STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.01.12.10081.1, ETC.	1	

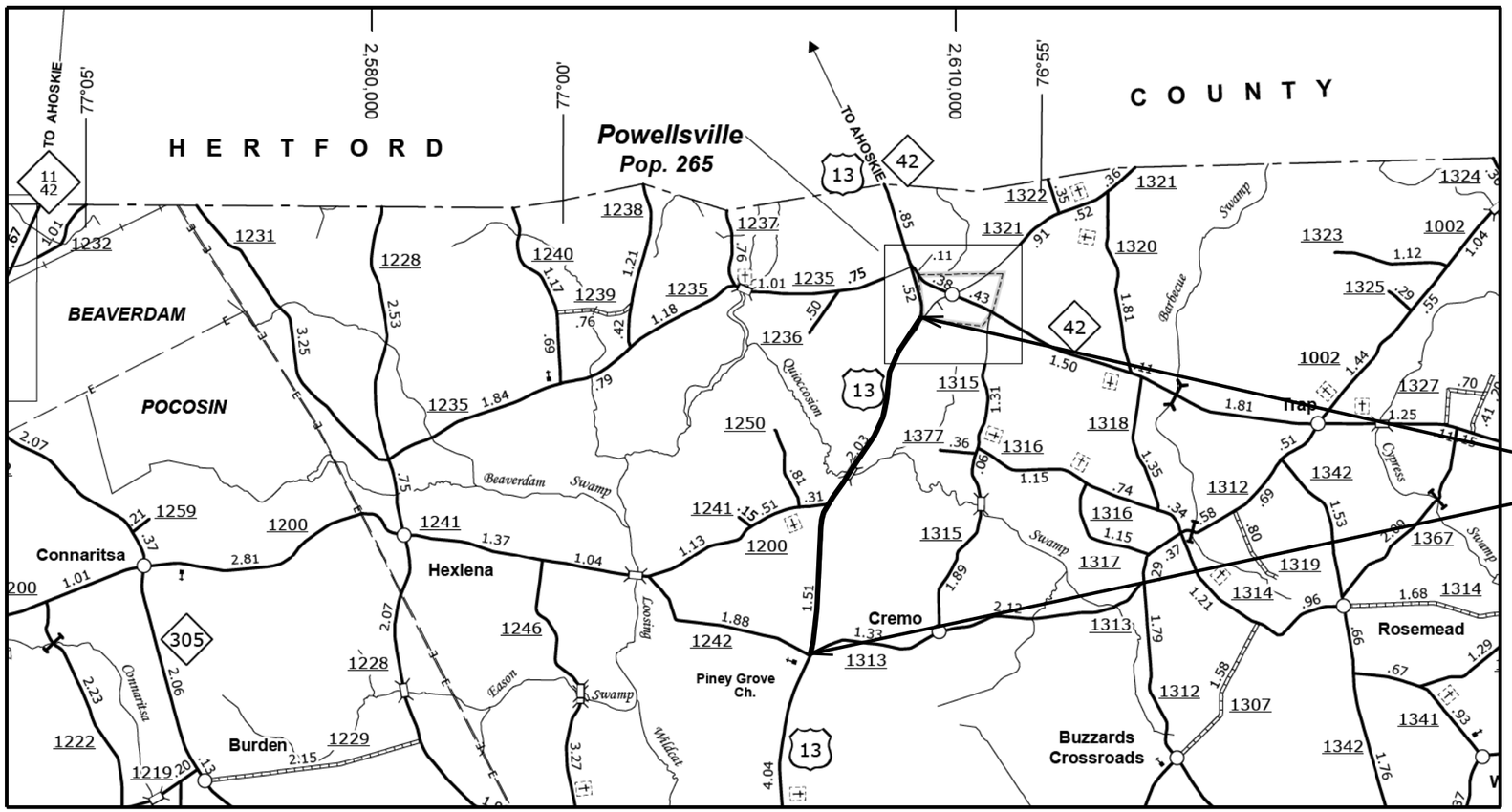
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2017CPT.01.12.10081.1		MAP 1
2017CPT.01.12.10461.1		MAP 2
2017CPT.01.12.10461.2		MAP 3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BERTIE COUNTY

LOCATION: MAP 1 US 13 FROM POWELLSVILLE SCL TO SR 1313

TYPE OF WORK: MILLING, RESURFACING, AND LONG–LIFE PAVEMENT MARKINGS



CONTRACT: DA00311 WBS PROJECT: 2017CPT.01.12.10081.1, ETC.

NTS

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT MAP 1 = 3.39 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 MANAGER

C.E. SLACHTA
DIVISION PROPOSALS ENGINEER

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2017CPT.01.12.10081.1, ETC.	2	

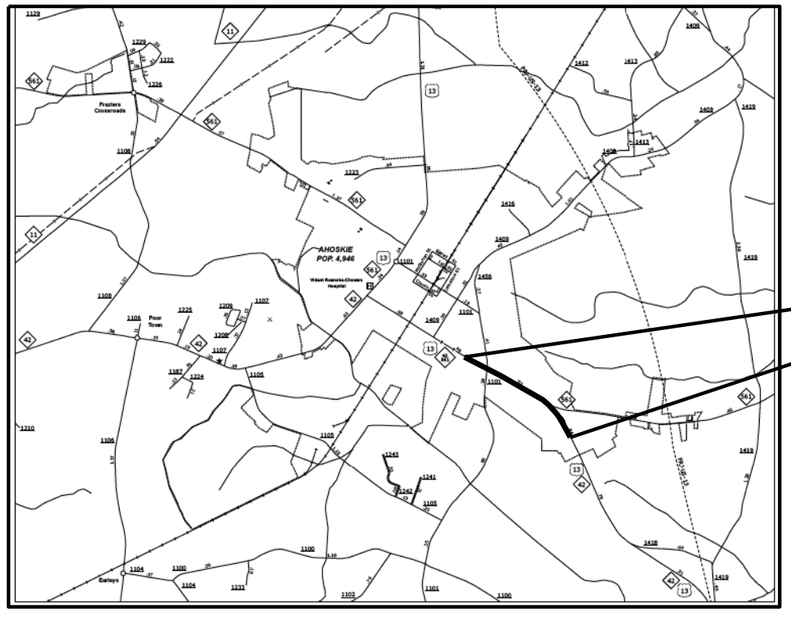
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2017CPT.01.12.10081.1		MAP 1
2017CPT.01.12.10461.1		MAP 2
2017CPT.01.12.10461.2		MAP 3

