

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 6

**PLANS**  
**Letting Date: December 7, 2022**

**CONTRACT ID: DF00419**

**TIP NO.: -----**

**FEDERAL AID NO.: STATE FUNDED**

**WBS ELEMENT NO.: 2023CPT.06.08.20781.1**

**ROUTE NO.: Various**

**LOCATION: Various**

**COUNTY: Robeson**

**LENGTH OF PROJECT: 14.38 MILES**

**TYPE OF WORK: RESURFACING, MILLING & PVT. MKGS.**

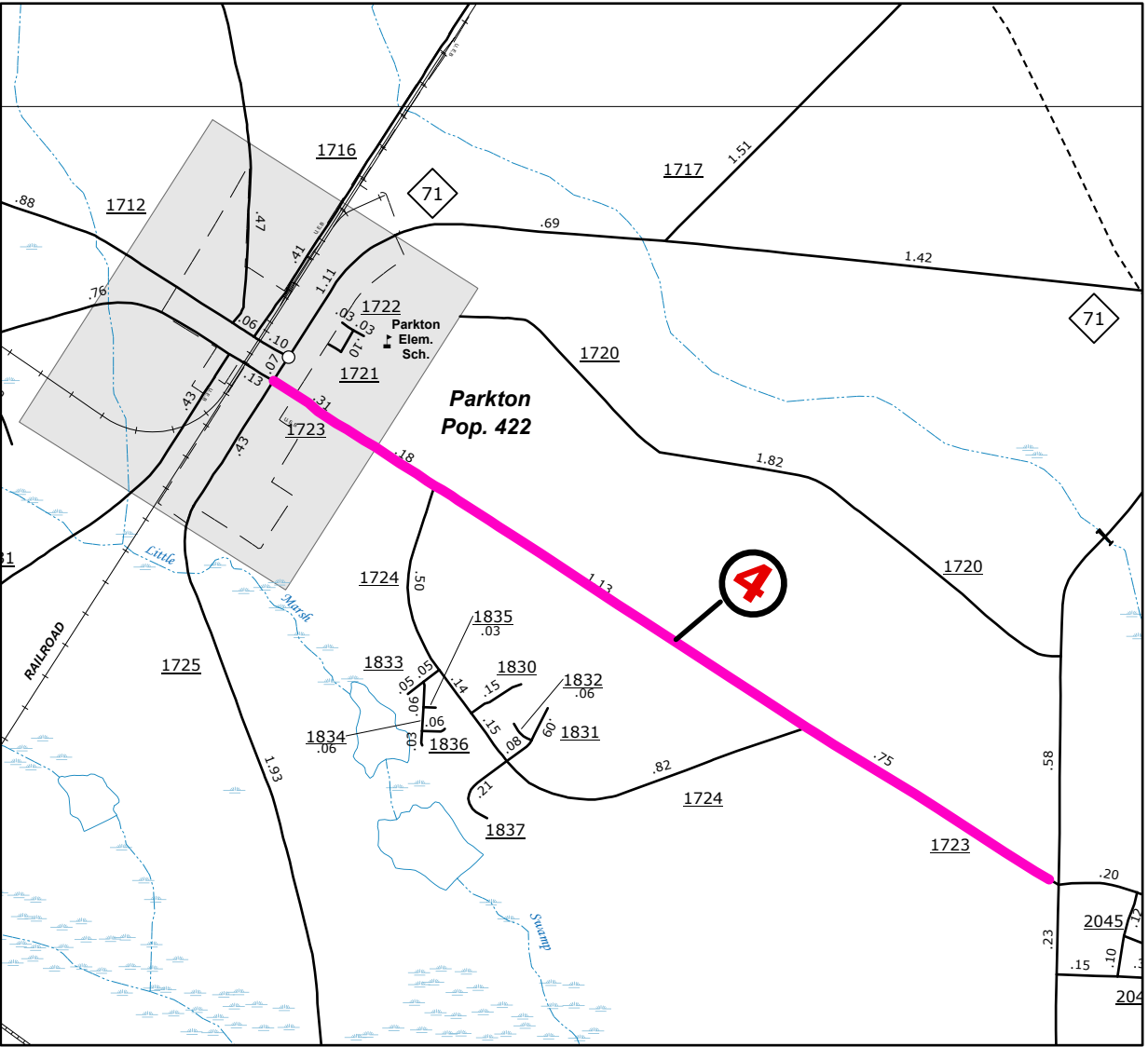
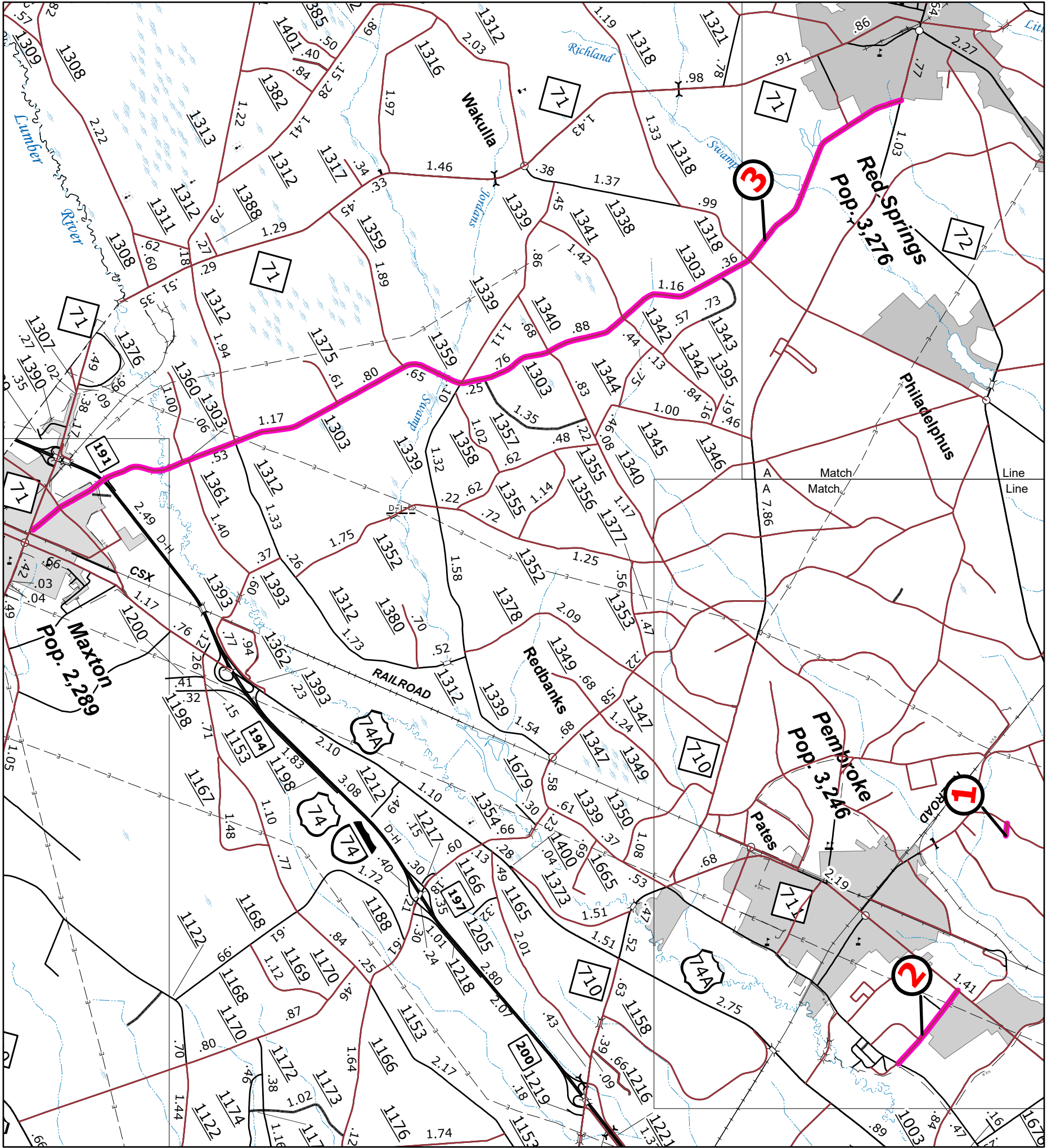
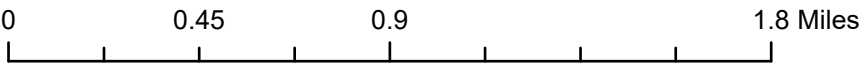
