

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 6

PLANS

Letting Date: May 4, 2022

CONTRACT ID: DF00314

TIP NO.: -----

FEDERAL AID NO.: STATE FUNDED

WBS ELEMENT NO.: 2022CPT.06.18.20431.1

ROUTE NO.: VARIOUS SR ROUTES

LOCATION: VARIOUS

COUNTY: HARNETT

LENGTH OF PROJECT: 15.97 MILES

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

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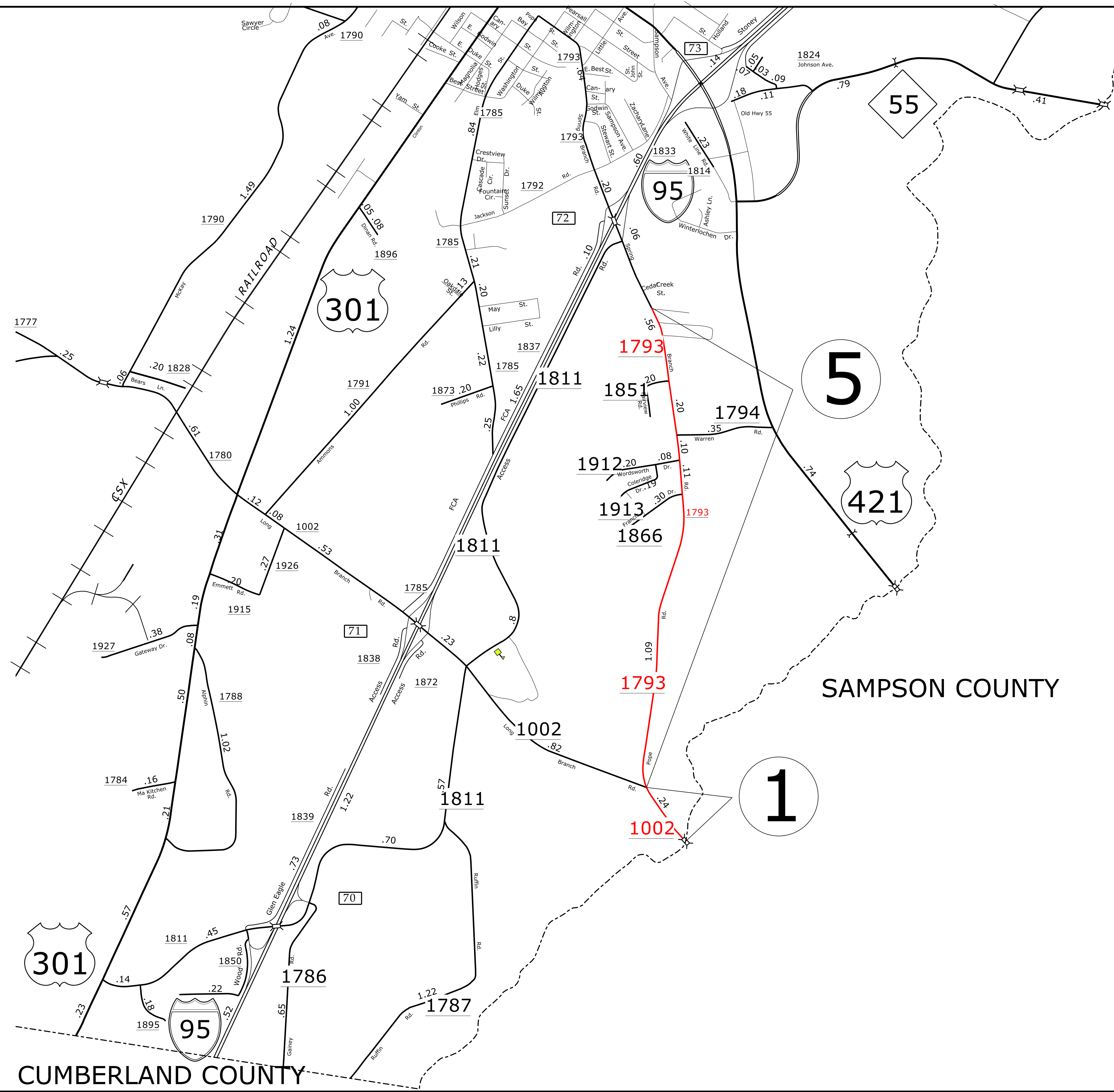
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**HARNETT COUNTY
RESURFACING
SPRING 2022**

