

09/08/99

CONTRACT NO.: DA00465 WBS ELEMENT: 2019CPT.01.19.20462.1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

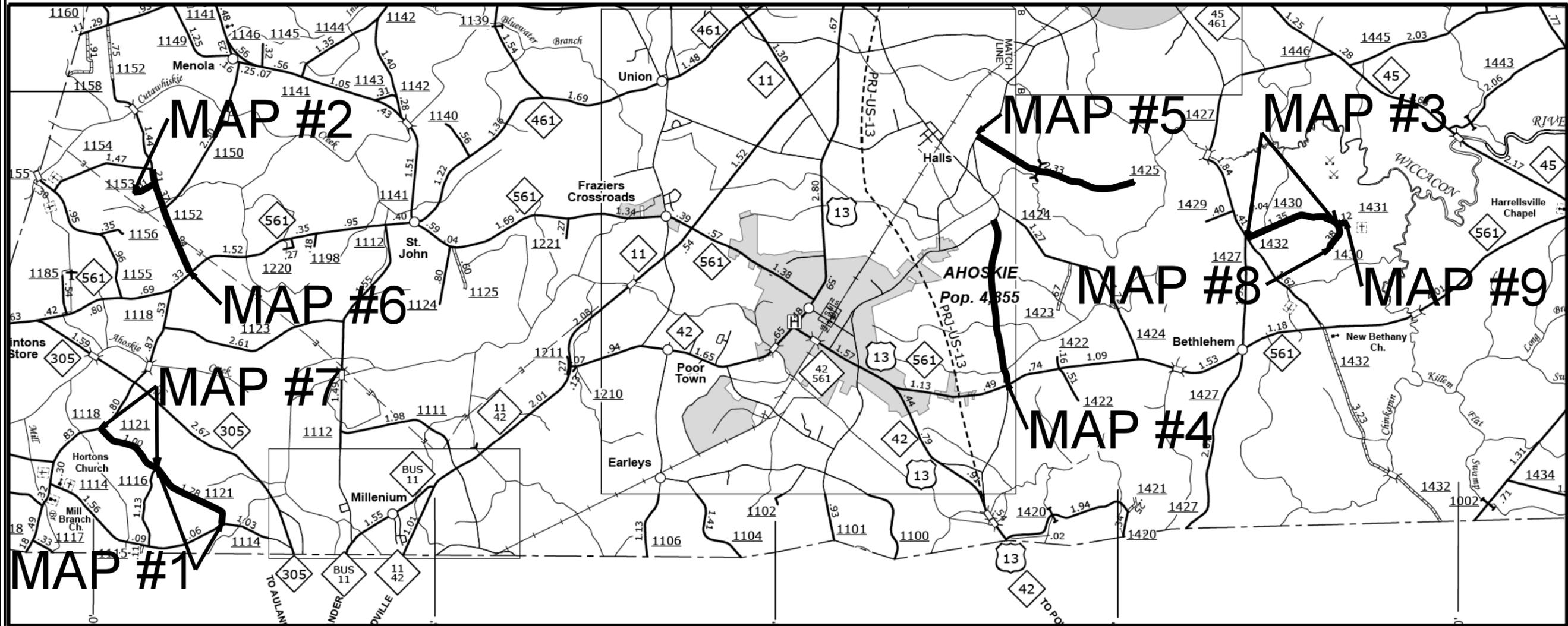
**HERTFORD COUNTY**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2019CPT.01.19.20462.1	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
2019CPT.01.19.20462.1		PE, CONST	

MAP 1 SR 1121 FROM SR 1114 TO SR 1118  
 MAP 2 SR 1153 FROM DEAD END TO SR 1152  
 MAP 3 SR 1430 FROM SR 1432 TO DEAD END  
 MAP 4 SR 1419 FROM SR 1409 TO NC 561  
 MAP 5 SR 1425 FROM SR 1403 TO DEAD END

MAP 6 SR 1152 FROM SR 1154 TO NC 561  
 MAP 7 SR 1121 FROM SR 1116 TO SR 1118  
 MAP 8 SR 1430 FROM SR 1431 TO DEAD END  
 MAP 9 SR 1431 FROM SR 1430 TO DEAD END

TYPE OF WORK: FULL DEPTH RECLAMATION & RESURFACING



**NTS**

PROJECT LENGTH	
LENGTH OF ROADWAY PROJECT MAP 1	= 1.28 MI.
LENGTH OF ROADWAY PROJECT MAP 2	= 0.40 MI.
LENGTH OF ROADWAY PROJECT MAP 3	= 1.34 MI.
LENGTH OF ROADWAY PROJECT MAP 4	= 2.10 MI.
LENGTH OF ROADWAY PROJECT MAP 5	= 2.31 MI.
LENGTH OF ROADWAY PROJECT MAP 6	= 1.52 MI.
LENGTH OF ROADWAY PROJECT MAP 7	= 1.00 MI.
LENGTH OF ROADWAY PROJECT MAP 8	= 0.39 MI.
LENGTH OF ROADWAY PROJECT MAP 9	= 0.12 MI.

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 113 Airport Dr., Edenton NC, 27932

---

2012 STANDARD SPECIFICATIONS

LETTING DATE: \_\_\_\_\_

W.B. HOBBS, P.E.  
 DIVISION PROJECT TEAM LEAD

C.E. SLACHTA  
 DIVISION PROPOSALS ENGINEER

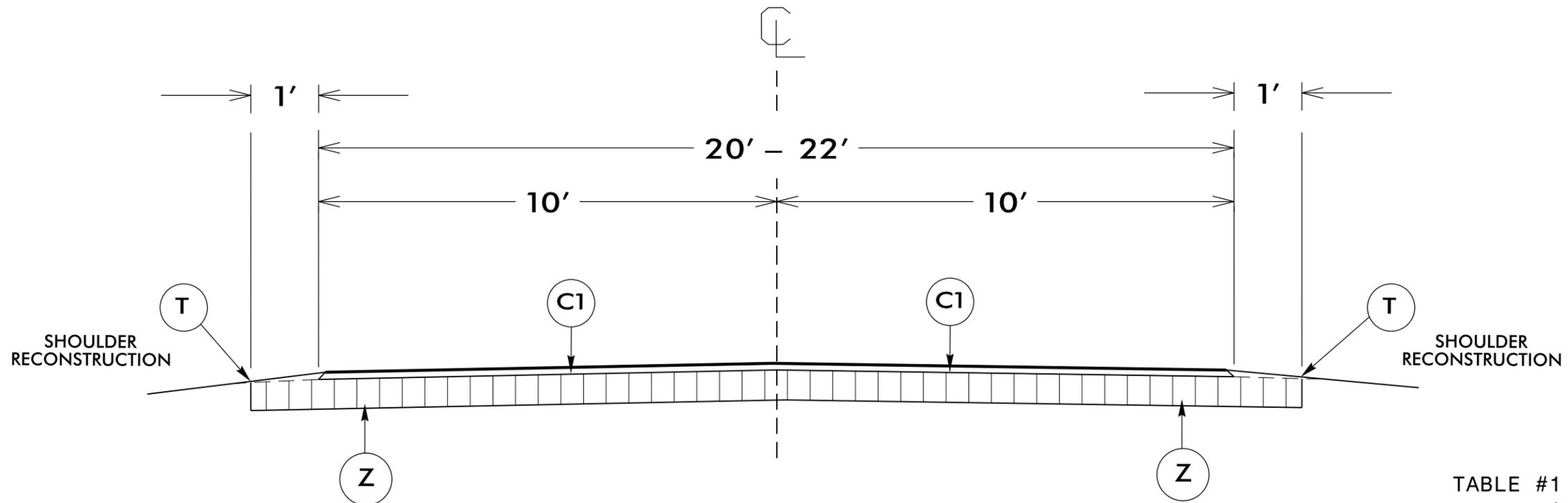
DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA



1. VEGETATION MUST BE REMOVED FROM SHOULDER 1' BEYOND PROPOSED EDGE OF PAVEMENT PRIOR TO PERFORMING FULL DEPTH RECLAMATION (FDR)
2. CONTRACTOR IS REQUIRED TO HAVE AN OPERATIONAL & EFFECTIVE DUST SUPPRESSION SYSTEM, THROUGHOUT THE CEMENT APPLICATION PROCESS.
3. CEMENT LADEN WATER MUST NOT BE ALLOWED TO LEAVE ROADWAY.
4. IF ASPHALT CURING SEAL IS APPLIED, BLOTTING MATERIAL MUST BE THOROUGHLY REMOVED PRIOR TO PLACING ASPHALT CONCRETE SURFACE COURSE.
5. CONTRACTOR SHALL WET CURE FDR FOR 24 HOURS PRIOR TO PAVING. DO NOT LET THE SURFACE OF FDR DRY OUT. BE SURE TO USE A TACK COAT BETWEEN FDR AND NEXT LAYER OF ASPHALT PAVEMENT.
6. "NO" TRAFFIC WILL BE ALLOWED ON CEMENT TREATED BASE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE SURFACE COURSE.
7. PAVEMENT MARKINGS TO BE APPLIED BY THE CONTRACTOR.
8. SHOULDER RECONSTRUCTION TO BE COMPLETED BY THE CONTRACTOR.

P A V E M E N T   S C H E D U L E

C1	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO 1.5" LAYERS.
Z	PROP. FULL DEPTH RECLAMATION AT A DEPTH OF 12" WITH PORTLAND CEMENT TREATED BASE AT AN AVERAGE RATE OF (SEE TABLE #1 THIS SHEET).
T	EARTH MATERIAL



**TYPICAL SECTION NO. 1**  
**USE WITH MAPS 1-6**

NOTES:

- \*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER
- \*A TACK COAT BETWEEN THE FDR LAYER AND THE SURFACE COURSE LAYER IS REQUIRED

TABLE #1

MAP#	ROUTE #	LBS PER SY PORTLAND CEMENT AT 12" MIX DEPTH
1	SR 1121	58
2	SR 1153	56
3	SR 1430	61
4	SR 1419	58
5	SR 1425	72
6	SR 1152	49

NTS

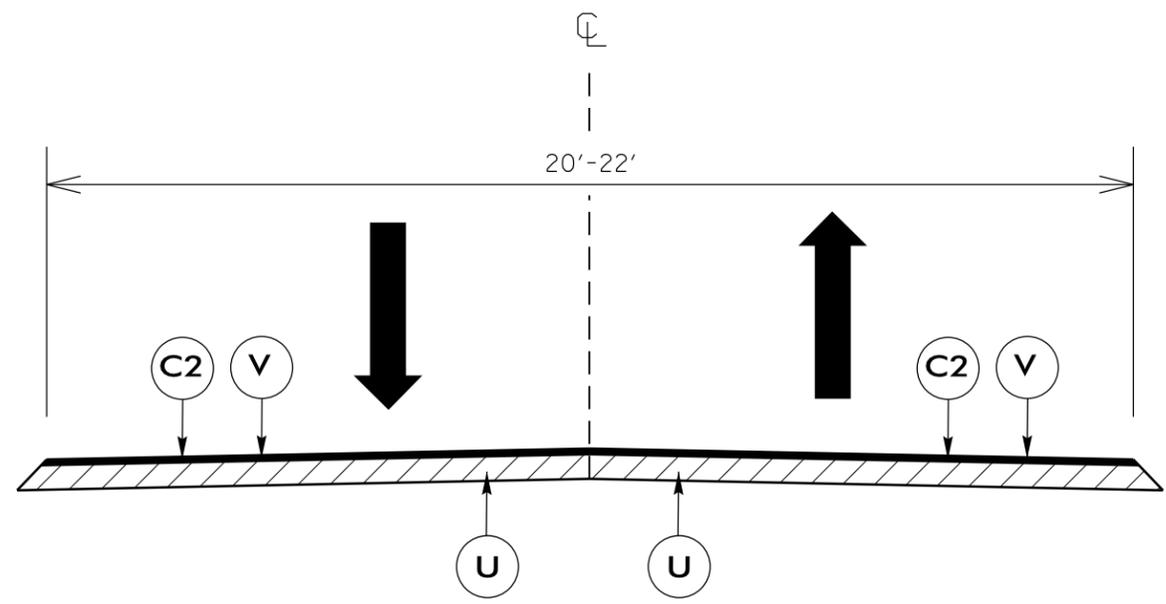
29-MAY-2019 11:50 St. Shered Division, Dwg. Resurfacing & Retreatment Plans\2019-2020 FDR NC Resurfacing & Retreatment Plans\2019-2020 FDR Hertford\DA00465\_Hertford FDR Plans.dgn

P A V E M E N T   S C H E D U L E

C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT. 1½"DEPTH.

NOTES:

\*ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII., OR AS DIRECTED BY THE ENGINEER.