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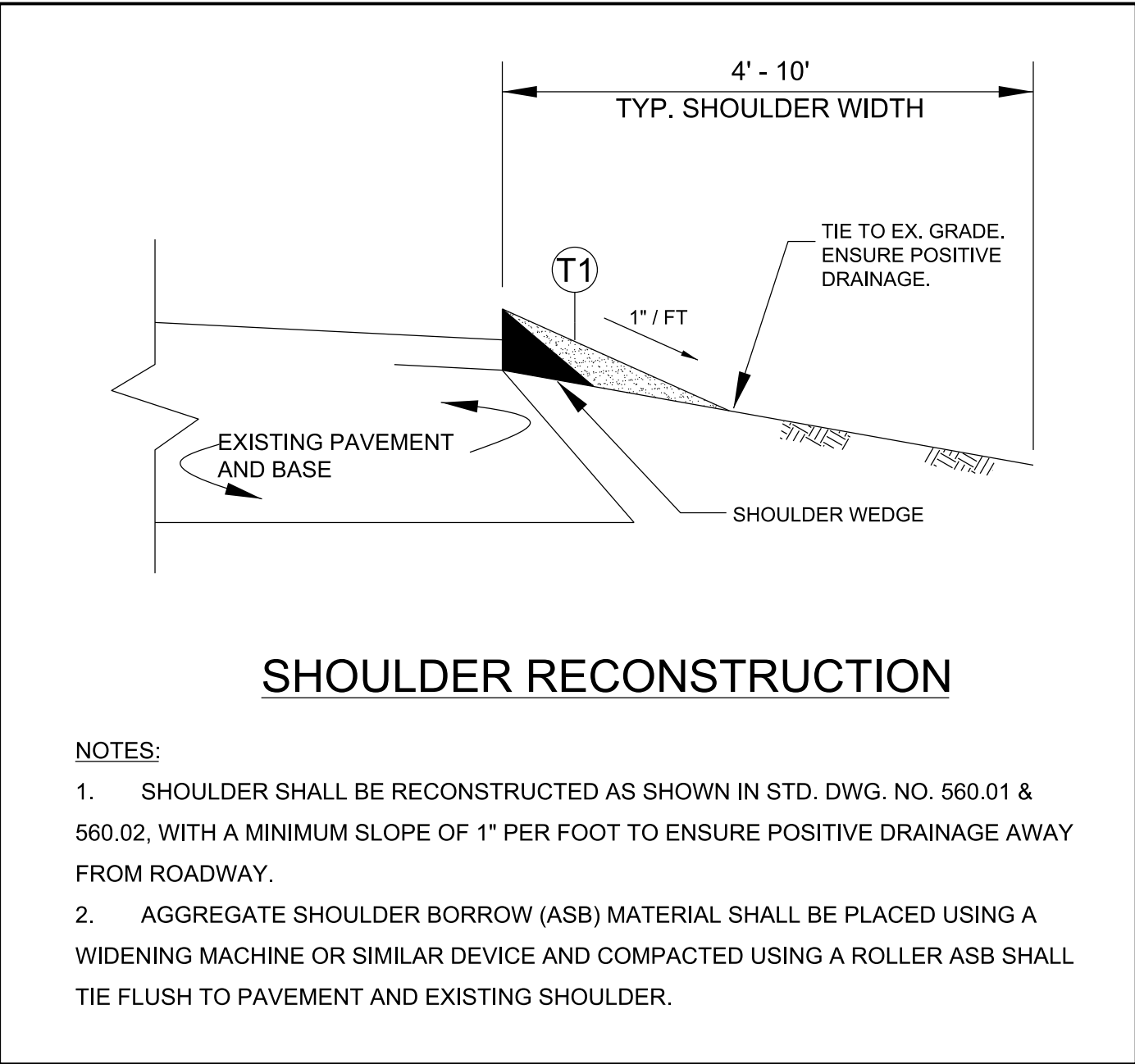
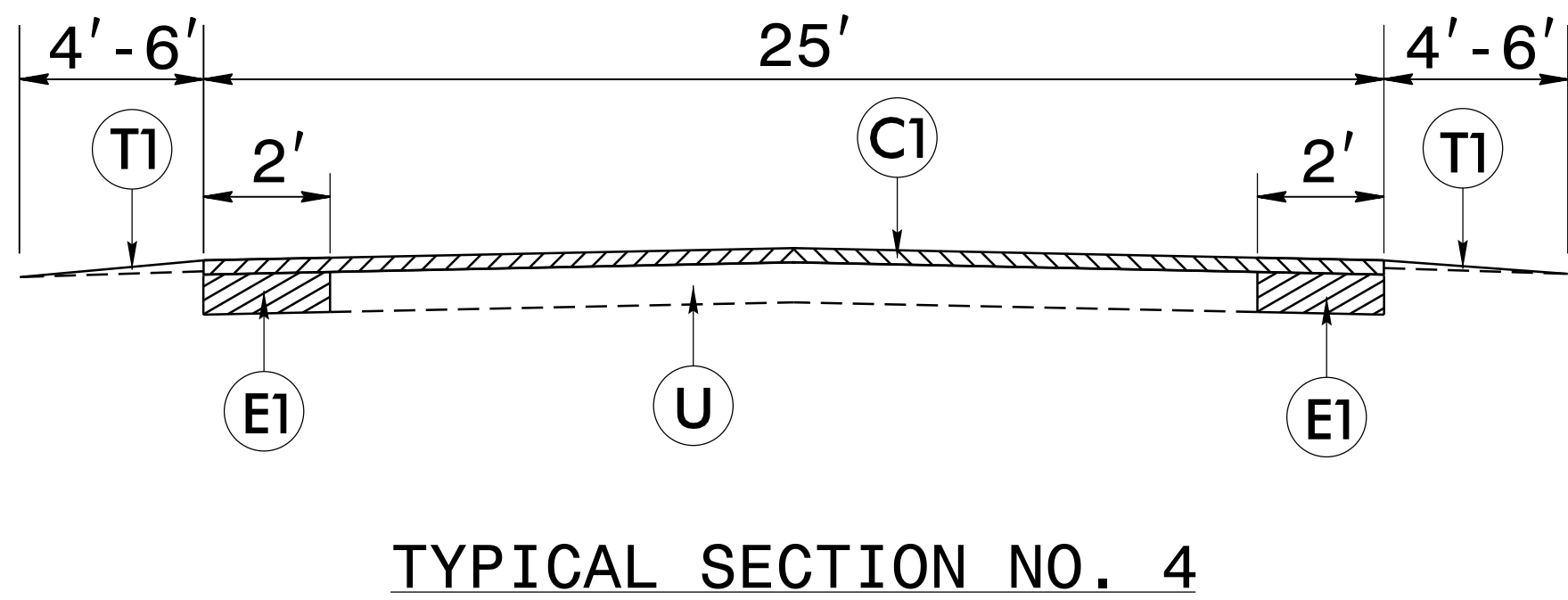
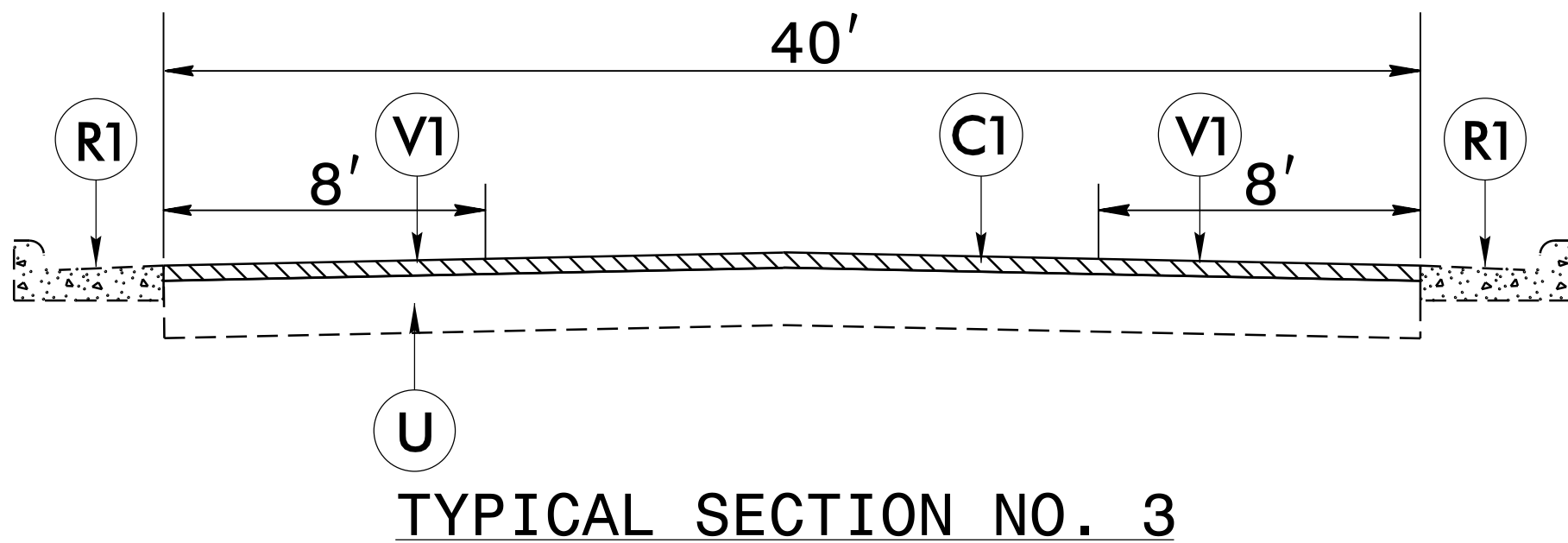
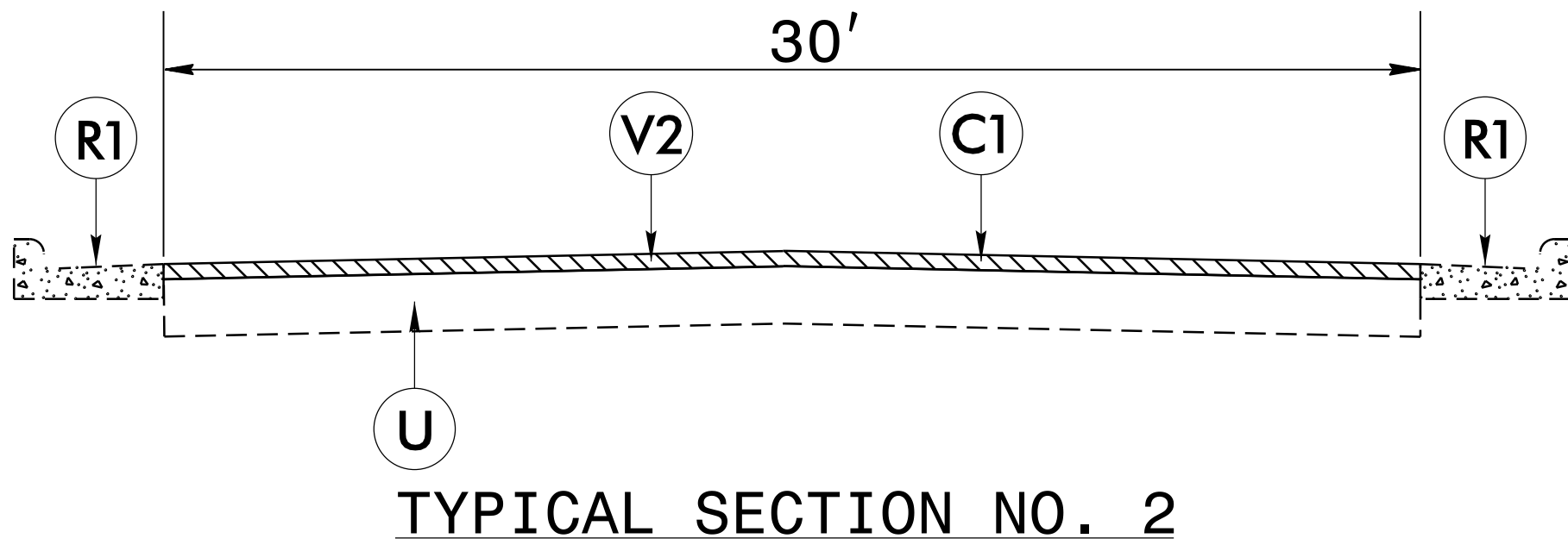
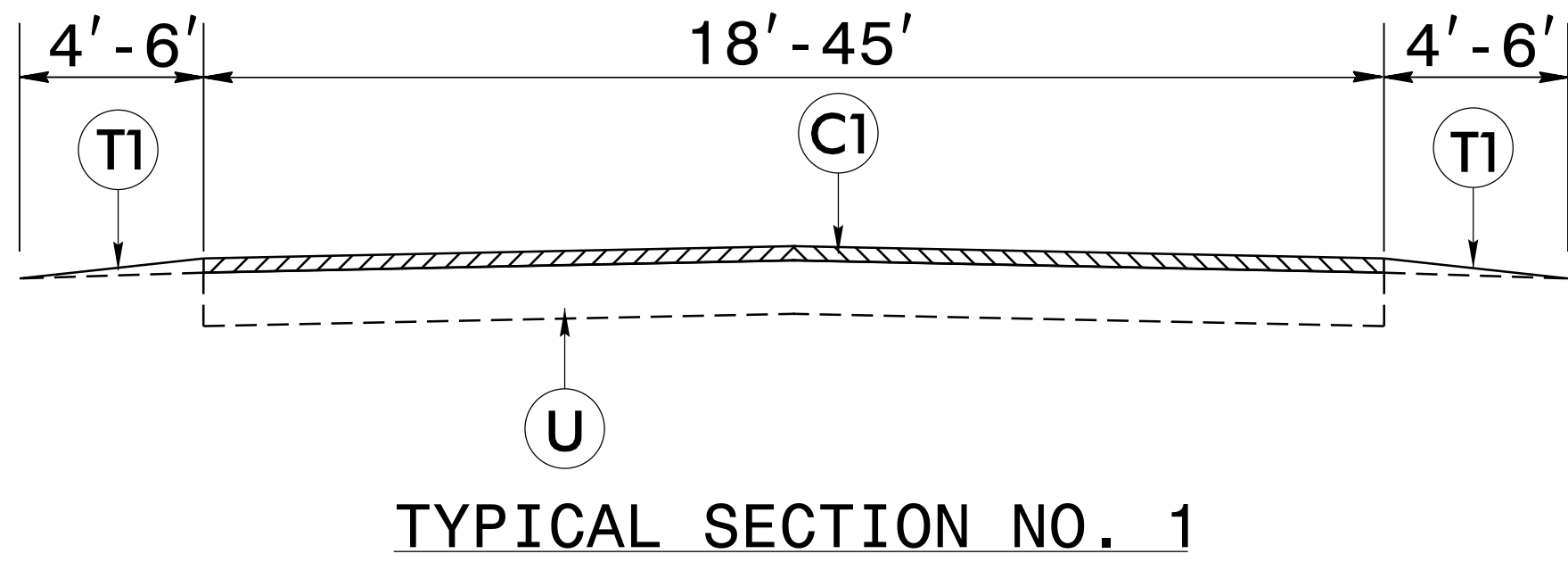
# Robeson County Resurfacing Fall 2022