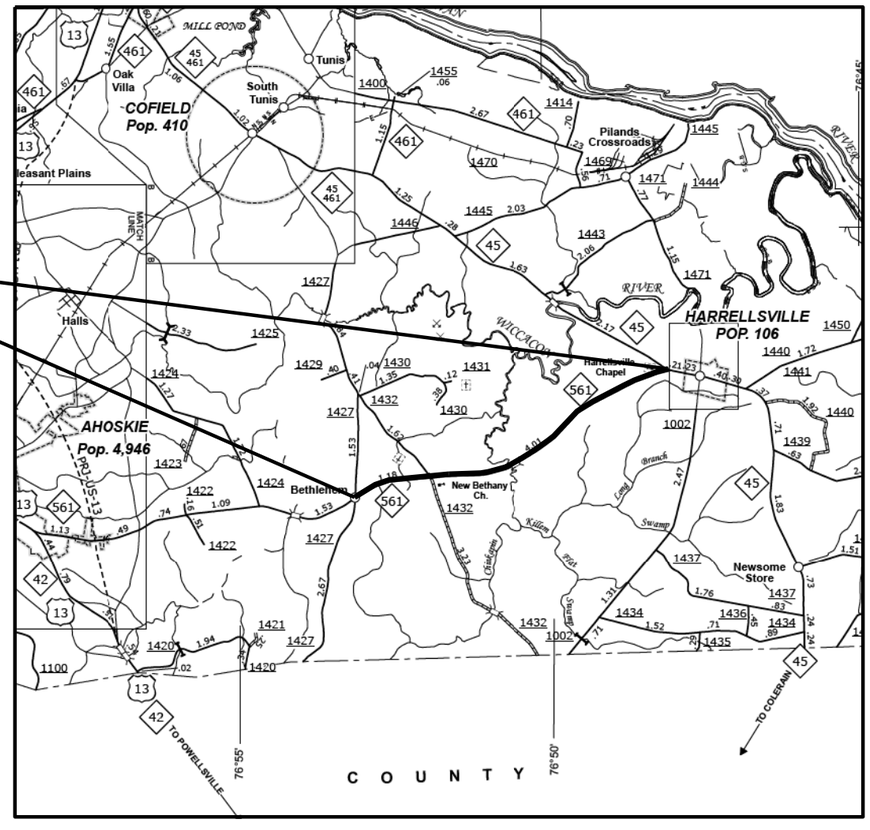
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HERTFORD COUNTY

LOCATION: MAP 2 NC 561 FROM SR 1427 TO NC 45
MAP 3 US 13 FROM PEACHTREE ST TO 0.5 MI SOUTH OF NC 561

TYPE OF WORK: MILLING, RESURFACING, AND LONG–LIFE PAVEMENT MARKINGS





CONTRACT: DA00311 WBS PROJECT: 2017CPT.01.12.10081.1, ETC.

NTS

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT MAP 2 = 5.17 MI.
LENGTH OF ROADWAY PROJECT MAP 3 = 1.25 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 MANAGER

C.E. SLACHTA
DIVISION PROPOSALS ENGINEER

DEPARTMENT OF TRANSPORTATION · STATE OF NORTH CAROLINA ·

09/08/99

12-SEP-2016 10:39
C:\Division Maintenance\2017-18 Primary Resurfacing\Bertie & Hertford\Plan Sheets\Resurfacing2.dgn
dhstallings AT DICAD293575

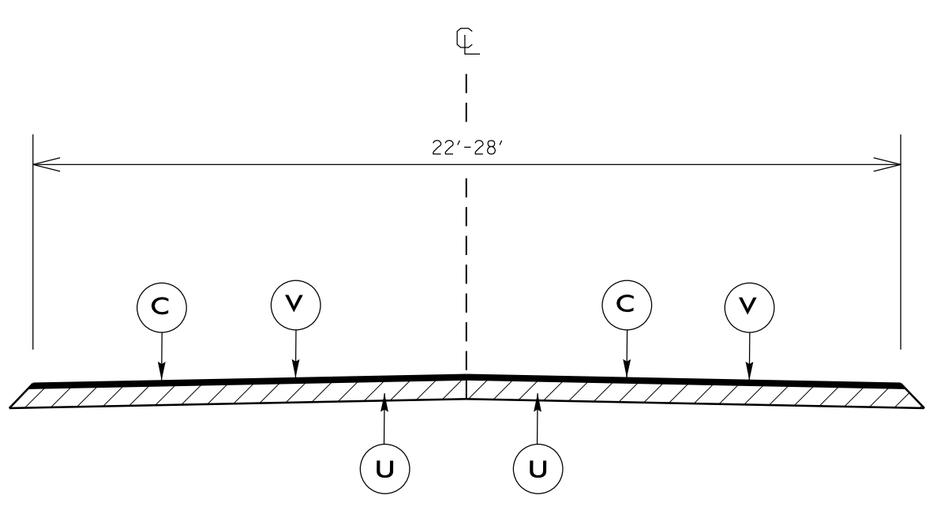
PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	3

