09/08/99

CONTRACT: DA00542 WBS NO.: 2023CPT.01.13.10211.1

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

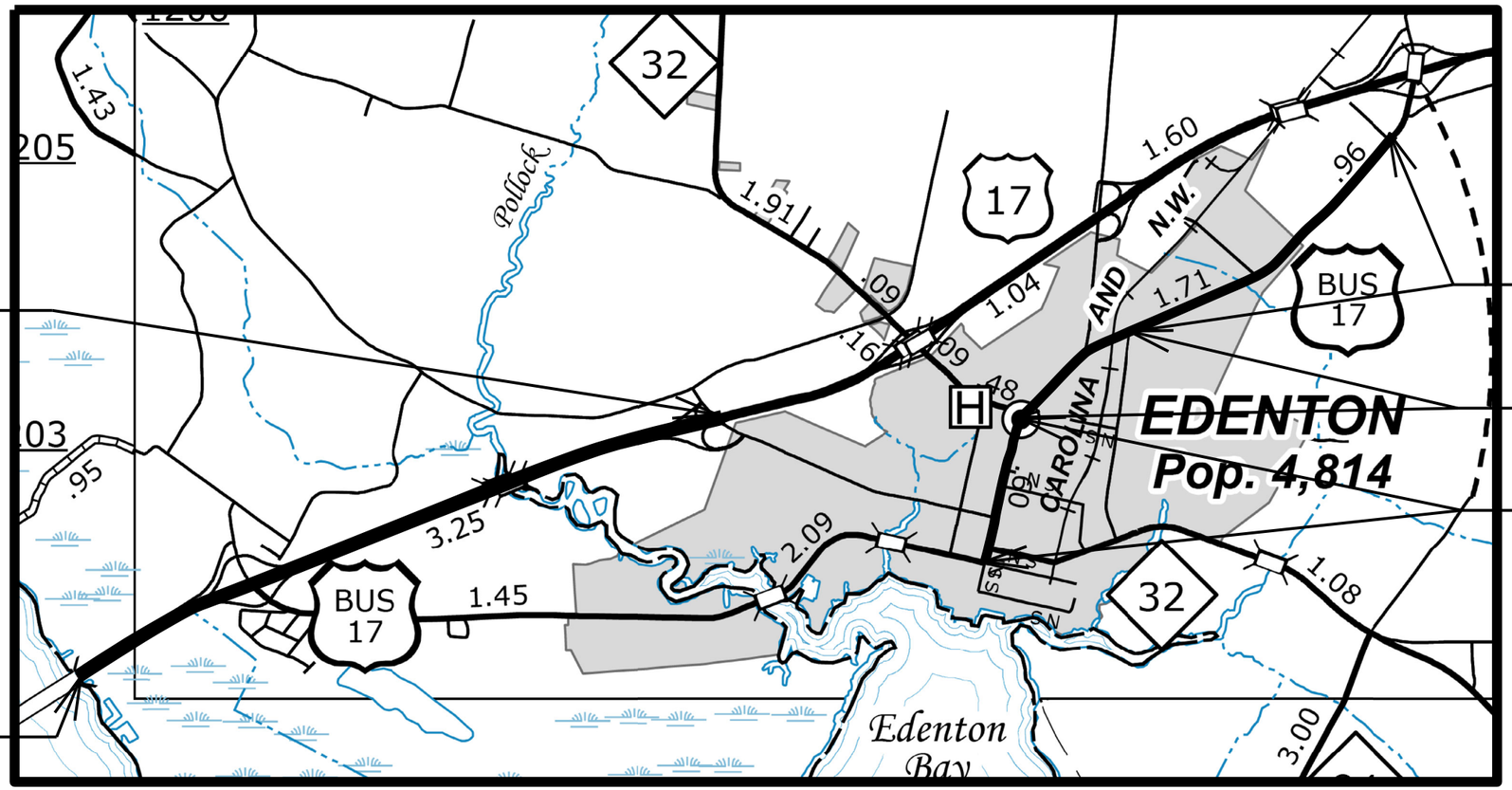
CHOWAN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	2023CPT.01.13.10211.1	1

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2023CPT.01.13.10211.1		PE, CONST

LOCATION:
MAP 1 - US 17 NB FROM BRIDGE TO MLK AVE.
MAP 2 - US 17 SB FROM MLK AVE. TO BRIDGE
MAP 3 - US 17 BUS (BROAD ST.) FROM QUEEN ST. TO NC 32
MAP 4 - US 17 BUS (BROAD ST.) FROM NC 32 TO JOINT AT WIDTH CHANGE
MAP 5 - US 17 BUS (BROAD ST.) FROM JOINT AT WIDTH CHANGE TO SR 1323

TYPE OF WORK: MILLING, RESURFACING AND SHOULDER RECONSTRUCTION



GRAPHIC SCALES		MAP LENGTH	Prepared in the Office of: DIVISION 1 DIVISION OF HIGHWAYS 113 AIRPORT DR., EDENTON NC, 27932		
NTS		MAP 1 = 2.83 MILES MAP 2 = 2.83 MILES MAP 3 = 0.68 MILES MAP 4 = 0.81 MILES MAP 5 = 1.34 MILES	2018 STANDARD SPECIFICATIONS	W. B. HOBBS, PE DIVISION PROJECT DEVELOPMENT ENGINEER CHRIS SLACHTA DIVISION CONTRACT ENGINEER	S. P. FENWICK, PLS DIVISION DESIGN ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	2

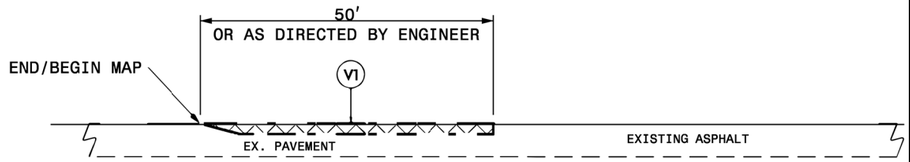
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 0.75" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
M	REPLACE EXISTING RUMBLE STRIPS
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1½".

