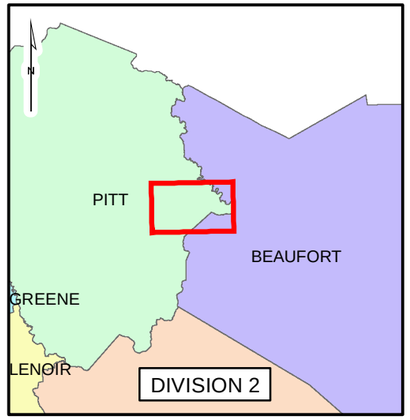


PITT COUNTY

DB00363

WBS# 2017CPT.02.60.10741.10

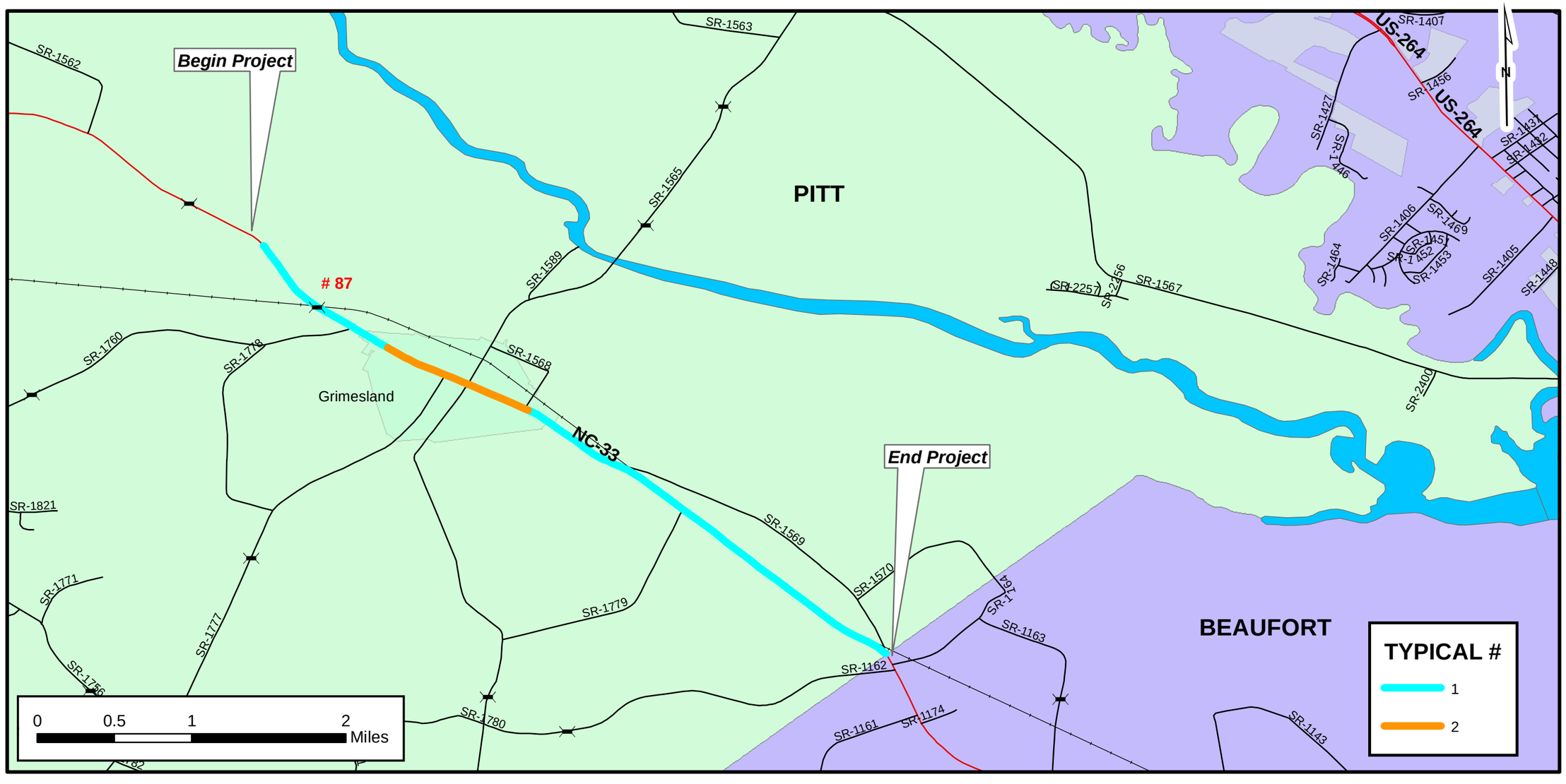
PROJECT REFERENCE NO.	SHEET NO.
DB00363	1