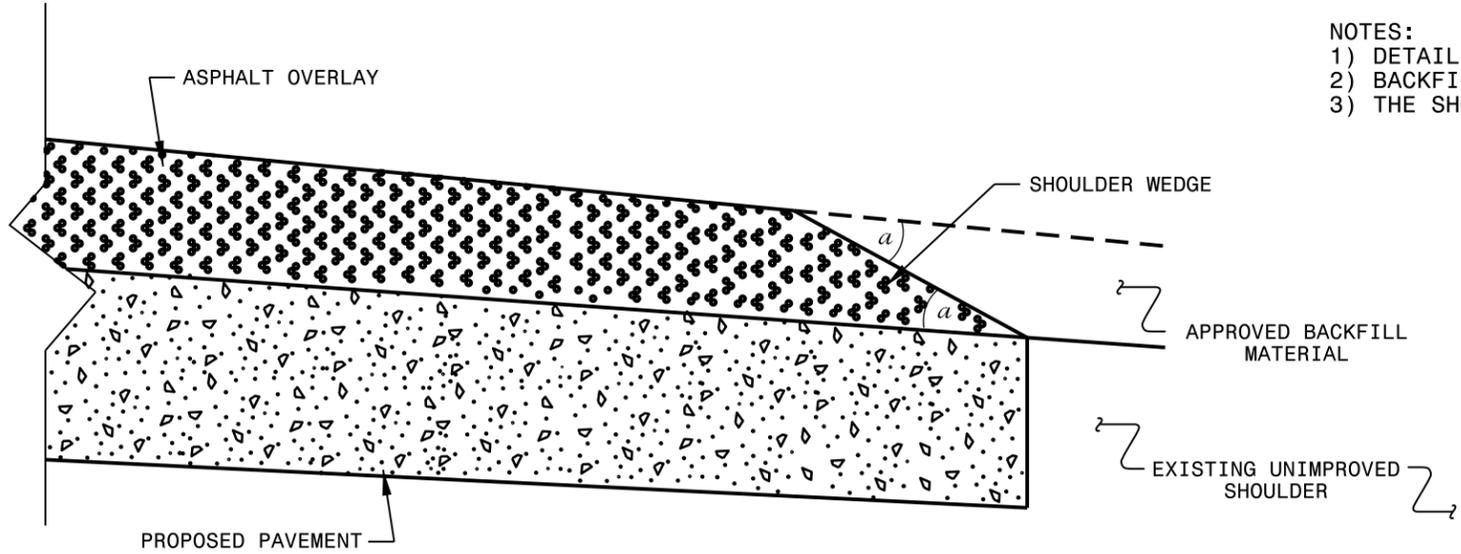


**TYPICAL SECTION NO. 2**

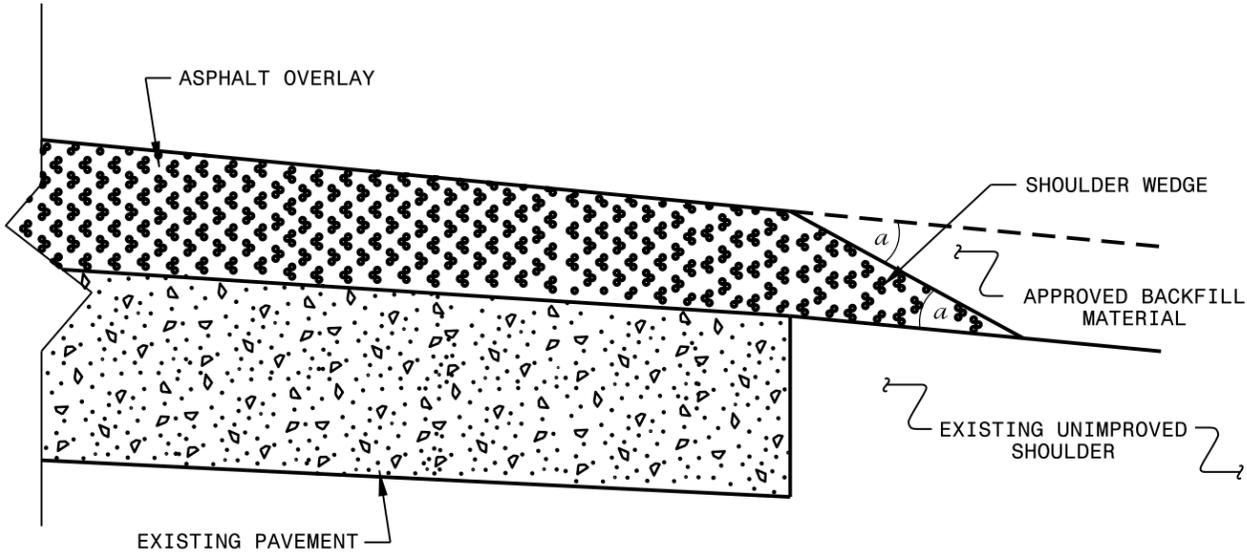
USE WITH MAPS 7, 8 & 9

NTS

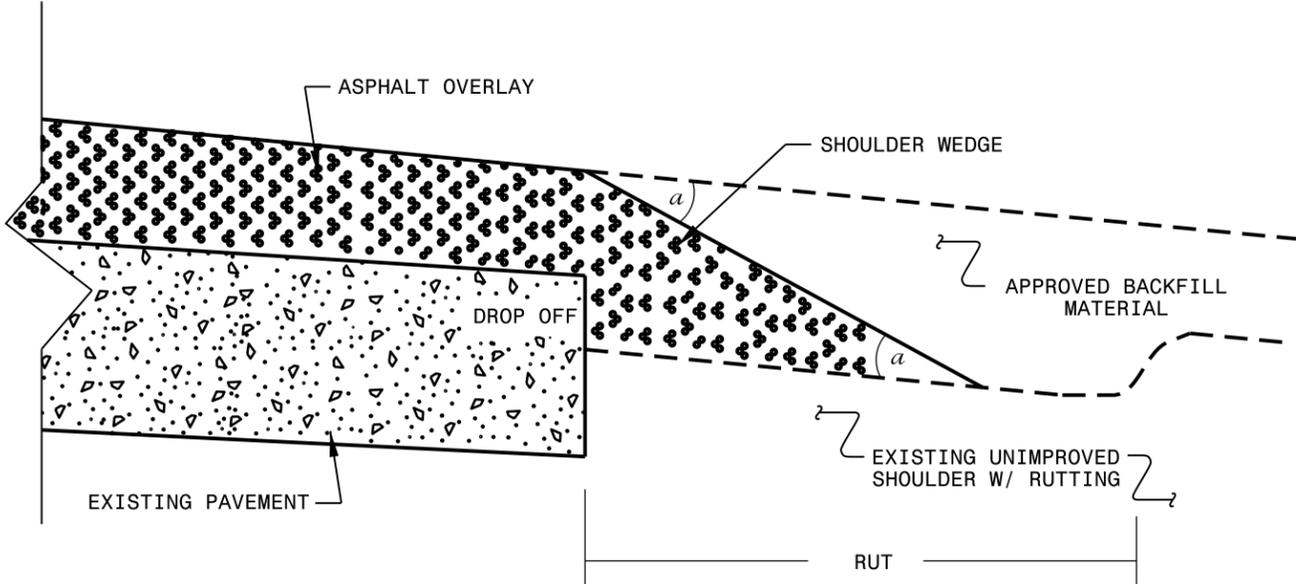
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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)