* SEE DETAIL DRAWING IN PLANS AND "NCDOT 2018 ROADWAY STANDARD DRAWINGS" (665.01, SHEET 2 OF 2) FOR PLACEMENT OF ASPHALT SHOULDERS MILLED RUMBLE STRIPS

NOTES:

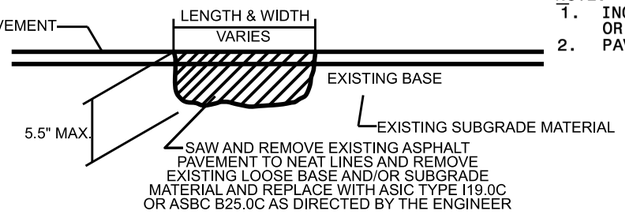
* ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
* EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
* EXISTING MILLED RUMBLE STRIPS TO BE MILLED & REPLACED
* 1.5" MILLING AND 1.5" OF S9.5C TO BE APPLIED 32' WIDE OR THE FULL WIDTH OF THE ROADWAY
* ACCELERATION & DECELERATION LANES ARE INCLUDED AS INCIDENTAL MILLING ALONG WITH OTHER IRREGULAR AREAS (SEE DETAIL "A")
* OPEN GRADE ASPHALT FRICTION COURSE TO BE APPLIED TO TRAVEL LANES AND INCLUDES ACCELERATION & DECELERATION LANES
* RAMPS ARE NOT A PART OF WORK INCLUDED FOR MAPS 1 & 2



DETAIL 1

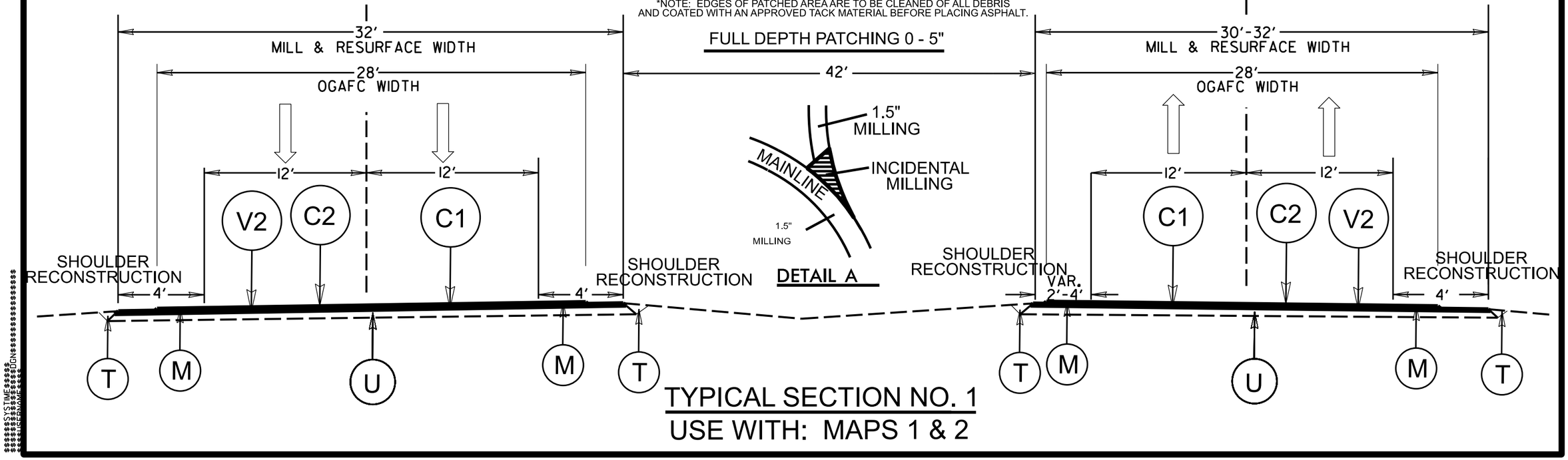
MAIN LINE MILLING

NOTE:
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.



*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

FULL DEPTH PATCHING 0 - 5"



TYPICAL SECTION NO. 1

USE WITH: MAPS 1 & 2

$$$$$SYSTIME$$$$$
$$$$$USERNAME$$$$$

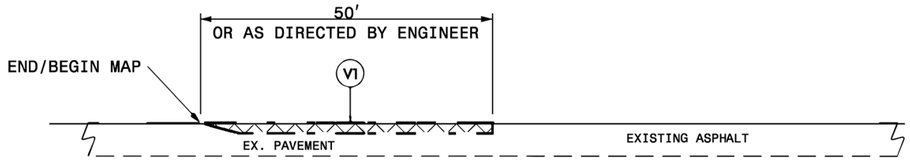
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	3

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 0.75" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
M	REPLACE EXISTING RUMBLE STRIPS
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1½".

NOTES:

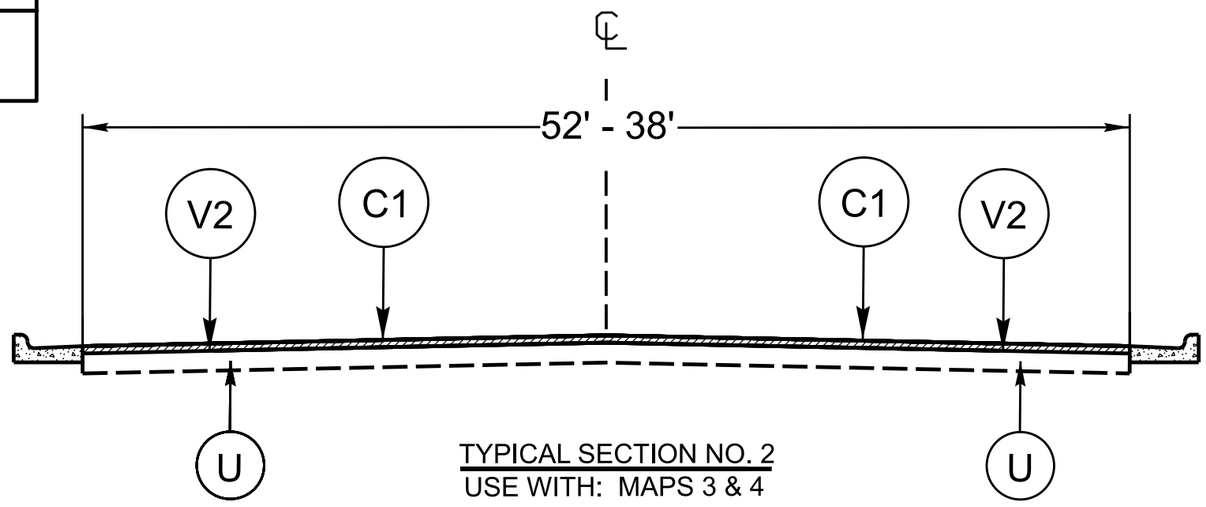
* ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
* EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
* SIGNAL LOOPS TO BE INSTALLED PRIOR TO FINAL LIFT OF SURFACE COURSE.



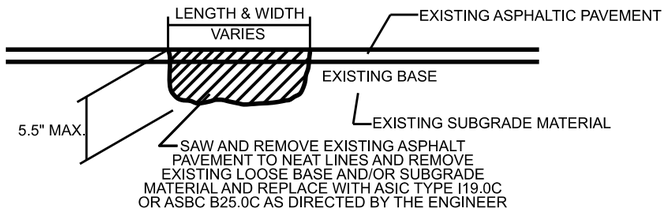
DETAIL 1

MAIN LINE MILLING

NOTE:
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.

