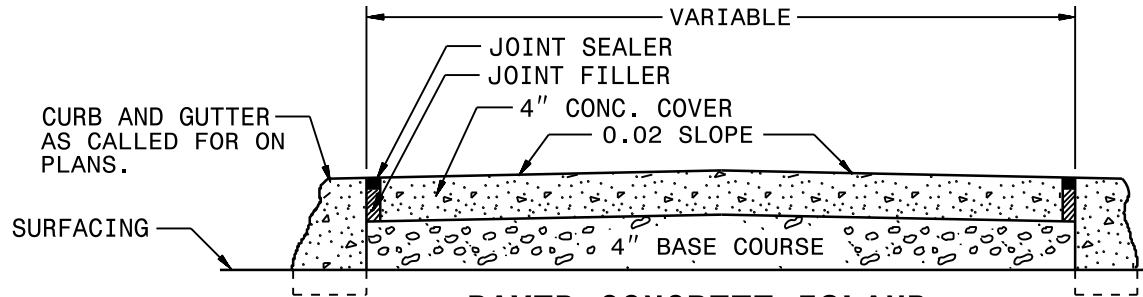
5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED) ON ASPHALT CONCRETE PAVEMENT
(USE ON ISLAND 4' WIDE OR GREATER)



5" MONOLITHIC CONCRETE ISLAND (KEYED IN) ON ASPHALT CONCRETE PAVEMENT
(USE ON ISLAND LESS THAN 4' WIDE)



5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED) ON CONCRETE PAVEMENT



PAVED CONCRETE ISLAND

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

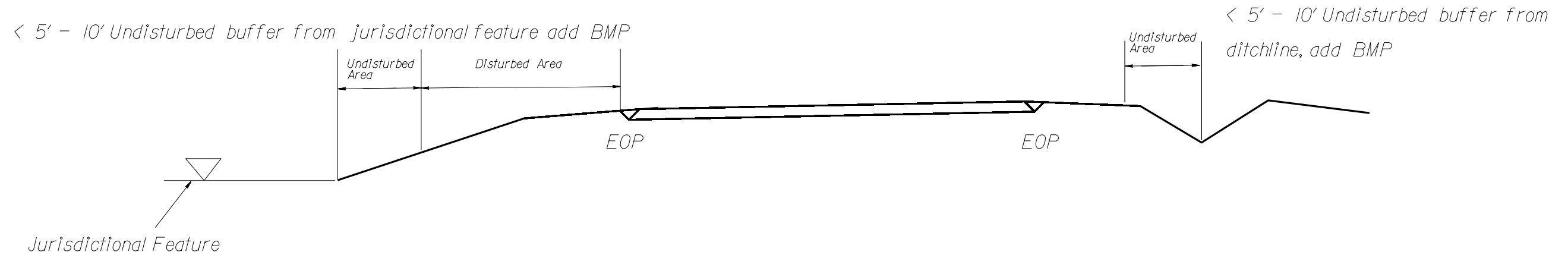
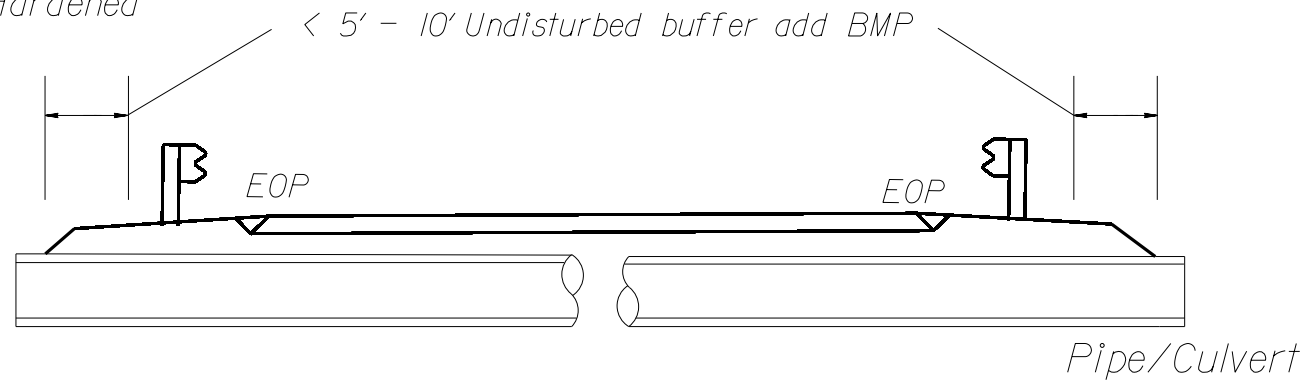
ENGLISH STANDARD DRAWING FOR
CONCRETE ISLANDS