LOCATION:

MAP 1 - NC 33 FROM 1230 FT WEST OF BRIDGE #87 TO BEGIN GRIMESLAND C&G
MAP 2 - NC 33 FROM BEGIN GRIMESLAND C&G TO END GRIMESLAND C&G
MAP 3 - NC 33 FROM END GRIMESLAND C&G TO 203 FT EAST OF THE BEAUFORT COUNTY LINE

TYPE OF WORK: FULL DEPTH PATCHING, MILLING, RESURFACING, PAVEMENT MARKINGS & PAVEMENT MARKERS

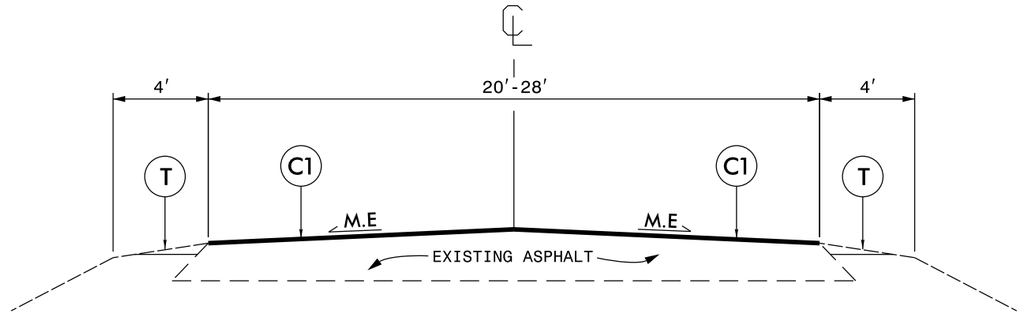
NCDOT
DIVISION 2



PROJECT REFERENCE NO.	SHEET NO.
DB00363	2

TYPICAL SECTION NO. 1

MAP NUMBER 01 – BEGIN PROJECT TO C&G
MAP NUMBER 03 – C&G TO END PROJECT



NOTE:
1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.

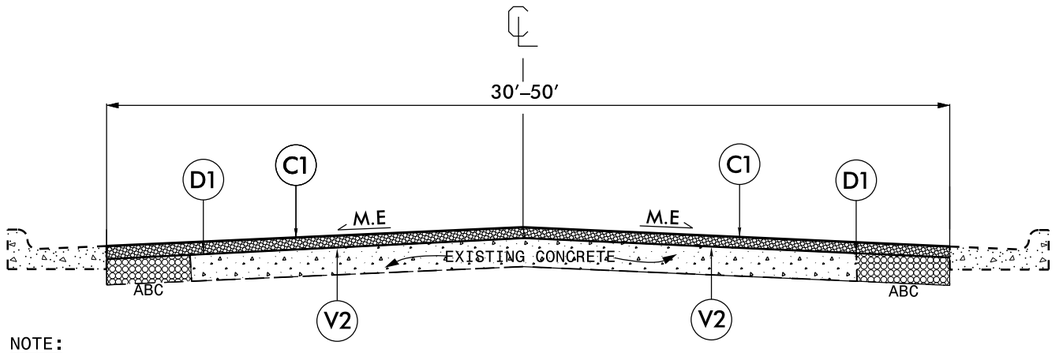
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2″ ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5B, AT AN AVERAGE RATE OF 224.0 LBS. PER SQ. YD.
D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I 19.0B, AT AN AVERAGE RATE OF 342.0 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING.
V2	5″ DEPTH MILLING
DRAWINGS NOT TO SCALE	

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

TYPICAL SECTION NO. 2

MAP NUMBER 02
FROM BEGIN C&G TO END C&G



NOTE:
1. PERFORM 5″ DEPTH MILLING FROM CURB AND GUTTER TO CURB AND GUTTER, FULL WIDTH. ENSURE THAT THE EXISTING SAND ASPHALT LAYER BETWEEN THE EXISTING SURFACE LAYER AND THE EXISTING CONCRETE ROADWAY/AGGREGATE BASE COURSE LAYER IS REMOVED.

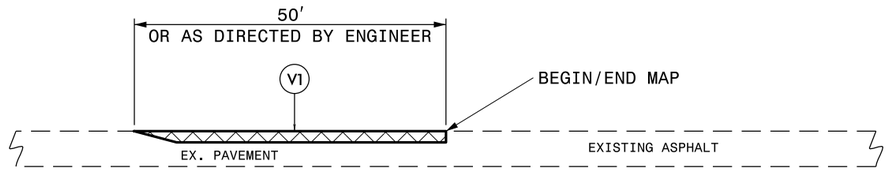
2. AFTER 5″ DEPTH MILLING, PERFORM PATCHING / REPAIR OF AGGREGATE BASE COURSE SUBGRADE AS DIRECTED BY THE ENGINEER.

3. PLACE ASPHALT INTERMEDIATE COURSE OF ASPHALT FULL WIDTH, AS DIRECTED BY THE ENGINEER. DO NOT ALLOW EXISTING AGGREGATE BASE COURSE TO BE EXPOSED. ASPHALT INTERMEDIATE COURSE SHALL BE PLACED THE SAME DAY AS THE 5″ DEPTH MILLING.

4. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.

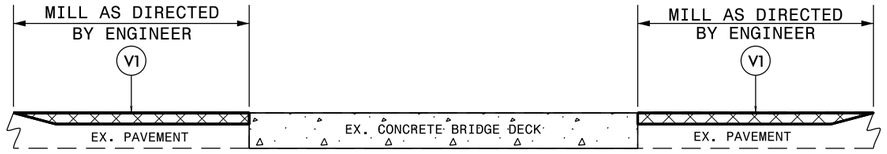
PROJECT REFERENCE NO.	SHEET NO.
DB00363	3

MILLING TYPICALS



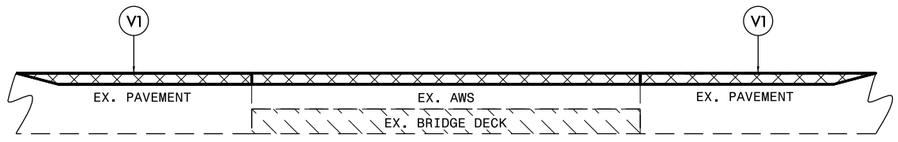
DETAIL 1
BEGIN/END MAP TIE-IN

NOTE:
1. 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

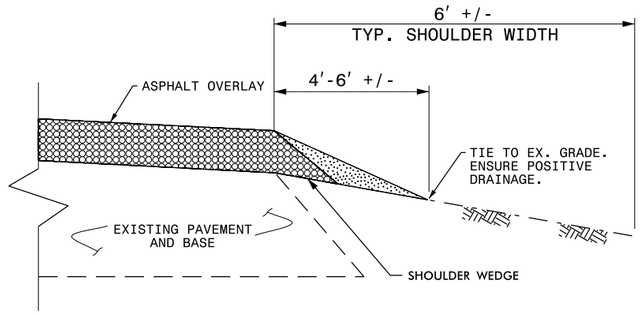
NOTE:
1. MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



DETAIL 3
BRIDGE MILLING

NOTE:
1. INCLUDES MILLING FOR THE ENTIRE WIDTH OF THE BRIDGE WEARING SURFACE, AS DIRECTED BY THE ENGINEER.

SHOULDER RECONSTRUCTION TYPICAL

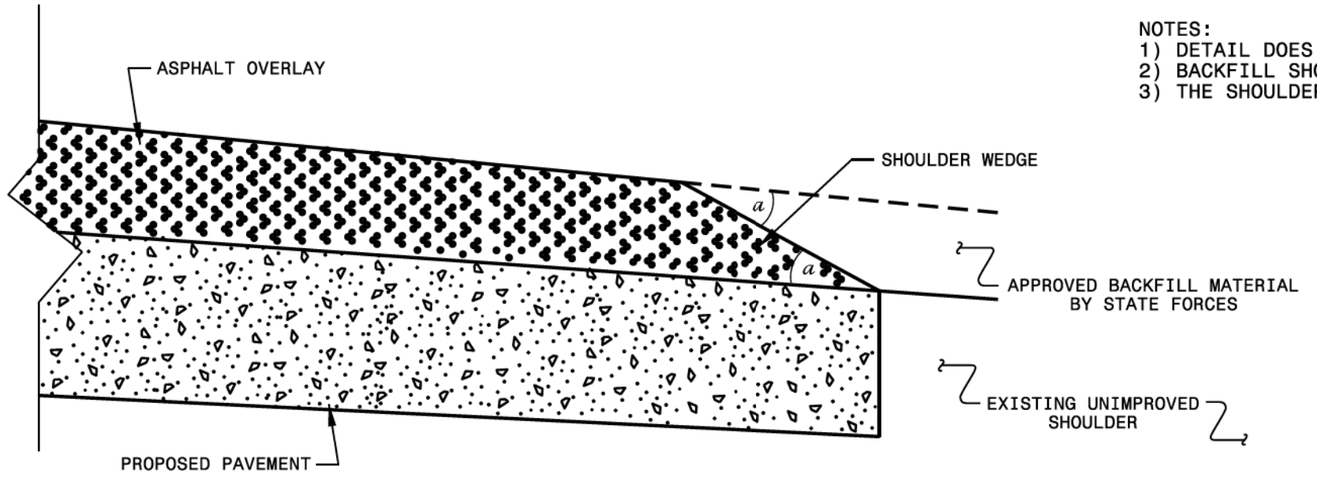


SHOULDER RECONSTRUCTION DETAIL

NOTE:
1. SHOULDERS SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM THE ROADWAY.
2. A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.
3. REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.

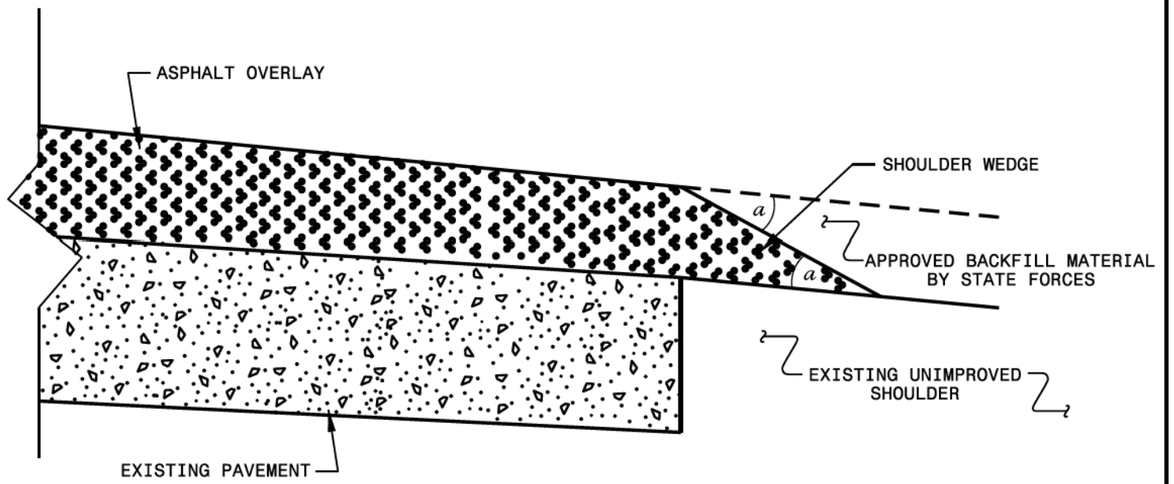
PROJECT REFERENCE NO.	SHEET NO.
DB00363	4

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 AND SIDE STREETS.