**WBS: 2023CPT.06.08.20781.1**  
**Contract Number: DF00419**

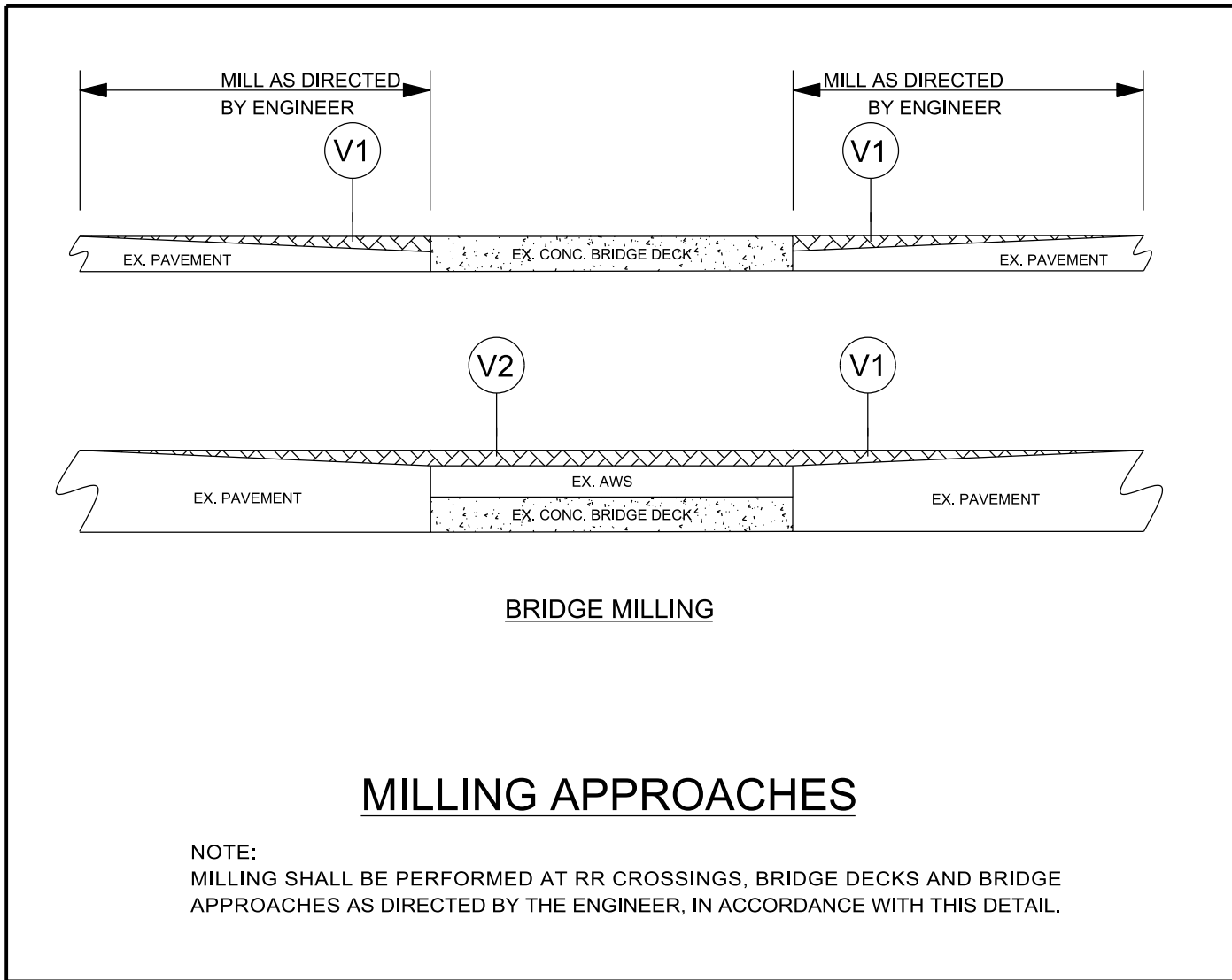


6/2/99  
I:\NOV 2022\044\Work Files\Projects\Resurfacing\2022 Fall\DW\typ.dgn  
2023CPT.06.08.20781.1