8/17/99

REVISIONS

95-APR-2022-09:00
 C:\Users\atv\OneDrive\Documents\Projects\Resurfacing\2022 Spring\02\HARNETT_MAPS.dgn
 Author: atv



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CUMBERLAND COUNTY

SAMPSON COUNTY

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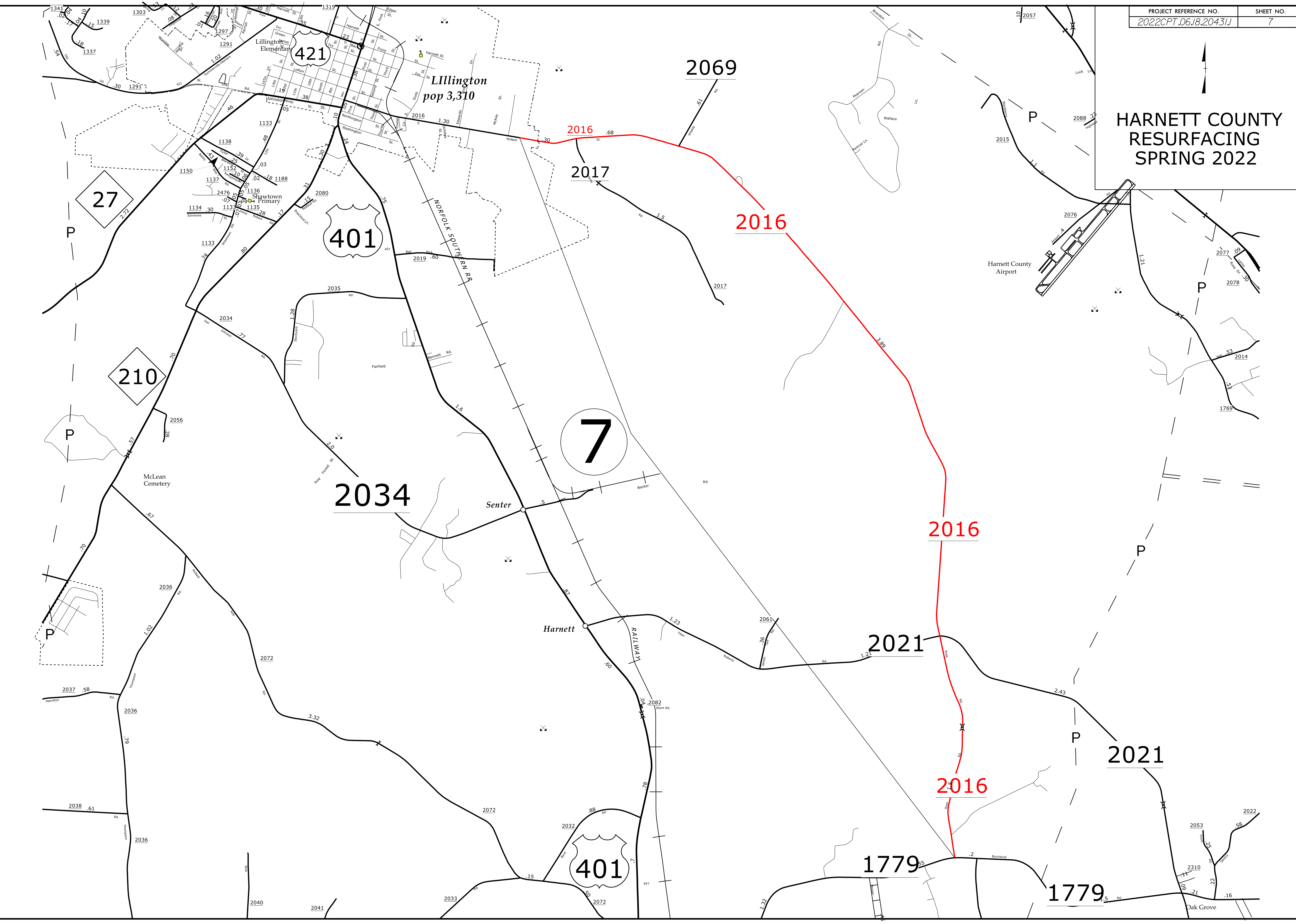
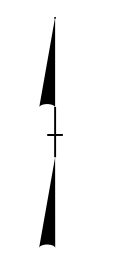
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HARNETT COUNTY RESURFACING SPRING 2022

