

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 6

PLANS

Letting Date: October 20, 2021

CONTRACT ID: DF00293

TIP NO.: -----

FEDERAL AID NO.: STATE FUNDED

WBS ELEMENT NO.: 2022CPT.06.07.20781.1

ROUTE NO.: VARIOUS SR ROUTES

LOCATION: VARIES

COUNTY: ROBESON

LENGTH OF PROJECT: 10.04 MILES

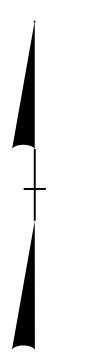
TYPE OF WORK: RESURFACING, MILLING, WIDENING & PVT. MKGS.

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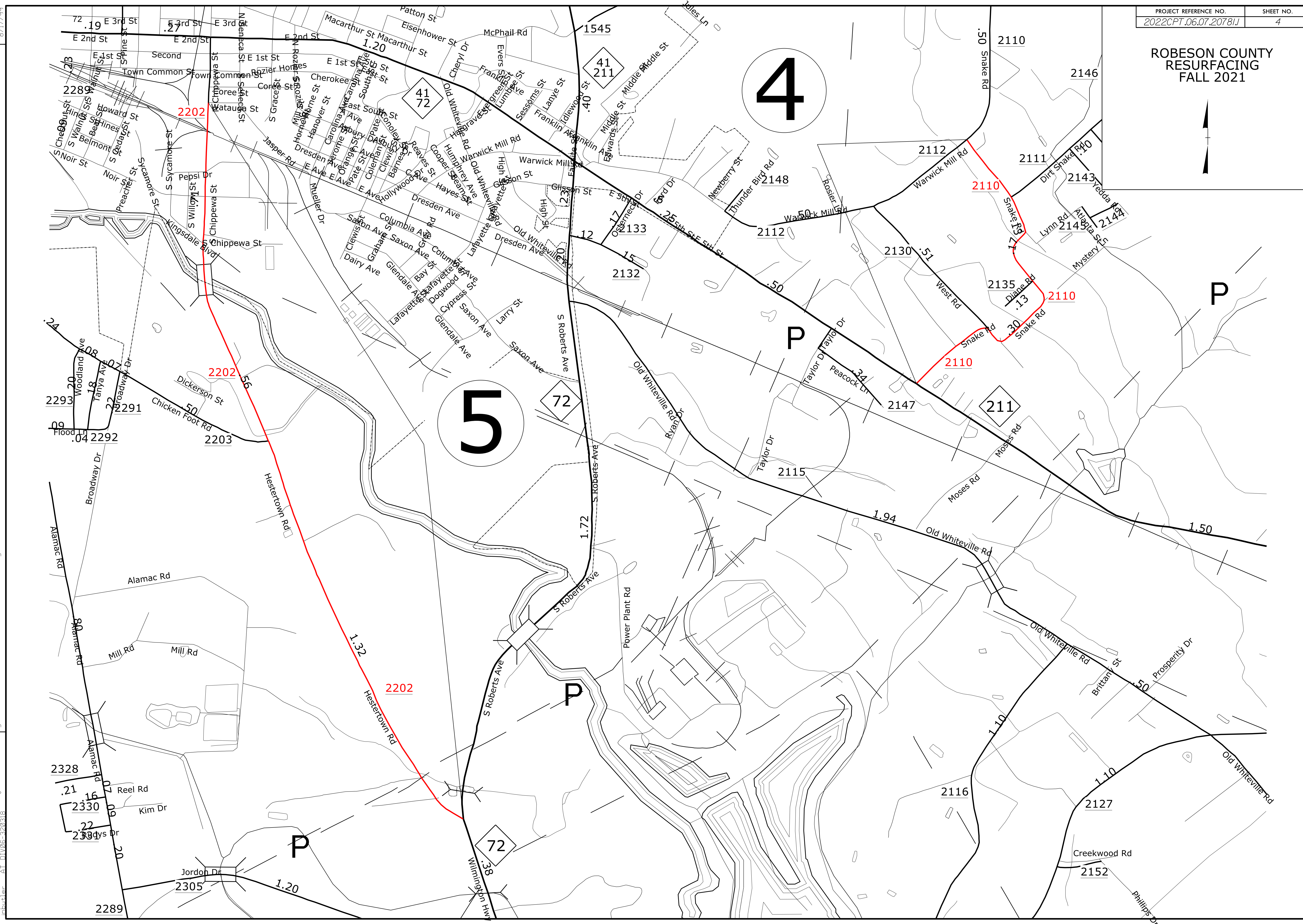
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**ROBESON COUNTY
RESURFACING
FALL 2021**



REVISIONS
 8/17/99
 21-SEP-2021 14:07
 Work File: N:\Projects\Resurfacing\2021 Fall\1\Contract\2\ROBESON_MS.ENG.dgn
 Author: AIT\11065-2018



ROBESON COUNTY
RESURFACING
FALL 2021



McDonald

7

2431

2431

2528

2428

1.3

1.3

2.2

Pleasant Hope Rd

.6

.5

2422
1.94

2430

1.7

1.5

2430

2422

.56
McDonald St

2456

.20

Main

.23

4th St

Sandy St

Walnut St

2nd St

Pine St

Third St

2.23

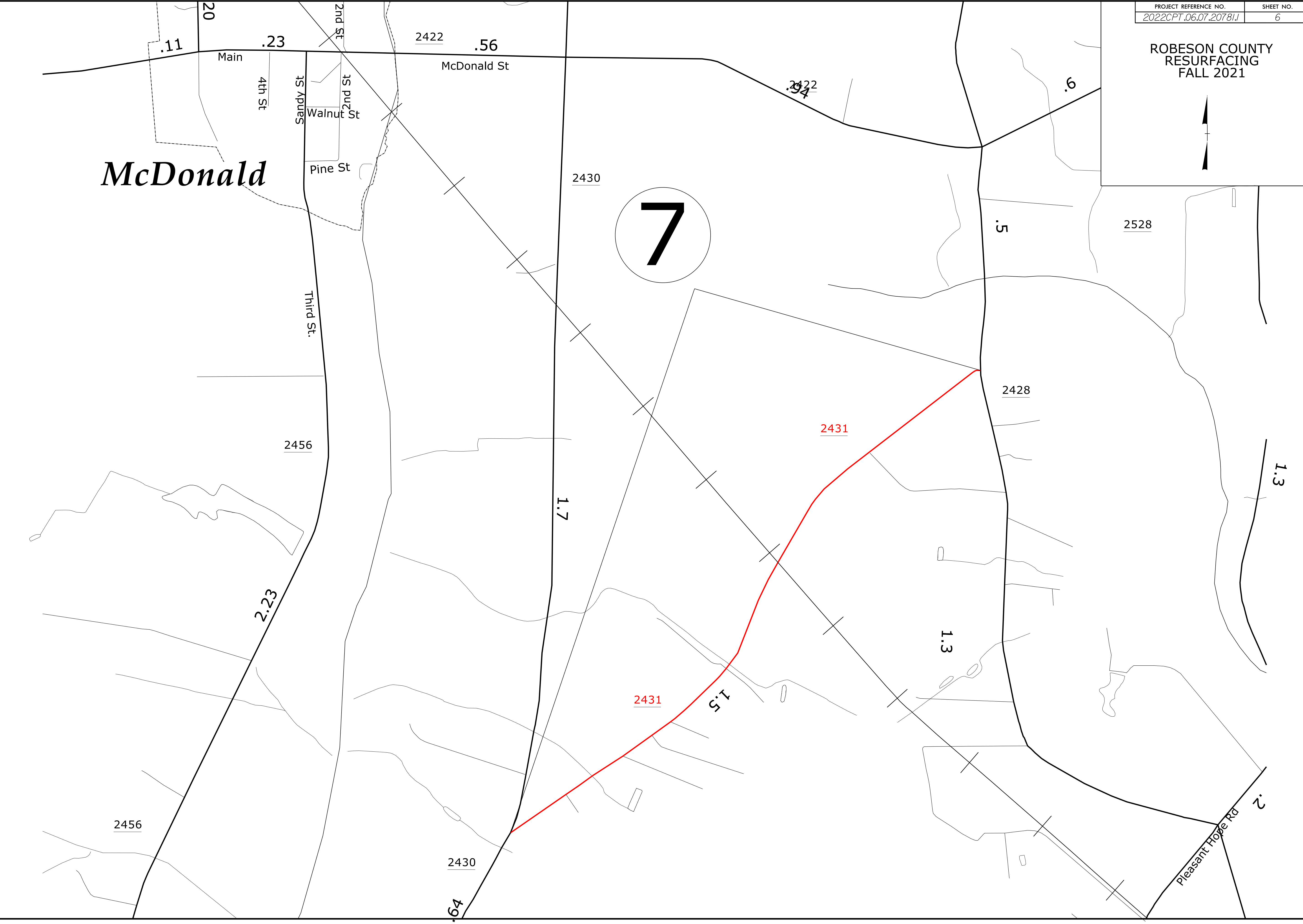
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1.64