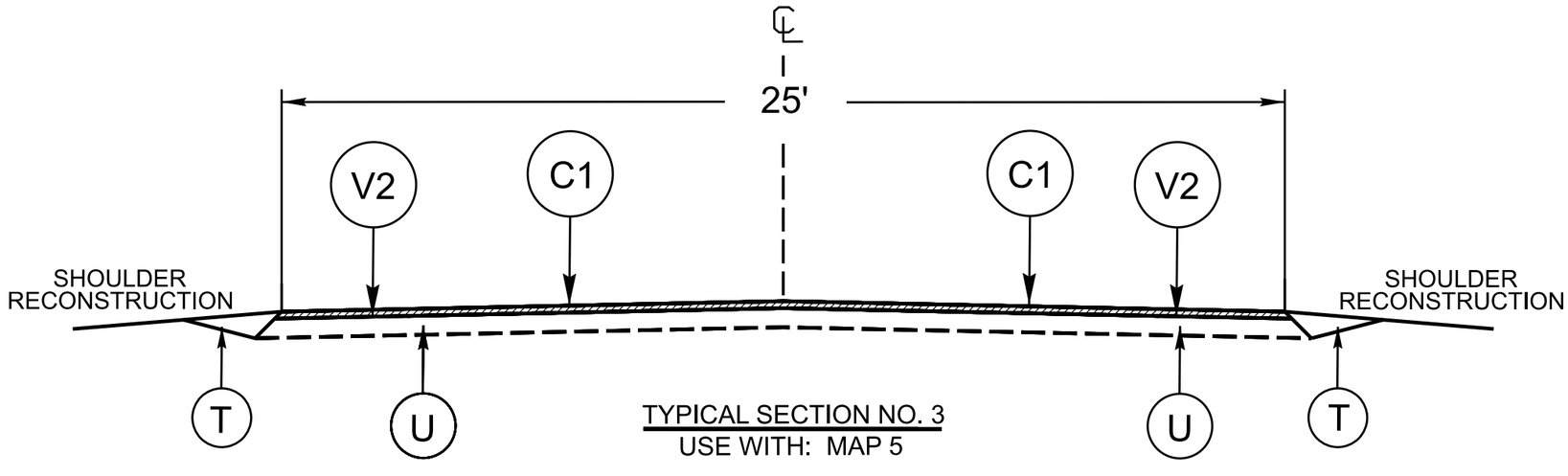


TYPICAL SECTION NO. 2
USE WITH: MAPS 3 & 4



*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

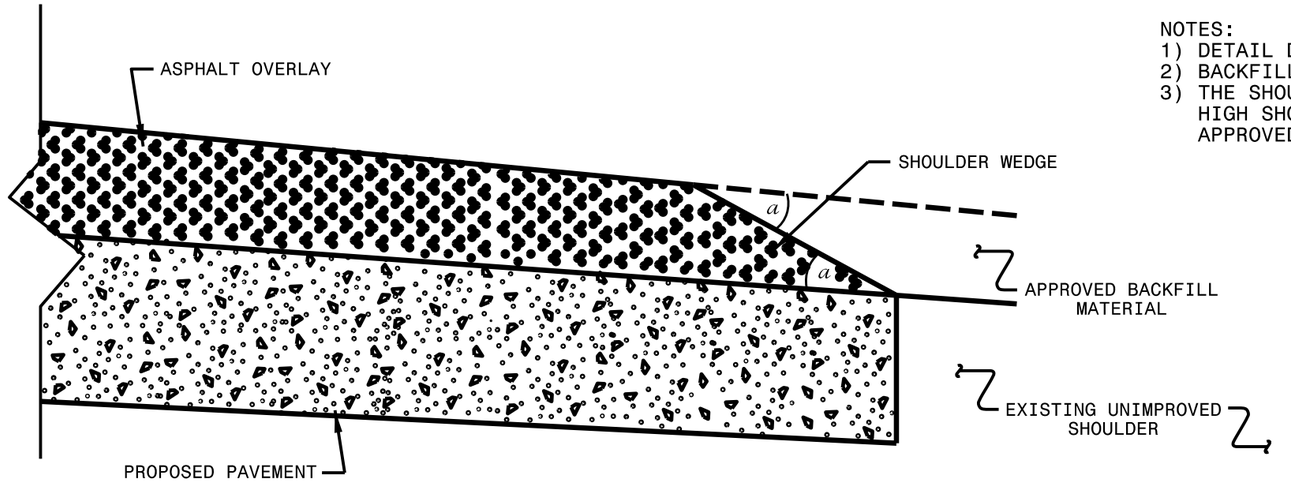
FULL DEPTH PATCHING 0 - 5"



TYPICAL SECTION NO. 3
USE WITH: MAP 5

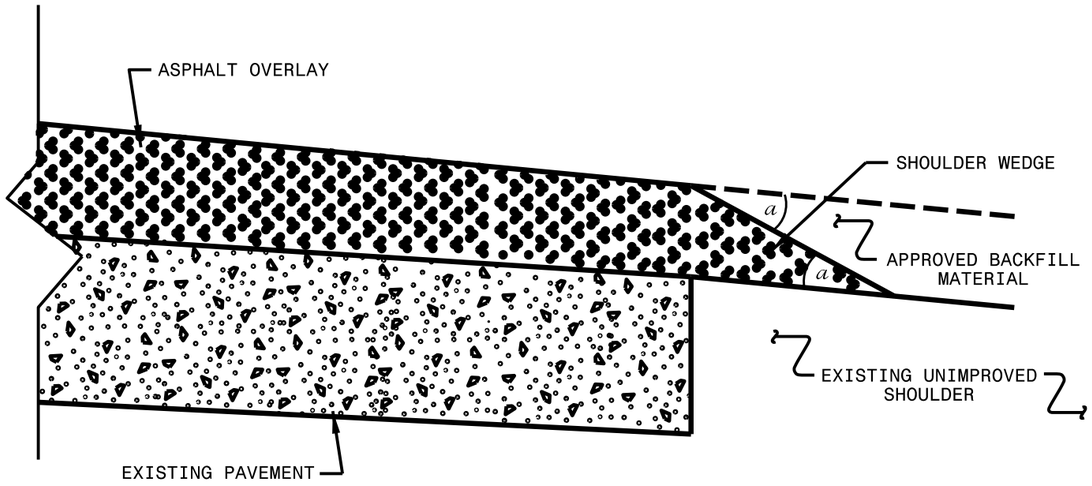
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	4

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC 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.



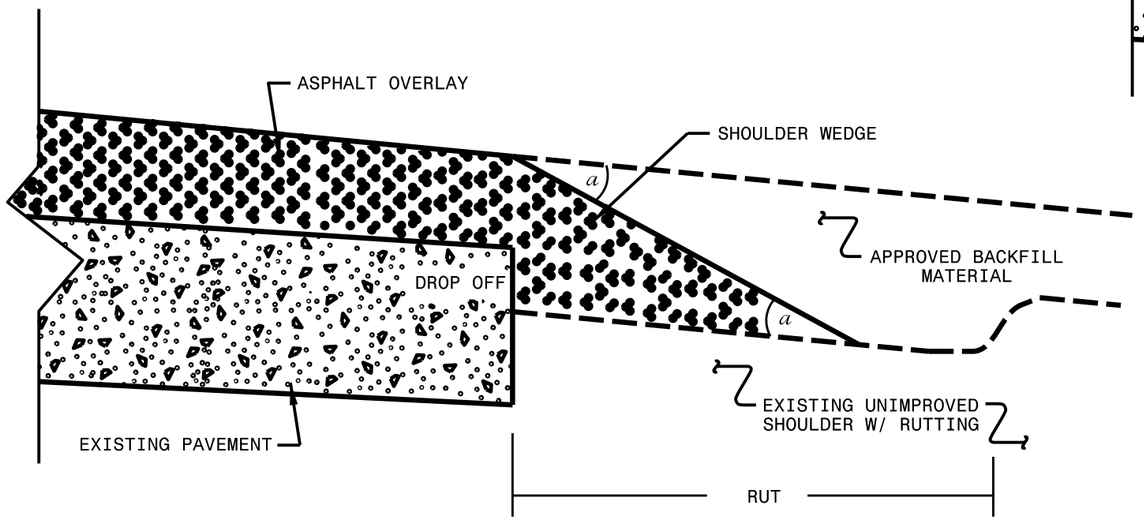
SHOULDER WEDGE DETAIL

(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.: s:usr/details/stand/shoulderwedgedetail.dgn