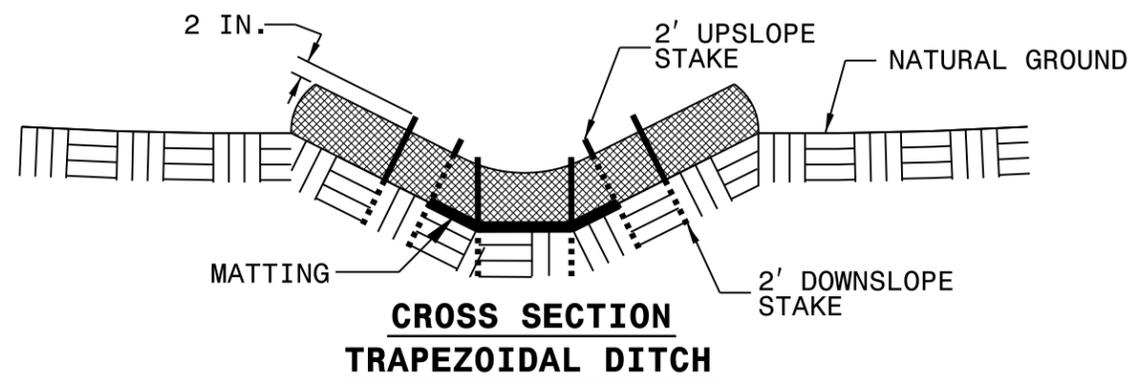
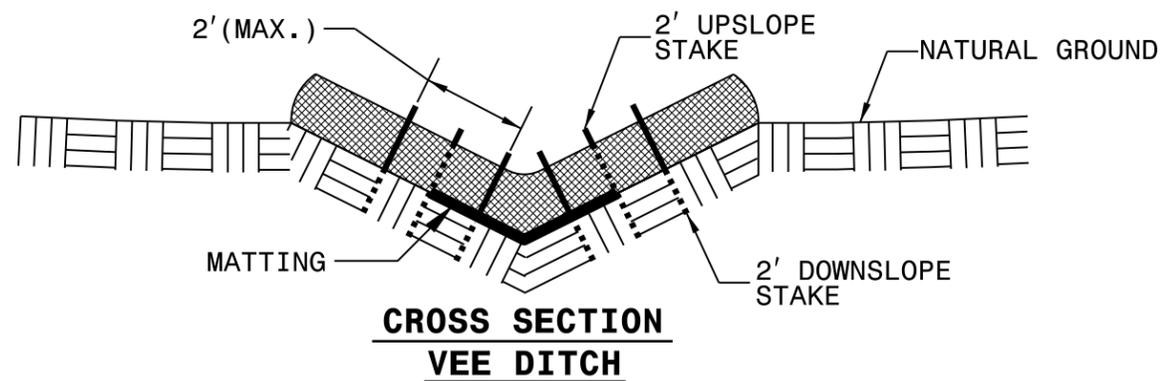
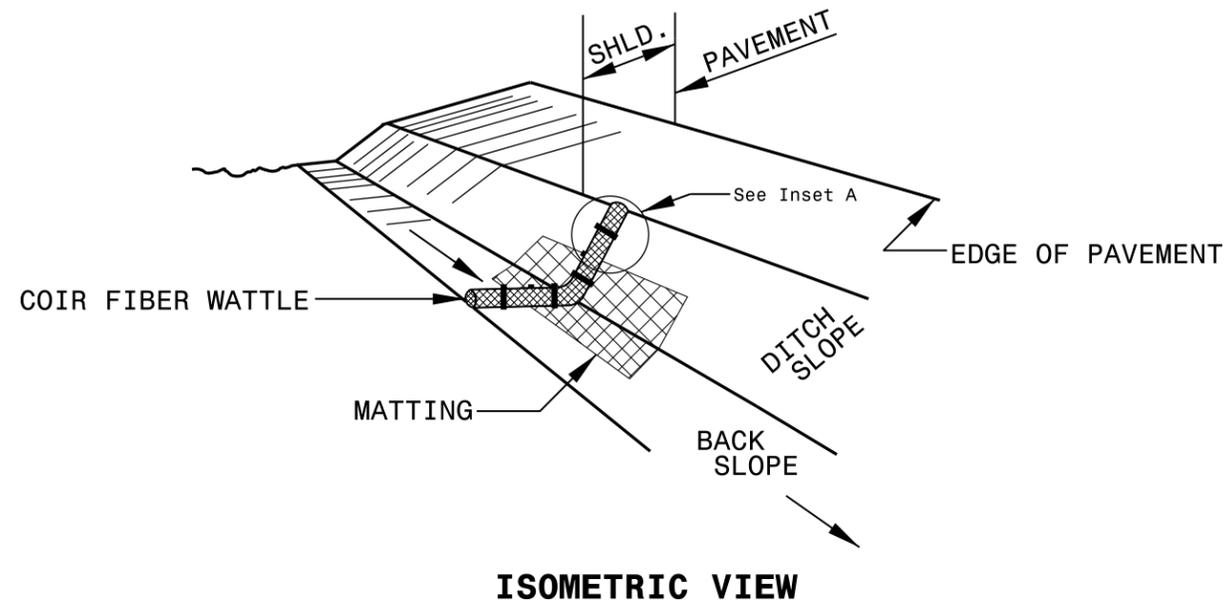
- SHOULDER WEDGE ANGLE = 30°

