09/08/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.		SHEET NO.
N.C.	2023CPT.01.12.10081.1		1
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
2023CPT.01.12.10081.1		PE, CONST.	

BERTIE COUNTY (SOUTH)

TYPE OF WORK:

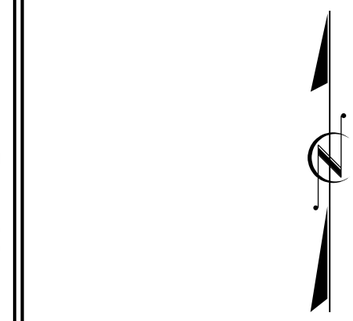
CONCRETE JOINT REPAIR, WIDENING, MILLING, RESURFACING & SHOULDER RECONSTRUCTION

LOCATION:

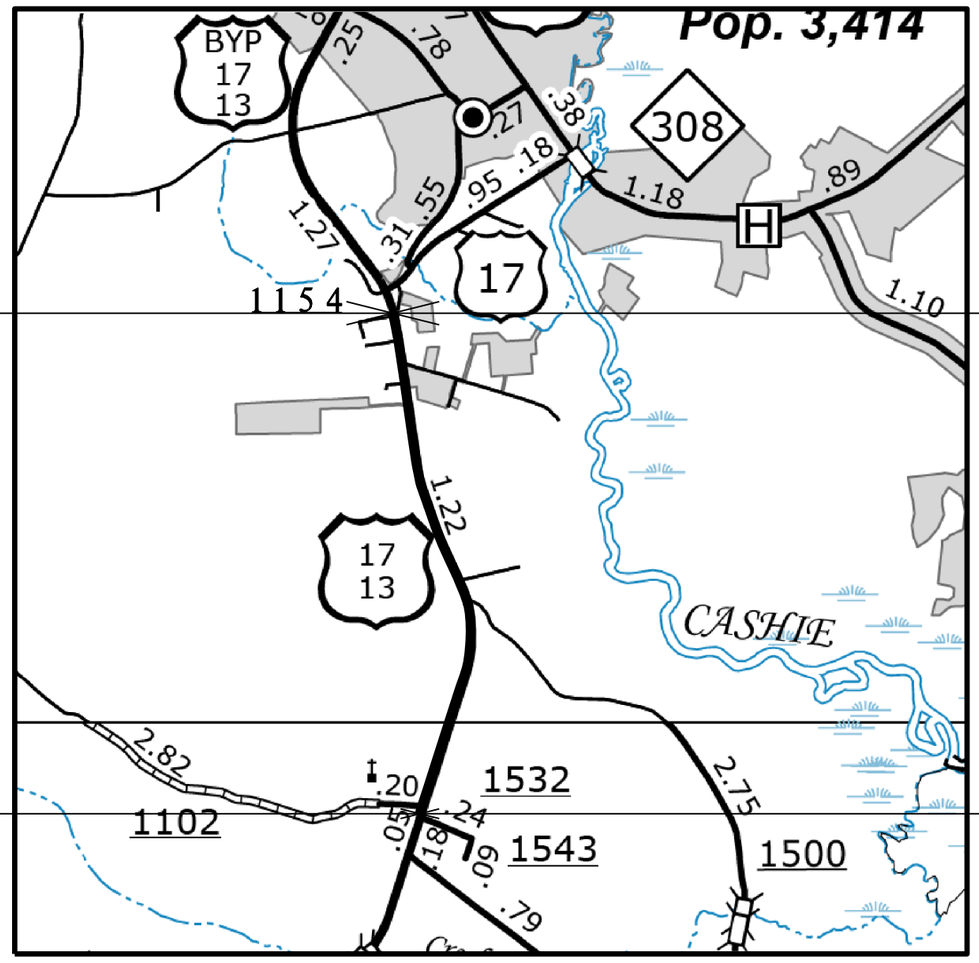
MAP 1 – US 13 /17 NBL FROM NEW PAVEMENT JOINT AT SR 1532 (CENTER RD.) TO SR 1154 (BUDS LANE)

MAP 2 – US 13 /17 SBL FROM SR 1154 (BUDS LANE) TO NEW PAVEMENT JOINT AT SR 1532 (CENTER RD.)