PAVEMENT SCHEDULE	
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
R1	EXISTING CURB AND GUTTER
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING ASPHALT PAVEMENT
V1	0"-1½" MILLING
V2	1½" MILLING

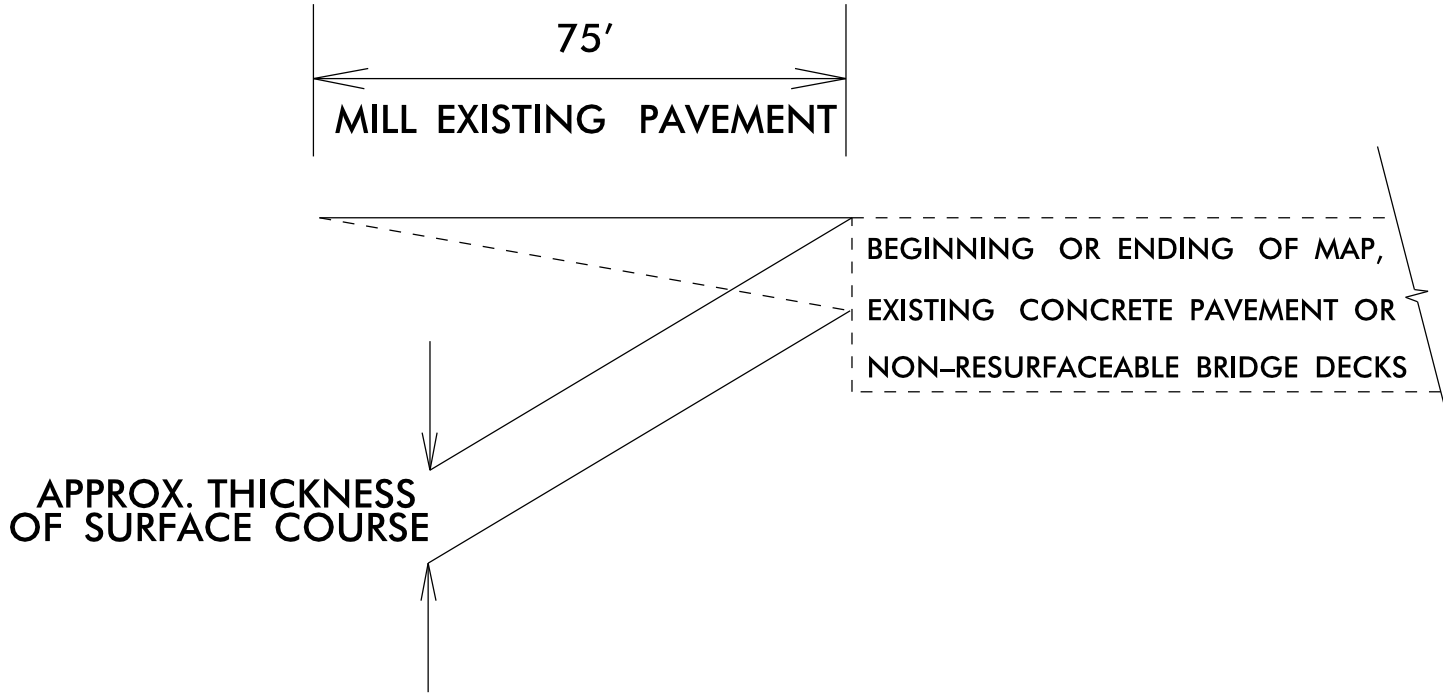


- NOTES:
- SHOULDER SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM ROADWAY.
  - AGGREGATE SHOULDER BORROW (ASB) MATERIAL SHALL BE PLACED USING A WIDENING MACHINE OR SIMILAR DEVICE AND COMPACTED USING A ROLLER ASB SHALL TIE FLUSH TO PAVEMENT AND EXISTING SHOULDER.



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

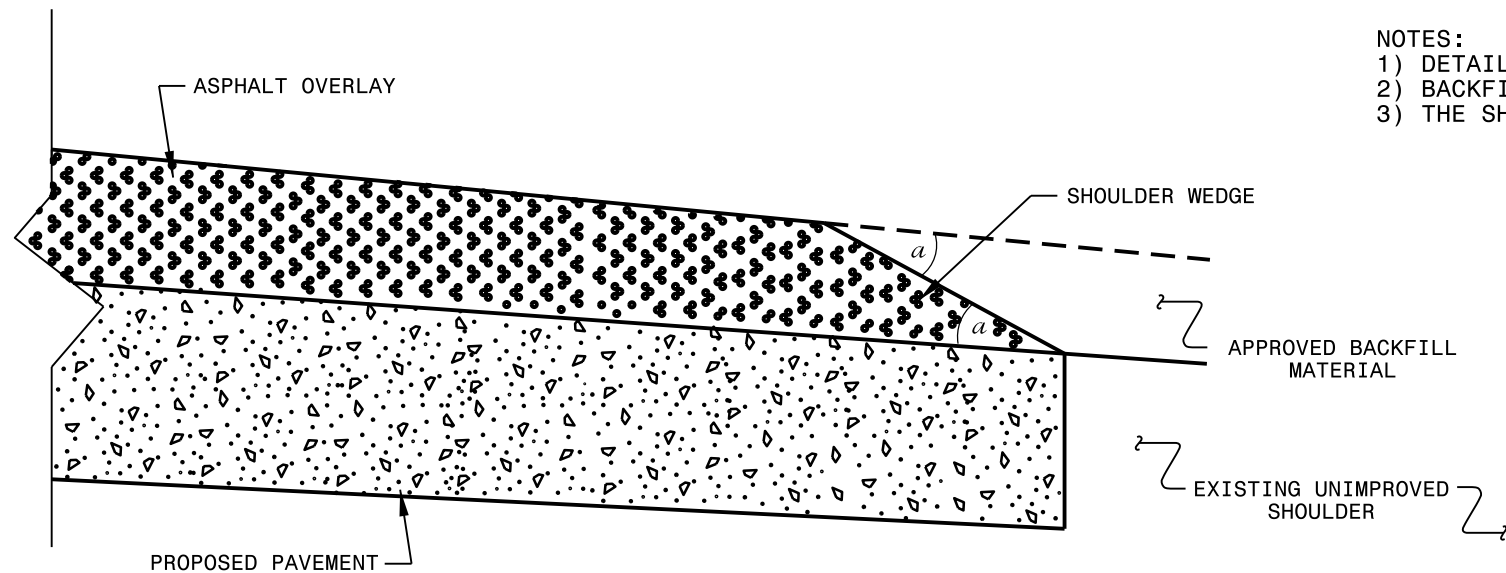
- NOTES TO CONTRACTOR
- FOR SURFACE MIXES OVER 1" IN THICKNESS, MILL THE EXISTING PAVEMENT IN ACCORDANCE WITH THE FOLLOWING SKETCH AS DIRECTED BY THE ENGINEER.
- LOCATIONS SHALL INCLUDE TIES INTO EXISTING CONCRETE PAVEMENT AT BRIDGE APPROACHES WHERE THE BRIDGE WILL NOT BE RESURFACED, AND AT THE BEGINNING AND ENDING POINT OF EACH RESURFACING MAP.
- PERFORM THE WORK IN ACCORDANCE WITH SECTION 607 OF THE JANUARY 2018 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. RESURFACING WILL BE ACCOMPLISHED AT THE SAME TIME AS THE MILLING OPERATION.