PAVEMENT SCHEDULE

C	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 1.5″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. 1

USE WITH MAP 1

NTS

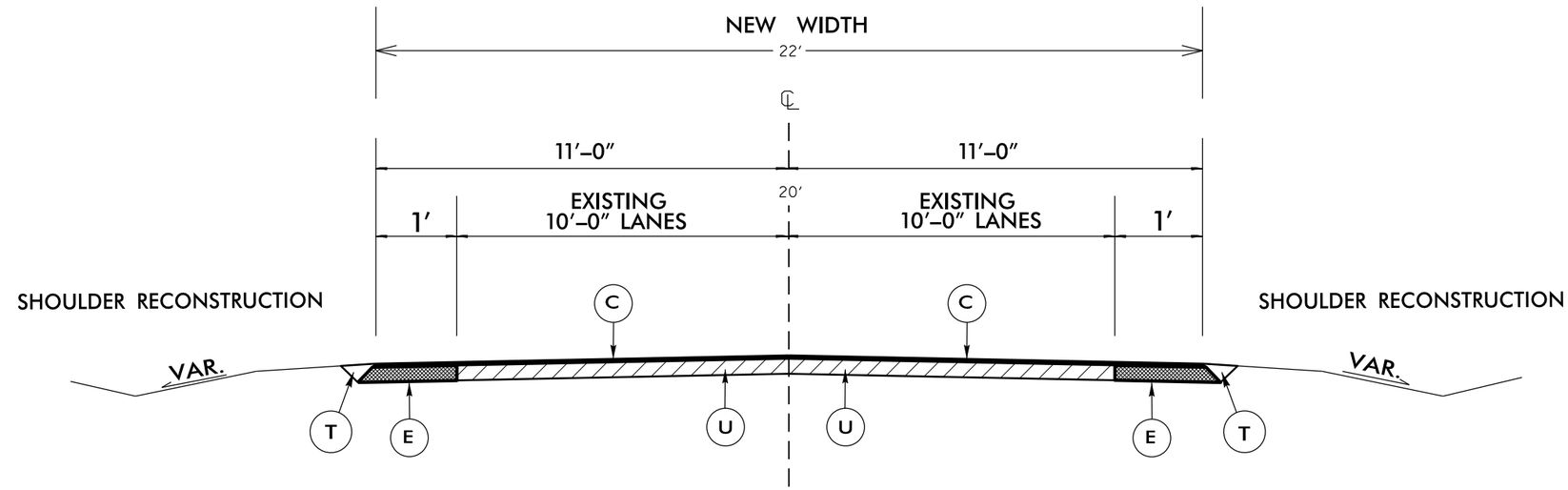
PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	4

PAVEMENT SCHEDULE

C	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E	PROP. APPROX. 5.5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL.

RESURFACING 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 MAP 2

NTS

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	5

PAVEMENT SCHEDULE

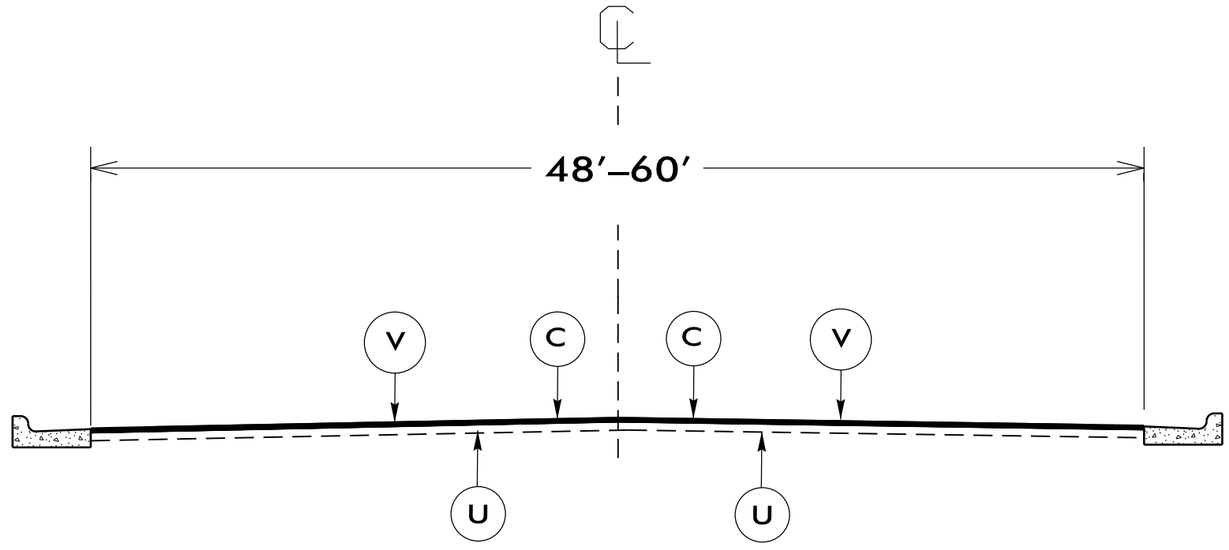
C	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V	MILLING BITUMINOUS PAVEMENT. 1.5″ IN DEPTH.
U	EXISTING PAVEMENT.

NOTES:

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

*EDGES, PAVEMENT WIDENING, INTERSECTIONS, AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES

*CONTRACTOR SHALL MILL 1.5" BELOW EXISTING EDGE OF CONC. CURB & GUTTER.