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT NO.	SHEET NO.
2023CPT.01.13.10211.1	5

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	MATERIALS TRANSFER VEHICLE	LENGTH	WIDTH	0000100000-N MOBILIZATION	0106000000-E BORROW EXCAVATION	1220000000-E INCIDENTAL STONE BASE	1245000000-E SHOULDER RECONSTRUCTION	1260000000-E AGGREGATE SHOULDER BORROW	1297000000-E MILLING ASPHALT PAVEMENT (1½")	1330000000-E INCIDENTAL MILLING	1520000000-E ASPHALT CONC LEVELING COURSE, S9.5B	1523000000-E ASPHALT CONC SURFACE COURSE, S9.5C	1575000000-E ASPHALT BINDER FOR PLANT MIX	1577000000-E POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	1662000000-E OPEN-GRADED ASPHALT FRICTION COURSE, FC-1	1705000000-E PATCHING EXISTING PAVEMENT (FULL DEPTH)	1840000000-E MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	2549000000-E 2'-6" CONCRETE CURB & GUTTER
											MI	FT	LS	CY	TONS	SMI	TON	SY	SY	TONS	TONS	TONS	TON	TONS		LF	LF
2023CPT.01.13.10211.1	Chowan	1	US17 NB	BRIDGE TO MLK AVE	1	2	MD	NO	NO	YES	2.83	32	1	311	57	5.66	104	53,129	5,370	1,435	5,380	416	121	1,730	30	29,885	
2023CPT.01.13.10211.1	Chowan	2	US17 SB	MLK AVE TO BRIDGE	1	2	MD	NO	NO	YES	2.83	32	*	311	57	5.66	104	53,129	6,425	340	5,468	350	121	1,730	30	29,885	
2023CPT.01.13.10211.1	Chowan	3	US 17 BUS BROAD ST	QUEEN ST TO NC 32	2	4	MU	NO	NO	NO	0.68	52	*		14			20,745	4,166		2,272	136			20		400
2023CPT.01.13.10211.1	Chowan	4	US 17 BUS BROAD ST	NC 32 TO JOINT AT WIDTH CHANGE	2	2	MU	NO	NO	NO	0.81	38	*		16			18,058	1,845		1,830	110			20		230
2023CPT.01.13.10211.1	Chowan	5	US 17 BUS BROAD ST	WIDTH CHANGE TO SR 1323 DAVENPORT LANE	3	2	2WU	NO	NO	NO	1.34	25	*	123	27	2.68	41	19,653	4,265		2,183	131			20		42
GRAND TOTAL											**8.49**		**1**	**745**	**171**	**14**	**249**	**164,714**	**22,071**	**1,775**	**17,133**	**1,143**	**242**	**3,460**	**120**	**59,770**	**672**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	MATERIALS TRANSFER VEHICLE	LENGTH	WIDTH	2800000000-N ADJUSTMENT OF CATCH BASINS	2815000000-N ADJUSTMENT OF DROP INLETS	2830000000-N ADJUSTMENT OF MANHOLES	2845000000-N ADJUSTMENT OF METER BOXES OR VALVE BOXES	3030000000-E STEEL BEAM GUARDRAIL	3075000000-E TRIPLE CORRUGATED STEEL BEAM GUARDRAIL	3135000000-E W-TR STEEL BEAM GUARDRAIL TRANSITION SECTIONS	3287000000-N GUARDRAIL END UNITS, TYPE TL-3 (SP)	3360000000-E REMOVE EXISTING GUARDRAIL	6000000000-E TEMPORARY SILT FENCE	6071012000-E COIR FIBER WATTLE	6084000000-E SEEDING & MULCHING	6117000000-N RESPONSE FOR EROSION CONTROL	7324000000-N JUNCT BOX (STD SIZE)	7444000000-E INDUCTIVE LOOP SAWCUT
											MI	FT	EA	EA	EA	EA	LF	LF	EA	EA	LF	LF	LF	ACR	EA	EA	LF
2023CPT.01.13.10211.1	Chowan	1	US17 NB	BRIDGE TO MLK AVE	1	2	MD	NO	NO	YES	2.83	32					4,284				4,484			2.8	1		
2023CPT.01.13.10211.1	Chowan	2	US17 SB	MLK AVE TO BRIDGE	1	2	MD	NO	NO	YES	2.83	32					1,165	676	3	9	2,110			2.8	1		
2023CPT.01.13.10211.1	Chowan	3	US 17 BUS BROAD ST	QUEEN ST TO NC 32	2	4	MU	NO	NO	NO	0.68	52	2	9	60	7										3	2,449
2023CPT.01.13.10211.1	Chowan	4	US 17 BUS BROAD ST	NC 32 TO JOINT AT WIDTH CHANGE	2	2	MU	NO	NO	NO	0.81	38		2	13											1	132
2023CPT.01.13.10211.1	Chowan	5	US 17 BUS BROAD ST	WIDTH CHANGE TO SR 1323 DAVENPORT LANE	3	2	2WU	NO	NO	NO	1.34	25			2	1						75	30	1.3	1		
GRAND TOTAL											**8.49**		**2**	**11**	**75**	**8**	**5,449**	**676**	**3**	**9**	**6,594**	**75**	**30**	**6.9**	**3**	**4**	**2,581**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	MATERIALS TRANSFER VEHICLE	LENGTH	WIDTH	4413000000-E WORK ZONE ADV/GEN WARNING SIGNING	4457000000-N TEMPORARY TRAFFIC CONTROL (SP)	4688000000-E THERMO PAVEMENT MARKING LINES (6", 90 MILS) WHITE	4688000000-E THERMO PAVEMENT MARKING LINES (6", 90 MILS) YELLOW	4695000000-E THERMO PAVEMENT MARKING LINES (8", 90 MILS) WHITE	4695000000-E THERMO PAVEMENT MARKING LINES (8", 90 MILS) YELLOW	4700000000-E THERMO PAVEMENT MARKING LINES (12", 90 MILS)	4704000000-E THERMO PAVEMENT MARKING LINES (16", 90 MILS)	4709000000-E THERMO PAVEMENT MARKING LINES (24", 90 MILS)	4720000000-E THERMO PAVEMENT MARKING CHARACTER (90 MILS), SCHOOL	4720000000-E THERMO PAVEMENT MARKING CHARACTER (90 MILS), RXR	4725000000-E THERMO PAVEMENT MARKING SYMBOL (90 MILS), STR ARROW	4725000000-E THERMO PAVEMENT MARKING SYMBOL (90 MILS), RT ARROW	4725000000-E THERMO PAVEMENT MARKING SYMBOL (90 MILS), LT ARROW	4725000000-E THERMO PAVEMENT MARKING SYMBOL (90 MILS), STR & RT ARROW
											MI	FT	SF	LS	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA
2023CPT.01.13.10211.1	Chowan	1	US17 NB	BRIDGE TO MLK AVE	1	2	MD	NO	NO	YES	2.83	32	344	1	28,976	18,678			1,818					3			
2023CPT.01.13.10211.1	Chowan	2	US17 SB	MLK AVE TO BRIDGE	1	2	MD	NO	NO	YES	2.83	32	344	*	28,976	18,678			1,818					6			
2023CPT.01.13.10211.1	Chowan	3	US 17 BUS BROAD ST	QUEEN ST TO NC 32	2	4	MU	NO	NO	NO	0.68	52	836	*	7,317	4,488	20		470		1,166	12		6	4	7	2
2023CPT.01.13.10211.1	Chowan	4	US 17 BUS BROAD ST	NC 32 TO JOINT AT WIDTH CHANGE	2	2	MU	NO	NO	NO	0.81	38	440	*	8,716	5,346		188		100	240		4	4	4	6	8
2023CPT.01.13.10211.1	Chowan	5	US 17 BUS BROAD ST	WIDTH CHANGE TO SR 1323 DAVENPORT LANE	3	2	2WU	NO	NO	NO	1.34	25	280	*	14,418	8,844											
GRAND TOTAL											**8.49**		**2,244**	**1**	**88,403**	**56,034**	**20**	**188**	**4,106**	**100**	**1,406**	**12**	**4**	**19**	**8**	**13**	**10**
															144,437		**208**					**16**		**50**			