BEGIN MAP 2



END MAP 2



END MAP 1

BEGIN MAP 1

CONTRACT: DA00536 WBS ELEMENT: 2023CPT.01.12.10081.1

GRAPHIC SCALES		PROJECT LENGTH	Prepared In the Office of: DIVISION OF HIGHWAYS 113 Airport Dr., Suite 100, Edenton NC, 27944		
NTS		MAP 1 = 2.45 MILES MAP 2 = 2.45 MILES	2018 STANDARD SPECIFICATIONS LETTING DATE: OCTOBER 19, 2022	W. B. HOBBS, PE DIVISION PROJECT TEAM LEAD CHRIS SLACHTA DIVISION CONTRACT ENGINEER	S. P. FENWICK P.L.S. DIVISION DESIGN ENGINEER

18-JUL-2022 11:14
S:\Contracts\6) Proposed Resurfacing\2023-2024 Preservation_ Resurfacing\DA00536-Bertie(South) Primary\Design Files\2023CPT.01.12.10081.1_DI_shl.dgn
$$$$USERNAME$$$$

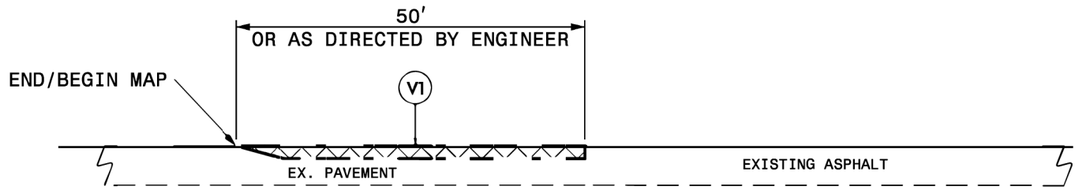
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.12.10081.1	2

PAVEMENT SCHEDULE

C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	EXISTING ASPHALT CONCRETE SURFACE COURSE
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C,AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C IN A SINGLE LAYER, AT AN AVERAGE RATE OF 798 LBS. PER SQ. YD.
N2	PROPOSED SELF-ADHESIVE PAVEMENT INTERLAYER
R1	EXISTING CONCRETE ROADBED.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT. 1½" IN DEPTH.
V1	MILLING DEPTH 1¾" to 0".

NOTES:

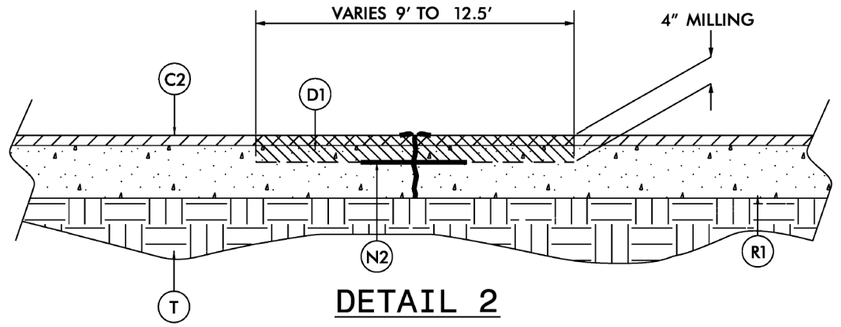
* ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
* EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE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



DETAIL 1

MAIN LINE MILLING

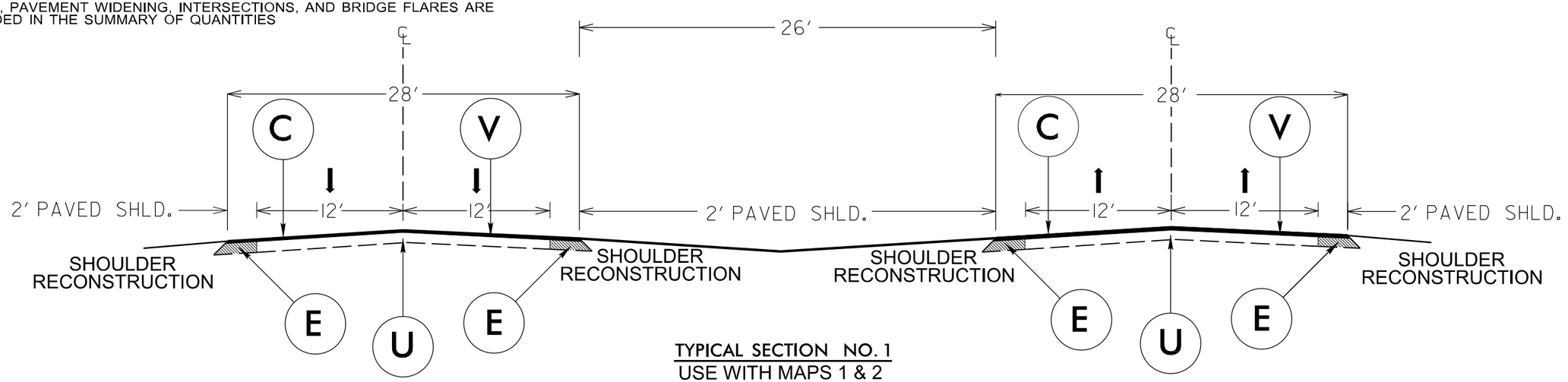
NOTE:
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.