TYPICAL SECTION NO. 3

USE WITH MAP 3

NTS

PROJECT NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	6

SUMMARY OF QUANTITIES

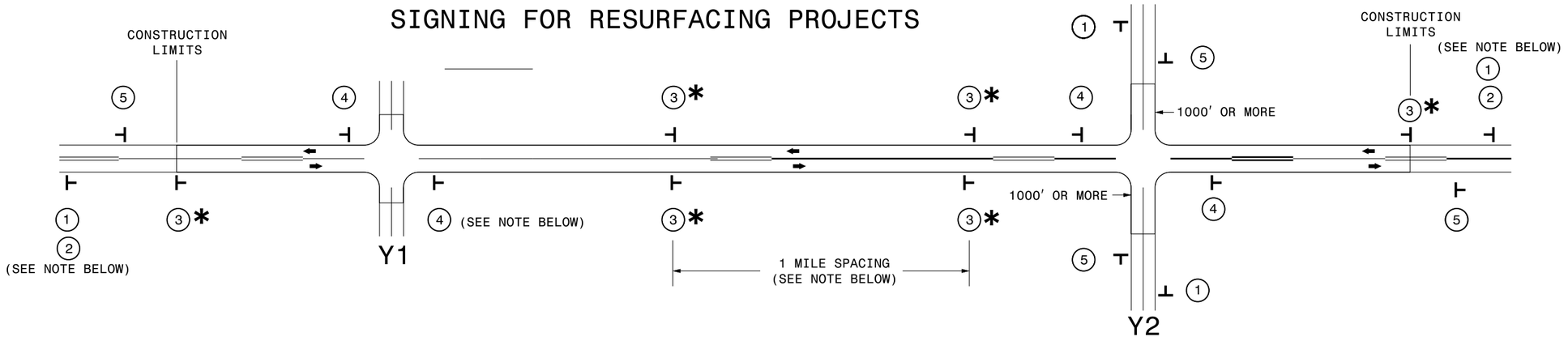
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	MOBILIZATION LS	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1½" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	ASP FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	6" CONCRETE DRIVEWAY SY	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	WORK ZONE/ADV GEN WARN SIGN SF	TEMP TRAFFIC CONTROL LS	TEMP SILT FENCE LF	COIR FIBER WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE (14-2)
2017CPT.01.12.10081.1	Bertie	1	US 13	FROM POWELLSVILLE SCL TO SR 1313 (CREMO RD.)	1	2	2WU	NO	NO	3.39	28	1				51,250			4,550	273	200				380	1					
2017CPT.01.12.10461..1	Hertford	2	NC 561	FROM SR 1247 TO NC 45	2	2	2WU	NO	NO	5.17	20	*	525	100	10.34		700	2,450	6,200	480	50	55			580	*	1,330	530	5		
2017CPT.01.12.10461.2	Hertford	3	US 13	FROM PEACHTREE ST. TO JOINT AT WALMART	3	4	MU	NO	NO	1.25	60	*				51,000			4,550	273	250		33	15	140	*				6,256	1,700.00
GRAND TOTAL										**9.81**		**1**	**525**	**100**	**10.34**	**102,250**	**700**	**2,450**	**15,300**	**1,026**	**500**	**55**	**33**	**15**	**1,100**	**1**	**1,330**	**530**	**5**	**6,256**	**1,700**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	24"WIDE THERMO 120 MILS LF	THERMO CHARACTERS 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	PAINT PVMT MKG LINES, 24" LF	PAINT CHARACTERS EA	PAINT RT ARROW EA	PAINT LT ARROW EA	PAINT STR & RT ARROW EA	PAINT STR ARROW EA	PERM RAISE PVT MKRS (YELLOW) EA	SNOWPLB PVMT MARKER (YELLOW) EA	SNOWPLB PVMT MARKER (CRYSTAL & RED) EA
2017CPT.01.12.10081.1	Bertie	1	US 13	FROM POWELLSVILLE SCL TO SR 1313 (CREMO RD.)	1	2	2WU	3.39	28	35,800	22,370								35,800	22,370								230	
											22,370								**58,170**									**230**	
2017CPT.01.12.10461..1	Hertford	2	NC 561	FROM SR 1247 TO NC 45	2	2	2WU	5.17	20	54,600	34,130								54,600	34,130							350		
											34,130					**22,370**			**88,730**					**22,370**					
2017CPT.01.12.10461.2	Hertford	3	US 13	FROM PEACHTREE ST. TO JOINT AT WALMART	3	4	MU	1.25	60		16,500	3,300	500	8	41	10	16	12	3,300	16,500	500	8	10	41	12	16		165	200
											19,800					**34,130**			**19,800**					**34,130**				**365**	
GRAND TOTAL								**9.81**		**90,400**	**73000**	**3300**	**500**	**8**	**41**	**10**	**16**	**12**	**93700**	**73000**	**500**	**8**	**10**	**41**	**12**	**16**	**350**	**395**	**200**
											76,300					**79**			**166,700**					**79**				**595**	

PROJ. REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	7

SIGNING FOR RESURFACING PROJECTS



LEGEND
⊢ STATIONARY SIGN
⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

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)

ROAD WORK AHEAD — W20-1 48″ X 48″
NEXT XX MILES — W7-3aP 24″ X 18″

3* — 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.

LOW/SOFT SHOULDER — SP 13107 48″ X 48″

4 — 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.

ROAD UNDER CONST — SP 13106 48″ X 48″

5 — PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

END ROAD WORK — G20-2 A 48″ X 24″

-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.

* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

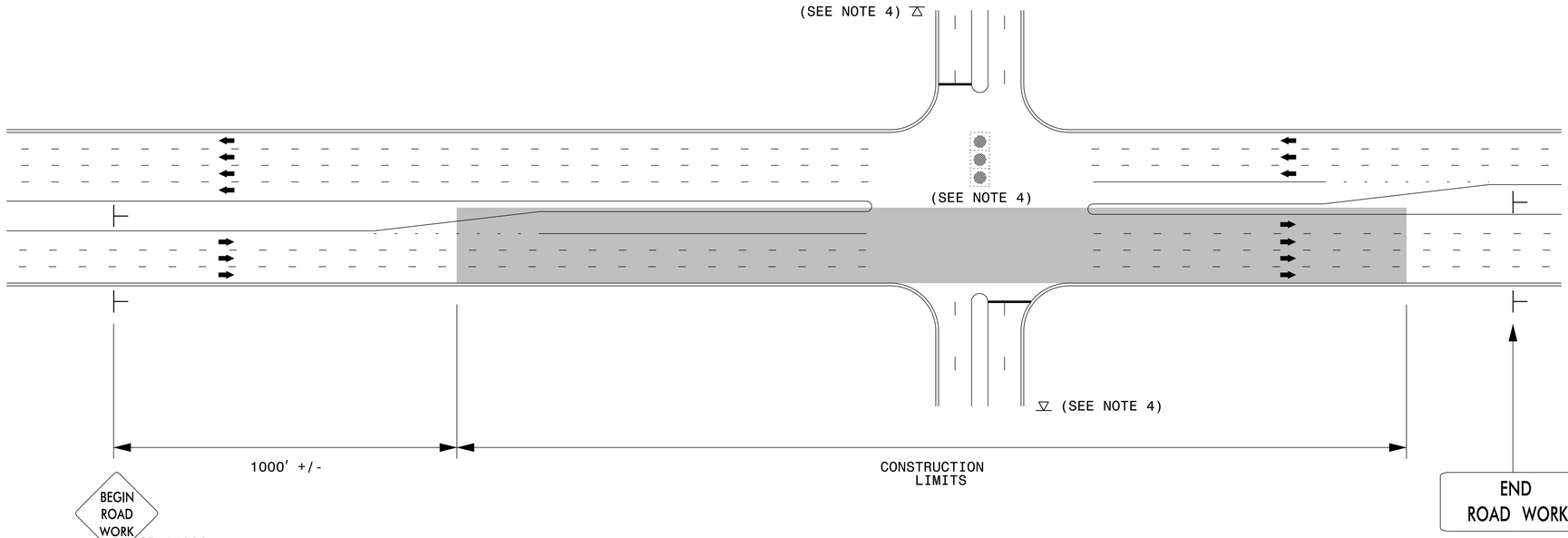
SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).

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

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

PROJ. REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	8

URBAN / SUBURBAN WORKZONES



NOTES:

1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
4) 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.
5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW

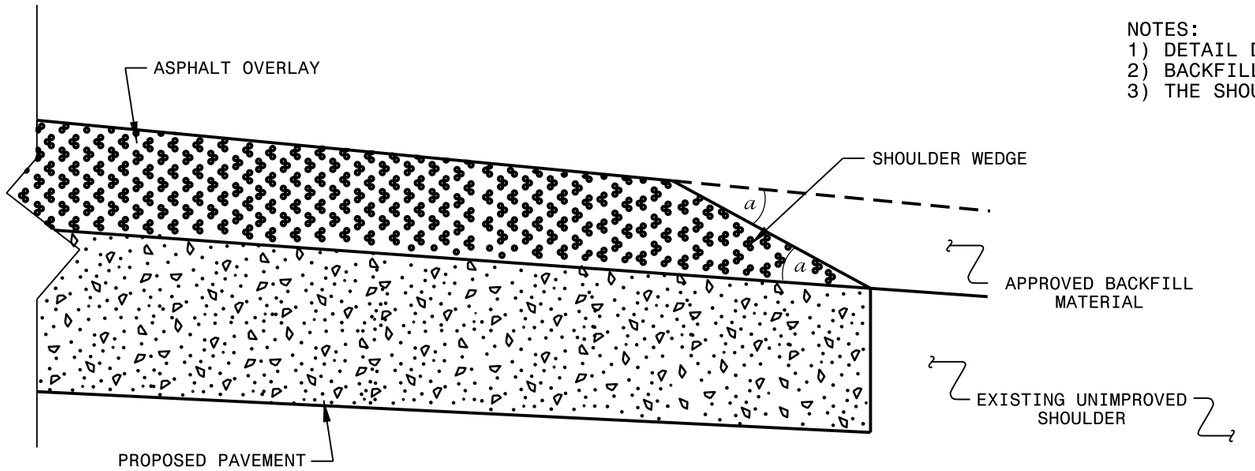
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn
User:rmgarrett

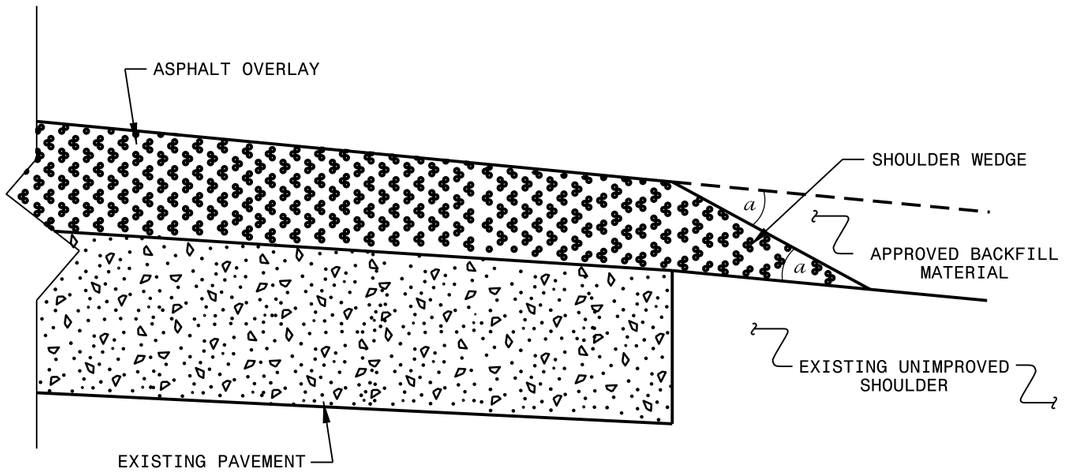
PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC	9

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 AND SIDE STREETS.