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	MATERIALS TRANSFER VEHICLE	LENGTH	WIDTH	4810000000-E PAINT PAVEMENT MARKING LINES (4") WHITE	4810000000-E PAINT PAVEMENT MARKING LINES (4") YELLOW	4820000000-E PAINT PAVEMENT MARKING LINES (8") WHITE	4820000000-E PAINT PAVEMENT MARKING LINES (8") YELLOW	4825000000-E PAINT PAVEMENT MARKING LINES (12")	4830000000-E PAINT PAVEMENT MARKING LINES (16")	4835000000-E PAINT PAVEMENT MARKING LINES (24")	4840000000-N PAINT PAVEMENT MARKING CHARACTER (MSG SCHOOL)	4840000000-N PAINT PAVEMENT MARKING CHARACTER (MSG RXR)	4845000000-N PAINT PAVEMENT MARKING SYMBOL (STR ARROW)	4845000000-N PAINT PAVEMENT MARKING SYMBOL (RT ARROW)	4845000000-N PAINT PAVEMENT MARKING SYMBOL (LT ARROW)	4845000000-N PAINT PAVEMENT MARKING SYMBOL (STR & RT ARROW)	4905100000-N NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKERS, CRYSTAL/ RED	4905100000-N NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKERS YELLOW/YELLOW
											MI	FT	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	
2023CPT.01.13.10211.1	Chowan	1	US17 NB	BRIDGE TO MLK AVE	1	2	MD	NO	NO	YES	2.83	32	30,451	18,678								3				187	
2023CPT.01.13.10211.1	Chowan	2	US17 SB	MLK AVE TO BRIDGE	1	2	MD	NO	NO	YES	2.83	32	30,451	18,678								6				187	
2023CPT.01.13.10211.1	Chowan	3	US 17 BUS BROAD ST	QUEEN ST TO NC 32	2	4	MU	NO	NO	NO	0.68	52	7,317	4,488	20		470		1,166	12		6	4	7	2	90	45
2023CPT.01.13.10211.1	Chowan	4	US 17 BUS BROAD ST	NC 32 TO JOINT AT WIDTH CHANGE	2	2	MU	NO	NO	NO	0.81	38	8,716	5,346		188		100	240		4	4	4	6	8		54
2023CPT.01.13.10211.1	Chowan	5	US 17 BUS BROAD ST	WIDTH CHANGE TO SR 1323 DAVENPORT LANE	3	2	2WU	NO	NO	NO	1.34	25	14,418	8,844													90
GRAND TOTAL											**8.49**		**91,353**	**56,034**	**20**	**188**	**470**	**100**	**1,406**	**12**	**4**	**19**	**8**	**13**	**10**	**464**	**189**
													147,387		**208**					**16**		**50**				**653**	

6/21/00

COMPUTED BY: SPF DATE: 01-11-2023
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

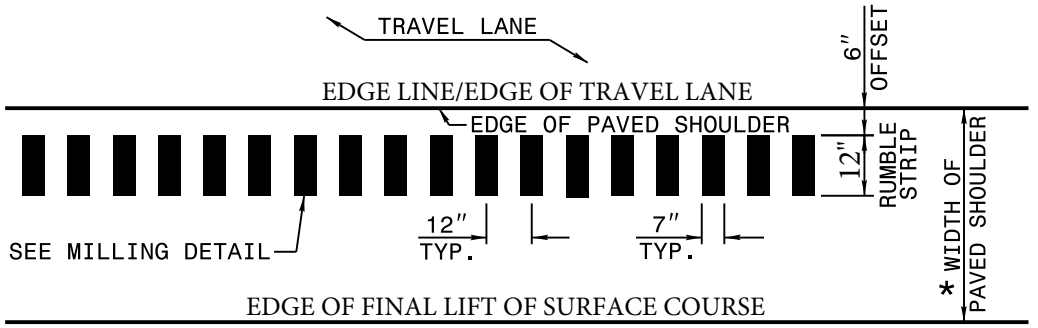
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211	6