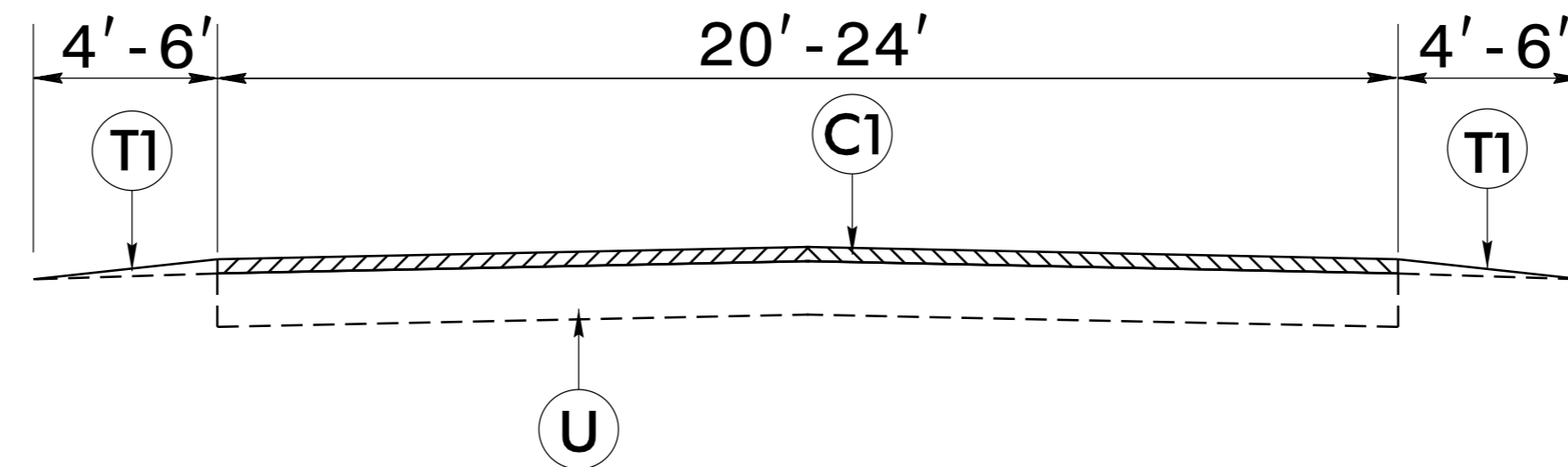


REVISIONS

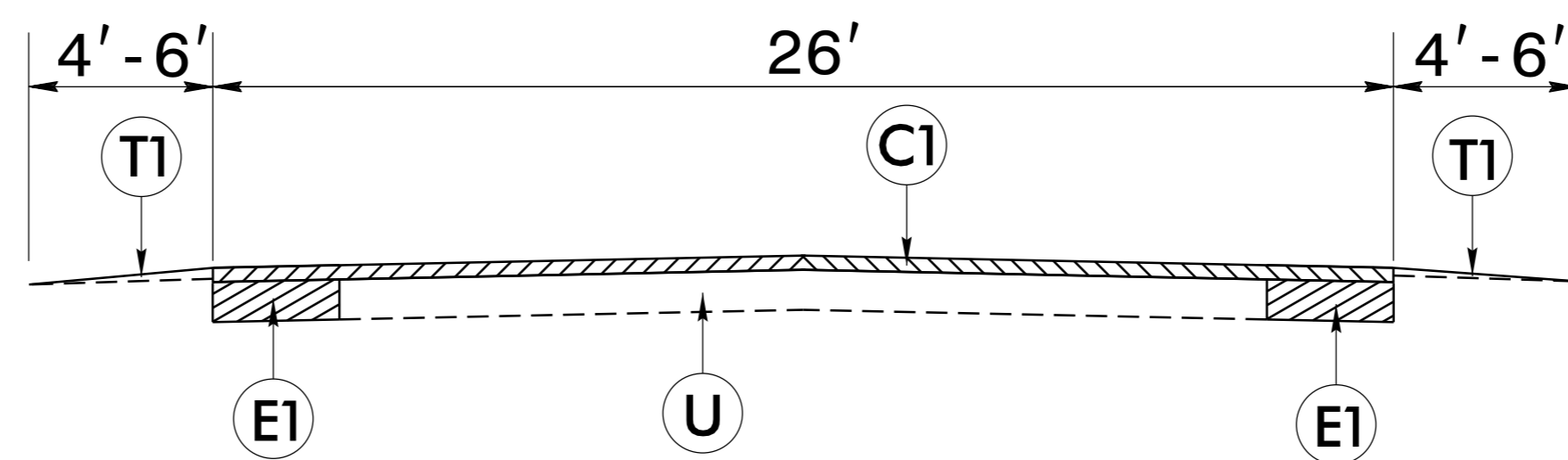
8/17/99
 95-685-2022-09-01
 S:\Projects\2022\09-01\Harnett\Resurfacing\2022_Spring\0618\20431_I_MAPS.dgn