SHEET 1 OF 1
852.01

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

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

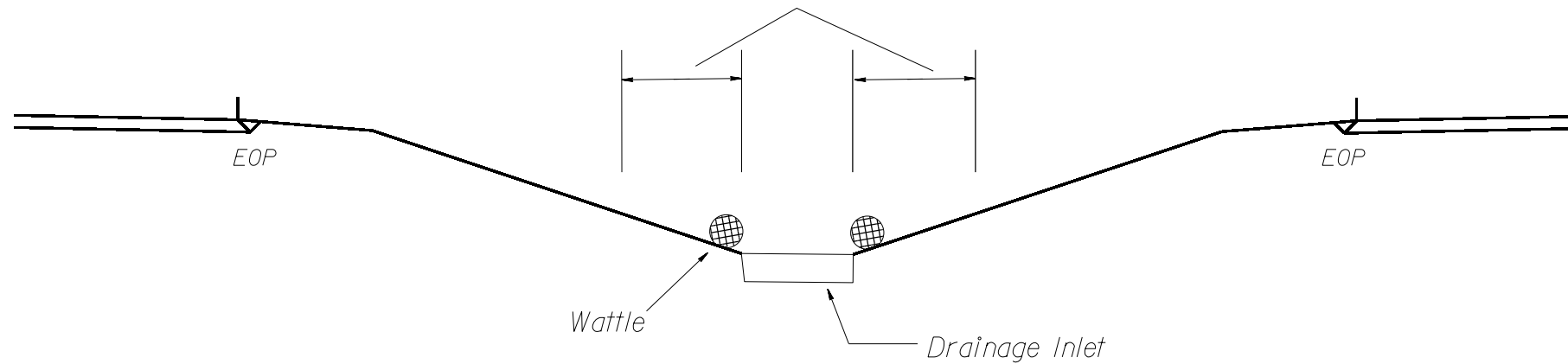
EROSION CONTROL DETAIL



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