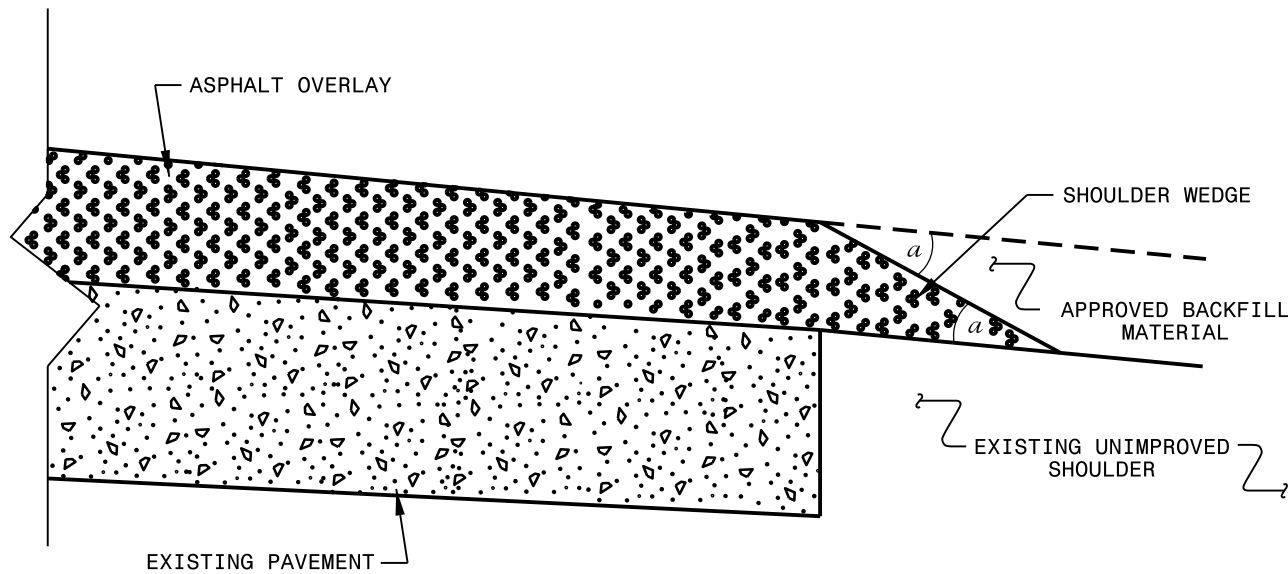
MILLING AT PAVEMENT TIE-INS DETAIL



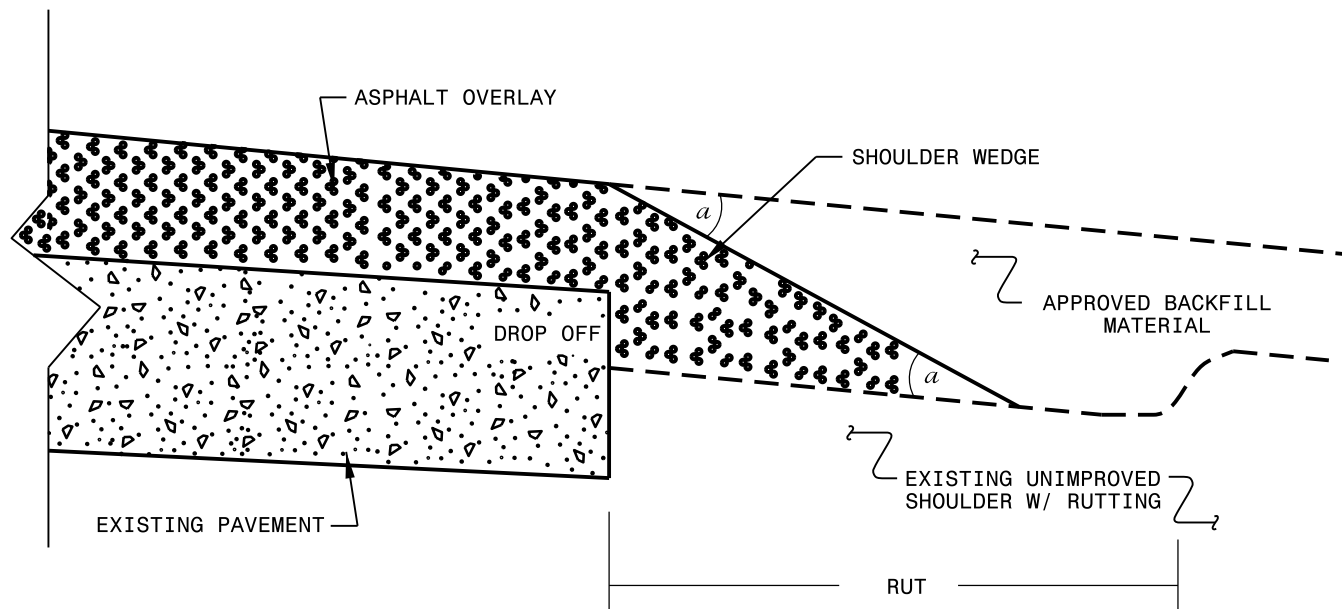
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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°

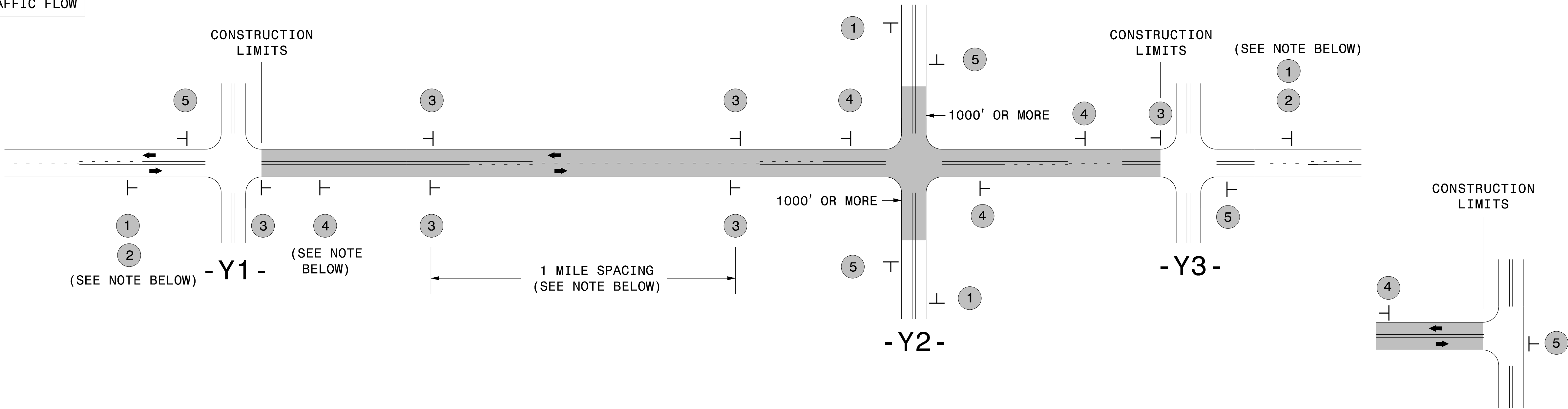
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<hr/>			
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW

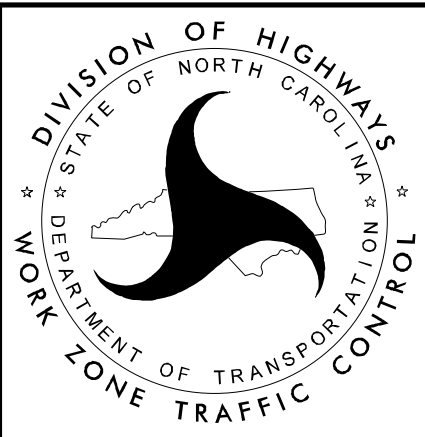


TEE INTERSECTION

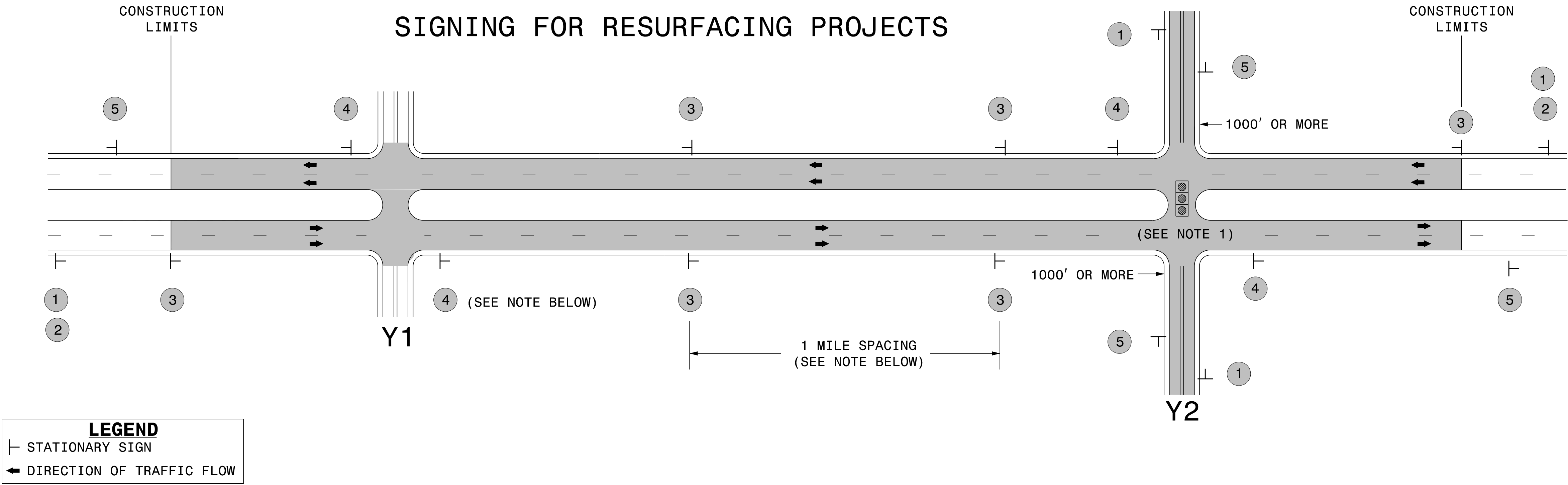
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div><div>1</div><div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div><div><div>NEXT XX MILES</div><div>W7-3aP 24" X 18"</div></div></div><div>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</div><div>#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)</div></div>	<div>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</div> <div><div>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</div><div>2) SUBDIVISION ROADS</div><div>3) DEAD END ROADS</div></div> <div>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.</div> <div><div><div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div></div><div>PLACED 500' IN ADVANCE OF FLAGGER.</div></div><div><div><div><div>ROAD WORK AHEAD</div><div>W20-7 A 48" X 48"</div></div><div>PLACED 250' IN ADVANCE OF FLAGGER.</div></div></div></div>
	<div><div>3</div><div><div>LOW/SOFT SHOULDER</div><div>SP 13107 48" X 48"</div></div><div><div>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</div><div>- AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</div></div></div>	
	<div><div>4</div><div><div>ROAD UNDER CONST</div><div>SP 13106 48" X 48"</div></div><div><div>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</div><div>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</div><div>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</div><div>- 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.</div><div>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</div><div>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</div></div></div>	
	<div><div>5</div><div><div>END ROAD WORK</div><div>G20-2 A 48" X 24"</div></div><div>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</div></div>	
	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.	
LESS 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.	



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



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div>1</div> <div>2</div> <div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div><div>NEXT XX MILES</div><div>W7-36P 24" X 18"</div></div> <div>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</div> <div>#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)</div>	<div>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</div> <div>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</div> <div>2) SUBDIVISION ROADS</div> <div>3) DEAD END ROADS</div> <div>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.</div> <div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div><div>PLACED 500' IN ADVANCE OF FLAGGER.</div><div><div>ROAD WORK AHEAD</div><div>W20-7 A 48" X 48"</div><div>PLACED 250' IN ADVANCE OF FLAGGER.</div></div><div>NOTES:</div><div>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.</div></div>
	<div>3</div> <div><div>LOW/SOFT SHOULDER</div><div>SP 13107 48" X 48"</div></div> <div>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</div>	
	<div>4</div> <div><div>ROAD UNDER CONST</div><div>SP 13106 48" X 48"</div></div> <div>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.</div>	
	<div>5</div> <div><div>END ROAD WORK</div><div>G20-2 A 48" X 24"</div></div> <div>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</div>	