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

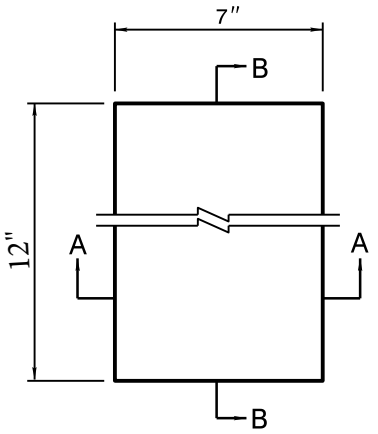
SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE TL-3				REMOVE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	THRIE-BEAM SECTION	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	TYPE III	GREU TL-2	GREU TL-3	WTR SECTION	*	CAT-1	*	B-83	B-77	EA	G	NG			
US 17 NBL	STA. 0+00 AT BRIDGE #38 BERTIE COUNTY	20+75	RT	2068'			MATCH EXISTING FOR HORIZONTAL LOCATION																					2068	
US 17 NBL	32+17	33+97	RT	140			MATCH EXISTING FOR HORIZONTAL LOCATION																					140	
US 17 NBL	33+05	34+72	LT	180'			SEE STANDARD DRAWINGS										2											180'	
US 17 NBL	96+00	97+73	LT	165			MATCH EXISTING FOR HORIZONTAL LOCATION																					165	
US 17 NBL	100+70	101+75	LT	123			SEE STANDARD DRAWINGS										2											123'	
US 17 NBL	100+83	118+78	RT	1808			MATCH EXISTING FOR HORIZONTAL LOCATION																					1808	
US 17 SBL	STA. 0+00 OFF RAMP EXIT 226																												
US 17 SBL	46+23	52+40	RT	279'		338'	MATCH EXISTING FOR HORIZONTAL LOCATION																					617'	
US 17 SBL	47+45	53+27	LT	244'		338'	MATCH EXISTING FOR HORIZONTAL LOCATION										1	1										582'	
US 17 SBL	114+42	116+13	LT	171'			SEE STANDARD DRAWINGS										2	2										171'	
US 17 SBL	114+59	115+53	RT	94'			MATCH EXISTING FOR HORIZONTAL LOCATION										1											94'	
US 17 SBL	143+13	149+59	RT	646'			MATCH EXISTING FOR HORIZONTAL LOCATION										1											646'	
			SUB TOTAL	6594'																								6594'	
			SUB TOTAL	5918'		676'								TOTAL			9	3										6594'	
		GREU TL-3	9 x 50' =	-450'																									
		WTR SECTION	3 x 6.25' =	-18.75' (SAY: -19.00')																									
			TOTAL	5449'		676'											9	3										6594'	

$$$$SYSTIME$$$$
$$$$CADSUBSESSION$$$$

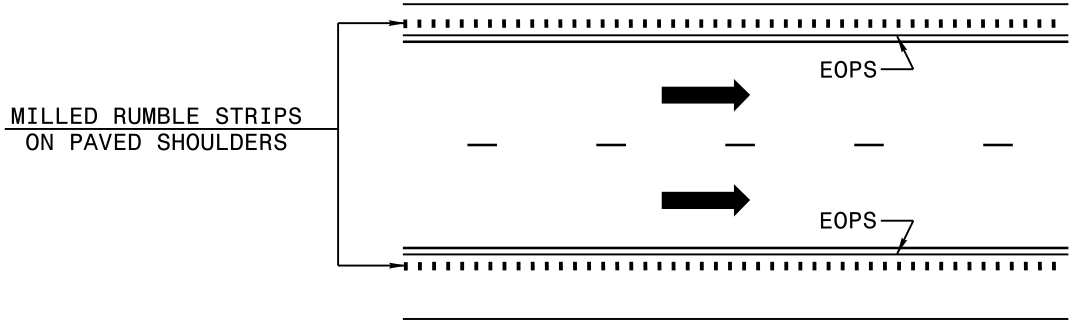


* FOR WIDTHS SEE TYPICAL SECTIONS AND PLAN SHEETS

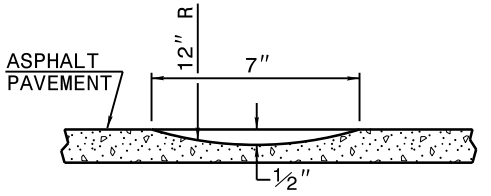
PLAN VIEW
PAVED SHOULDER



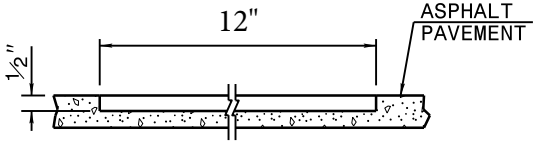
PLAN VIEW
MILLING DETAIL



LANE TREATMENT



SECTION A-A



SECTION B-B

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION ONE
DIVISION OF HIGHWAYS

ROADWAY DETAIL DRAWING FOR

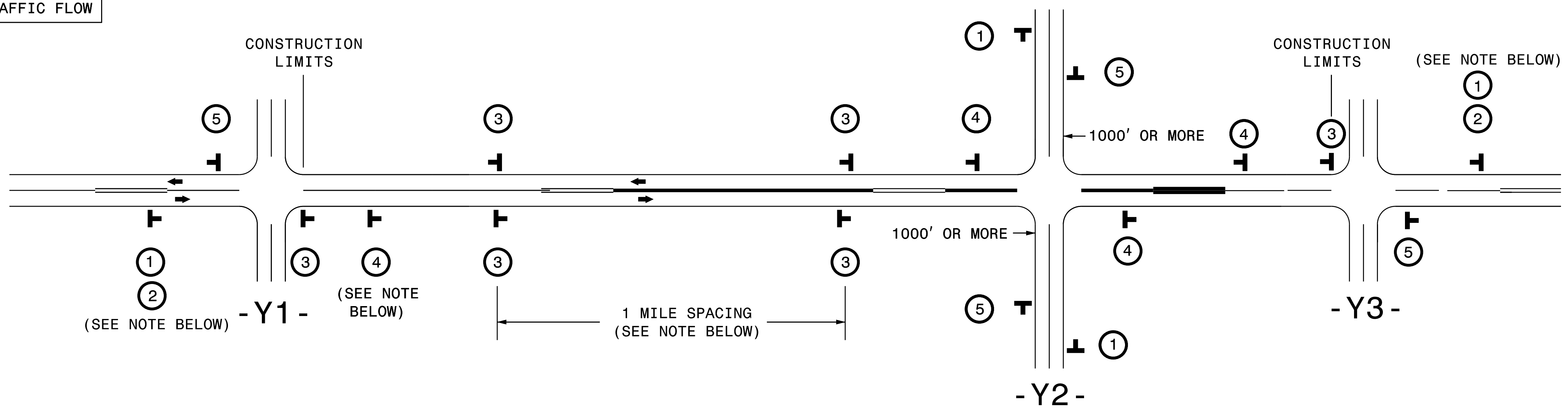
ASPHALT SHOULDERS
MILLED RUMBLE STRIPS

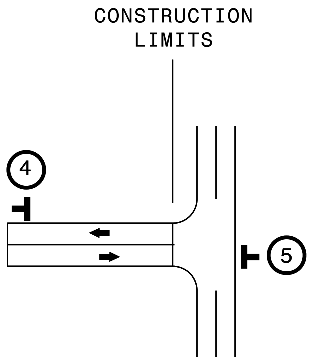
SHEET
7

PROJ. REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	TMP-1

SIGNING FOR RESURFACING PROJECTS

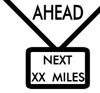
LEGEND
⊢ STATIONARY SIGN
← DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

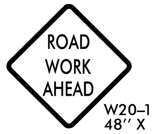
SIGNING NOTES AND PLACEMENT PER DIRECTION	① ②	 W20-1 48″ X 48″  W7-3aP 24″ X 18″	PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE. #2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)
	③	 SP 13107 48″ X 48″  SP 48″ X 48″	- ALTERNATE THE FOLLOWING TWO SIGNS: - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
	④	 SP 13106 48″ X 48″	- 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	 G20-2 A 48″ X 24″	PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.
	THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.		
MAPS LESS THAN 2 MILES	FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.		