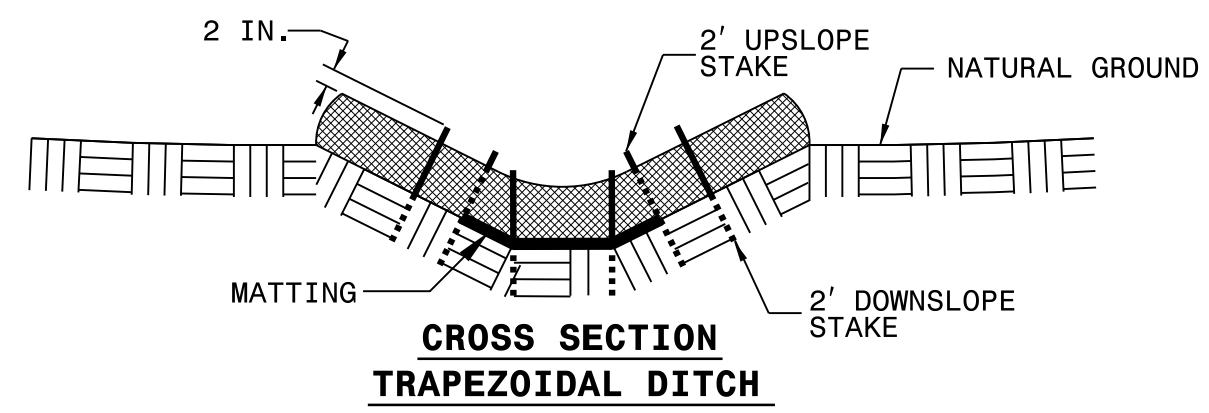
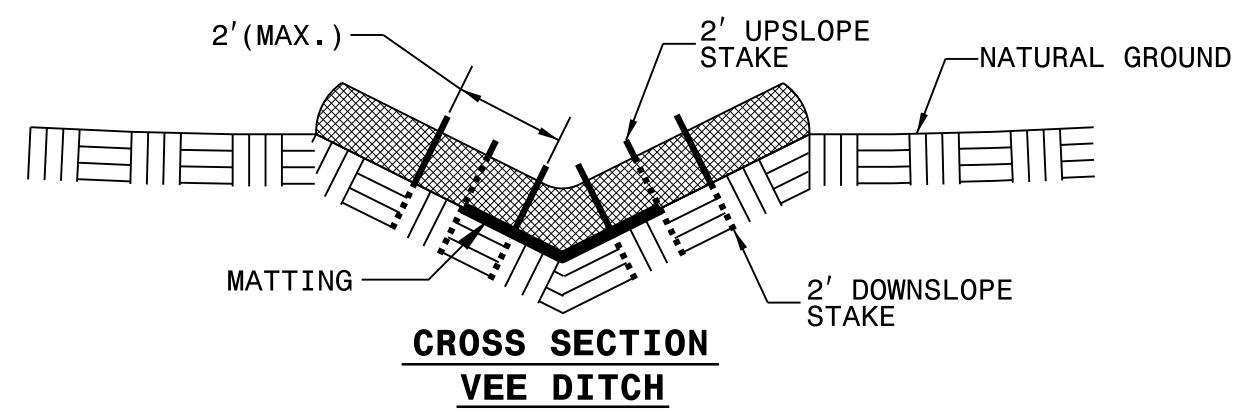
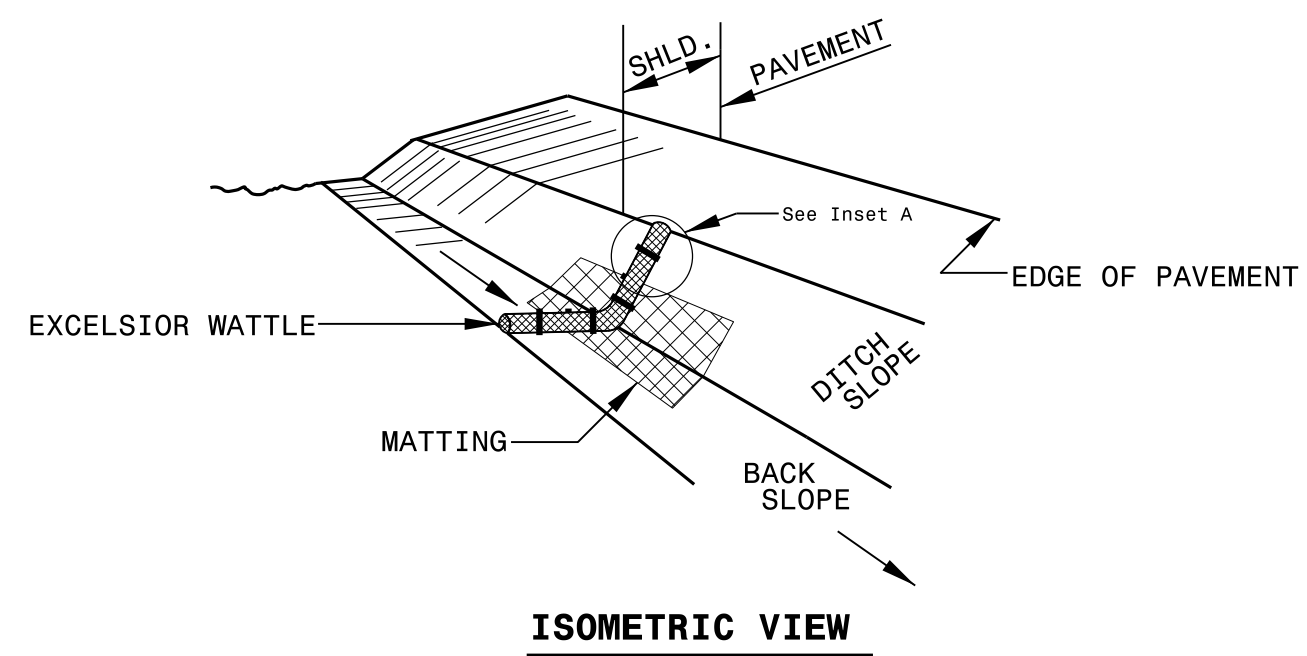


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

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.