DETAIL 2

JOINT REPAIR DETAIL

NOTE:
1. SAW CUT 4.5' TO 6.25' ON BOTH SIDES OF CRACK.
2. REMOVE EXISTING PAVEMENT STRUCTURE TO A DEPTH OF 4 INCHES.
3. SCHEDULE OPERATIONS SO ALL AREAS WHERE PAVEMENT HAS BEEN REMOVED WILL BE REPAIRED AND ALL LANES OF TRAFFIC RESTORED ON THE SAME DAY OF THE PAVEMENT REMOVAL. THE CONTRACTOR WILL BE RESTRICTED TO REPAIRING ONE SIDE OF THE EXISTING PAVEMENT AT A TIME UNLESS OTHERWISE PERMITTED BY THE ENGINEER.



TYPICAL SECTION NO. 1
USE WITH MAPS 1 & 2

	DRAINAGE SUMMARY AND FIELD DATA							SHEET NO.
County:	**Bertie South**							**2D-1**
Route:	**US 13 / 17**							
Route Name:	**North Bound Lane**							
Description:	**From Pavement Joint To SR 1154 (Buds Lane)**							
Existing Width:	**32**							
Length:	**2.45**							
Syds:	**45,994.67**							

Station #:		**Description For Station:**	**Full Depth Patch Syds:**			**Asphalt**	**5" Monolithic Concrete Island**	
Begin Station #	**End Station #**		**Width:**	**Length:**	**Syds:**	**Add. Syds**	**(SURFACE MOUNTED)**	
0+00, NBL		Start Map @ Pavement Joint			-	-		
1+23		Intersection @ SR 1532 (Center Lane)			-	185.00		
15+26		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
30+27		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
37+16		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
39+00	41+00	NBL, FDP	6	200	133.00			
44+00	56+00	NBL, FDP	12	1200	1,600.00			
54+50		Intersection @ SR 1500 (Woodard Road)			-	2,185.00	3 Islands = 515 SY	
59+64		Intersection @ SR 1545 (Tarheel Road)			-	80.00		-
72+69		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
83+87		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
92+85		MEDIAN D I - MASONRY DRAINAGE STRUCTURE & FRAME W/TWO GRATES STD 840.20			-	-		
112+80		Intersection @ SR 1527 (Country Farm Road)			-	1,042.00	1 Island = 35 SY	
112+80		3 Water Meters Adjust			-	-		
124+35		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
125+46		MEDIAN Drop Inlet- MASONRY DRAINAGE STRUCTURE REPAIR			-	-		
	129+36 NBL	End Map @ SR 1154 (Buds Lane)			-	-		
					-	-		
		Tons For FDP 494			-	-		
		Widening Area (Paved Shoulder)			-	3,158.00		
		Turn Lane			-	6,190.00		
		Concrete Driveways (10 SYDS)			-			
		Left Arrows (10)			-			
		Stop Bar (90')			-	-		
					-	-		
					-	-		
					-	-		
					Total Syds For FDP, Additional Syds For Asphalt	**1,733.00**	**12,840.00**	