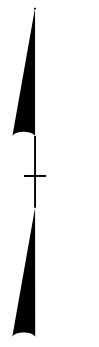
8/17/99

REVISIONS

21 FEB 2021 12:49 NC eden
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 2022 CPT 06.07.207811



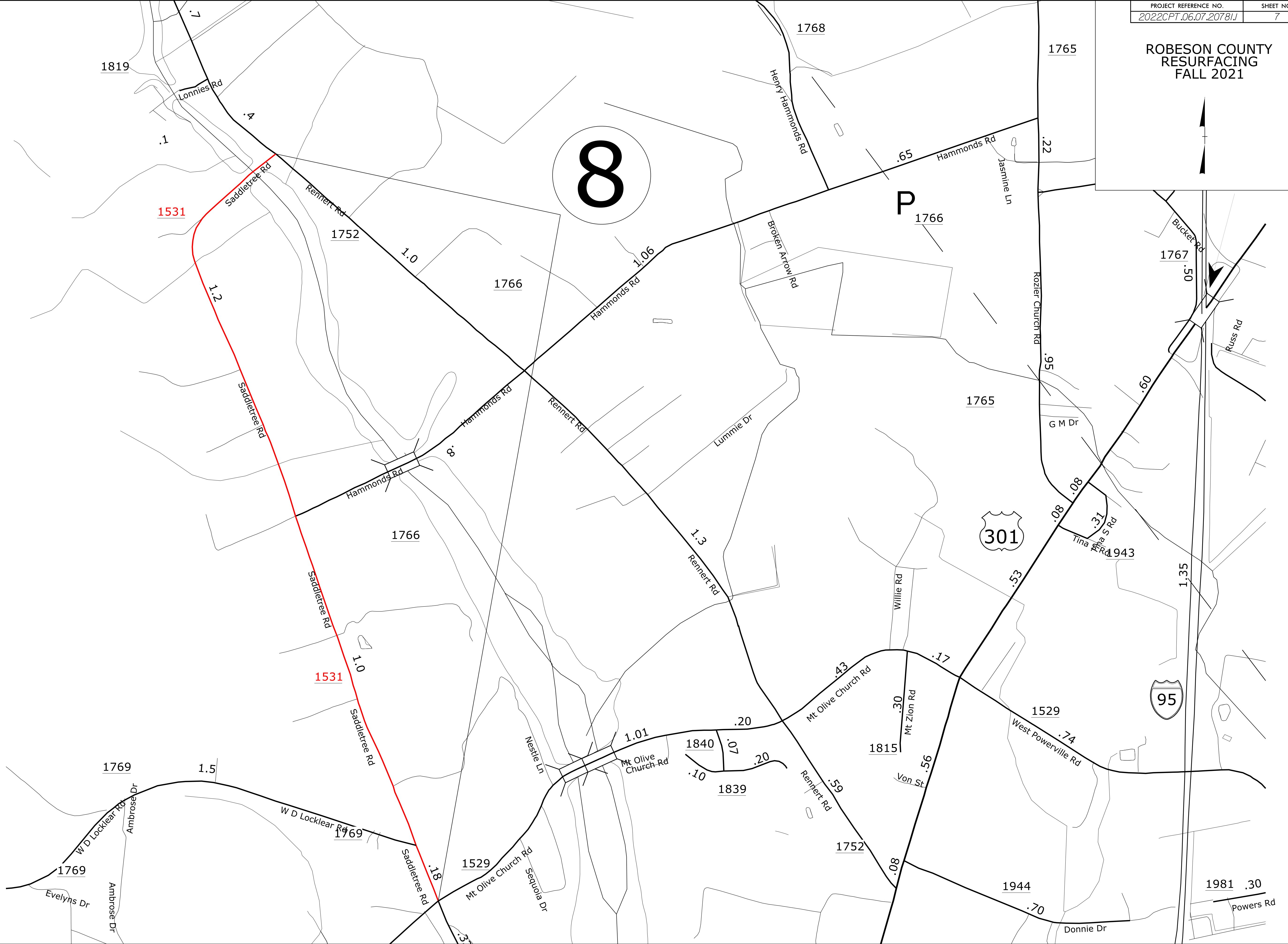
ROBESON COUNTY RESURFACING FALL 2021



8/17/99

REVISIONS

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1531

1531

8

P

301

95

1819

1768

1765

1752

1766

1766

1766

1765

1769

1769

1529

1815

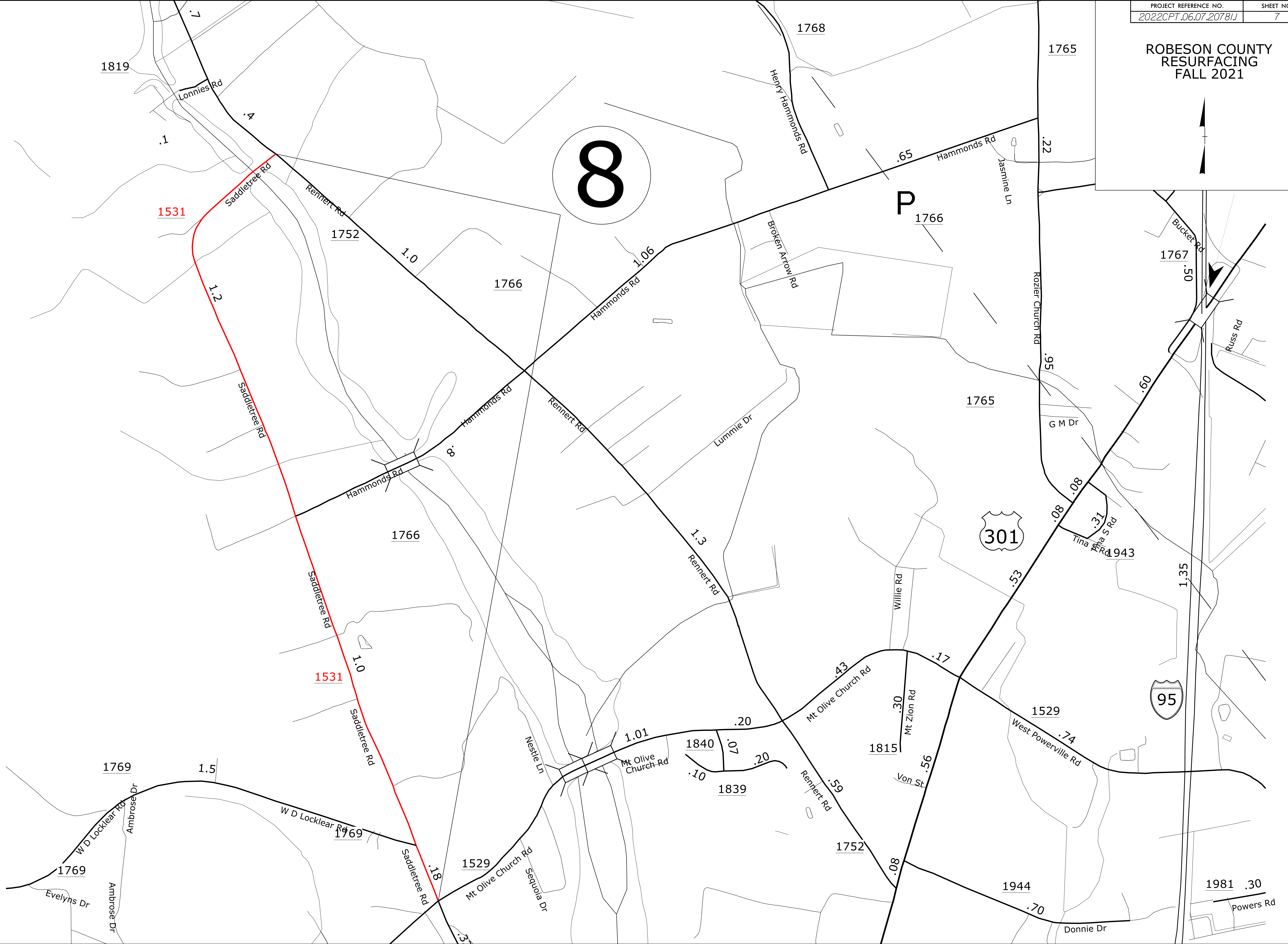
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1752