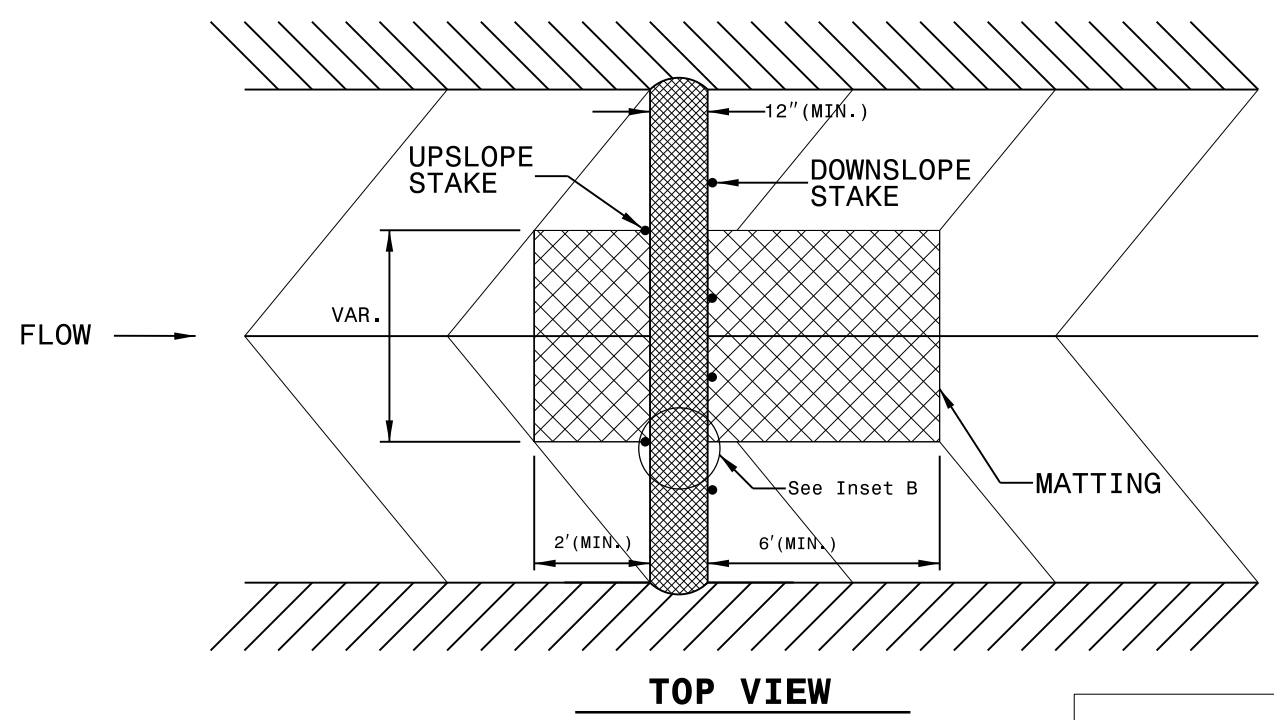
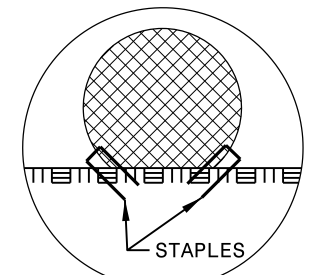
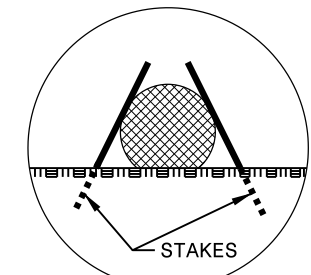
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