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

PROJECT NO.	SHEET NO.
2019CPT.01.19.20462.1	3

SUMMARY OF QUANTITIES																																
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		WIDTH	MOBILIZATION	BORROW EXCAVATION	SOIL CEMENT BASE	PORTLAND CEMENT FOR SOIL CEMENT BASE	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	TEMPORARY SILT FENCE	COIR FIBER MAT	COIR FIBER WATTLE	SEEDING & MULCHING	RESPONSE FOR EROSION CONTROL	WORK ZONE ADV/GEN WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	GENERIC PAVEMENT MARKING ITEM (HOT SPRAYED THERMO PVMT MARKING LINES, 4" 50 MILS)	4" WHITE PAINT	4" YELLOW PAINT
										MI	FT																				LS	CY
2019CPT.01.19.20462.1	Hertford	1	SR1121 RAWLS RD	SR1116 TO SR1114	1	2	2WU	YES	NO	1.28	22	1		211	18,022	540	26	2.56			3,088	185	96		96	1.3	3	60	1	44,442	27,546	16,896
2019CPT.01.19.20462.1	Hertford	2	SR1153 WILL SLADE RD	SR 1152 TO DEAD END	1	2	2WU	YES	NO	0.4	20	*		66	5,162	156	8	0.80			878	53	30		30	0.4	3	40	*	13,888	8,608	5,280
2019CPT.01.19.20462.1	Hertford	3	SR1430 ARCHERTOWN RD	SR1432 TO SR1431	1	2	2WU	YES	NO	1.34	20	*		221	17,294	565	27	2.68			2,942	177	101		101	1.3	3	72.5	*	46,525	28,837	17,688
2019CPT.01.19.20462.1	Hertford	4	SR1419 NEWSOME GROVE RD	SR 1409 TO NC 561	1	2	2WU	YES	NO	2.1	20	*		347	27,103	886	42	4.20			4,610	277	158		158	2.1	3	80	*	72,912	45,192	27,720
2019CPT.01.19.20462.1	Hertford	5	SR1425 VANN RD	SR 1403 TO DEAD END	1	2	2WU	YES	NO	2.31	20	*		381	29,813	1,074	46	4.62			5,103	306	173		173	2.3	5	40	*	80,203	49,711	30,492
2019CPT.01.19.20462.1	Hertford	6	SR1152 JIM HARDY RD	SR1154 TO NC561	1	2	2WU	YES	NO	1.52	20	*		251	19,617	593	30	2.31			3,337	200	114		114	2.3	3	96	*	52,774	32,710	20,064
2019CPT.01.19.20462.1	Hertford	7	SR1121 RAWLS RD	SR1116 TO SR1118	2	2	2WU	NO	NO	1	22	*							25,813	100	1,232	74	75	100	75		2	76	*	34,720	21,520	13,200
2019CPT.01.19.20462.1	Hertford	8	SR1430 ARCHER RD	SR1431 TO DEAD END	2	2	2WU	NO	NO	0.39	20	*							4,576	250	425	26	29	39	29		1	36	*	13,541	8,393	5,148
2019CPT.01.19.20462.1	Hertford	9	SR1431 ARCHER RD	SR1430 TO DEAD END	2	2	2WU	NO	NO	0.12	20	*							2,816	100	132	8	9	12	9		0	40	*	4,166	2,582	1,584
<b>TOTAL FOR PROJ NO. 2019CPT.01.19.20462.1</b>										<b>10.46</b>		<b>1</b>	<b>1,477</b>	<b>117,011</b>	<b>3,814</b>	<b>179</b>	<b>17.17</b>	<b>33,205</b>	<b>450</b>	<b>21,747</b>	<b>1,306</b>	<b>785</b>	<b>151</b>	<b>785</b>	<b>9.70</b>	<b>23</b>	<b>540.5</b>	<b>1</b>	<b>363,171</b>	<b>225,099</b>	<b>138,072</b>	

# COIR FIBER WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

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

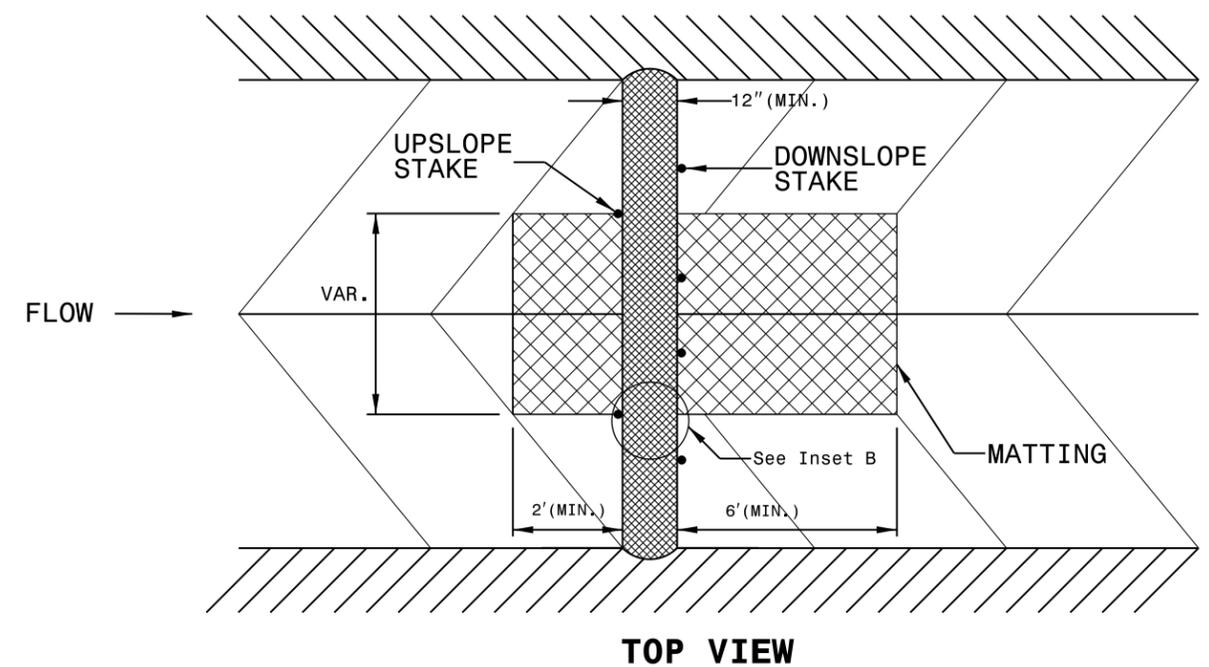
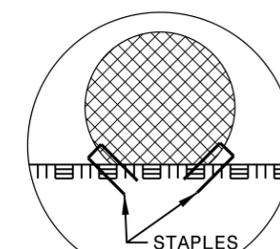
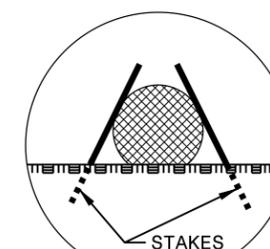
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
2019CPT.01.19.20462.1	EC-2