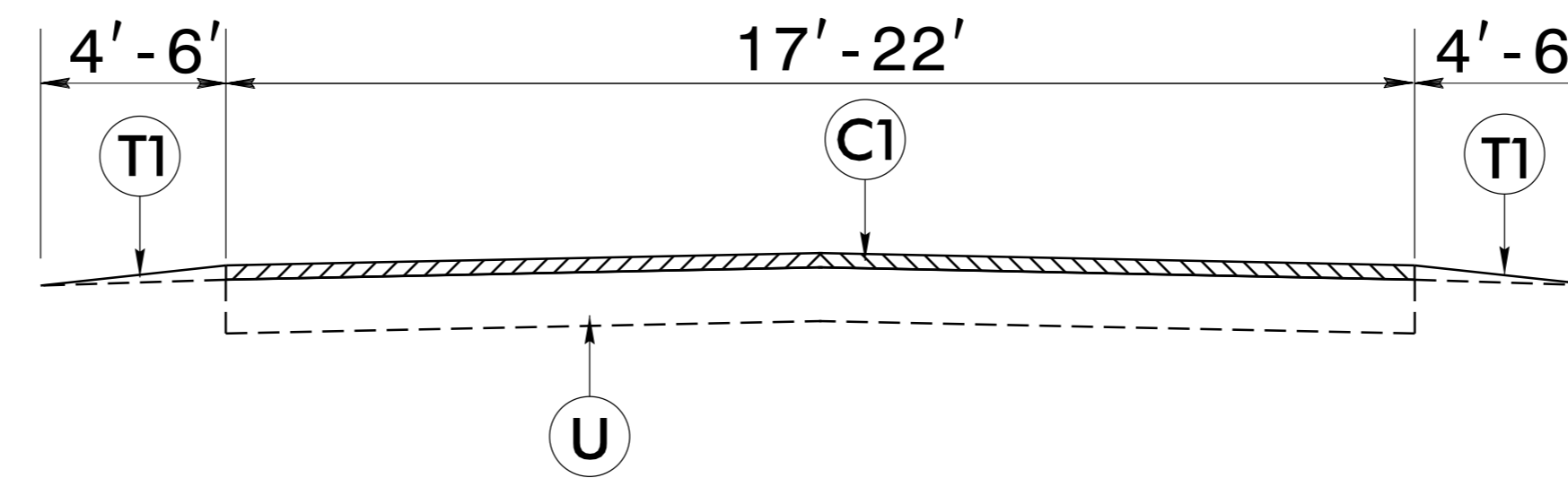
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1981



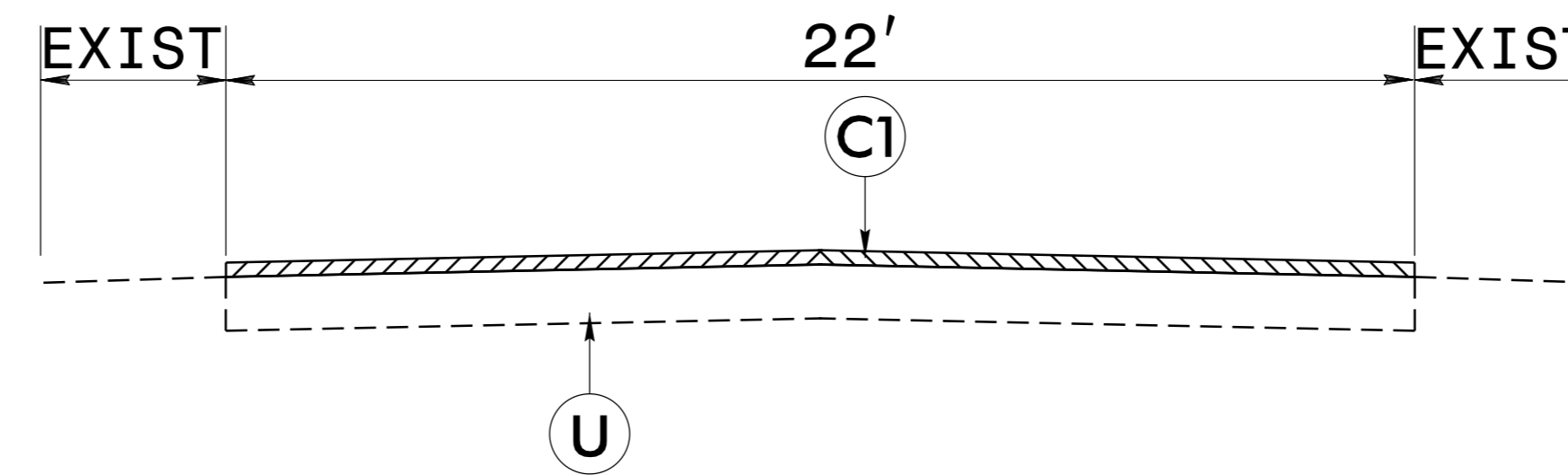
PAVEMENT SCHEDULE

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E1	5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING ASPHALT PAVEMENT
V1	0"-1½" MILLING
V2	1½" MILLING