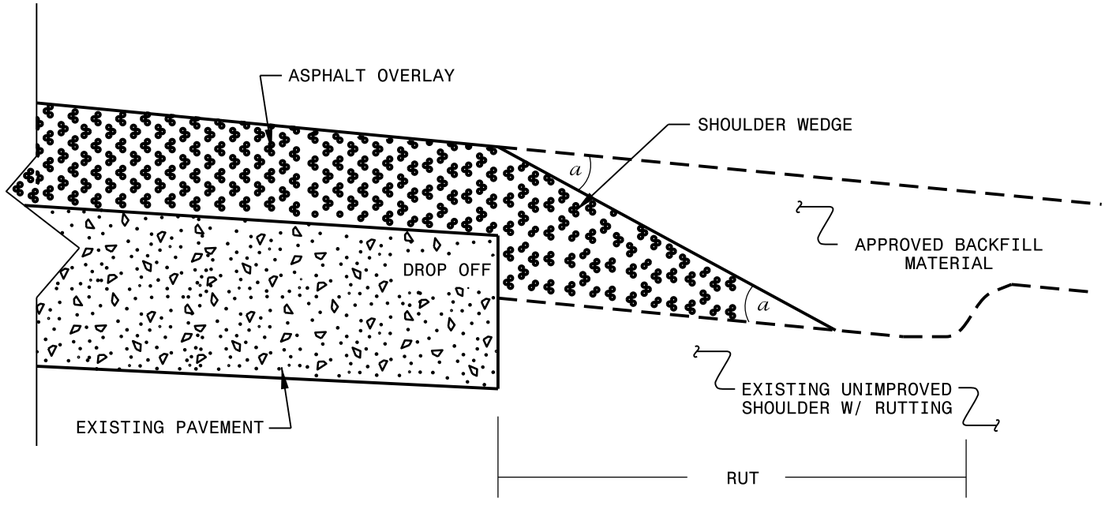
SHOULDER WEDGE DETAIL

(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°

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

04-JAN-2017 13:52
C:\Users\jbconner\Documents\CURRENT PROJECTS\RESURFACING\FY17-18\DA00312(TYRRELL_WASH)\Revised Shoulder Wedge Detail.dgn
jbconner
AT DICAD270263

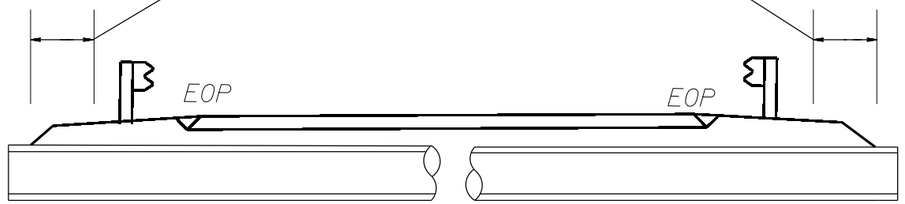
PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.J0081J, ETC.	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