 Author: A. T. W. 06-2021

PAVEMENT SCHEDULE

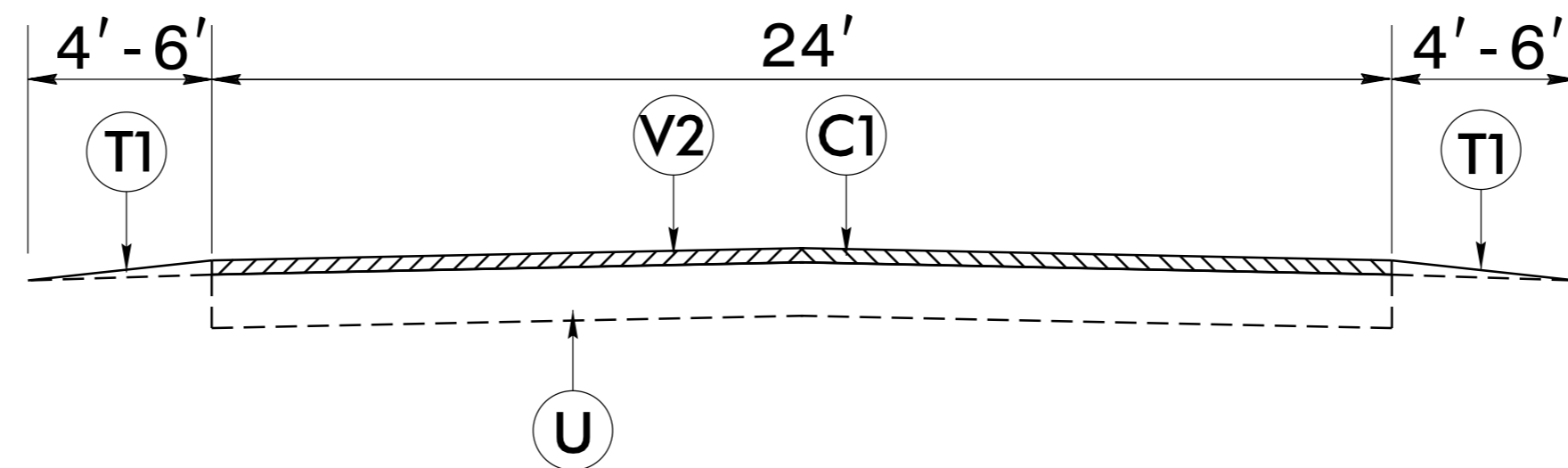
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING ASPHALT PAVEMENT
V1	0"-1½" MILLING
V2	1½" MILLING