-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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



W20-1 48″ X 48″

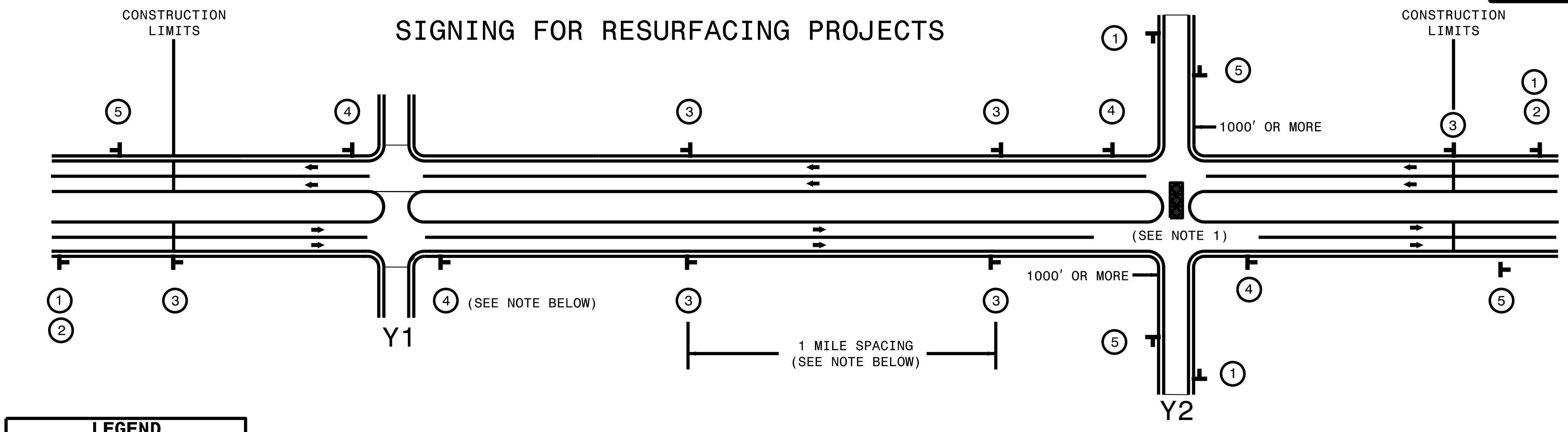
PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″

ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2-LANE ROADWAY
RESURFACING

PROJ. REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	TMP-2

SIGNING FOR RESURFACING PROJECTS



LEGEND

┣ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
① ②	 W20-1 48" X 48"  W7-3aP 24" X 18"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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	 SP 13107 48" X 48"	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
④	 SP 13106 48" X 48"	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	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

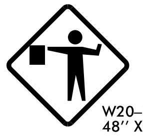
NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

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.

W20-1 48" X 48"

PLACED 500' IN ADVANCE OF FLAGGER.



W20-7 A 48" X 48"

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.

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$$

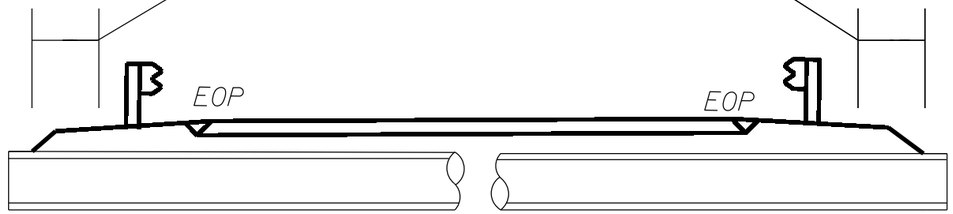
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	EC-1

EROSION CONTROL DETAIL

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

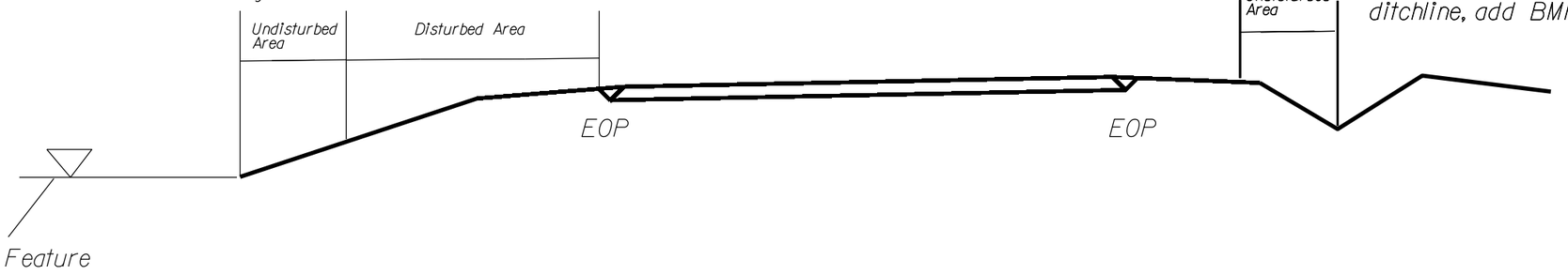
BMP Options: Wattle or Silt Fence

< 5' - 10' Undisturbed buffer add BMP



Pipe/Culvert

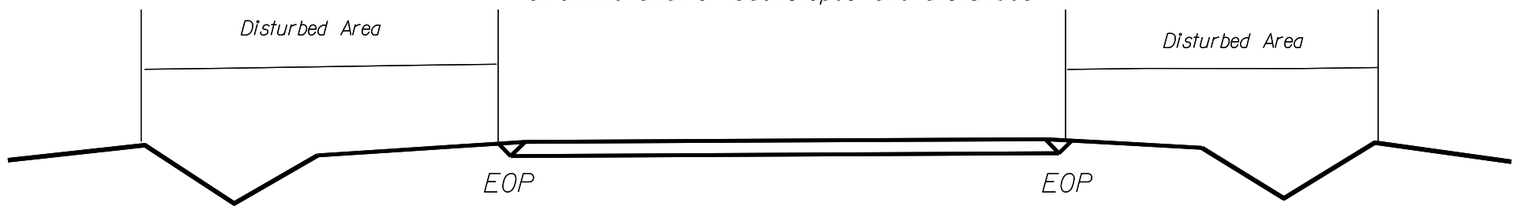
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