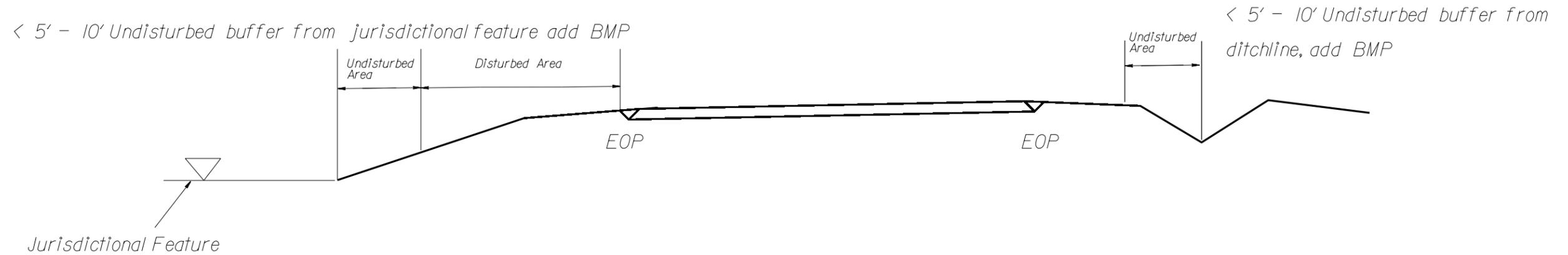
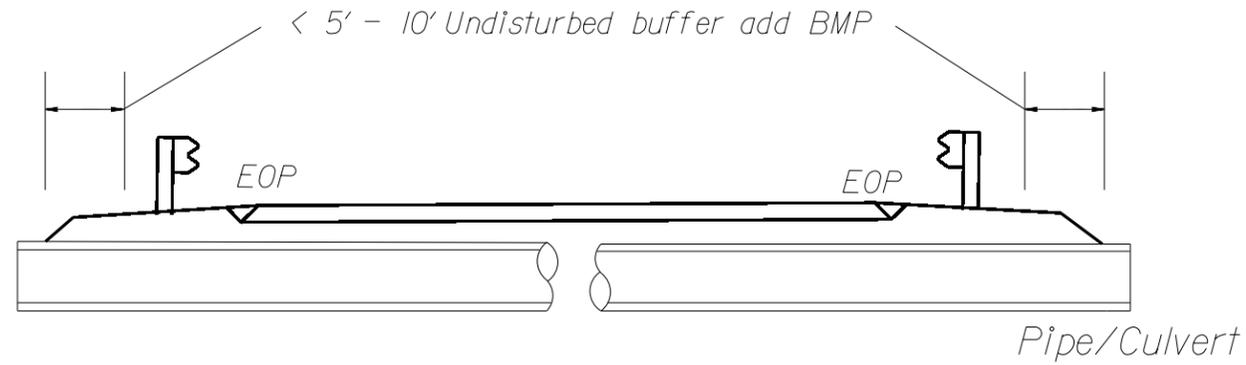
***SOIL STABILIZATION TIMEFRAMES***

<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.

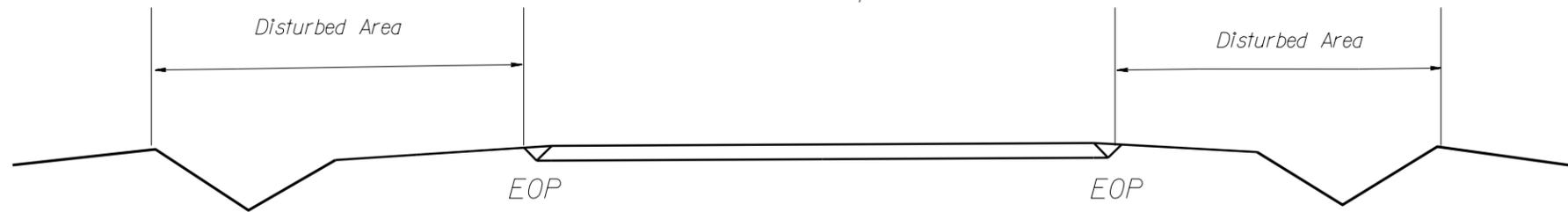
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

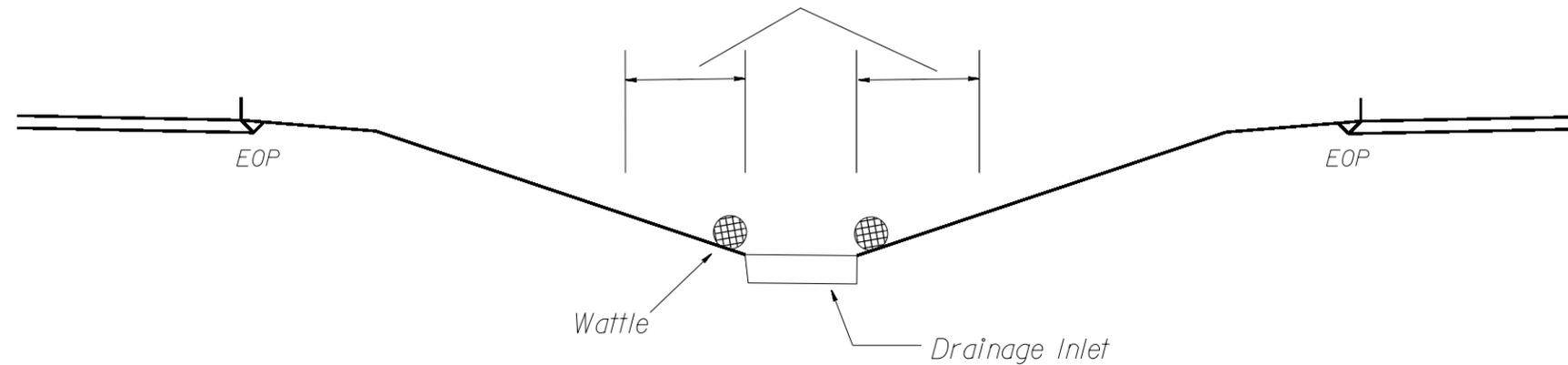
# EROSION CONTROL DETAIL



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



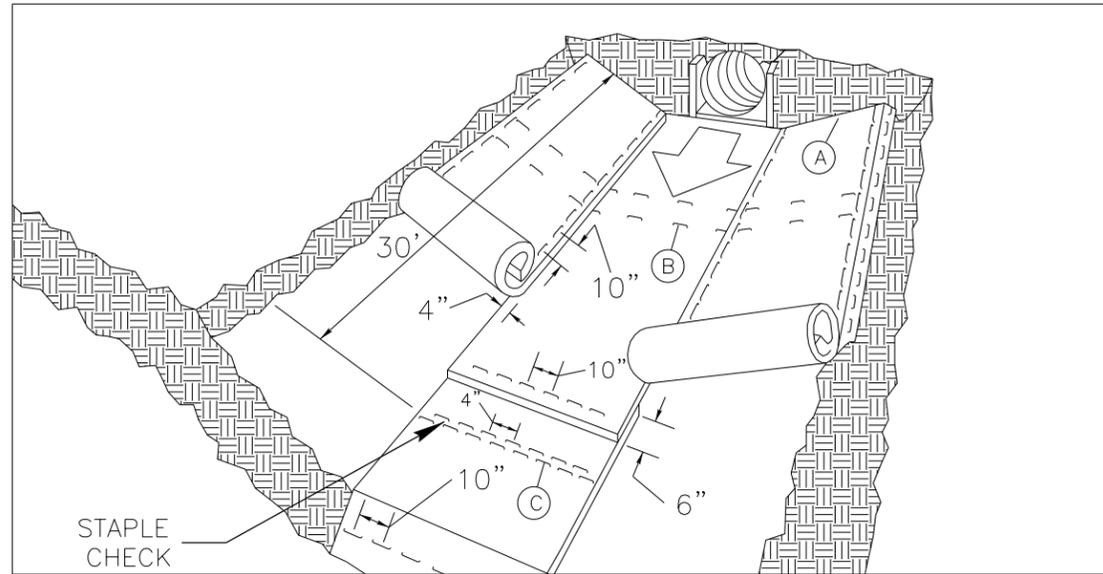
< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