BMP Options: Wattle or Silt Fence

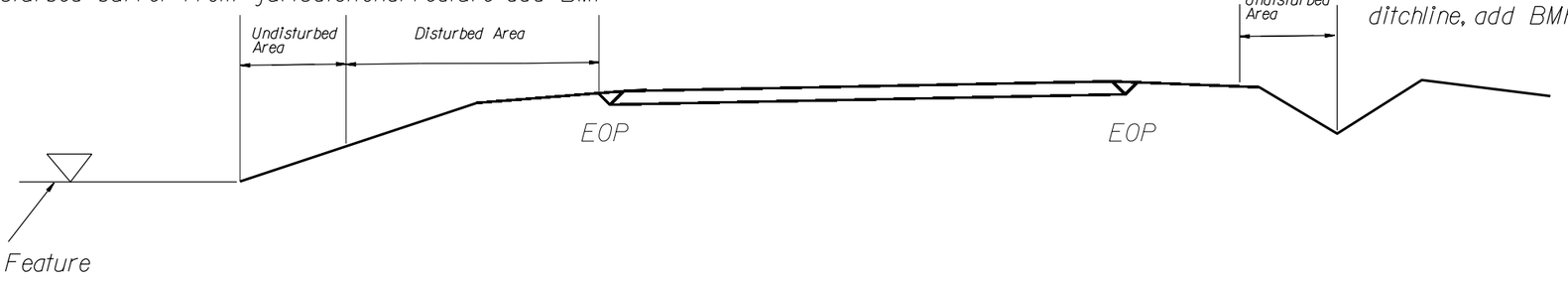
EROSION CONTROL DETAIL

< 5' - 10' Undisturbed buffer add BMP



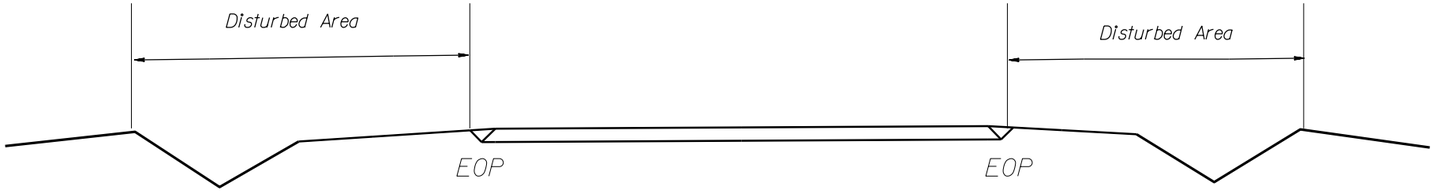
Pipe/Culvert

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

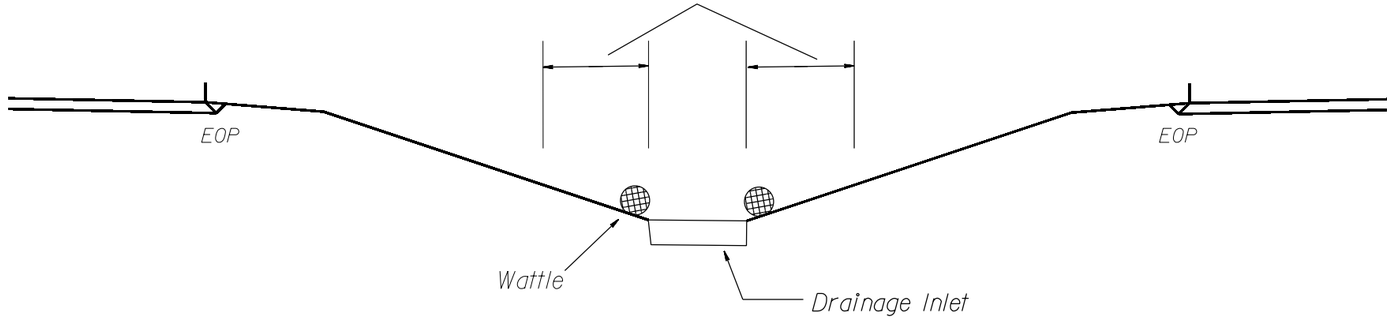


< 5' - 10' Undisturbed buffer from ditchline, add BMP

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



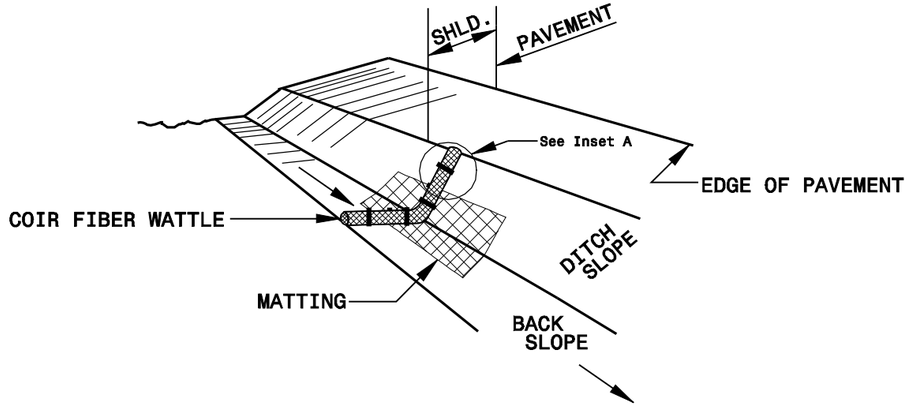
< 5' - 10' Undisturbed buffer from inlet, add wattle



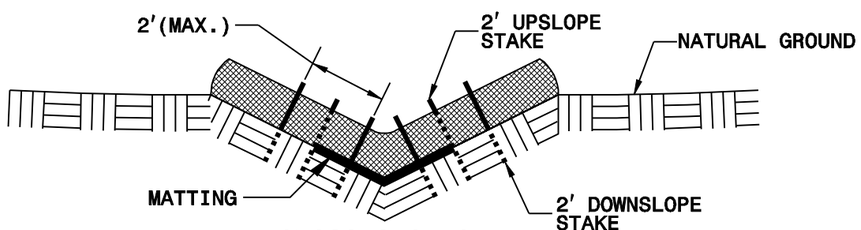
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1,ETC.	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

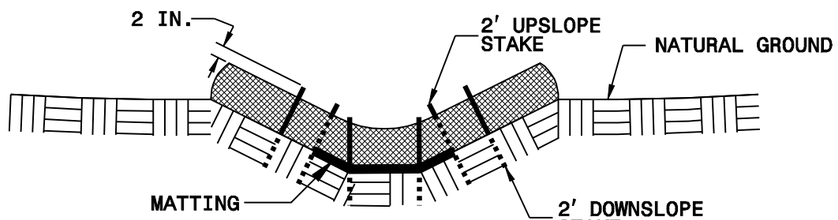
COIR FIBER WATTLE DETAIL



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.

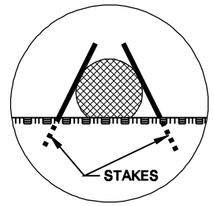
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

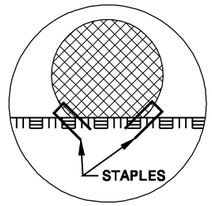
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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