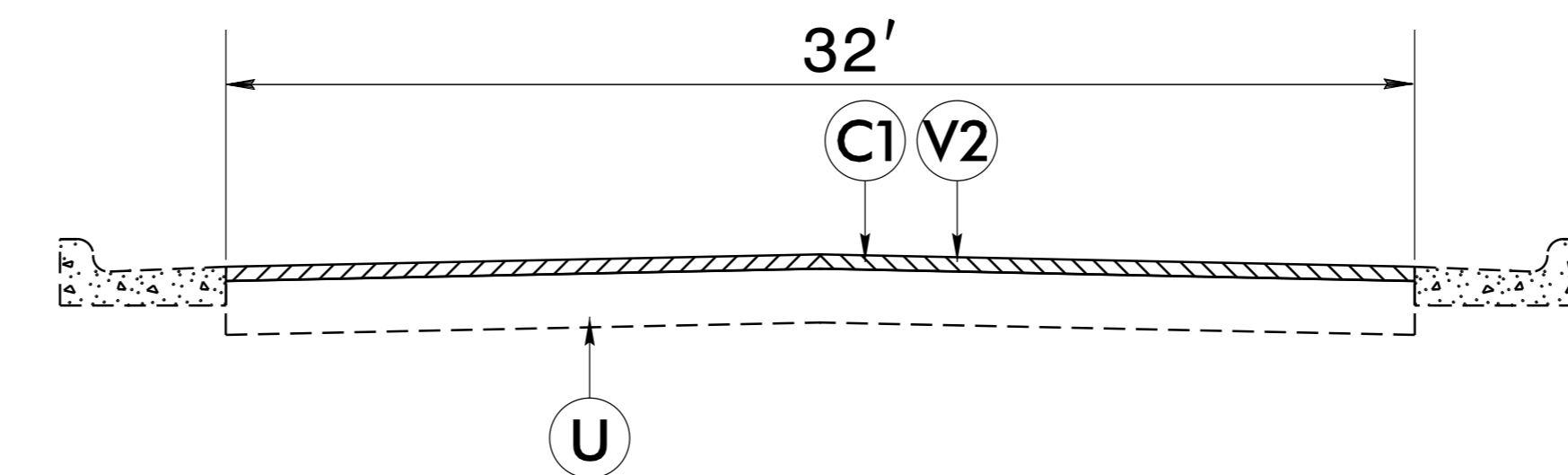


TYPICAL SECTION NO. 1

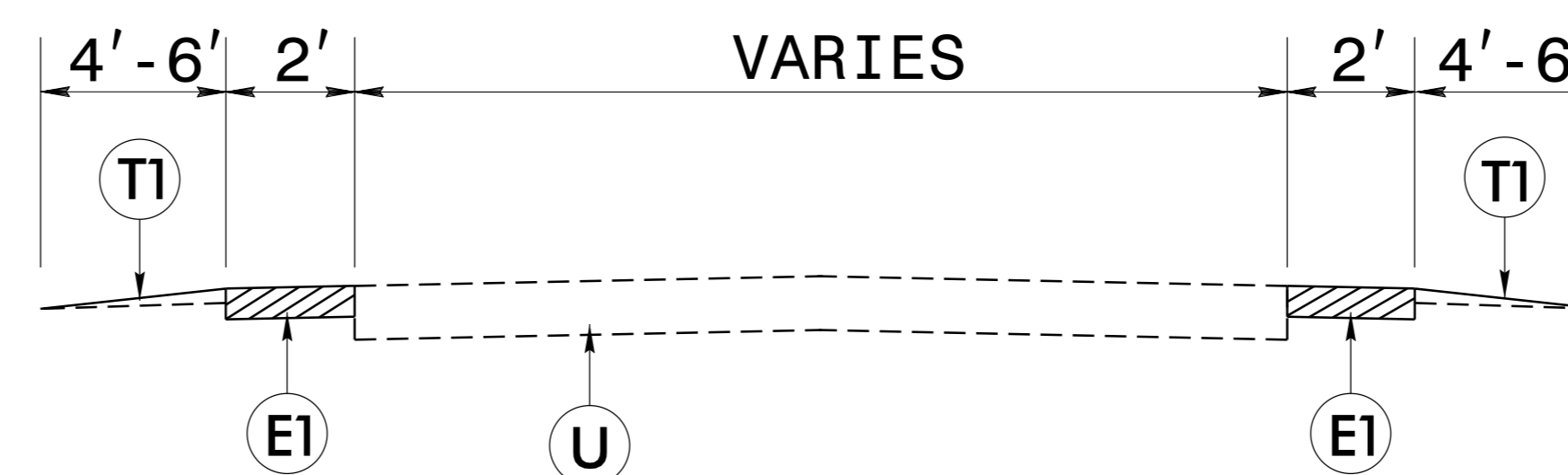
*PLUS ADDITIONAL 2'
INSIDE CURVE WIDENING
(SEE DETAIL)