NOT TO SCALE

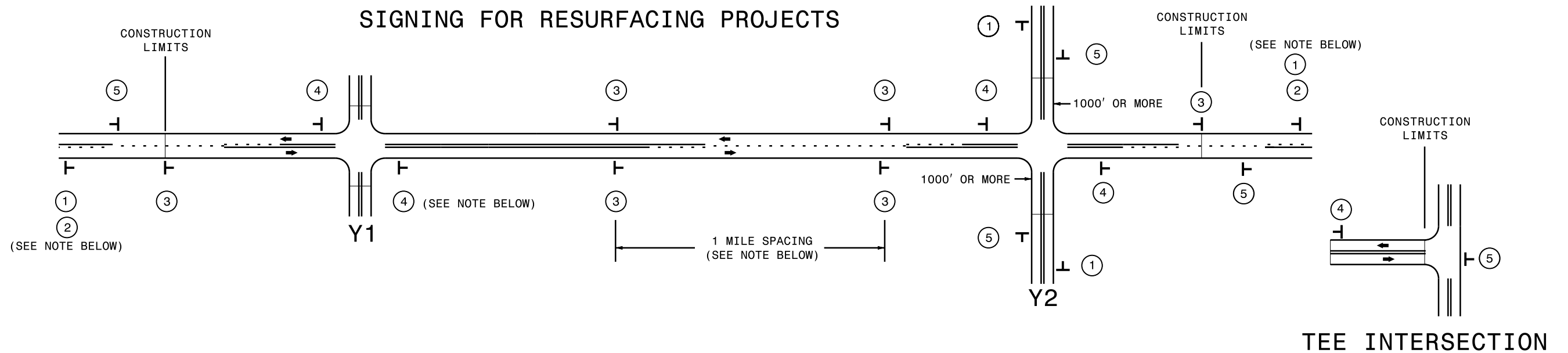
SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	REMOVAL OF EXISTING ASPHALT PAVEMENT SY	2.5" MILLING SY	1.75" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN) SY
2017.CPT.02.02.20071.1	Beaufort	1	SR-1001	FROM SR-1415 TO THE MARTIN CO. LINE	1	2	2WU	NO	NO	3.19	24	36.00	1,500		600		4,700	4,932	556	25.0
TOTAL FOR MAP NO. 1										3.19		36.00	1,500		600		4,700	4,932	556	25.0
2017.CPT.02.02.20071.1	Beaufort	2	SR-1410	FROM SR-1001 TO US-17	4,5	2	2WU	NO	NO	3.33	18			1,500	500	2,943	4,701	4,760	674	
TOTAL FOR MAP NO. 2										3.33				1,500	500	2,943	4,701	4,760	674	
2017.CPT.02.02.20071.1	Beaufort	3	SR-1619	FROM SR-1612 TO SR-1620	3	2	2WU	NO	NO	1.99	20				300			2,477	166	
TOTAL FOR MAP NO. 3										1.99					300			2,477	166	
2017.CPT.02.02.20071.1	Beaufort	4	SR-1725	FROM SR-1730 TO M.P 2.8	2	2	2WU	NO	NO	2.55	22				700		3,379	3,599	403	
TOTAL FOR MAP NO. 4										2.55					700		3,379	3,599	403	
2017.CPT.02.02.20071.1	Beaufort	5	SR-1002	FROM THE PAMLICO CO. LINE TO NC-33.	2	2	2WU	NO	NO	3.76	20				2,000		9,200	7,100	917	
TOTAL FOR MAP NO. 5										3.76					2,000		9,200	7,100	917	
TOTAL FOR PROJ NO. 2017.CPT.02.02.20071.1										14.83		36.00	1,500	1,500	4,100	2,943	21,980	22,868	2,716	25.0
GRAND TOTAL										14.83		36.00	1,500	1,500	4,100	2,943	21,980	22,868	2,716	25.0

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4686000000-E	4905000000-N
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	SNOW PLOWABLE MARKERS EA
2017.CPT.02.02.20071.1	Beaufort	1	SR-1001	FROM SR-1415 TO THE MARTIN CO. LINE	1	2	2WU	3.19	24	360	0.19	34,335	21,061	225
TOTAL FOR MAP NO. 1								3.19		360	0.19	34,335	21,061	225
2017.CPT.02.02.20071.1	Beaufort	2	SR-1410	FROM SR-1001 TO US-17	4,5	2	2WU	3.33	18	374	0.20			
TOTAL FOR MAP NO. 2								3.33		374	0.20			
2017.CPT.02.02.20071.1	Beaufort	3	SR-1619	FROM SR-1612 TO SR-1620	3	2	2WU	1.99	20	224	0.12			
TOTAL FOR MAP NO. 3								1.99		224	0.12			
2017.CPT.02.02.20071.1	Beaufort	4	SR-1725	FROM SR-1730 TO M.P 2.8	2	2	2WU	2.55	22	286	0.16			
TOTAL FOR MAP NO. 4								2.55		286	0.16			
2017.CPT.02.02.20071.1	Beaufort	5	SR-1002	FROM THE PAMLICO CO. LINE TO NC-33.	2	2	2WU	3.76	20	632	0.34			
TOTAL FOR MAP NO. 5								3.76		632	0.34			
TOTAL FOR PROJ NO. 2017.CPT.02.02.20071.1								14.83		1,876	1.00	34,335	21,061	225
GRAND TOTAL								14.83		1,876	1.00	34,335	21,061	225

SIGNING FOR RESURFACING PROJECTS

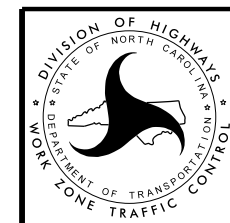


LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	①		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>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>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;"> <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>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	②		#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)	
	③		<ul style="list-style-type: none"> - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER. 	
	④		<ul style="list-style-type: none"> - THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE. 	
⑤		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.		



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS