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LENOIR COUNTY

WBS: 2016CPT.02.03.10541.1

LOCATION:

MAP 1 - US-70 FROM 1000' +/- E. OF BRIDGE NO. 11 & 13 TO BRIDGE NO. 27 & 29.

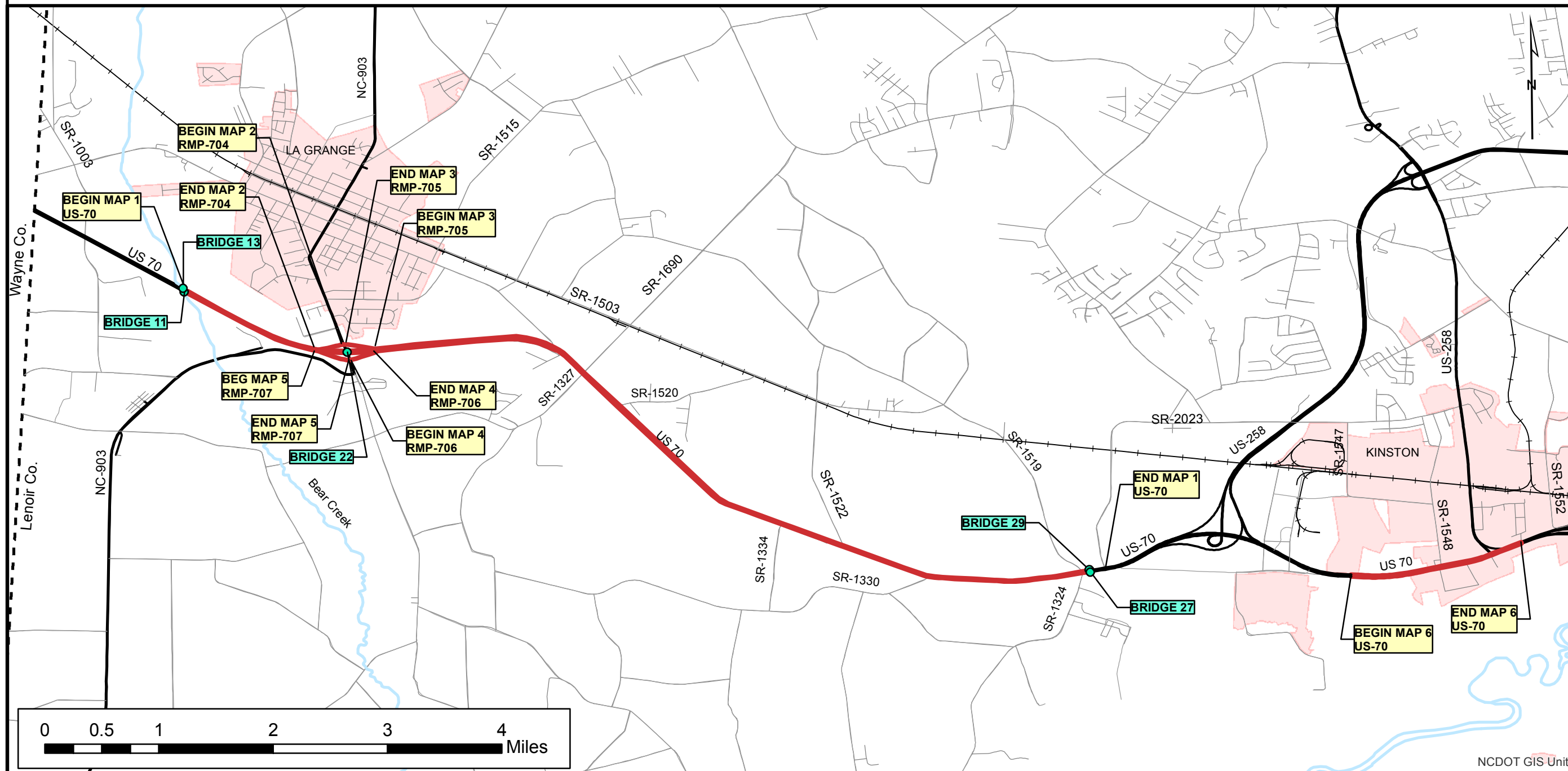
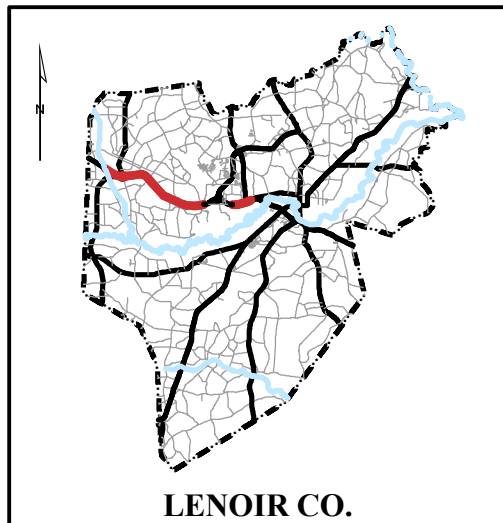
MAP 2, 3, 4, 5 - US-70/NC-903 INTERCHANGE RAMPS.

MAP 6 - US-70 FROM EASTERN MOST JOINT OF US-70/NC148 INTERCHANGE TO MT. VERNON RD.

TYPE OF WORK: MILLING, RESURFACING & SHOULDER RECONSTRUCTION.

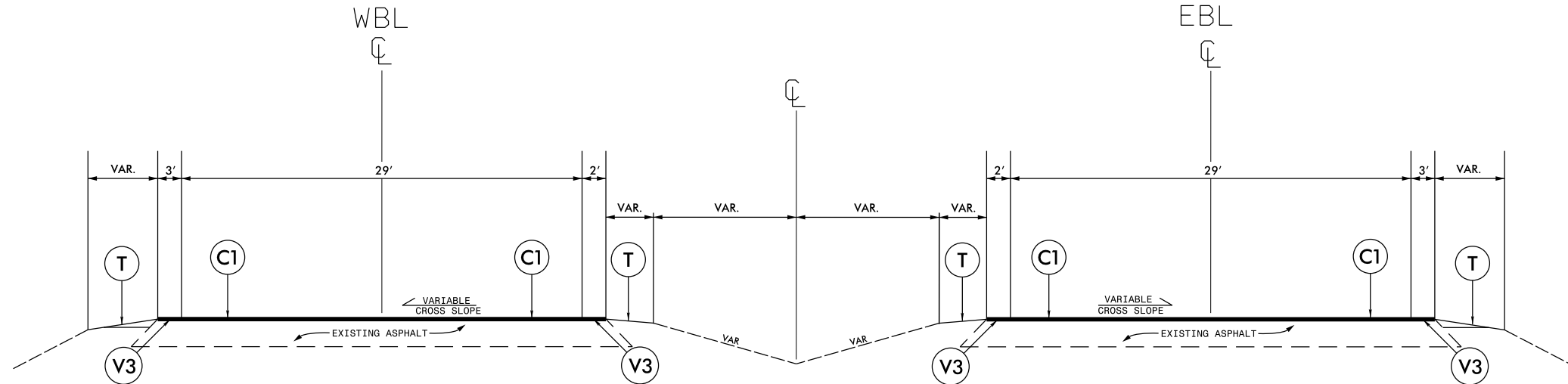


NCDOT
DIVISION 2



TYPICAL SECTION NO. 1

MAP 1: US-70 FROM 1000' +/- E. OF BRIDGE NO. 11 & 13 TO END BRIDGE 27 & 29.
 MAP 6: US-70 FROM EASTERN MOST JOINT AT US-70/NC-148 INTERCHANGE TO BEG. C&G.

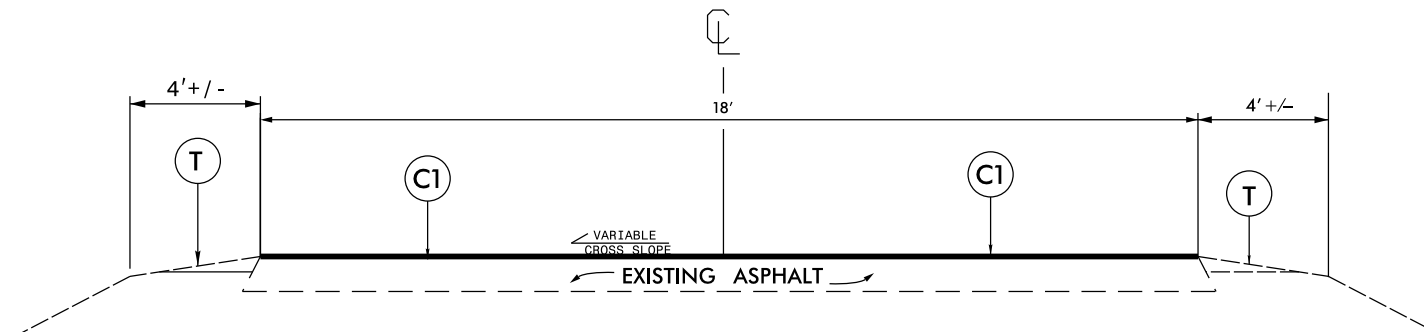


NOTE:

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
2. PLACE PROPOSED MILLED RUMBLE STRIPS AT THE SAME LOCATIONS AS EXISTING MILLED RUMBLE STRIPS, AS DIRECTED BY THE ENGINEER.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, Y-LINE TIE-INS AND BRIDGE APPROACH TIE-INS, AS DIRECTED BY THE ENGINEER. SEE DETAIL 1 & 2

TYPICAL SECTION NO. 2

MAP 2: RAMP 704
 MAP 3: RAMP 705
 MAP 4: RAMP 706
 MAP 5: RAMP 707



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 SECTIONS AND BRIDGE APPROACH TIE-INS, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1 & 2

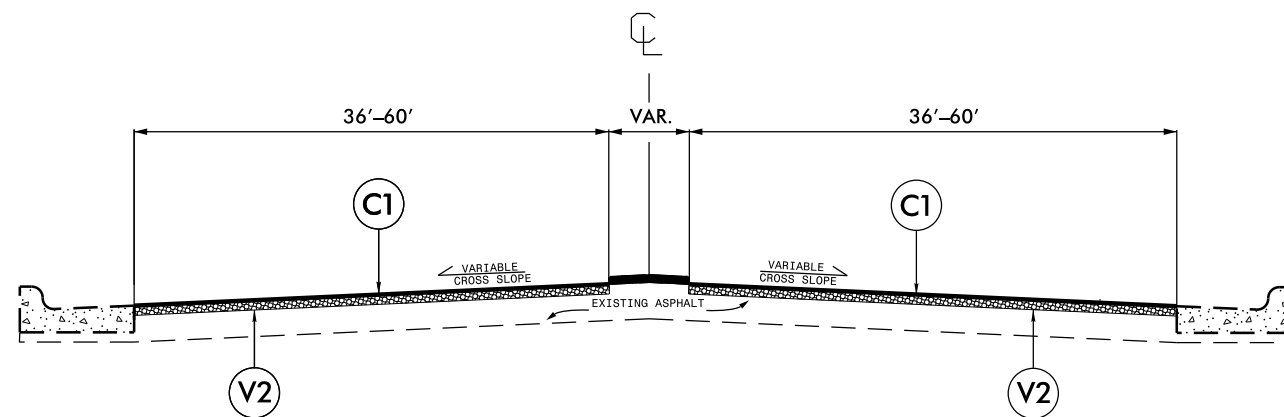
PAVEMENT SCHEDULE

C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING
V2	2" MILLING
V3	MILLED RUMBLE STRIPS

DRAWINGS NOT TO SCALE

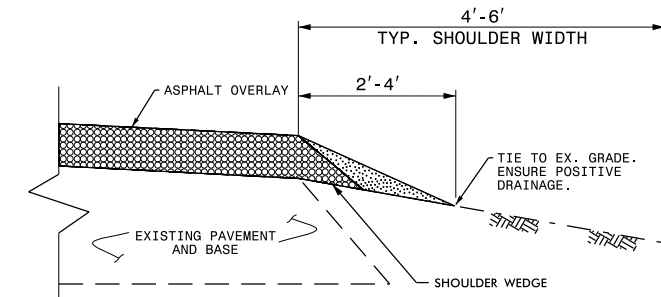
TYPICAL SECTION NO. 3

MAP 6: FROM BEGIN C&G EBL & WBL TO END C&G EBL & WBL.



NOTE:

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



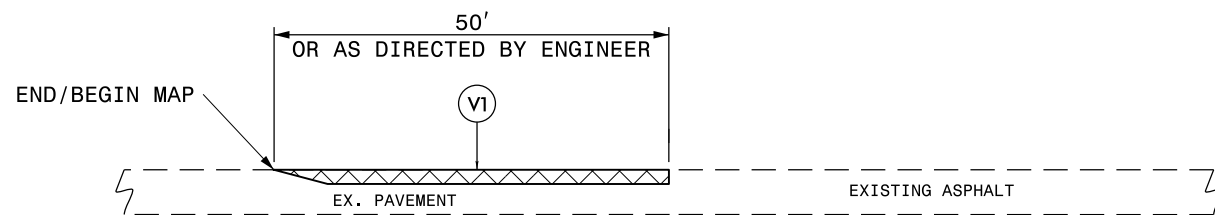
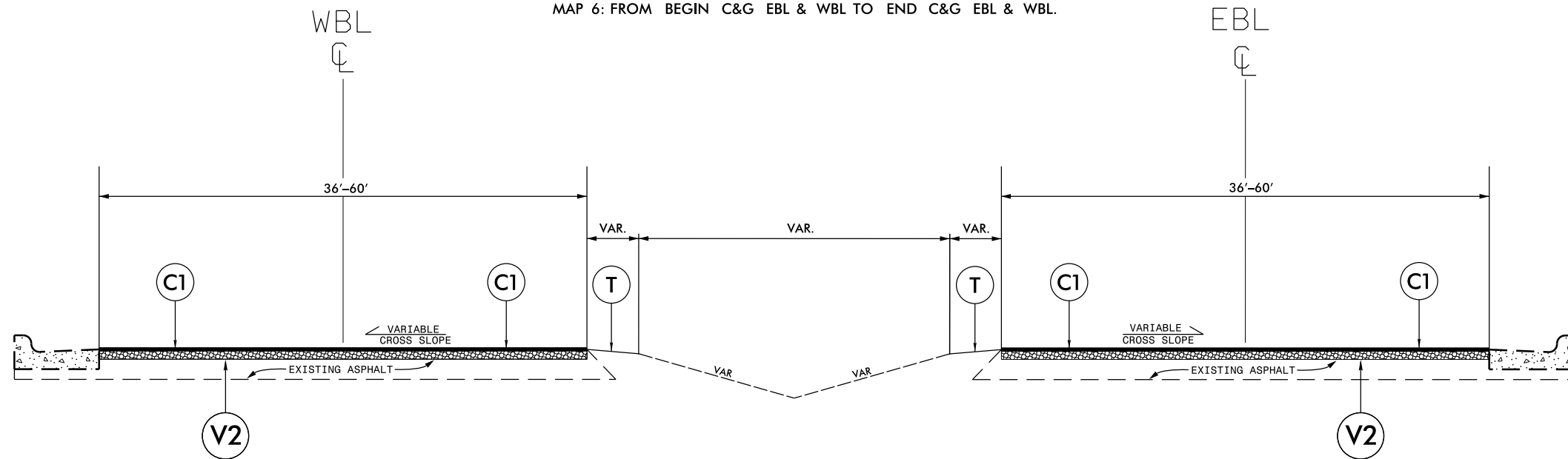
SHOULDER RECONSTRUCTION DETAIL

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.

TYPICAL SECTION NO. 4

MAP 6: FROM BEGIN C&G EBL & WBL TO END C&G EBL & WBL.

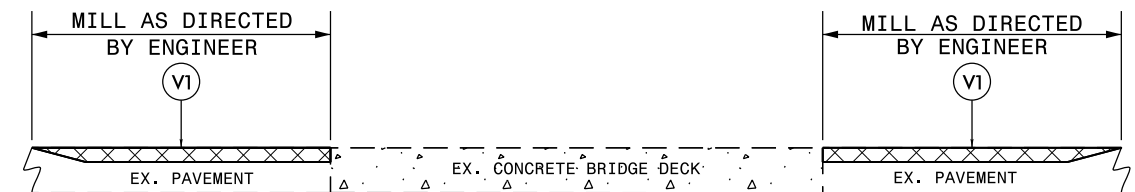


DETAIL 1

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.