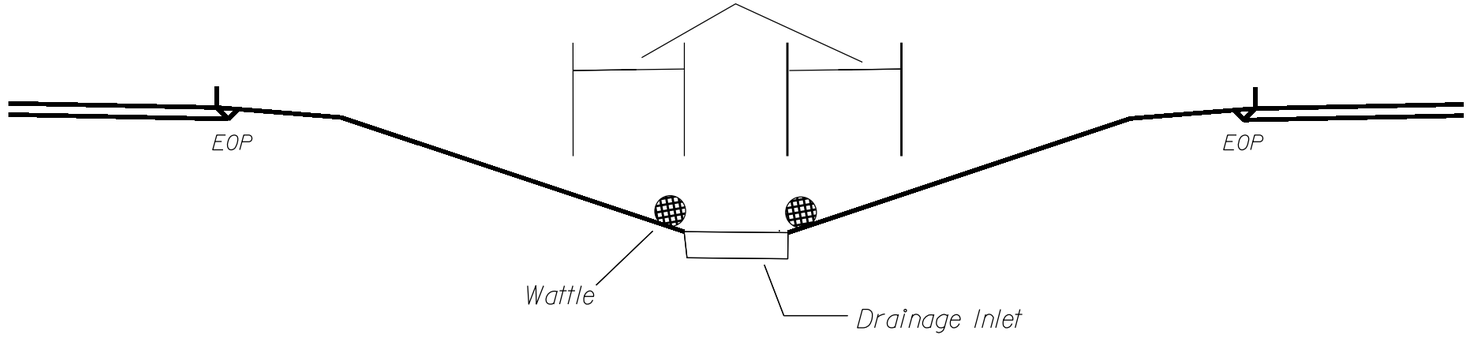
< 5' - 10' Undisturbed buffer from ditchline, add BMP

Jurisdictional Feature

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



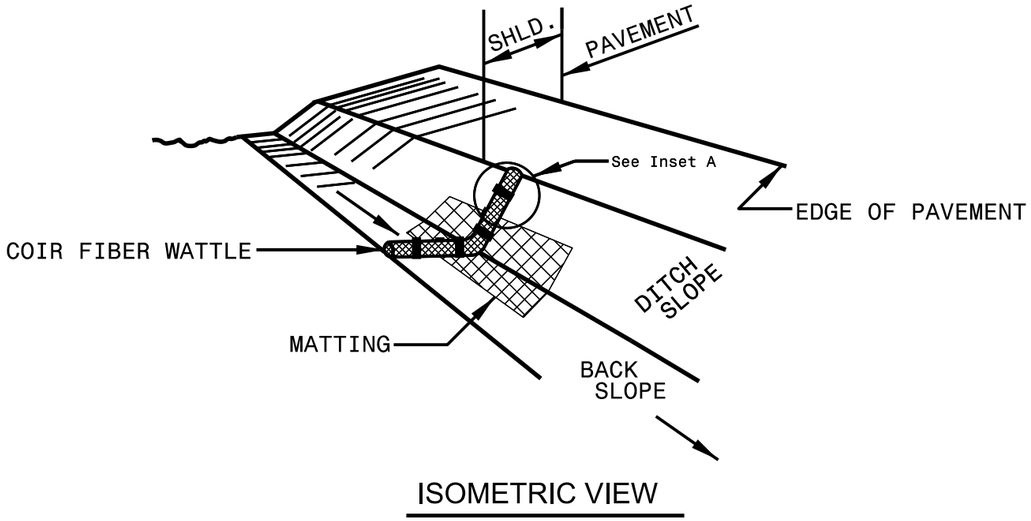
< 5' - 10' Undisturbed buffer from inlet, add wattle



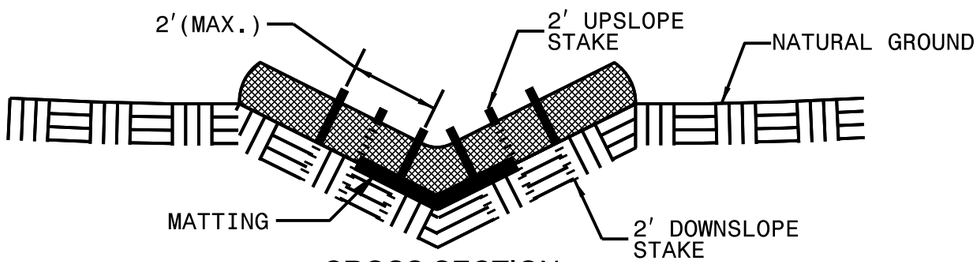
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	EC-2

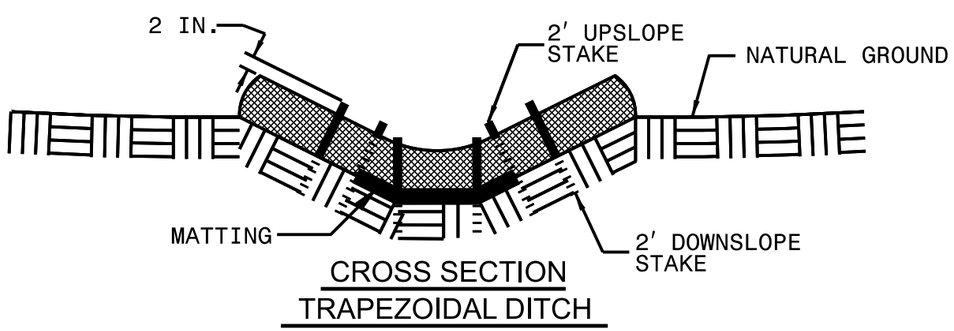
COIR FIBER WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION
VEE DITCH



CROSS SECTION
TRAPEZOIDAL DITCH

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.

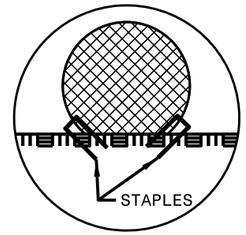
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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

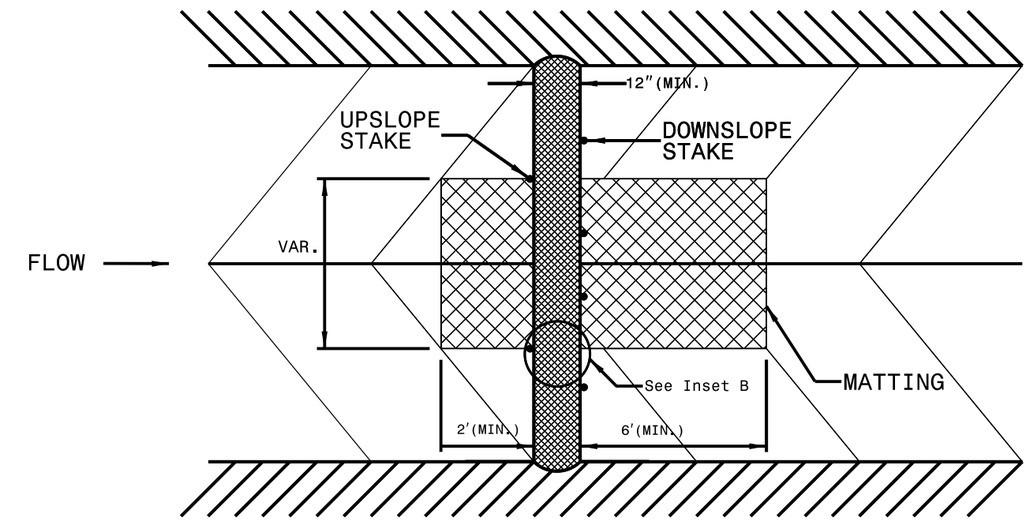
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

INSET A



INSET B



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.13.10211.1	EC-3

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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.