Route Treatment To Be:FDP, Mill & Fill 1.5" S9.5C

PROJECT NO.	SHEET NO.
2023CPT.01.12.10081.1	3

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	MATERIAL TRANSFER VEHICLE REQUIRED	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	MOBILIZATION	BORROW EXCAVATION	REMOVAL OF EXISTING ASPHALT PAVEMENT	REMOVAL OF EXISTING CONCRETE PAVEMENT	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	MILLING ASPHALT PAVEMENT (1½")	INCIDENTAL MILLING	ASPHALT CONCRETE BASE COURSE, B25.0C	ASPHALT CONCRETE SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT (FULL DEPTH)	GENERIC PAVING ITEM, JOINT REPAIR
											MI	FT	LS	CY	SY	SY	TONS	SMI	SY	SY	TONS	TONS	TONS	TON	TON
2023CPT.01.12.10081.1	Bertie	1	US 13 17 NBL	NEW PAVEMENT JOINT AT SR 1532 TO SR 1154 (BUDS LANE)	1	2	MD	YES	NO	NO	2.45	28	1	735	550	10	49	4.9	40,245	12,840	2,892	4,862	446	500	
2023CPT.01.12.10081.1	Bertie	2	US 13 17 SBL	SR 1154 (BUDS LANE) TO NEW PAVEMENT JOINT AR SR 1532	1	2	MD	YES	NO	NO	2.45	28	*	735		20	49	4.9	40,245	9,908	2,892	4,619	409	50	150
GRAND TOTAL											**4.9**		**1**	**1,470**	**550**	**30**	**98**	**9.8**	**80,490**	**22,748**	**5,784**	**9,481**	**855**	**550**	**150**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	MATERIAL TRANSFER VEHICLE REQUIRED	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	GENERIC PAVING ITEM, SELF ADHESIVE PAVEMENT INTERLAYER	MASONRY DRAINAGE STRUCTURE	FRAME WITH TWO GRATES, STD 840.20	6" CONCRETE DRIVEWAY (848)	5" MONOLITHIC CONCRETE ISLANDS (SURFACE MOUNTED)	ADJUSTMENT OF MANHOLES	ADJUSTMENT OF METER BOXES OR VALVE BOXES	GENERIC DRAINAGE ITEM, MASONRY DRAINAGE STRUCTURE REPAIR	TEMPORARY SILT FENCE	MATTING FOR EROSION CONTROL	COIR FIBER WATTLE	SEEDING & MULCHING	RESPONSE FOR EROSION CONTROL
											MI	FT	LF	EA	EA	SY	SY	EA	EA	EA	LF	SY	LF	ACR	EA
2023CPT.01.12.10081.1	Bertie	1	US 13 17 NBL	NEW PAVEMENT JOINT AT SR 1532 TO SR 1154 (BUDS LANE)	1	2	MD	YES	NO	NO	2.45	28		1	1	10	550		3	7	50	15	30	2.5	2
2023CPT.01.12.10081.1	Bertie	2	US 13 17 SBL	SR 1154 (BUDS LANE) TO NEW PAVEMENT JOINT AR SR 1532	1	2	MD	YES	NO	NO	2.45	28	600			20		2			50	25	50	2.5	2
GRAND TOTAL											**4.9**		**600**	**1**	**1**	**30**	**550**	**2**	**3**	**7**	**100**	**40**	**80**	**5**	**4**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	MATERIAL TRANSFER VEHICLE REQUIRED	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	WORK ZONE ADV/GEN WARNING SIGNING	TEMPORARY TRAFFIC CONTROL (SP)	THERMO PAVEMENT MARKING LINES (6", 90 MILS) WHITE	THERMO PAVEMENT MARKING LINES (6", 90 MILS) YELLOW	THERMO PAVEMENT MARKING SYMBOL (90 MILS), LT ARROW	PAINT PAVEMENT MARKING LINES (4") WHITE	PAINT PAVEMENT MARKING LINES (4") YELLOW	PAINT PAVEMENT MARKING LINES (24")	PAINT PAVEMENT MARKING SYMBOL (LT ARROW)	THERMO PAVEMENT MARKING LINES (24", 90 MILS)	GENERIC PAVEMENT MARKING ITEM, NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER
											MI	FT	SF	LS	LF	LF	EA	LF	LF	LF	EA	LF	EA
2023CPT.01.12.10081.1	Bertie	1	US 13 17 NBL	NEW PAVEMENT JOINT AT SR 1532 TO SR 1154 (BUDS LANE)	1	2	MD	YES	NO	NO	2.45	28	560	1	26,362	16,170	10	26,362	16,170	180	20	90	162
2023CPT.01.12.10081.1	Bertie	2	US 13 17 SBL	SR 1154 (BUDS LANE) TO NEW PAVEMENT JOINT AT SR 1532	1	2	MD	YES	NO	NO	2.45	28	560	*	26,362	16,170	10	26,362	16,170	60	20	30	162
GRAND TOTAL											**4.9**		**1,120**	**1**	**52,724**	**32,340**	**20**	**52,724**	**32,340**	**240**	**40**	**120**	**324**
															85,064			**85,064**					