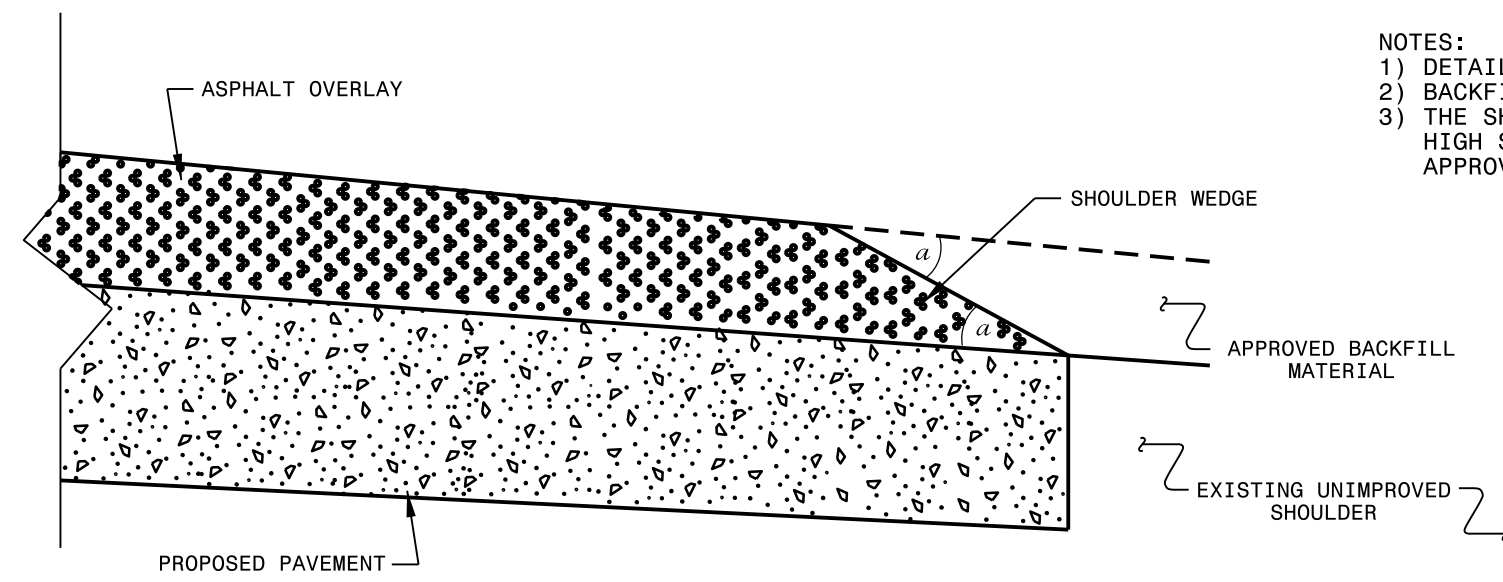
DETAIL 2

BRIDGE MILLING

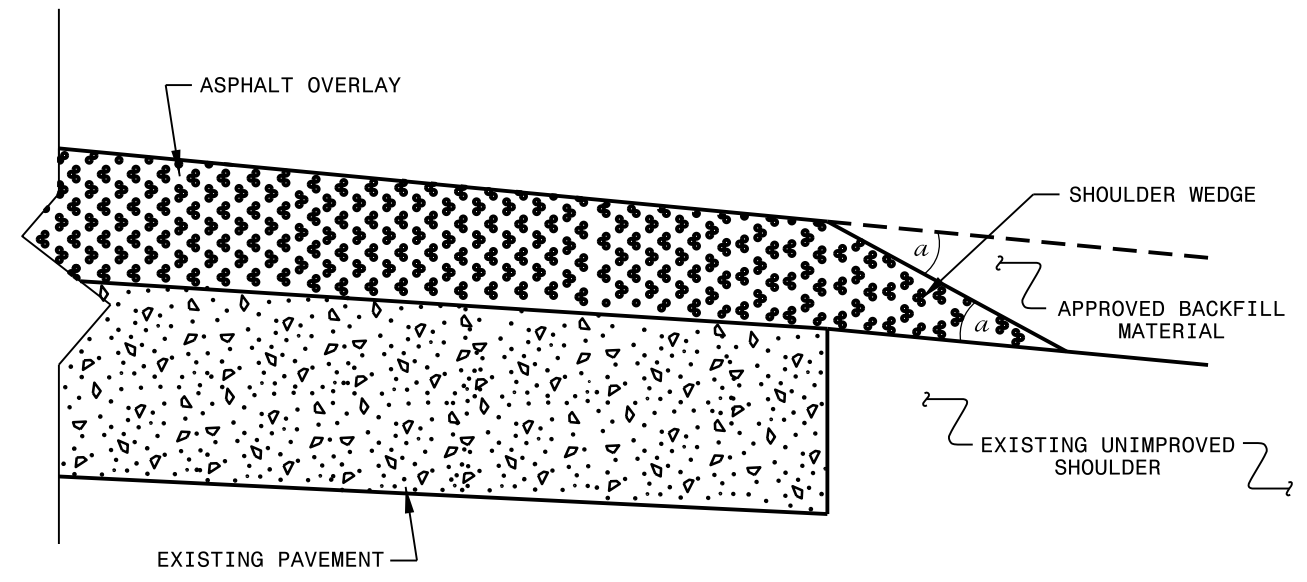
NOTE:

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

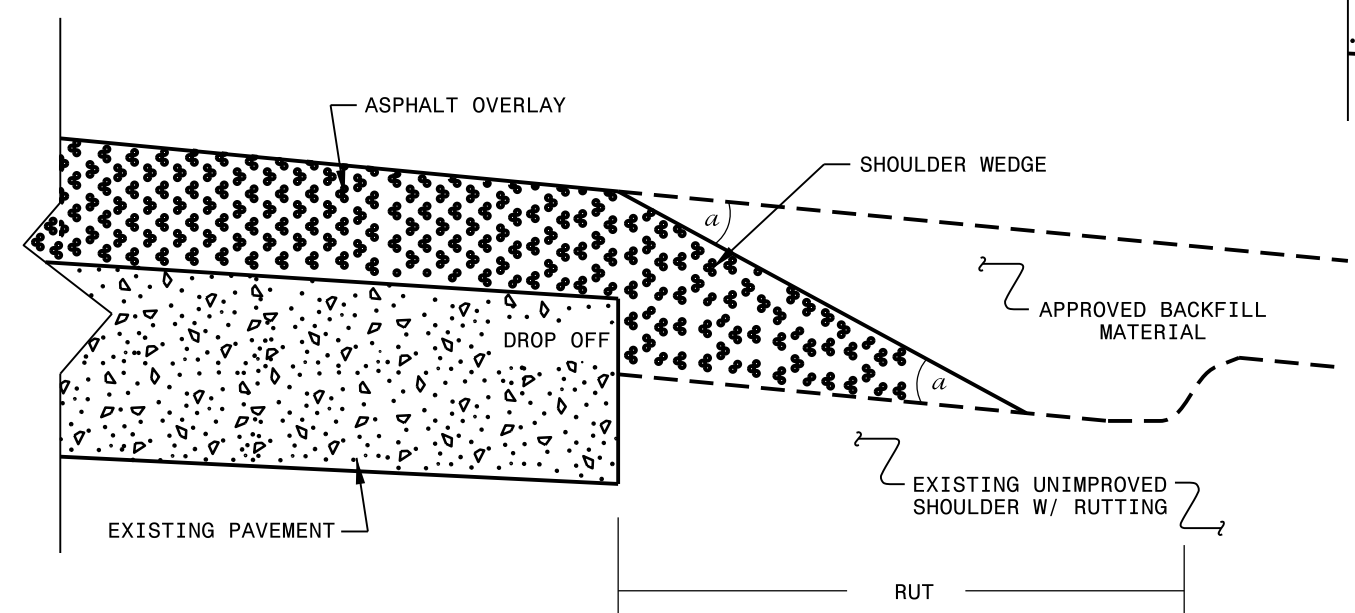
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



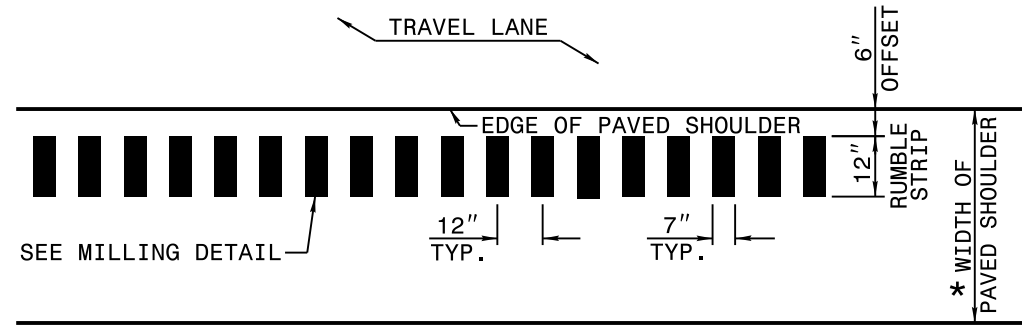
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to Rutted Shoulder)

- 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.: szusr/details/stand/shoulderwedgedetail.dgn			

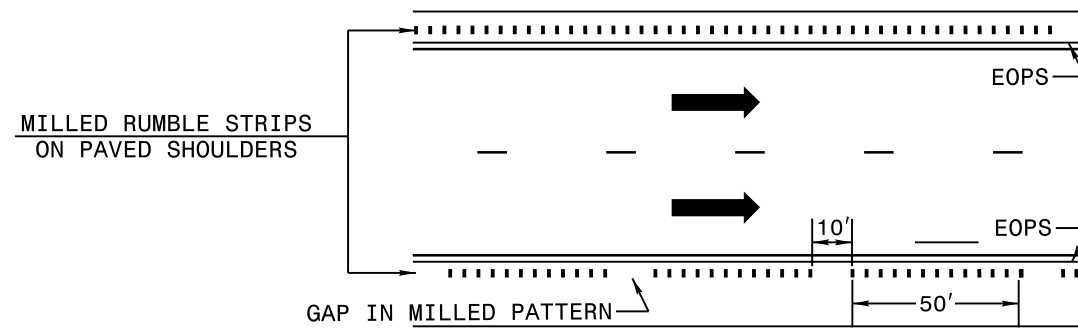
30-MAR-2016 09:44
 S:\Contracts\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn
 \$\$\$USERNAME\$\$\$

ASPHALT SHOULDERS MILLED RUMBLE STRIPS



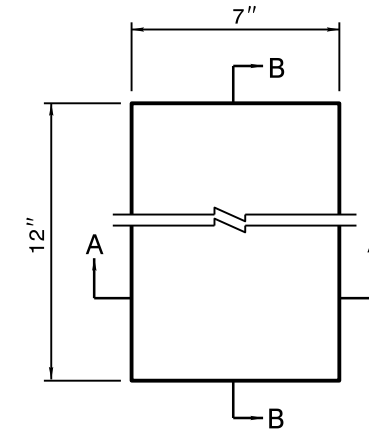
* FOR WIDTHS SEE TYPICAL SECTIONS AND PLAN SHEETS

**PLAN VIEW
PAVED SHOULDER**

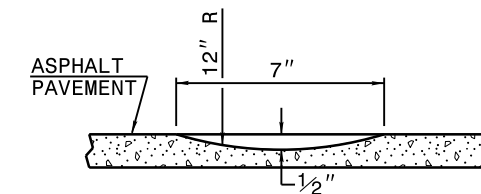


LANE TREATMENT

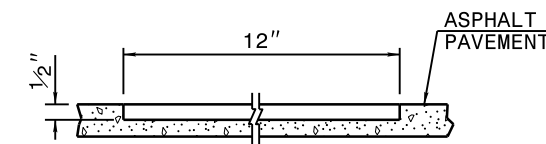
* THE BEGINNING OF A RUMBLE STRIP/STRIPE PATTERN SHOULD BE DELINEATED IN ACCORDANCE WITH MUTCD CRITERIA (SECTION 9C.06) ON ANY FACILITY THAT BICYCLES ARE LEGALLY ALLOWED TO OPERATE.



**PLAN VIEW
MILLING DETAIL**



SECTION A-A



SECTION B-B

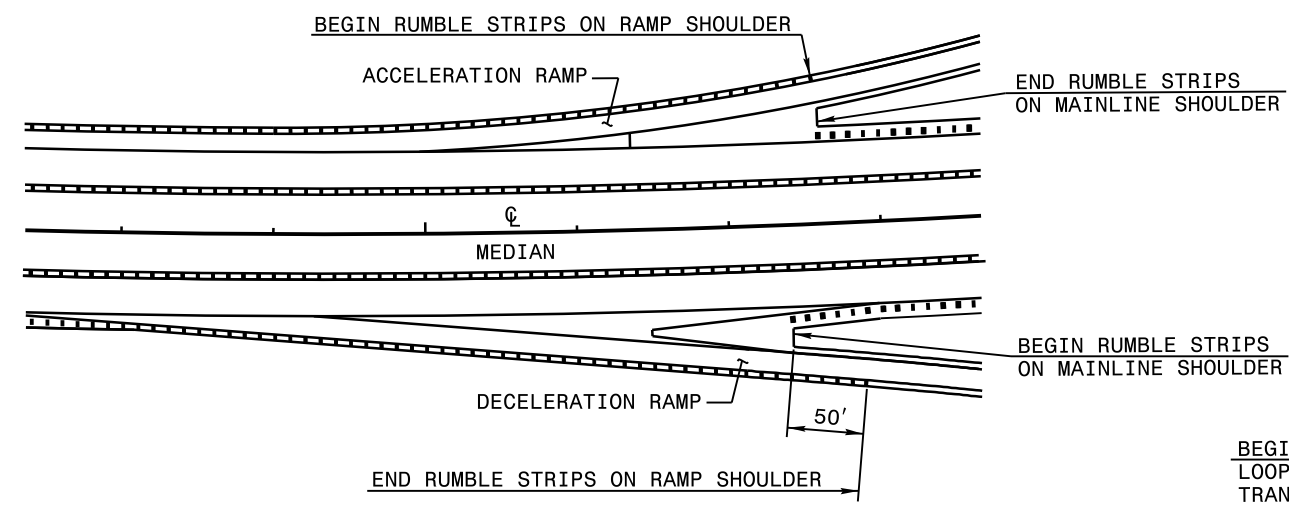
NOT TO SCALE

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

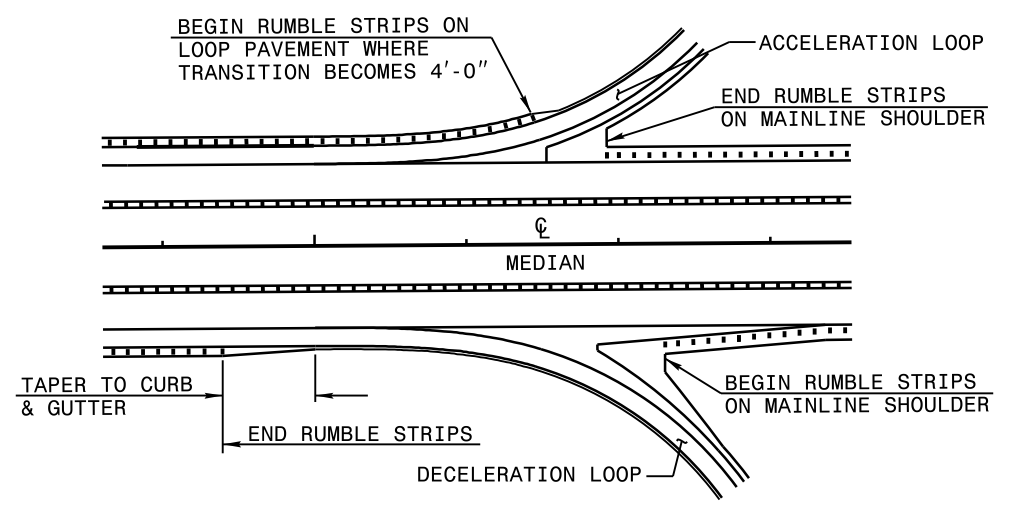
1-12

ENGLISH STANDARD DRAWING FOR
**ASPHALT SHOULDERS
MILLED RUMBLE STRIPS**

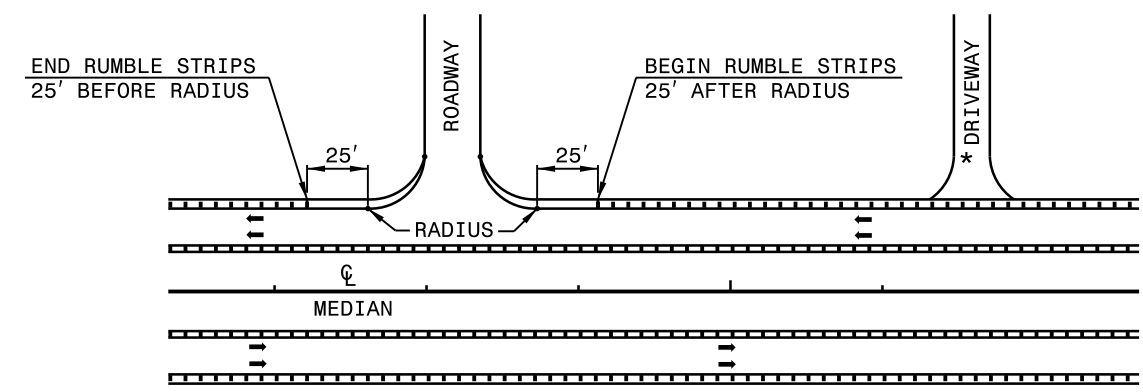
SHEET 2 OF 2
665.01



TREATMENT AT RAMP TERMINALS



TREATMENT AT LOOP TERMINALS



TREATMENT AT INTERSECTIONS
(ROADWAY OR DRIVEWAY)

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
**ASPHALT SHOULDERS
MILLED RUMBLE STRIPS**

SHEET 2 OF 2
665.01

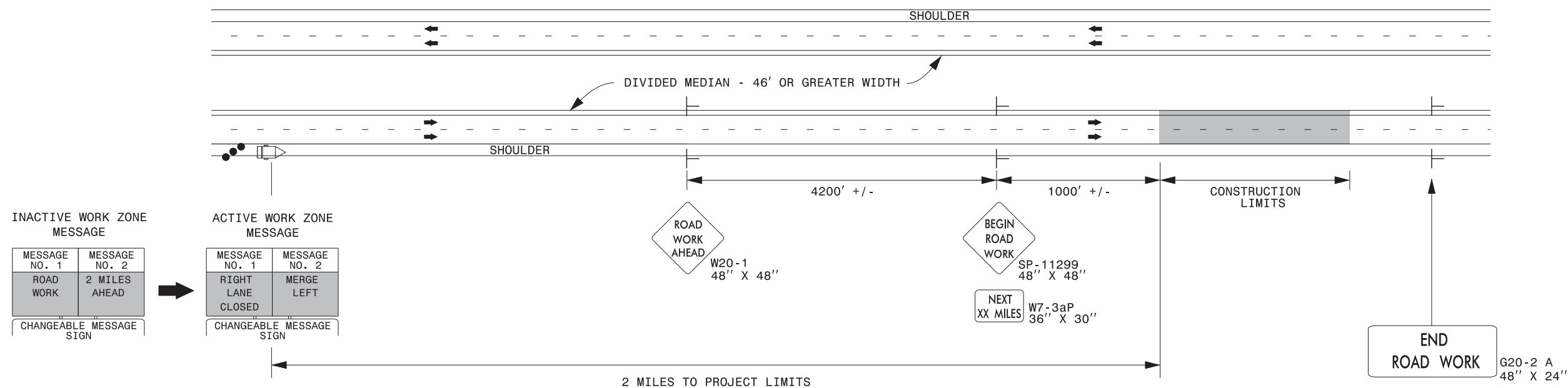
NOT TO SCALE

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.02.03.10541.1	7	

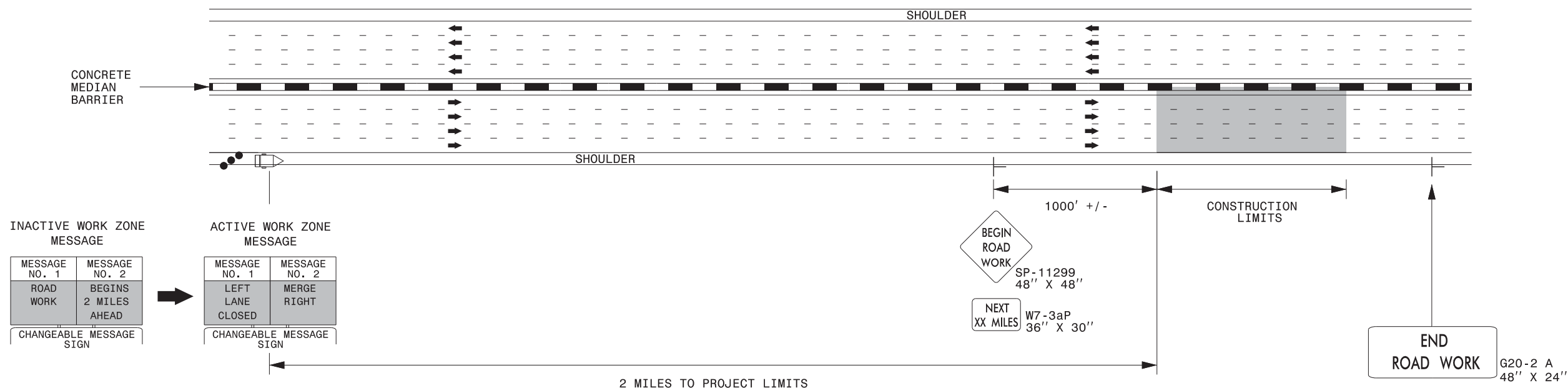
SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	2" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5C TONS	ASPHALT BINDER FOR PLANT MIX TONS	MILLED RUMBLE STRIPS (ASPHALT CEMENT CONCRETE) LF	ADJ. OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	RESPONSE FOR EROSION CONTROL EA
2016CPT.02.03.10541.1	Lenoir	1	US-70	FROM 1000' E. OF BEAR CREEK BRIDGE TO FALLEN CREEK BRIDGE	1	4	MD	NO	NO	7.197	34	150	29.0		3,500	32,618	1,924	51,000	2	1,000.0	200.0	18.0	4
TOTAL FOR MAP NO. 1										7.197		150	29.0		3,500	32,618	1,924	51,000	2	1,000.0	200.0	18.0	4
2016CPT.02.03.10541.1	Lenoir	2	RAMP 704	WBL ON RAMP US-70/NC-903 INTERCHANGE	2	1		NO	NO	0.233	18		0.3		200	289	17					0.3	
TOTAL FOR MAP NO. 2										0.233			0.3		200	289	17					0.3	
2016CPT.02.03.10541.1	Lenoir	3	RAMP 705	WBL OFF RAMP US-70/NC-903 INTERCHANGE	2	1		NO	NO	0.201	18		0.3		200	255	15					0.3	
TOTAL FOR MAP NO. 3										0.201			0.3		200	255	15					0.3	
2016CPT.02.03.10541.1	Lenoir	4	RAMP 706	EBL ON RAMP US-70/NC-903 INTERCHANGE	2	1		NO	NO	0.180	18		0.3		200	224	13					0.3	
TOTAL FOR MAP NO. 4										0.180			0.3		200	224	13					0.3	
2016CPT.02.03.10541.1	Lenoir	5	RAMP 707	EBL OFF RAMP US-70/NC-903 INTERCHANGE	2	1		NO	NO	0.198	18		0.3		200	257	15					0.3	
TOTAL FOR MAP NO. 5										0.198			0.3		200	257	15					0.3	
2016CPT.02.03.10541.1	Lenoir	6	US-70	FROM NEW PAVING JOING OF US-70/NC148 INTERCHANGE TO MT. VERNON RD.	1,3,4	4	MD	NO	NO	1.265	36-60	25	4.5	25,000	600	6,901	407			200.0	50.0	3.0	2
TOTAL FOR MAP NO. 6										1.265		25	4.5	25,000	600	6,901	407			200.0	50.0	3.0	2
TOTAL FOR PROJ NO. 2016CPT.02.03.10541.1										9.274		175	34.7	25,000	4,900	40,544	2,391	51,000	2	1,200.0	250.0	22.2	6
GRAND TOTAL										9.274		175	34.70	25,000	4,900	40,544	2,391	51,000	2	1,200.0	250.0	22.2	6

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

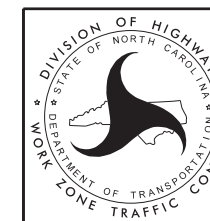


NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

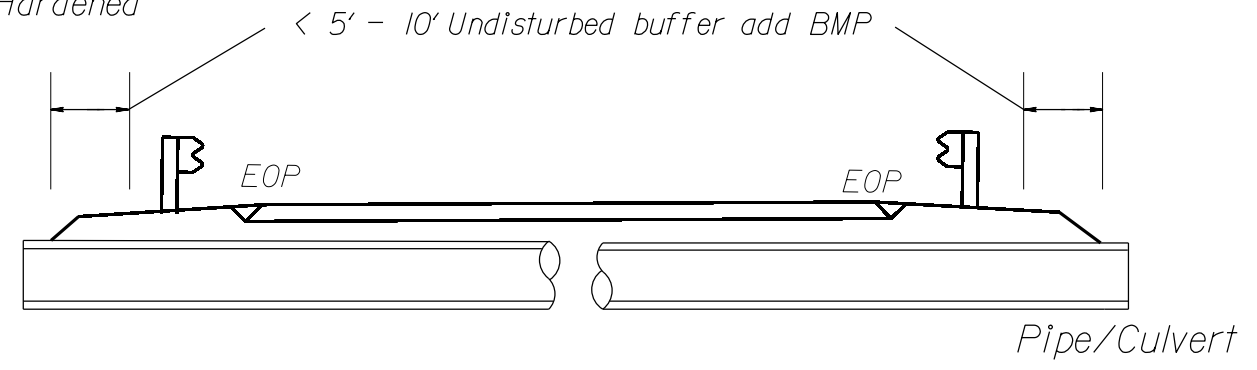


**RESURFACING ADVANCE
WARNING SIGNS FOR
HIGH SPEED FACILITIES
≥ 60 MPH**

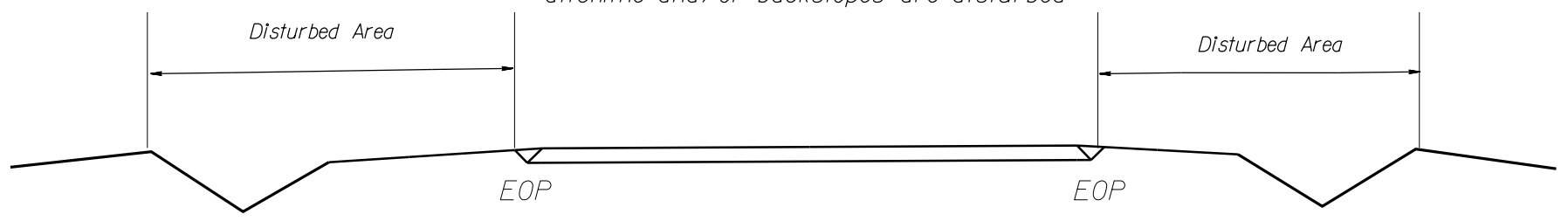
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

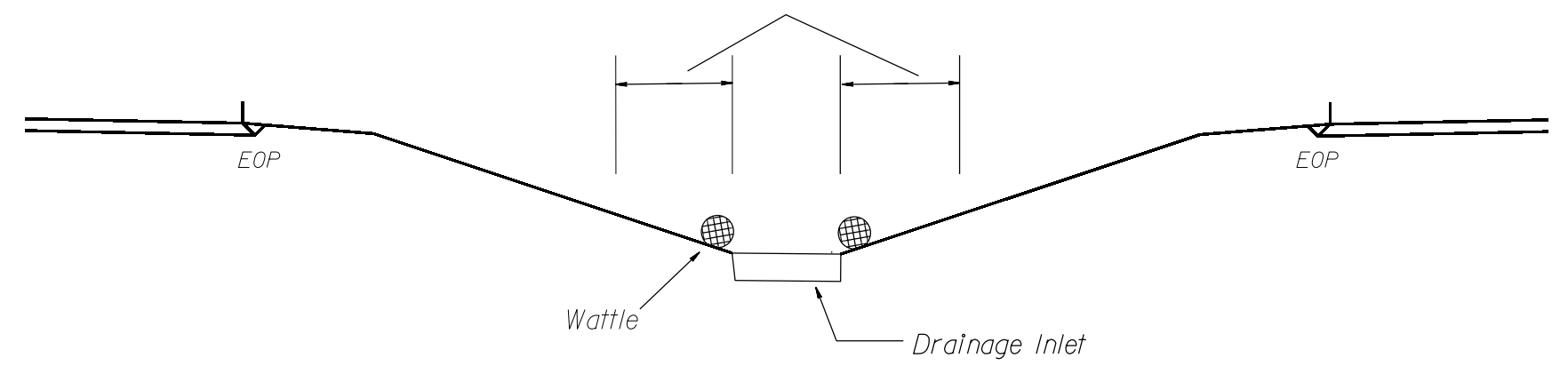
EROSION CONTROL DETAIL



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

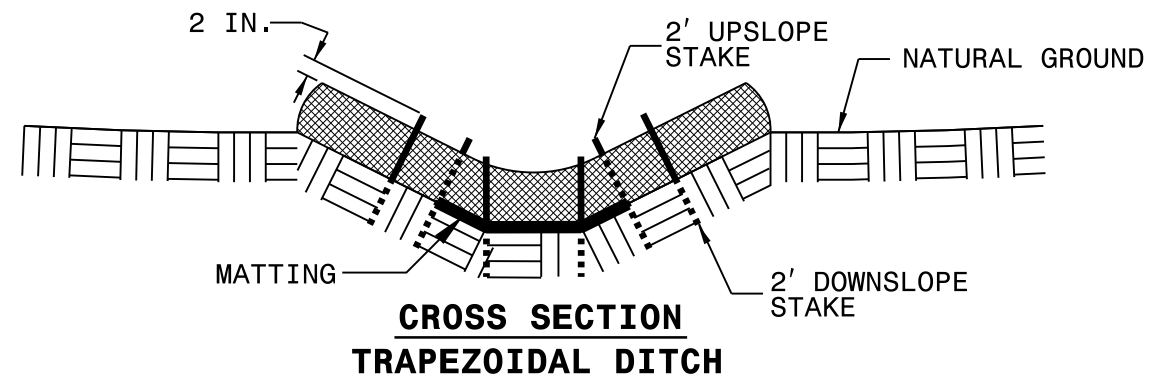
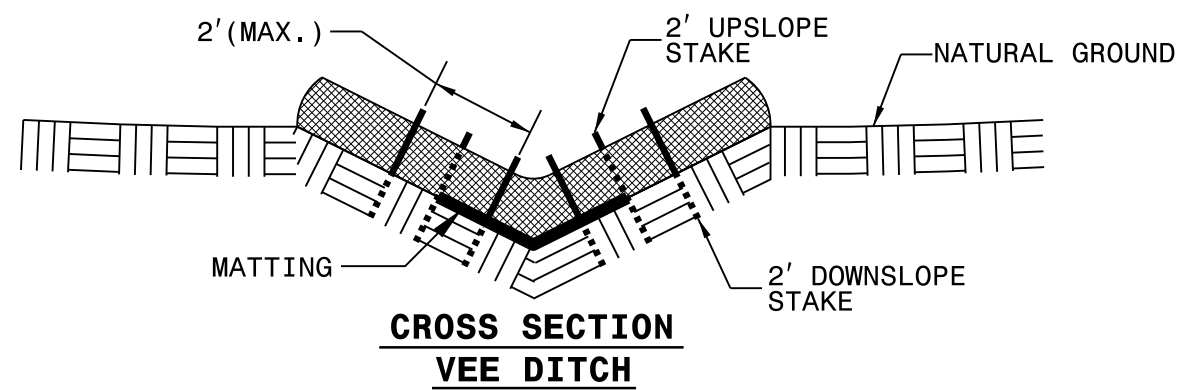
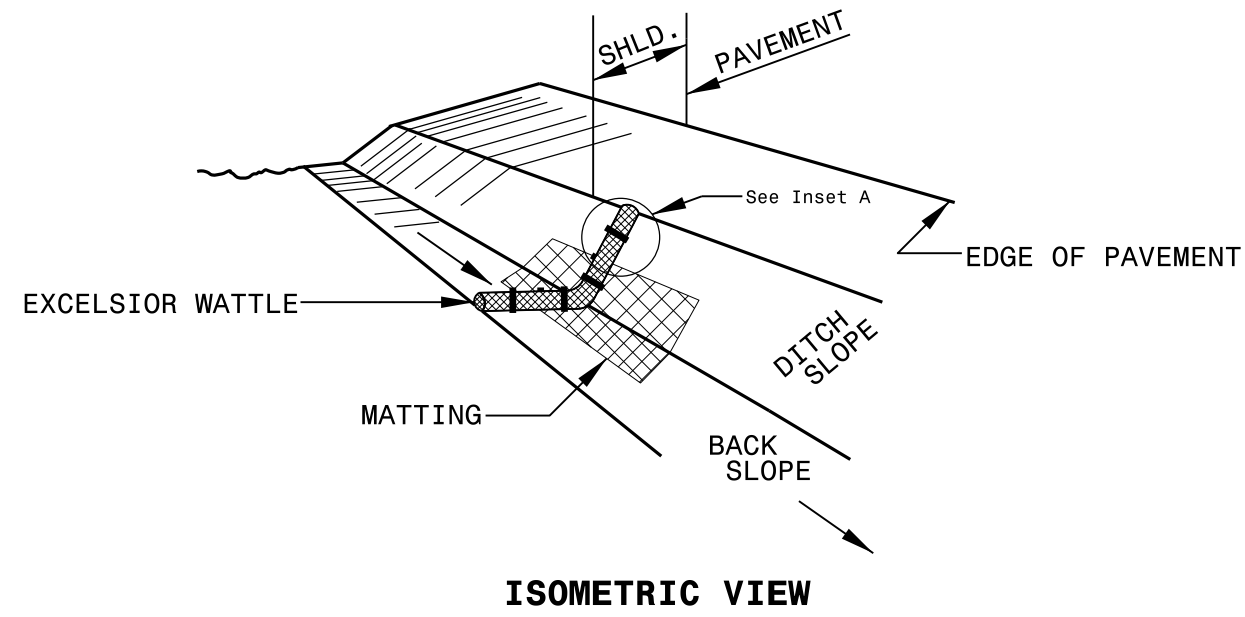


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

WATTLE DETAIL



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.