TYPICAL SECTION NO. 2



TYPICAL SECTION NO. 3



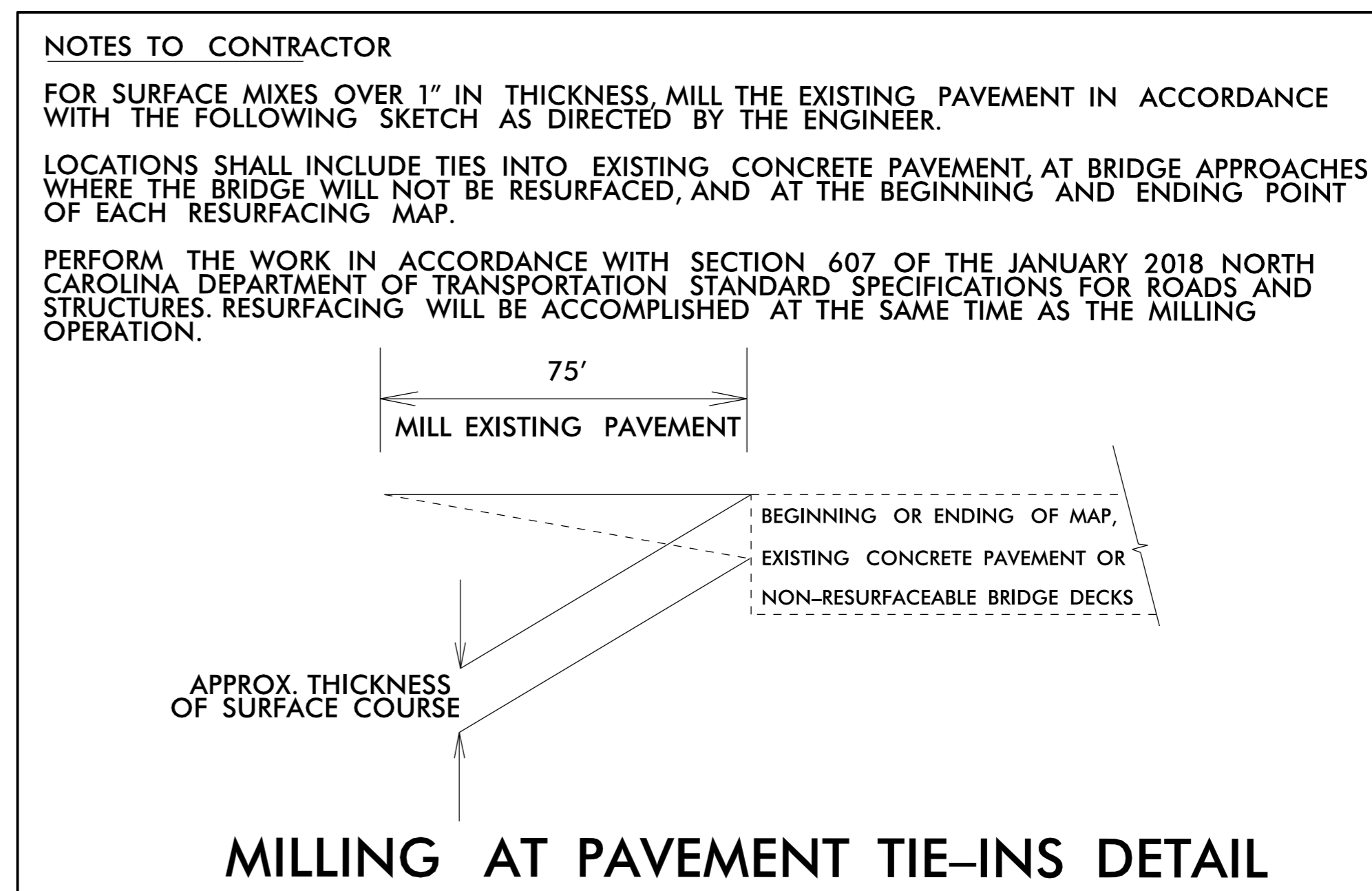
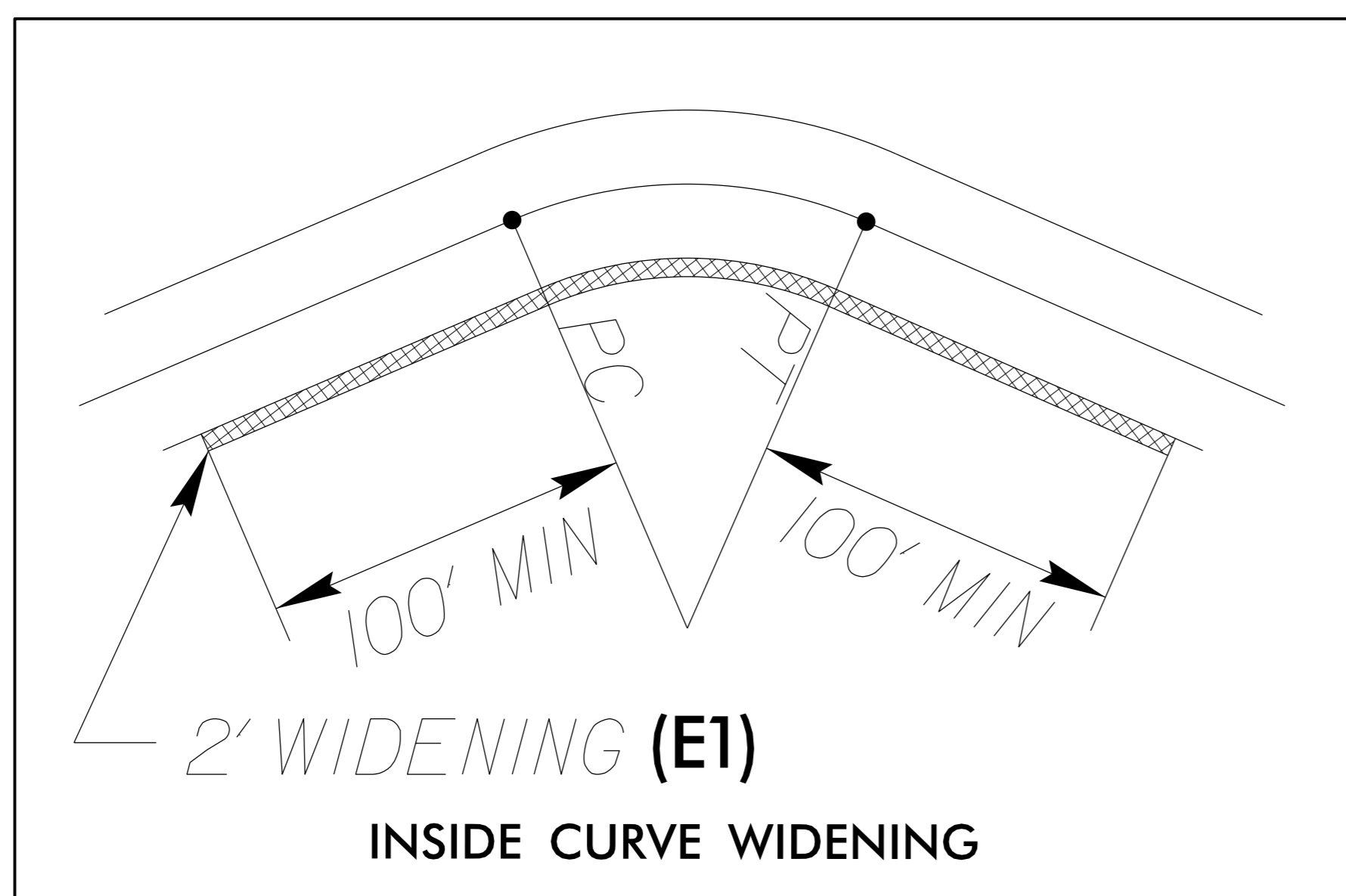
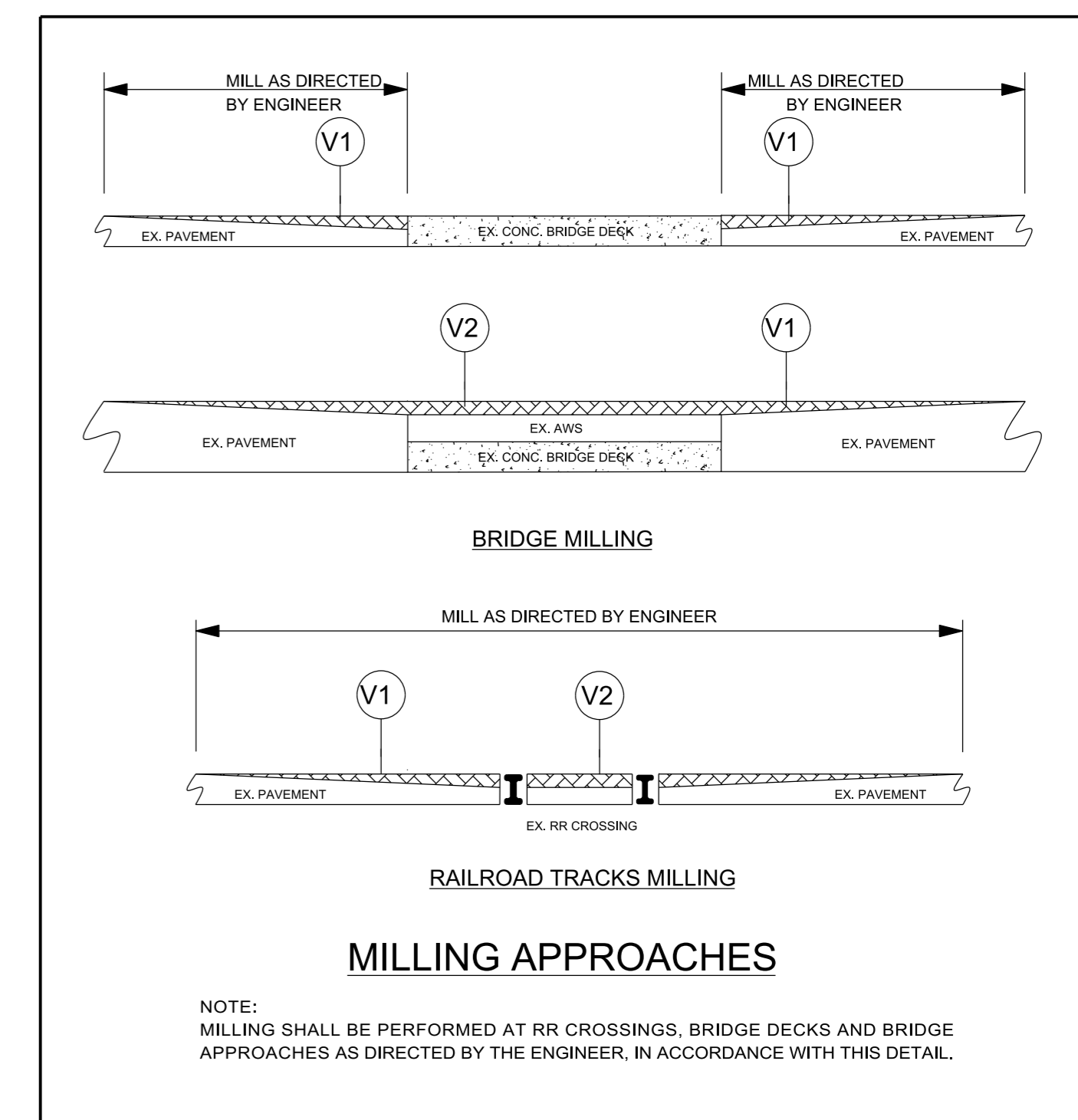
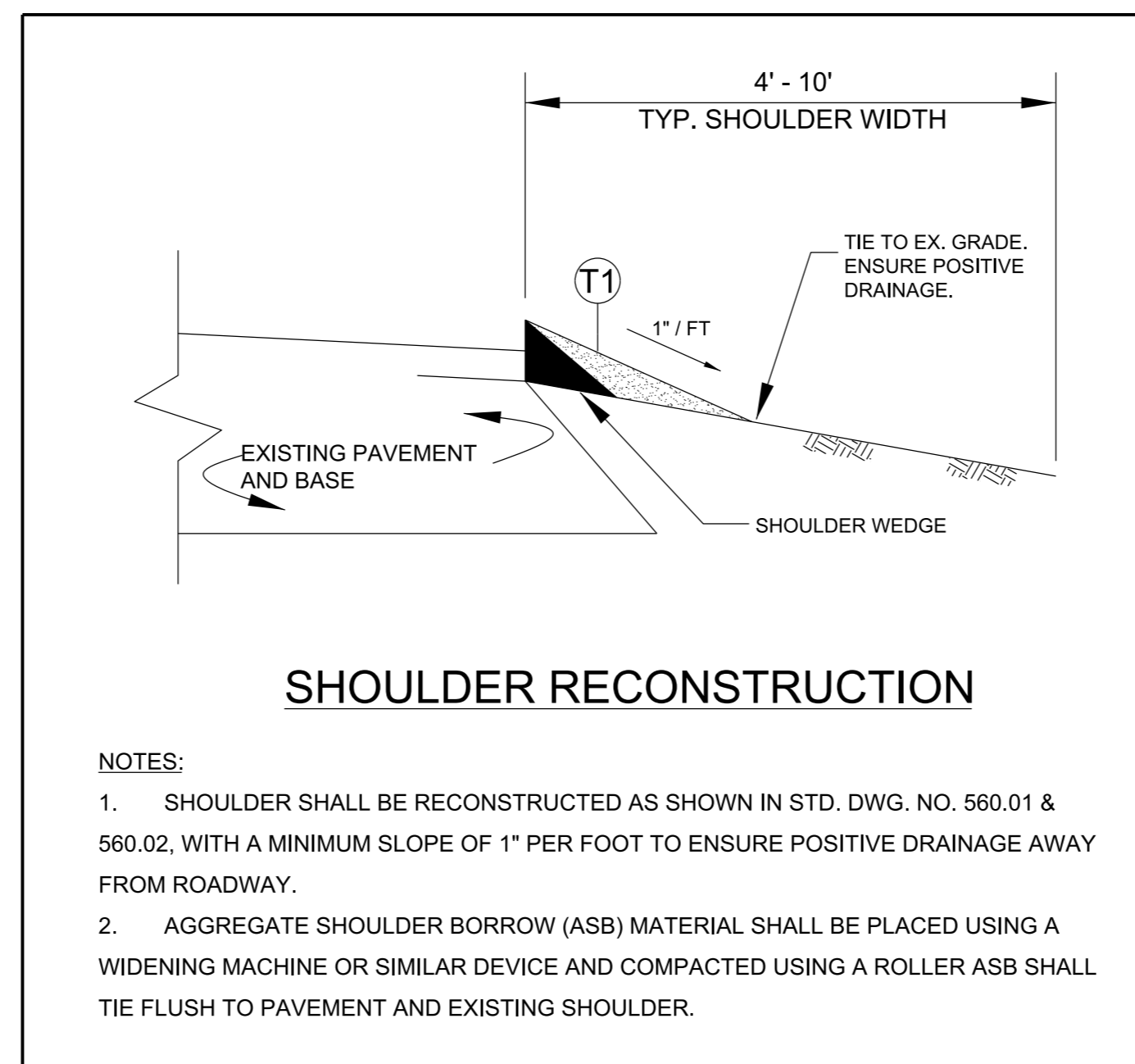
TYPICAL SECTION NO. 4