PROJECT REFERENCE NO.	SHEET NO.
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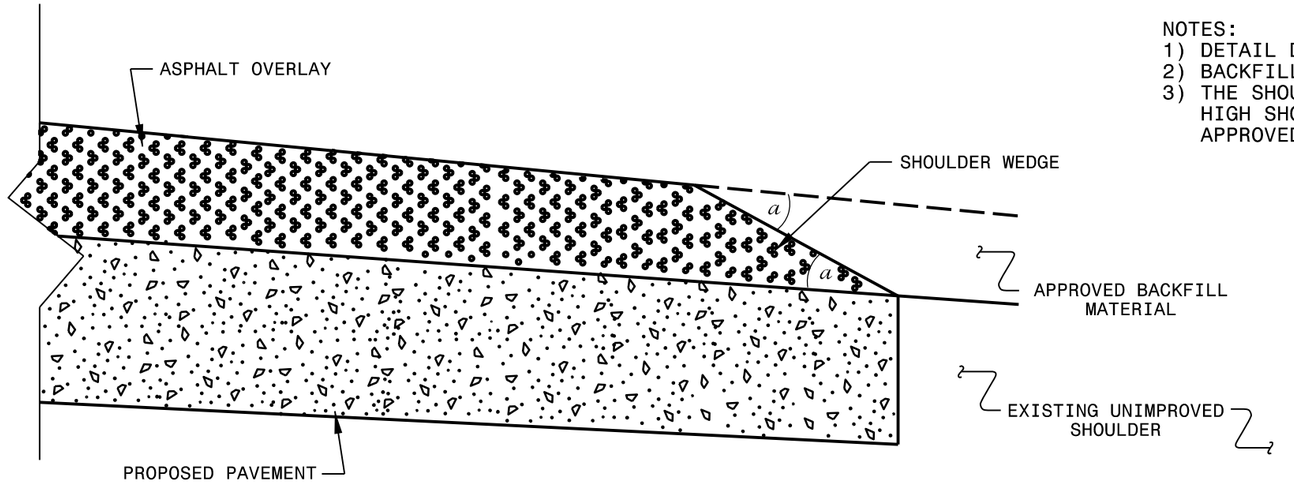
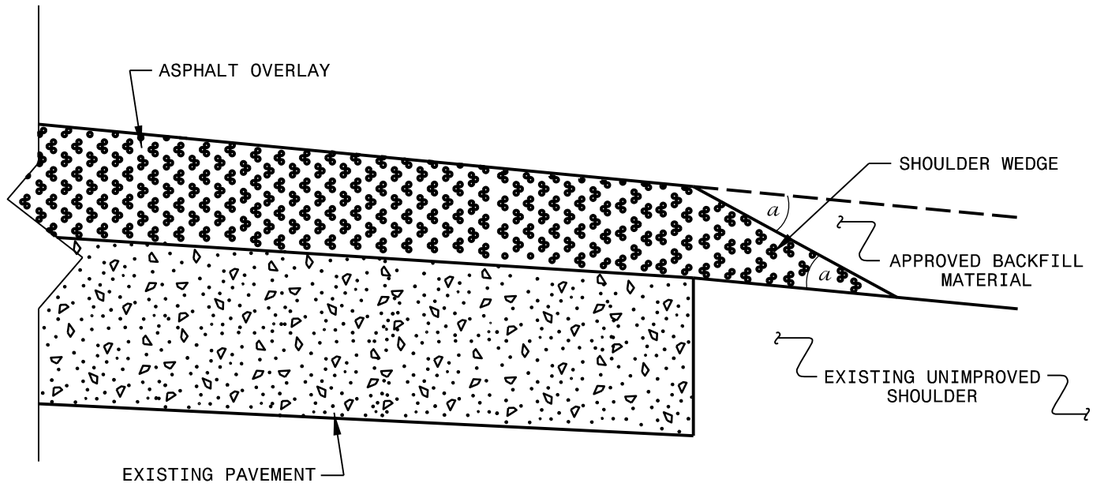


NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.