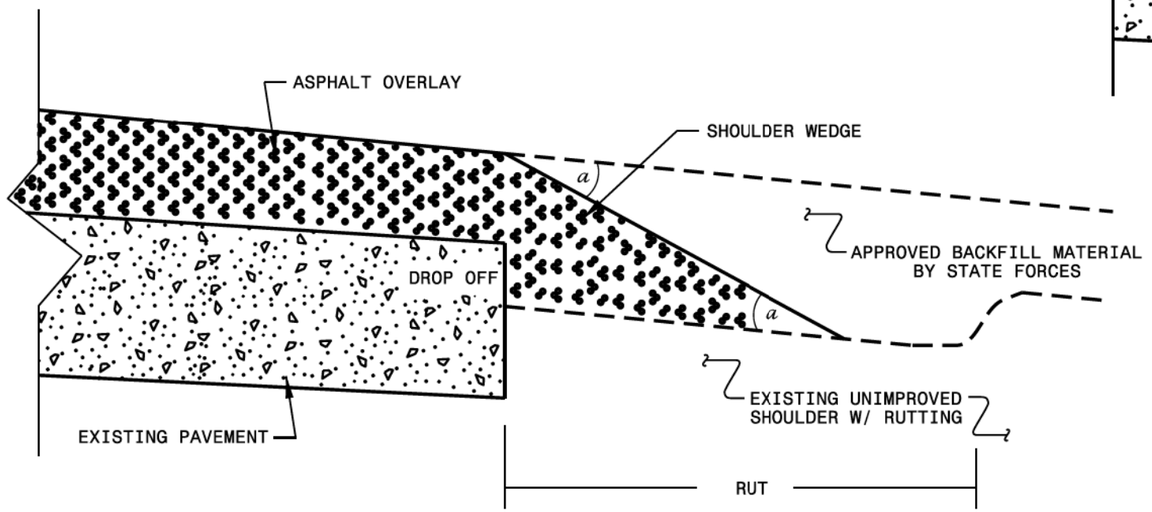
SHOULDER WEDGE DETAIL

(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		

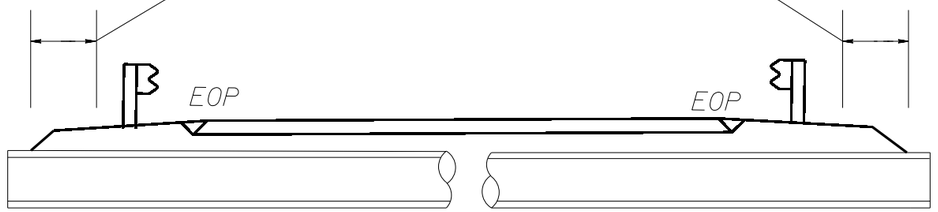
PROJECT REFERENCE NO.	SHEET NO.
DB00363	5

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

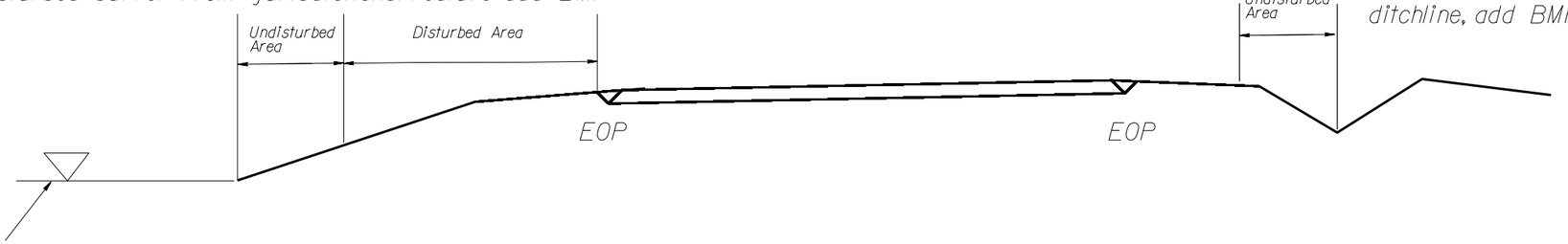
< 5' - 10' Undisturbed buffer add BMP



Pipe/Culvert

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

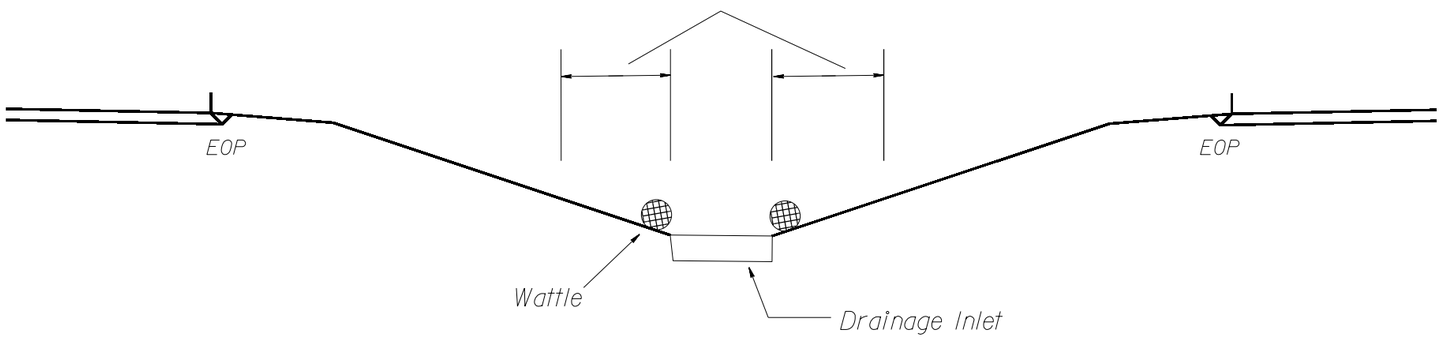
< 5' - 10' Undisturbed buffer from ditchline, add BMP



Jurisdictional Feature

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

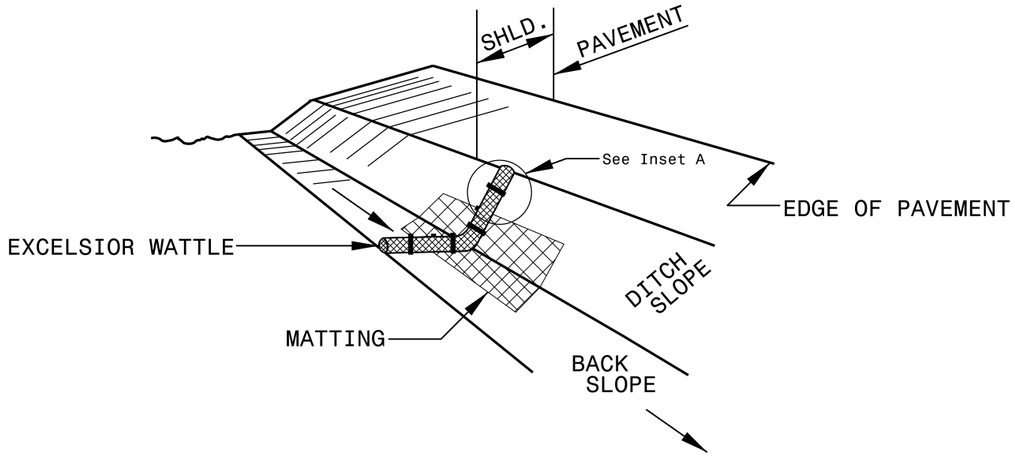
< 5' - 10' Undisturbed buffer from inlet, add wattle



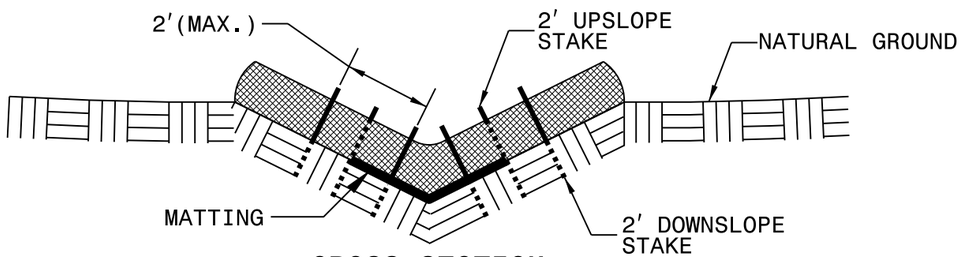
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
DB00363	6

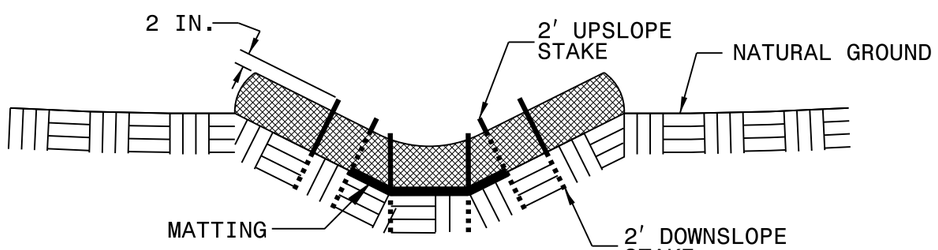
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

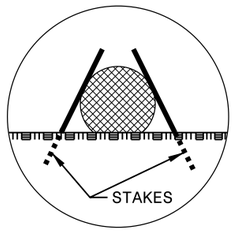
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

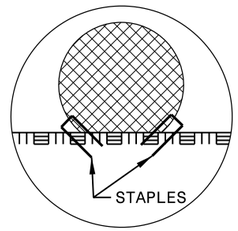
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