NOTES:

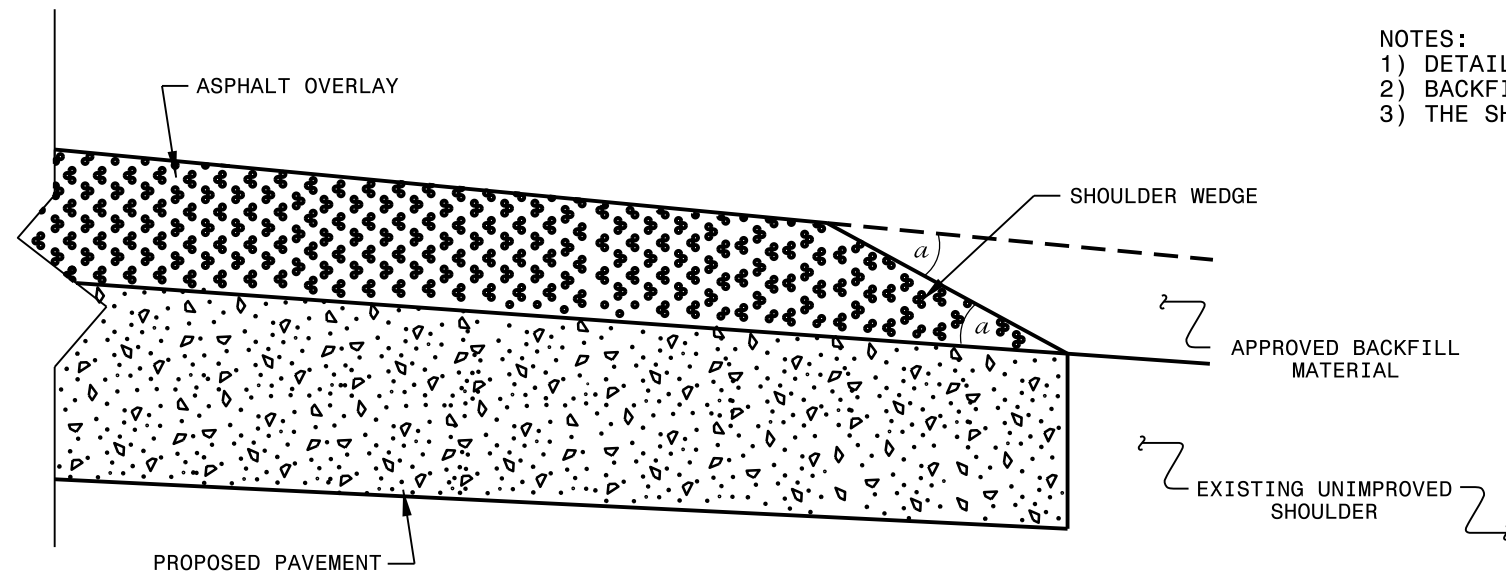
1. UPON COMPLETION OF SURFACE MILLING, TEMPORARY PAINT MARKINGS SHALL BE INSTALLED WITHIN TIME FRAME ESTABLISHED IN STD. SPECS.
2. CONTRACTOR SHALL BEGIN WIDENING AND/OR MILL & FILL OPERATION WITHIN 3 DAYS OF COMPLETING SURFACE MILLING.
3. CONTRACTOR SHALL BEGIN PLACEMENT OF FINAL SURFACE WITHIN 3 DAYS OF COMPLETING WIDENING AND/OR MILL & FILL OPERATION.

PAVEMENT SCHEDULE

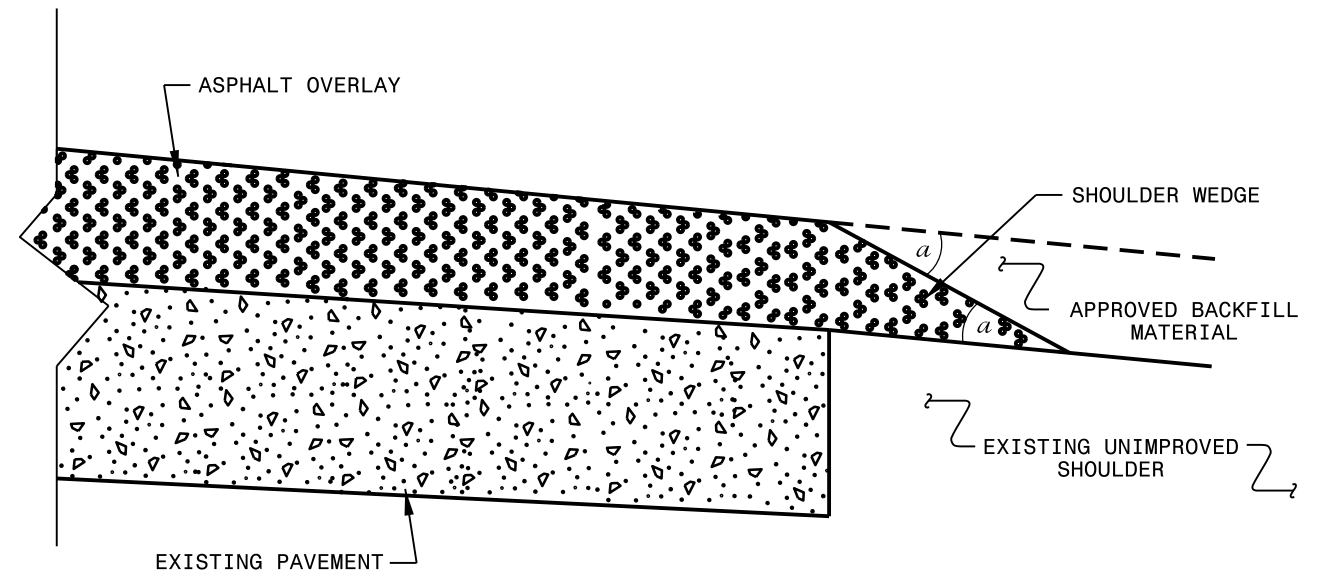
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E1	5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING ASPHALT PAVEMENT
V1	0"-1½" MILLING
V2	1½" MILLING



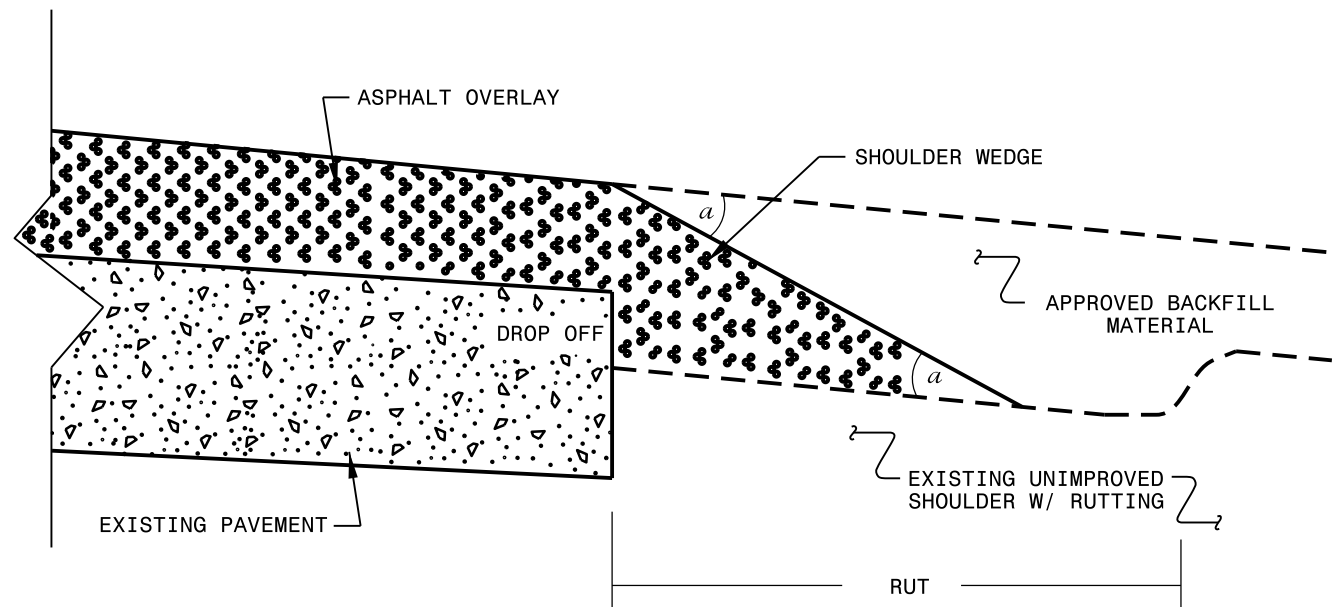
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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)