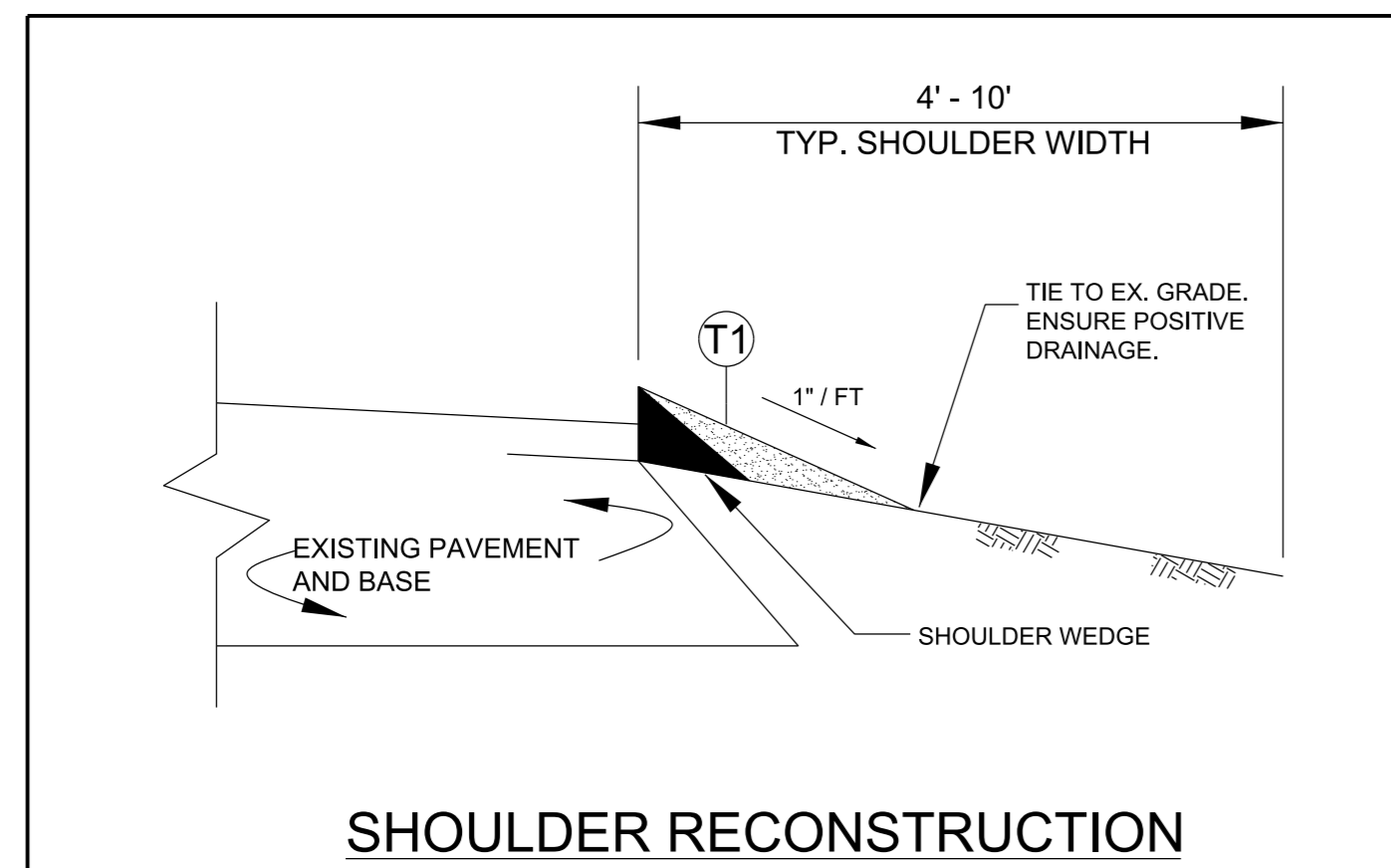
TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2