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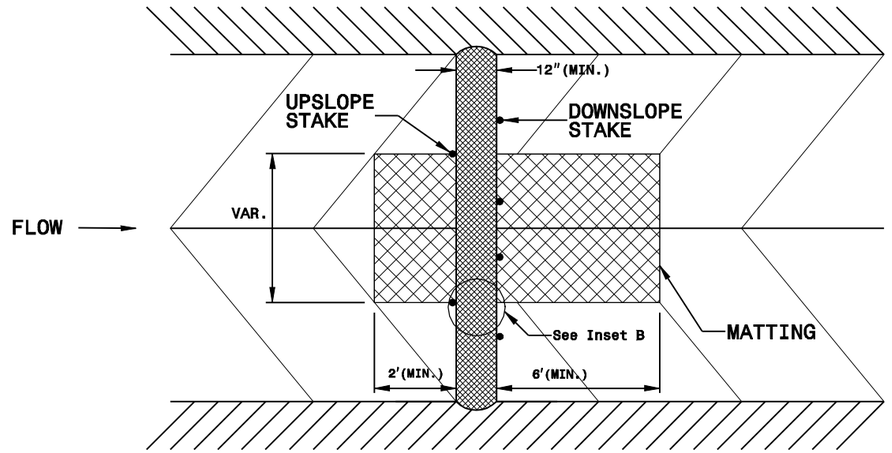
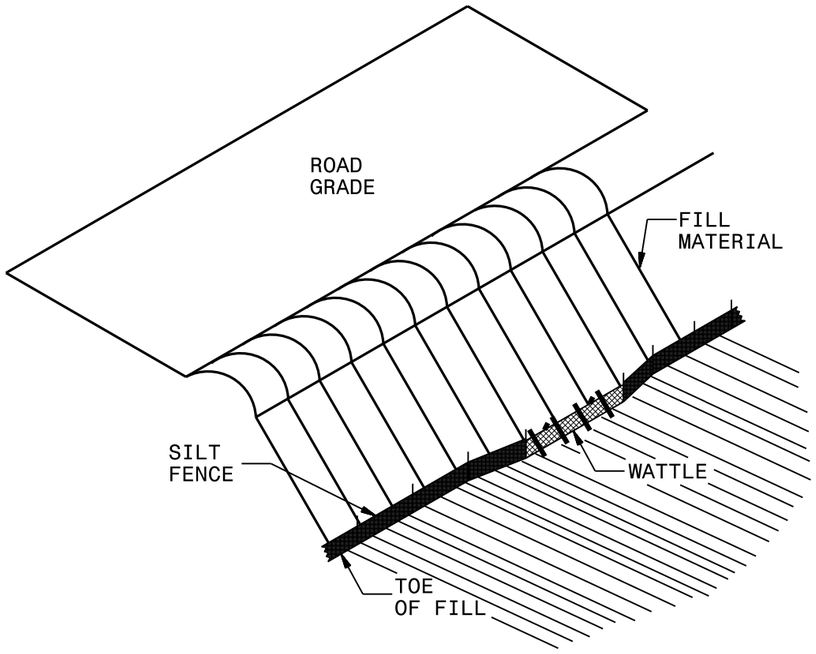


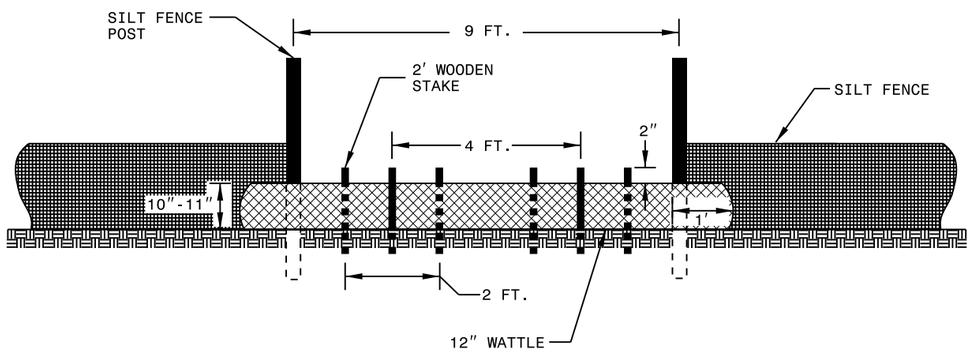
TOP VIEW

SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.01.12.10081.1, ETC.	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

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

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

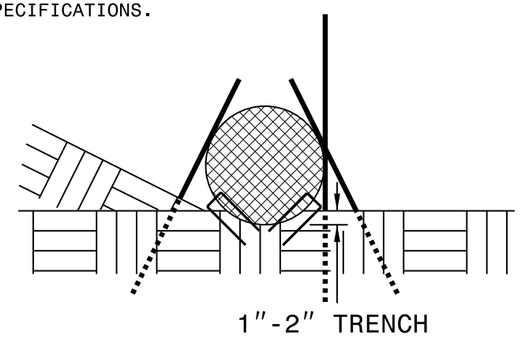
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

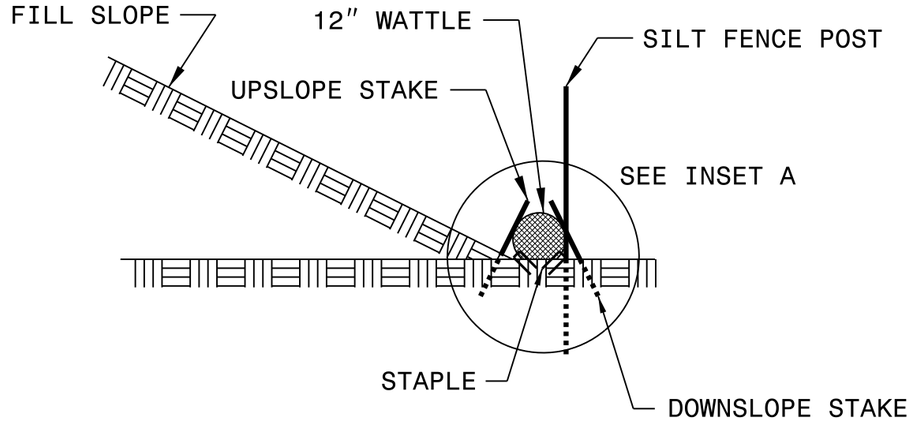
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A





SIDE VIEW