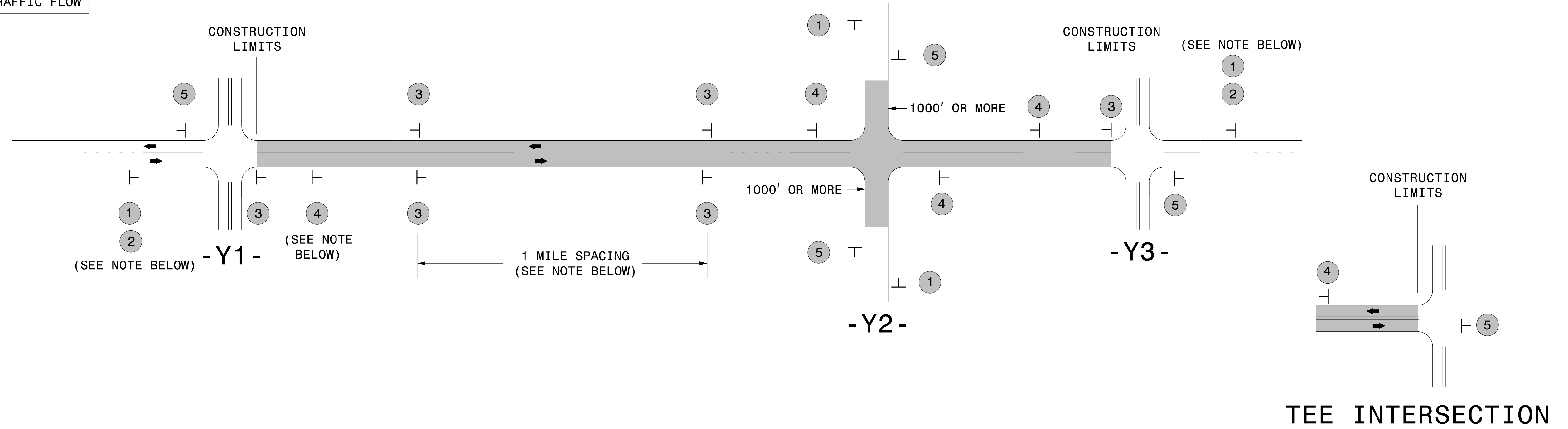
- SHOULDER WEDGE ANGLE = 30°

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.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN
USER NAME

SIGNING FOR RESURFACING PROJECTS

LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

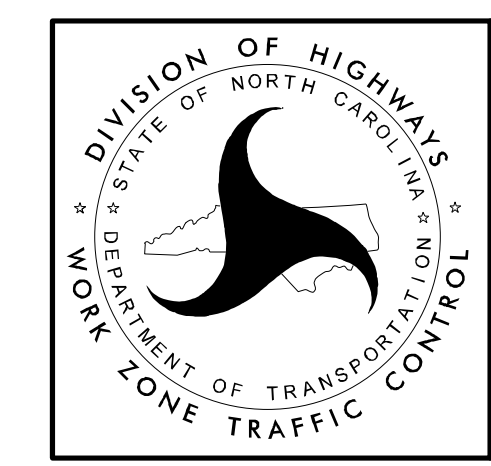
-Y- LINE SIGNING

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.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#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)	
	3		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

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.

MAPS LESS THAN 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

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'

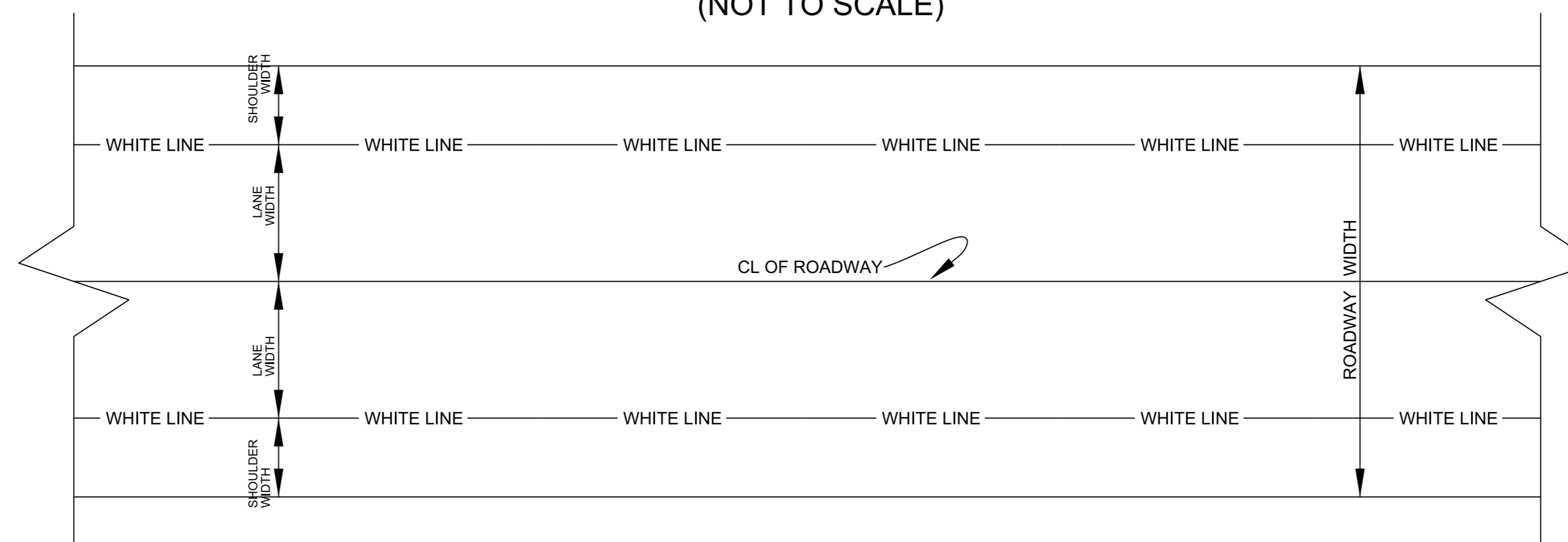
* May vary due to pavement width

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)



SUMMARY OF QUANTITIES

											PROJECT NO.		SHEET NO.	TOTAL NO.			
											2022CPT.06.07.20781.1		13				
											122000000-E	124500000-E	126000000-E	129700000-E	133000000-E	149100000-E	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C
										MI	FT						
2022CPT.06.07.20781.1	Robeson	1	SR 1734	US 301 (MM 0.0) TO W. POOL ST. (MM 0.60)	2	2	2WU	NO	NO	0.6	22	6				1,389	
TOTAL FOR MAP NO. 1										0.6		6				1,389	
2022CPT.06.07.20781.1	Robeson	2	SR 1734	W. POOL ST. (MM 0.60) TO W. SHAW ST. (MM 0.94)	3	2	2WU	NO	NO	0.34	32	3			6,383	833	
TOTAL FOR MAP NO. 2										0.34		3			6,383	833	
2022CPT.06.07.20781.1	Robeson	3	SR 1734	FROM W. SHAW ST. (MM0.94) TO NC 20 (MM1.18)	2	2	2WU	NO	NO	0.24	22	2				833	
TOTAL FOR MAP NO. 3										0.24		2				833	
2022CPT.06.07.20781.1	Robeson	4	SR 2110	SR 2112 (MM 1.80) TO NC 211 (MM 2.90)	1	2	2WU	NO	NO	1.1	19		2.20	367		1,389	103
TOTAL FOR MAP NO. 4										1.1			2.20	367		1,389	103
2022CPT.06.07.20781.1	Robeson	5	SR 2202	WATAUGA ST. (MM 0.21) TO NC 72 (MM 2.58)	1	2	2WU	NO	NO	2.37	22		4.74	790		3,016	173
TOTAL FOR MAP NO. 5										2.37			4.74	790		3,016	173
2022CPT.06.07.20781.1	Robeson	6	SR 2277	SR 2472 (MM 0.00) TO NC 41 (MM 1.49)	1	2	2WU	NO	NO	1.49	17		2.98	497		833	110
TOTAL FOR MAP NO. 6										1.49			2.98	497		833	110
2022CPT.06.07.20781.1	Robeson	7	SR 2431	SR 2428 (MM 0.00) TO SR 2430 (MM 1.46)	1	2	2WU	NO	NO	1.46	19		2.92	487		556	107
TOTAL FOR MAP NO. 7										1.46			2.92	487		556	107
2022CPT.06.07.20781.1	Robeson	8	SR 1531	FROM SR 1752 (MM 0.0) TO SR 1529 (MM2.44)	1	2	2WU	NO	NO	2.44	18		4.88	813			1,975
TOTAL FOR MAP NO. 8										2.44			4.88	813			1,975
TOTAL FOR PROJ NO. 2022CPT.06.07.20781.1										10.04		11	17.72	2,954	6,383	8,849	2,468
GRAND TOTAL										10.04		11	17.72	2,954	6,383	8,849	2,468