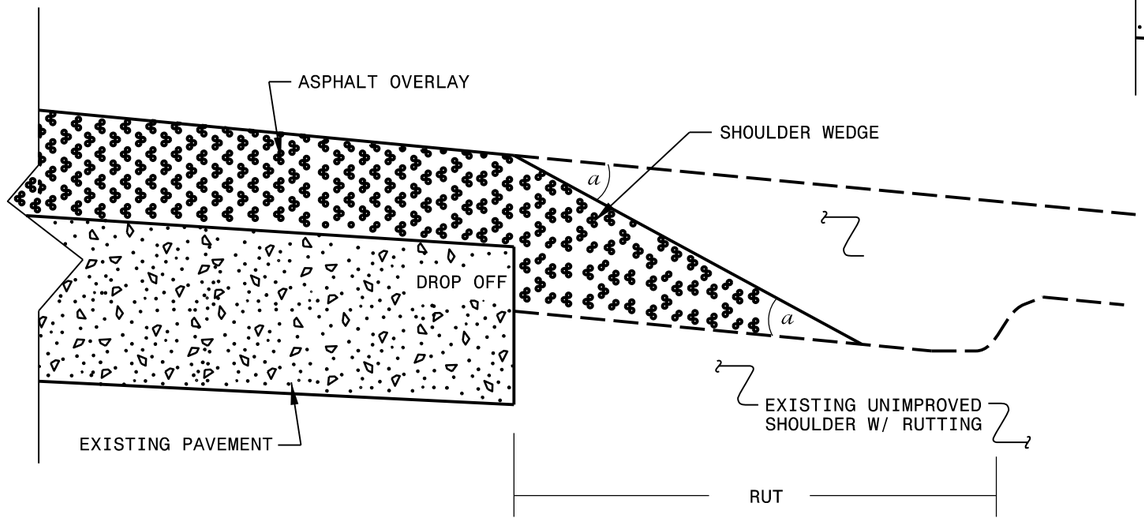
SHOULDER WEDGE DETAIL

(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°

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

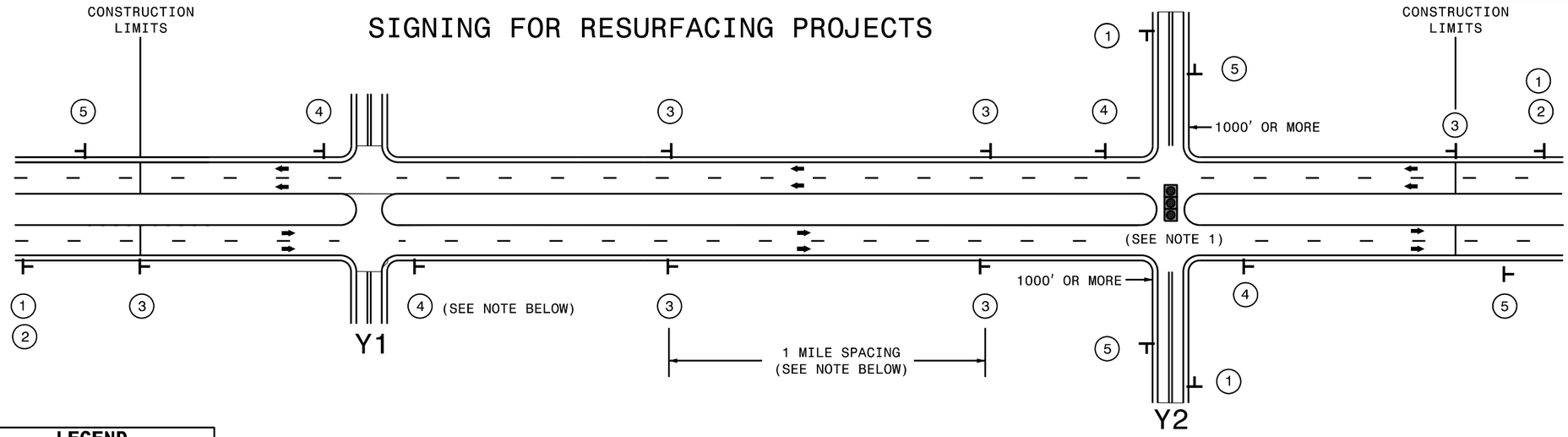
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

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

PROJ. REFERENCE NO.	SHEET NO.
2023CPT.01.12.10081.1	5

SIGNING FOR RESURFACING PROJECTS



LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 2	ROAD WORK AHEAD W20-1 48″ X 48″ NEXT XX MILES 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	LOW/SOFT SHOULDER 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	ROAD UNDER CONST. 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	END ROAD WORK 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.

ROAD WORK AHEAD W20-1 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

NOTES:

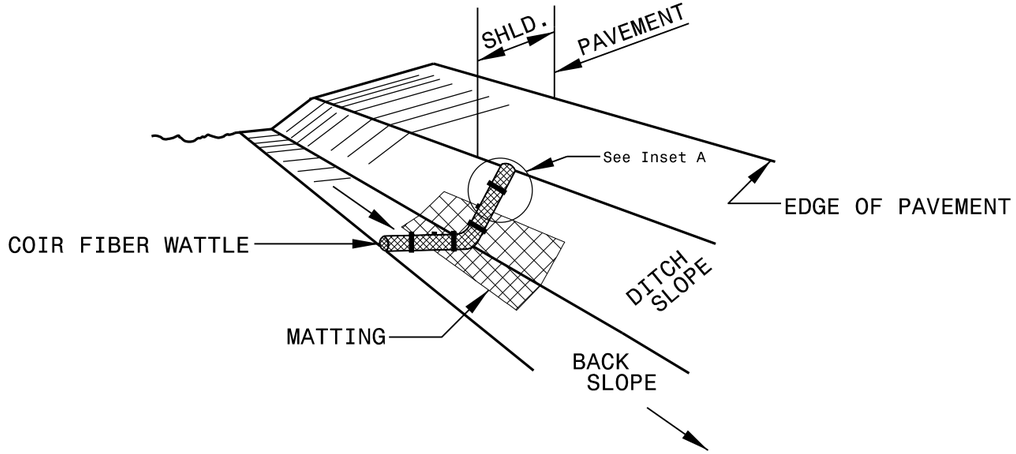
1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE ″ROAD WORK AHEAD″ (W20-1) SIGNS 500′ IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.