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

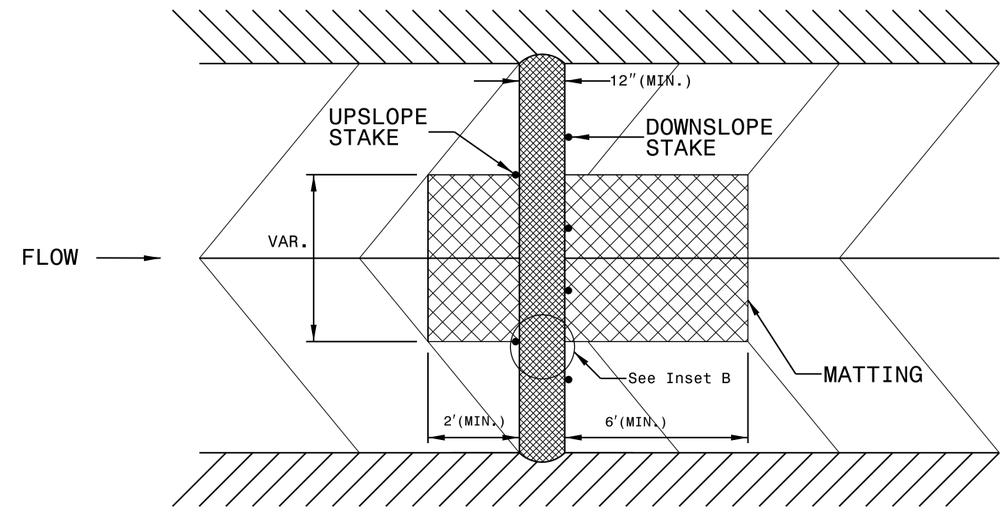
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



INSET B



TOP VIEW

NOT TO SCALE

PROJECT NO.	SHEET NO.
DB00363	7

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	HAULING NCDOT SUPPLIED SHOULDER MATERIAL EA	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	5" MILLING SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	ABC SUBGRADE REMOVE/REPLACE W/ B 25.0B TON	2'-6" CURB & GUTTER LF	4" CONCRETE SIDEWALK SY	RETROFIT EXISTING CURB RAMP EA	WHEELCHAIR RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	RESPONSE FOR EROSION CONTROL EA
2017CPT.02.60.10741.10	Pitt	1	NC 33	FROM 1230 FT WEST OF BRIDGE #87 TO BEGIN CURB & GUTTER	1	2	2WU	NO	NO	0.682	22	34	50	1.36		415		1,200	72								50	25	0.85	1
TOTAL FOR MAP NO. 1										**0.682**		**34**	**50**	**1.36**		**415**		**1,200**	**72**								**50**	**25**	**0.85**	**1**
2017CPT.02.60.10741.10	Pitt	2	NC 33	FROM BEGIN C&G TO END C&G (GRIMESLAND)	2	2	2WU	NO	NO	0.854	44				22,500		3,900	2,700	349	50	84	40	2	9	2	10				
TOTAL FOR MAP NO. 2										**0.854**					**22,500**		**3,900**	**2,700**	**349**	**50**	**84**	**40**	**2**	**9**	**2**	**10**				
2017CPT.02.60.10741.10	Pitt	3	NC 33	FROM END C&G TO 203 FT EAST OF THE BEAUFORT COUNTY LINE	1	2	2WU	NO	NO	2.532	28	127	100	5.06		315		5,000	300								100	50	3.17	1
TOTAL FOR MAP NO. 3										**2.532**		**127**	**100**	**5.06**		**315**		**5,000**	**300**								**100**	**50**	**3.17**	**1**
TOTAL FOR PROJ NO. 2017CPT.02.60.10741.10										**4.068**		**161**	**150**	**6.42**	**22,500**	**730**	**3,900**	**8,900**	**721**	**50**	**84**	**40**	**2**	**9**	**2**	**10**	**150**	**75**	**4.02**	**2**
GRAND TOTAL										**4.068**		**161**	**150**	**6.42**	**22,500**	**730**	**3,900**	**8,900**	**721**	**50**	**84**	**40**	**2**	**9**	**2**	**10**	**150**	**75**	**4.02**	**2**