PROJECT REFERENCE NO. 2019CPT.0119.204621	SHEET NO. EC-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# MATTING INSTALLATION DETAIL



**MATTING IN DITCHES**

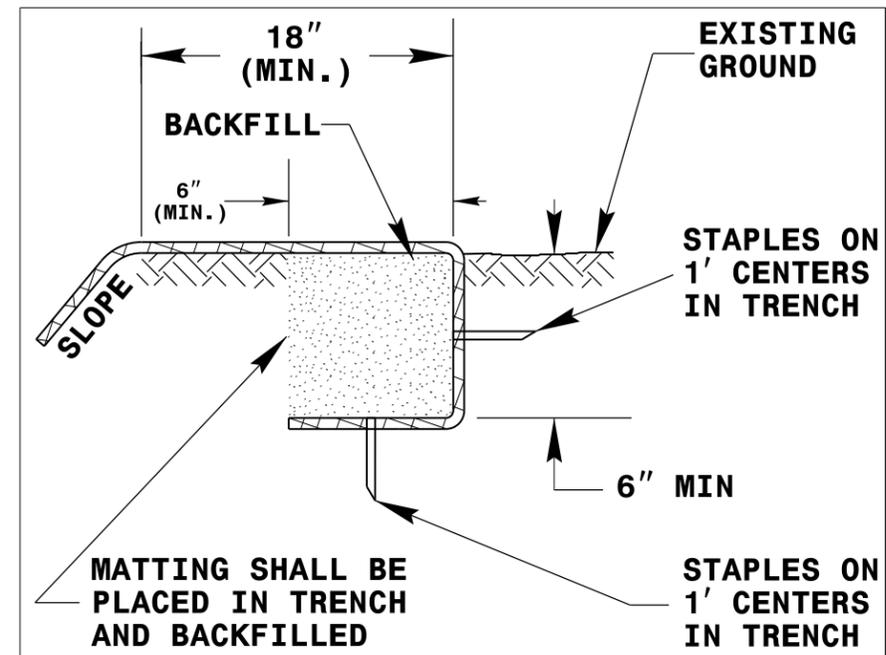
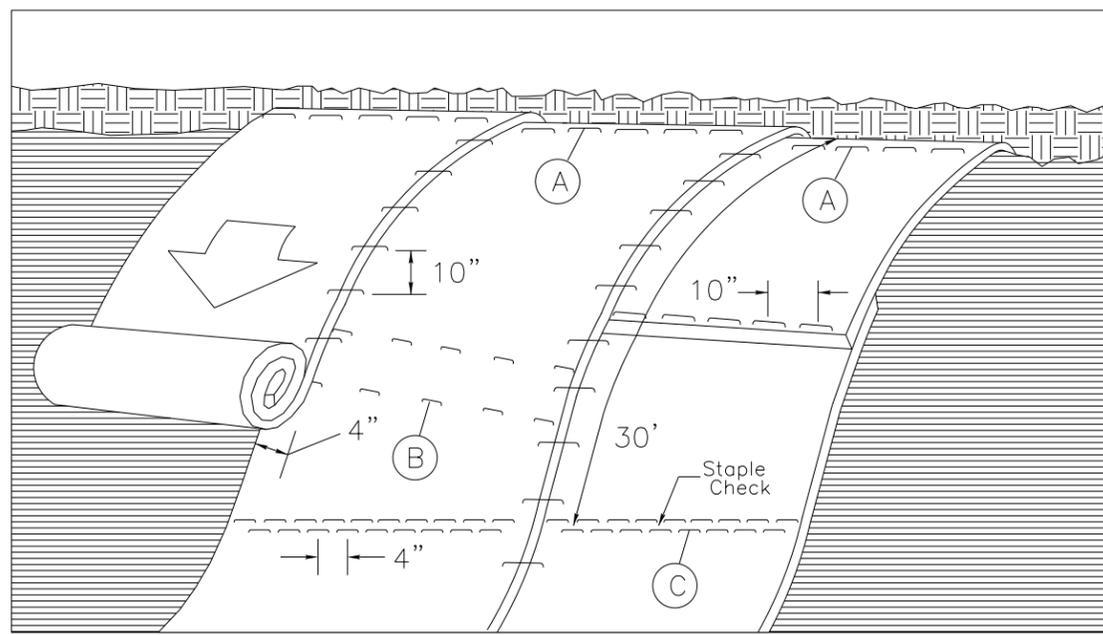


DIAGRAM (A)



**MATTING ON SLOPES**

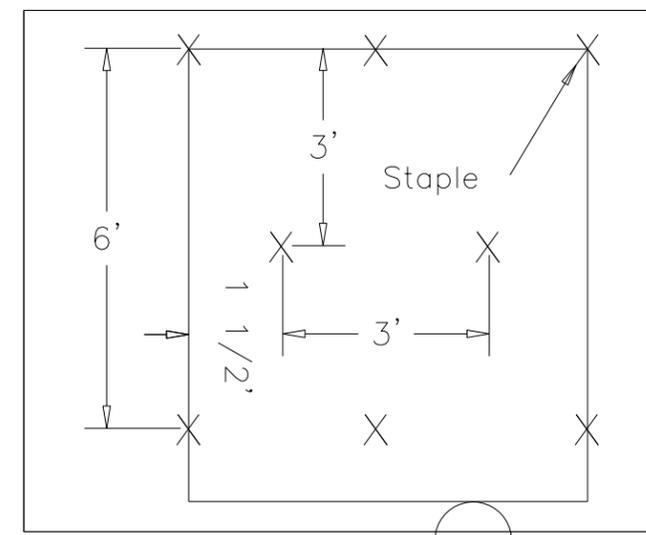


DIAGRAM B

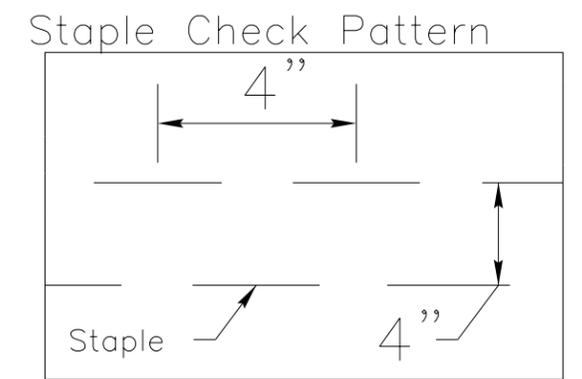


DIAGRAM (C)