GUIDELINES FOR LANE WIDTHS ON RESURFACING PROJECTS

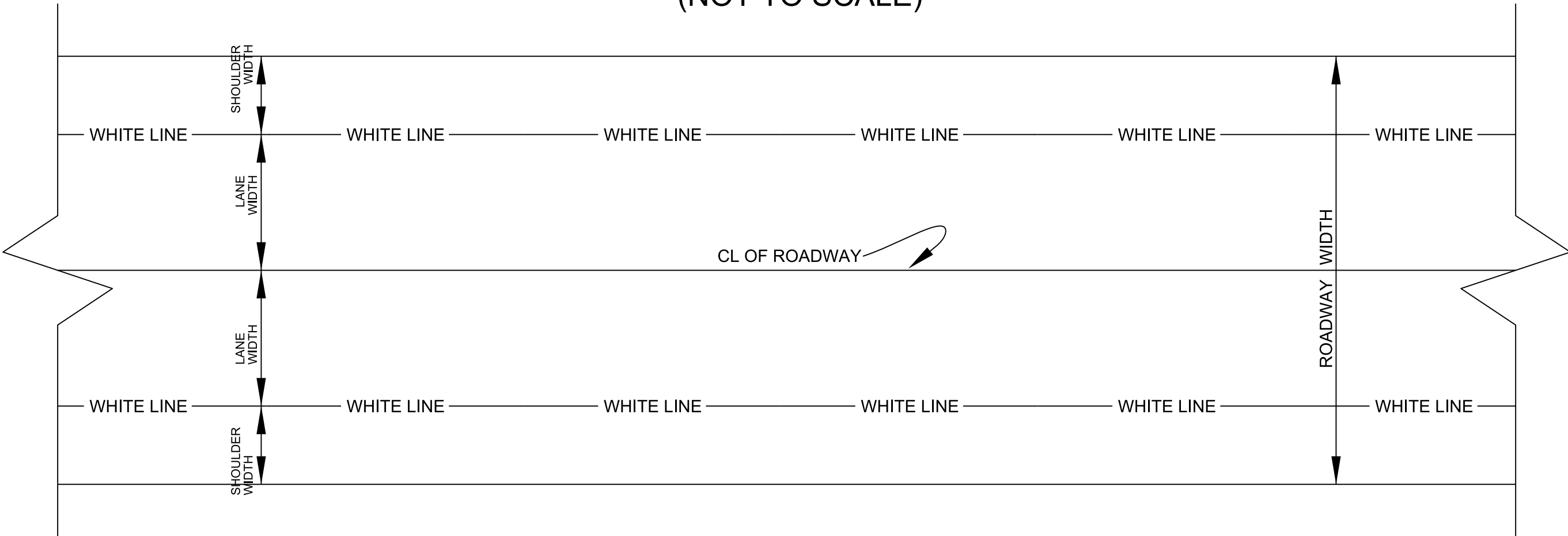
Contractor shall place the new pavement markings in accordance with this table and detail unless otherwise directed by the Engineer.

TWO LANE - TWO WAY ROADWAY - 55 MPH		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	12'	2'
32'	12'	4'
* May vary due to pavement width		

TWO LANE - TWO WAY ROADWAY		50
MPH OR LESS		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	11'	3'
32'	11'	5'
* May vary due to pavement width		

SCHEMATIC OF ROADWAY

(NOT TO SCALE)





PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.06.08.20781.1		

SUMMARY OF QUANTITIES

												1245000000-E	1260000000-E	1297000000-E	1308000000-E	1330000000-E	1491000000-E	1519000000-E	1575000000-E	2830000000-N	2845000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	SHOULDER RECONSTRUC TION	AGGREGATE SHOULDER BORROW	1½" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX
										MI	FT	SMI	TON	SY	SY	SY	TONS	TONS	TON	EA	EA
2023CPT.06.08.20781.1	Robeson	1	SR 1669	FROM SR 1568 TO DEAD END	1	2	2WU	NO	NO	0.13	18	0.26	43					113	8		
TOTAL FOR MAP NO. 1										0.13		0.26	43					113	8		
2023CPT.06.08.20781.1	Robeson	2	SR 1553	FROM NC 711 TO SR 1339	1	2	2WU	NO	NO	1	35	2.00	334					1,261	84	4	7
TOTAL FOR MAP NO. 2										1		2.00	334					1,261	84	4	7
2023CPT.06.08.20781.1	Robeson	3-A	SR 1303A	FROM NC 72 TO MP 0.50	1	2	2WU	NO	NO	10.41	22.5	21.00	3,471			7,953		12,679	849	1	
TOTAL FOR MAP NO. 3-A										10.41		21.00	3,471			7,953		12,679	849	1	
2023CPT.06.08.20781.1	Robeson	3-B	SR 1303B	FROM MP 1.33 TO NC 71	2	2	2WU	NO	NO	0.5	30			8,800				825	55	9	4
TOTAL FOR MAP NO. 3-B										0.5				8,800				825	55	9	4
2023CPT.06.08.20781.1	Robeson	4-A	SR 1723A	FROM NC 71 TO MP 5.34	3	2	2WU	NO	NO	0.22	40				2,065	278		857	57	3	1
TOTAL FOR MAP NO. 4-A										0.22					2,065	278		857	57	3	1
2023CPT.06.08.20781.1	Robeson	4-B	SR 1723B	FROM MP 5.34 TO US 301	4	2	2WU	NO	NO	2.12	25	4.24	700			833	1,404	2,615	238		
TOTAL FOR MAP NO. 4-B										2.12		4.24	700			833	1,404	2,615	238		
TOTAL FOR PROJ NO. 2023CPT.06.08.20781.1										14.38		27.50	4,548	8,800	2,065	9,064	1,404	18,350	1,291	17	12
GRAND TOTAL										14.38		27.50	4,548	8,800	2,065	9,064	1,404	18,350	1,291	17	12

PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.06.08.20781.1		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E		4695000000-E	4709000000-E	4725000000-E		4810000000-E		4900000000-N
								MI	FT	SF	LS	LF	LF	LF	LF	EA	EA	LF	LF	EA
2023CPT.06.08.20781.1	Robeson	1	SR 1669	FROM SR 1568 TO DEAD END	1	2	2WU	0.13	18	15	1									
TOTAL FOR MAP NO. 1								0.13		15	1									
2023CPT.06.08.20781.1	Robeson	2	SR 1553	FROM NC 711 TO SR 1339	1	2	2WU	1	35	196						2	2	10,660	10,560	
TOTAL FOR MAP NO. 2								1		196						2	2	10,660	10,560	
2023CPT.06.08.20781.1	Robeson	3-A	SR 1303A	FROM NC 72 TO MP 0.50	1	2	2WU	10.41	22.5	1,090		105,460	93,577							835
TOTAL FOR MAP NO. 3-A								10.41		1,090		105,460	93,577							835
2023CPT.06.08.20781.1	Robeson	3-B	SR 1303B	FROM MP 1.33 TO NC 71	2	2	2WU	0.5	30	150		5,040	4,440		25					40
TOTAL FOR MAP NO. 3-B								0.5		150		5,040	4,440		25					40
2023CPT.06.08.20781.1	Robeson	4-A	SR 1723A	FROM NC 71 TO MP 5.34	3	2	2WU	0.22	40	237		2,220	2,323	400	30					15
TOTAL FOR MAP NO. 4-A								0.22		237		2,220	2,323	400	30					15
2023CPT.06.08.20781.1	Robeson	4-B	SR 1723B	FROM MP 5.34 TO US 301	4	2	2WU	2.12	25	262		20,210	18,680							175
TOTAL FOR MAP NO. 4-B								2.12		262		20,210	18,680							175
TOTAL FOR PROJ NO. 2023CPT.06.08.20781.1								14.38		1,950	1	132,930	119,020	400	55	2	2	10,660	10,560	1,065
												251,950				4		21,220		
GRAND TOTAL								14.38		1,950	1	132,930	119,020			2	2	10,660	10,560	
												251,950		400	55	4		21,220		1,065