											151900000-E	157500000-E	170400000-E	283000000-N	284500000-N	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX
										MI	FT					
2022CPT.06.07.20781.1	Robeson	1	SR 1734	US 301 (MM 0.0) TO W. POOL ST. (MM 0.60)	2	2	2WU	NO	NO	0.6	22	763	51	6	1	
TOTAL FOR MAP NO. 1										0.6		763	51	6	1	
2022CPT.06.07.20781.1	Robeson	2	SR 1734	W. POOL ST. (MM 0.60) TO W. SHAW ST. (MM 0.94)	3	2	2WU	NO	NO	0.34	32	601	40	3	4	1
TOTAL FOR MAP NO. 2										0.34		601	40	3	4	1
2022CPT.06.07.20781.1	Robeson	3	SR 1734	FROM W. SHAW ST. (MM0.94) TO NC 20 (MM1.18)	2	2	2WU	NO	NO	0.24	22	330	22	2	1	
TOTAL FOR MAP NO. 3										0.24		330	22	2	1	
2022CPT.06.07.20781.1	Robeson	4	SR 2110	SR 2112 (MM 1.80) TO NC 211 (MM 2.90)	1	2	2WU	NO	NO	1.1	19	1,162	82	11		
TOTAL FOR MAP NO. 4										1.1		1,162	82	11		
2022CPT.06.07.20781.1	Robeson	5	SR 2202	WATAUGA ST. (MM 0.21) TO NC 72 (MM 2.58)	1	2	2WU	NO	NO	2.37	22	2,792	195	200	11	6
TOTAL FOR MAP NO. 5										2.37		2,792	195	200	11	6
2022CPT.06.07.20781.1	Robeson	6	SR 2277	SR 2472 (MM 0.00) TO NC 41 (MM 1.49)	1	2	2WU	NO	NO	1.49	17	1,329	94	15		
TOTAL FOR MAP NO. 6										1.49		1,329	94	15		
2022CPT.06.07.20781.1	Robeson	7	SR 2431	SR 2428 (MM 0.00) TO SR 2430 (MM 1.46)	1	2	2WU	NO	NO	1.46	19	1,420	100	15		
TOTAL FOR MAP NO. 7										1.46		1,420	100	15		
2022CPT.06.07.20781.1	Robeson	8	SR 1531	FROM SR 1752 (MM 0.0) TO SR 1529 (MM2.44)	1	2	2WU	NO	NO	2.44	18		89			
TOTAL FOR MAP NO. 8										2.44			89			
TOTAL FOR PROJ NO. 2022CPT.06.07.20781.1										10.04		8,397	673	252	17	7
GRAND TOTAL										10.04		8,397	673	252	17	7

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.06.07.20781.1	14	

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4700000000-E	4810000000-E		
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	4" WHITE PAINT	4" YELLOW PAINT
										SF	LS	LF	LF	LF	LF	LF
2022CPT.06.07.20781.1	Robeson	1	SR 1734	US 301 (MM 0.0) TO W. POOL ST. (MM 0.60)	2	2	2WU	0.6	22	67	1			12,672	11,088	
TOTAL FOR MAP NO. 1							0.6			67	1			12,672	11,088	
2022CPT.06.07.20781.1	Robeson	2	SR 1734	W. POOL ST. (MM 0.60) TO W. SHAW ST. (MM 0.94)	3	2	2WU	0.34	32	38					6,283	
TOTAL FOR MAP NO. 2							0.34			38					6,283	
2022CPT.06.07.20781.1	Robeson	3	SR 1734	FROM W. SHAW ST. (MM0.94) TO NC 20 (MM1.18)	2	2	2WU	0.24	22	27				5,069	4,435	
TOTAL FOR MAP NO. 3							0.24			27				5,069	4,435	
2022CPT.06.07.20781.1	Robeson	4	SR 2110	SR 2112 (MM 1.80) TO NC 211 (MM 2.90)	1	2	2WU	1.1	19	123		11,616	10,164			
TOTAL FOR MAP NO. 4							1.1			123		11,616	10,164			
2022CPT.06.07.20781.1	Robeson	5	SR 2202	WATAUGA ST. (MM 0.21) TO NC 72 (MM 2.58)	1	2	2WU	2.37	22	265		25,027	22,525	240		
TOTAL FOR MAP NO. 5							2.37			265		25,027	22,525	240		
2022CPT.06.07.20781.1	Robeson	6	SR 2277	SR 2472 (MM 0.00) TO NC 41 (MM 1.49)	1	2	2WU	1.49	17	167				31,469	27,535	
TOTAL FOR MAP NO. 6							1.49			167				31,469	27,535	
2022CPT.06.07.20781.1	Robeson	7	SR 2431	SR 2428 (MM 0.00) TO SR 2430 (MM 1.46)	1	2	2WU	1.46	19	164				30,835	26,981	
TOTAL FOR MAP NO. 7							1.46			164				30,835	26,981	
2022CPT.06.07.20781.1	Robeson	8	SR 1531	FROM SR 1752 (MM 0.0) TO SR 1529 (MM2.44)	1	2	2WU	2.44	18	273				51,533		
TOTAL FOR MAP NO. 8							2.44			273				51,533		
TOTAL FOR PROJ NO. 2022CPT.06.07.20781.1							10.04			1,124	1	36,643	32,689	240	131,578	76,322
										69,332		207,900				
GRAND TOTAL							10.04			1,124	1	36,643	32,689	240	131,578	76,322
										69,332		207,900				

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4891000000-E	4892000000-N	4900000000-N			
										24" X 90 M WHITE THERMO	16" X 90 M WHITE THERMO	THERMO RXR 90 M	YELLOW & YELLOW MARKERS	CRYSTAL & RED MARKERS	
										LF	LF	EA	EA	EA	
2022CPT.06.07.20781.1	Robeson	1	SR 1734	US 301 (MM 0.0) TO W. POOL ST. (MM 0.60)	2	2	2WU	0.6	22						
TOTAL FOR MAP NO. 1							0.6								
2022CPT.06.07.20781.1	Robeson	2	SR 1734	W. POOL ST. (MM 0.60) TO W. SHAW ST. (MM 0.94)	3	2	2WU	0.34	32						
TOTAL FOR MAP NO. 2							0.34								
2022CPT.06.07.20781.1	Robeson	3	SR 1734	FROM W. SHAW ST. (MM0.94) TO NC 20 (MM1.18)	2	2	2WU	0.24	22						
TOTAL FOR MAP NO. 3							0.24								
2022CPT.06.07.20781.1	Robeson	4	SR 2110	SR 2112 (MM 1.80) TO NC 211 (MM 2.90)	1	2	2WU	1.1	19			73			
TOTAL FOR MAP NO. 4							1.1					73			
2022CPT.06.07.20781.1	Robeson	5	SR 2202	WATAUGA ST. (MM 0.21) TO NC 72 (MM 2.58)	1	2	2WU	2.37	22	60	380	4			
TOTAL FOR MAP NO. 5							2.37			60	380	4			
2022CPT.06.07.20781.1	Robeson	6	SR 2277	SR 2472 (MM 0.00) TO NC 41 (MM 1.49)	1	2	2WU	1.49	17						
TOTAL FOR MAP NO. 6							1.49								
2022CPT.06.07.20781.1	Robeson	7	SR 2431	SR 2428 (MM 0.00) TO SR 2430 (MM 1.46)	1	2	2WU	1.46	19						
TOTAL FOR MAP NO. 7							1.46								
2022CPT.06.07.20781.1	Robeson	8	SR 1531	FROM SR 1752 (MM 0.0) TO SR 1529 (MM2.44)	1	2	2WU	2.44	18						
TOTAL FOR MAP NO. 8							2.44								
TOTAL FOR PROJ NO. 2022CPT.06.07.20781.1							10.04			60	380	4			
										440		254			
GRAND TOTAL							10.04			60	380	4			
										440		254			