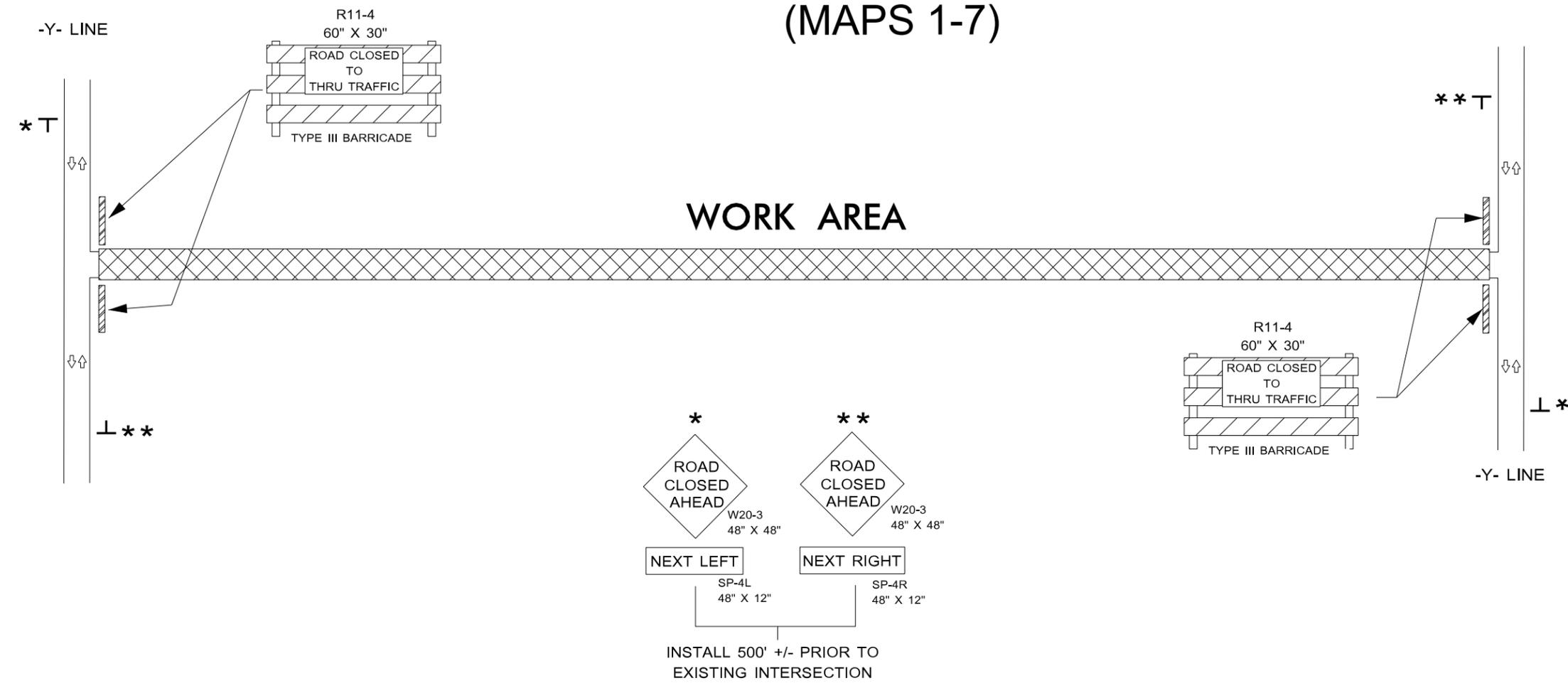
**NOTES:**

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

# ROAD CLOSURE (MAPS 1-7)



## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "2012 NCDOT STANDARD ROADWAY DRAWINGS" ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

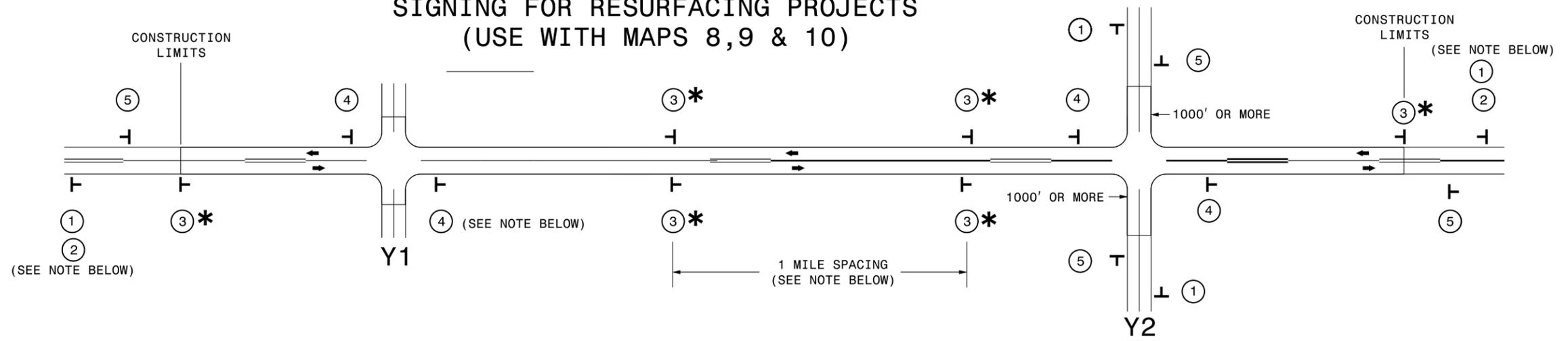
STD. NO.	TITLE
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1135.01	CONES
1145.01	BARRICADES
904.10	ORIENTATION OF GROUND MOUNTED SIGNS

## GENERAL NOTES

1. PROVIDE A MINIMUM 21 CALENDAR DAY NOTICE TO STATE FORCES BEFORE A ROADWAY IS CLOSED TO TRAFFIC SUCH THAT THE NECESSARY PROVISIONS CAN BE MADE TO INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, SCHOOLS OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.
2. INSTALL SIGNS BEFORE THE BARRICADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC. INSTALL/REMOVE SIGNS AND BARRICADES WITHIN THE SAME CALENDAR DAY.
3. SEE STANDARD SPECIFICATION 1089-1 FOR WORK ZONE SIGNS.
4. SEE STANDARD SPECIFICATION 1089-2 FOR WORK ZONE SIGN SUPPORTS.

LEGEND	
	DIRECTION OF TRAFFIC FLOW
	BARRICADE (TYPE III)
	STATIONARY MOUNTED SIGN

## SIGNING FOR RESURFACING PROJECTS (USE WITH MAPS 8,9 & 10)



LEGEND	
T	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	①	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	②	 <small>W7-3aP 24" X 18"</small>	#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*	 <small>SP 13107 48" X 48"</small>	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.		
	④	 <small>SP 13106 48" X 48"</small>	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.		
	⑤	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

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.

### \* 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