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

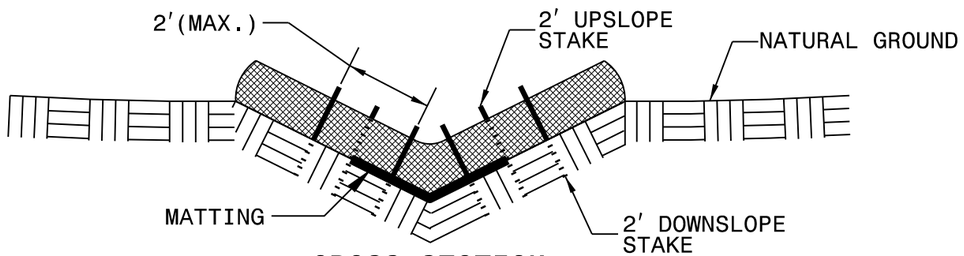
RESURFACING
ADVANCE WARNING SIGNS
FOR RURAL AND SUBURBAN
MULTI-LANE ROADWAYS
W/ SHOULDER SECTIONS

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01I2J008IJ	6

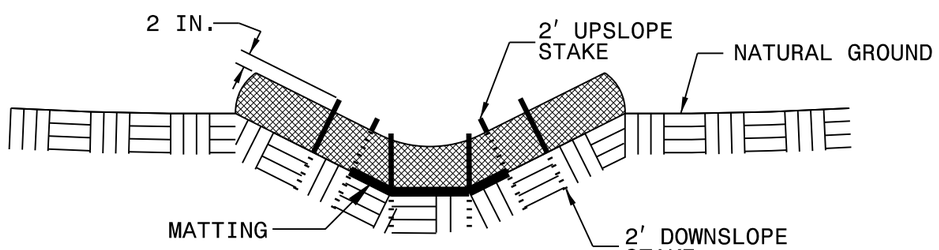
COIR FIBER WATTLE DETAIL



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.

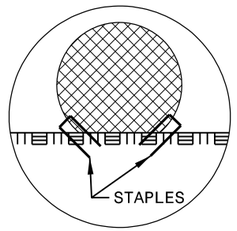
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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

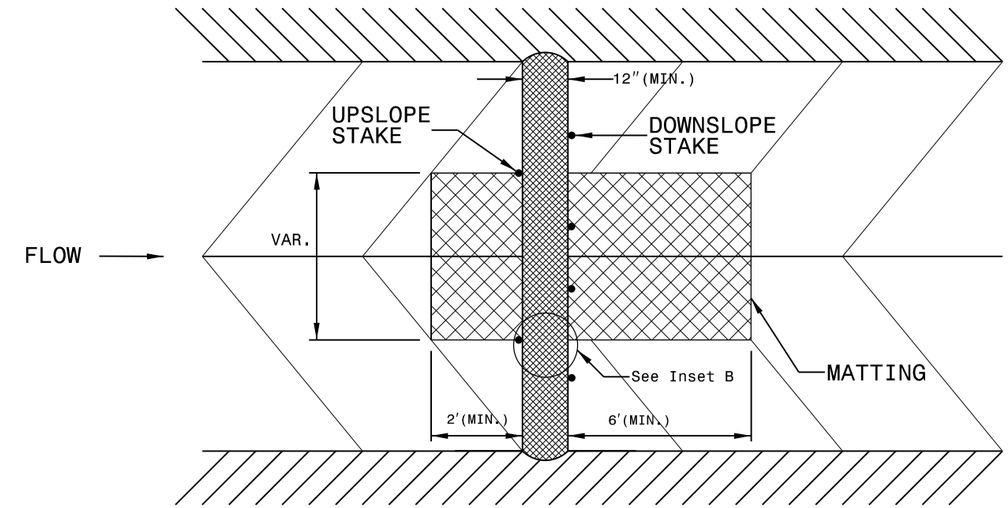
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

INSET A



INSET B



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.01.12.10081J	7

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.