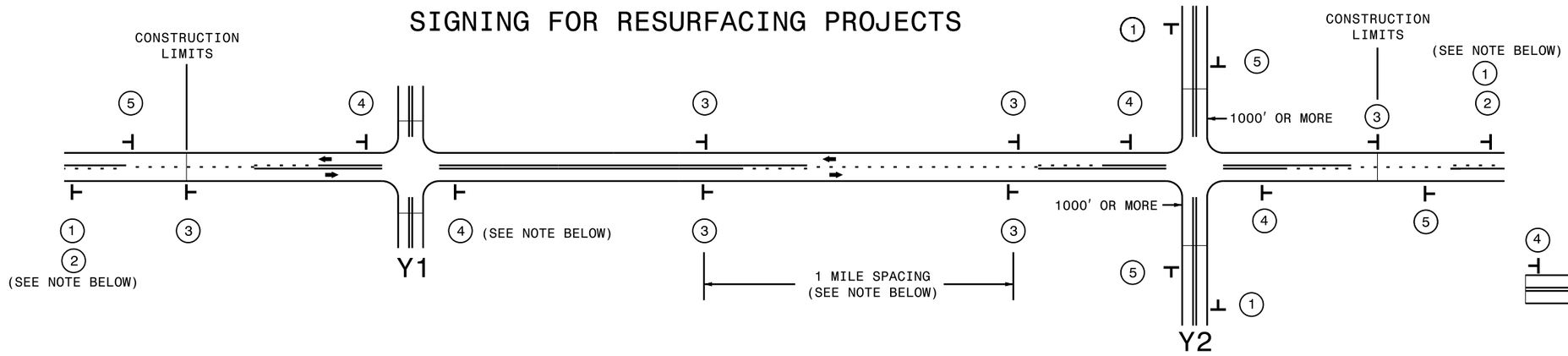
PROJECT NO.	SHEET NO.
DB00363	8

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	4457000000-N TEMPORARY TRAFFIC CONTROL LS	4688000000-E 6" X 90 M WHITE THERMO LF	4690000000-E 6" X 120 M YELLOW THERMO LF	4690000000-E 6" X 120 M WHITE THERMO LF	4705000000-E 16" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO RXR 120 M EA	4725000000-E THERMO LT ARROW 90 M EA	4810000000-E 4" YELLOW PAINT LF	4905000000-N SNOW PLOWABLE MARKERS EA
2017CPT.02.60.10741.10	Pitt	1	NC 33	FROM 1230 FT WEST OF BRIDGE #87 TO BEGIN CURB & GUTTER	1	2	2WU	0.682	22	78	0.17	7,338	4,501			20				45
TOTAL FOR MAP NO. 1								**0.682**		**78**	**0.17**	**7,338**	**4,501**			**20**				**45**
2017CPT.02.60.10741.10	Pitt	2	NC 33	FROM BEGIN C&G TO END C&G (GRIMESLAND)	2	2	2WU	0.854	44	100	0.20	9,018	9,018	500		75		25	11,273	56
TOTAL FOR MAP NO. 2								**0.854**		**100**	**0.20**	**9,018**	**9,018**	**500**		**75**		**25**	**11,273**	**56**
2017CPT.02.60.10741.10	Pitt	3	NC 33	FROM END C&G TO 203 FT EAST OF THE BEAUFORT COUNTY LINE	1	2	2WU	2.532	28	285	0.63	27,244	18,990		50	75	2			167
TOTAL FOR MAP NO. 3								**2.532**		**285**	**0.63**	**27,244**	**18,990**		**50**	**75**	**2**			**167**
TOTAL FOR PROJ NO. 2017CPT.02.60.10741.10								**4.068**		**463**	**1.00**	**43,600**	**32,509**	**500**	**50**	**170**	**2**	**25**	**11,273**	**268**
													33,009							
GRAND TOTAL								**4.068**		**463**	**1.00**	**43,600**	**32,509**	**500**	**50**	**170**	**2**	**25**	**11,273**	**268**
													33,009							

PROJECT REFERENCE NO.	SHEET NO.
DB00363	9

SIGNING FOR RESURFACING PROJECTS



TEE INTERSECTION

LEGEND
- ⊢ STATIONARY SIGN
- ← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD W20-1 48″ X 48″	PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.
2	NEXT XX MILES W7-3aP 24″ X 18″	#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 SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART 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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500′ +/- OF THE INTERSECTION ALONG -L- LINE.
5	END ROAD WORK 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.

-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.

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