PROJECT REFERENCE NO.	SHEET NO.
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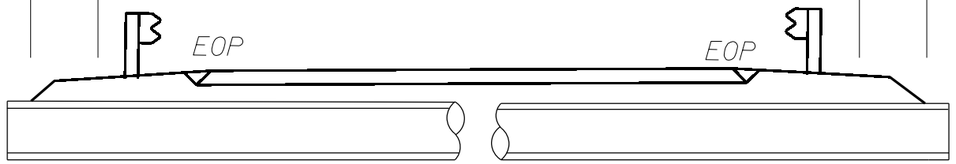
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

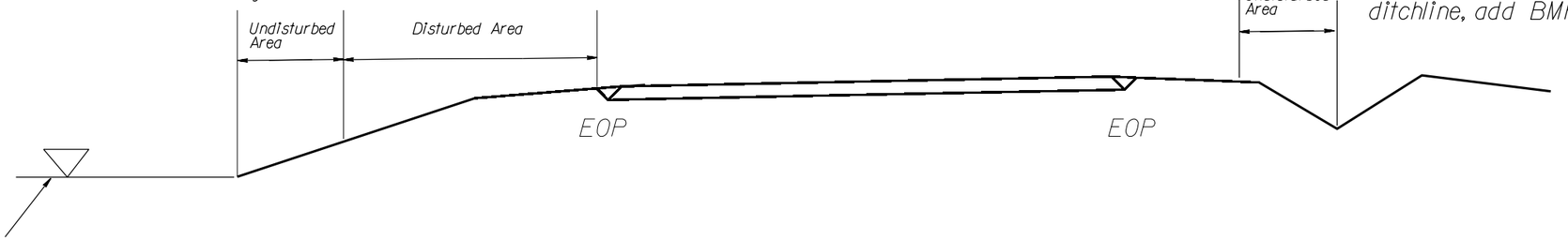
EROSION CONTROL DETAIL

< 5' - 10' Undisturbed buffer add BMP



Pipe/Culvert

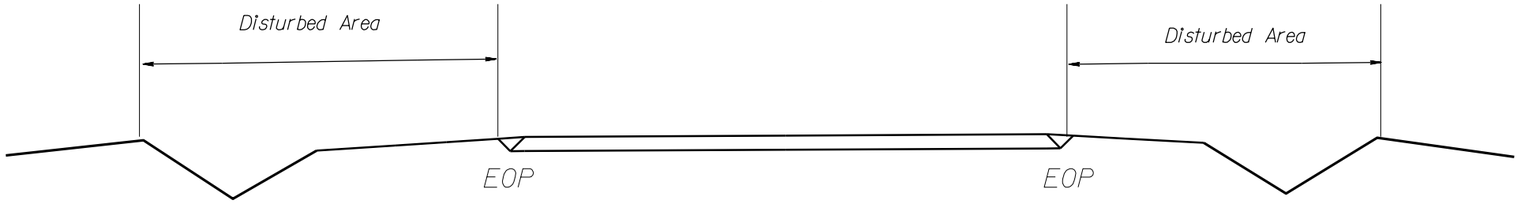
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



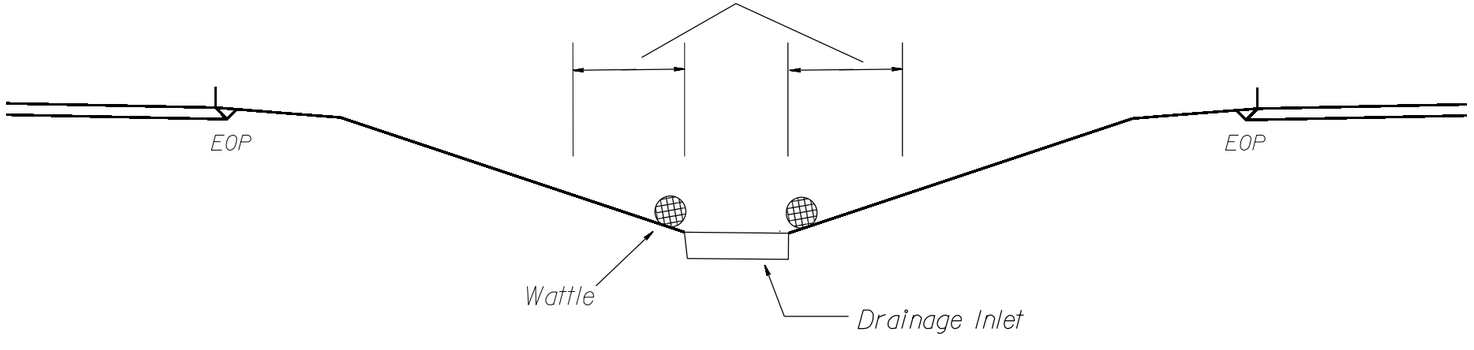
< 5' - 10' Undisturbed buffer from ditchline, add BMP

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