TYPICAL SECTION NO. 3



SHOULDER RECONSTRUCTION

NOTES:

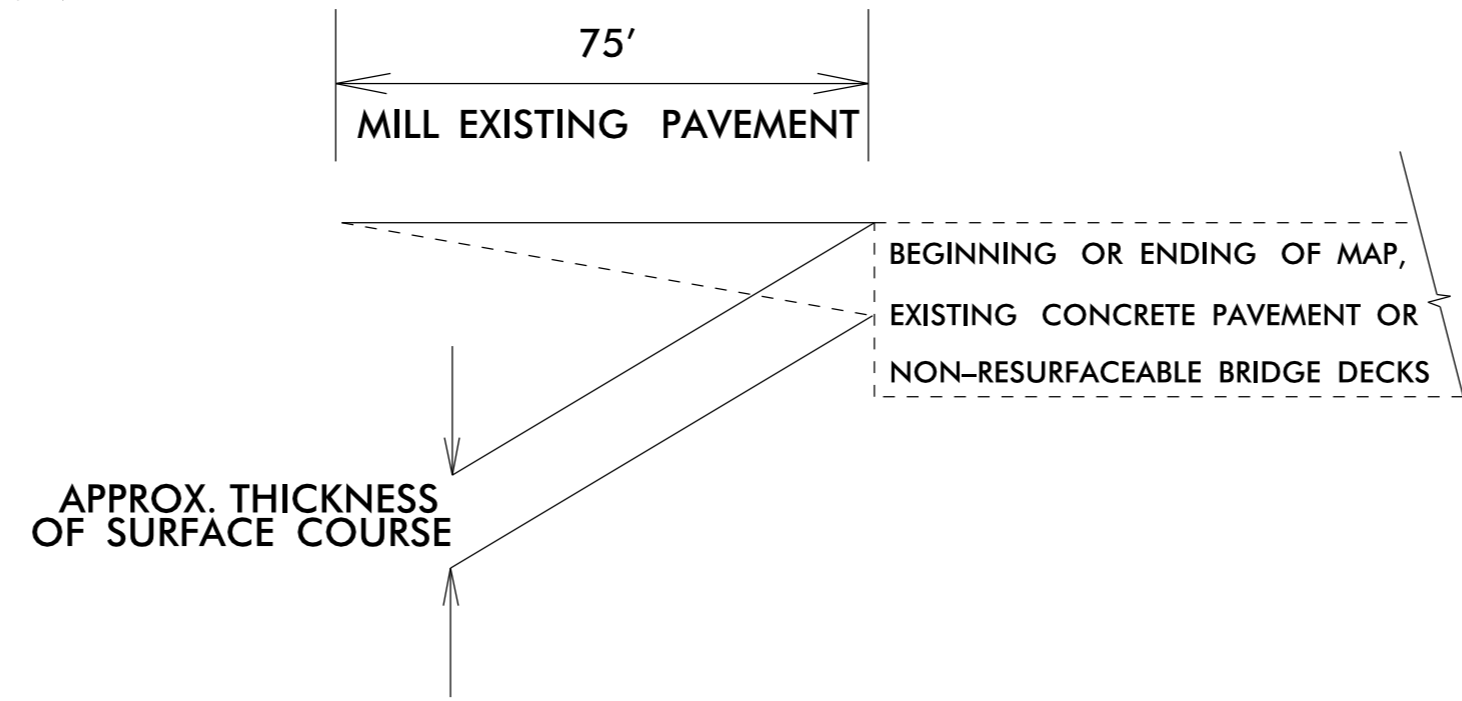
- SHOULDER SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM ROADWAY.
- AGGREGATE SHOULDER BORROW (ASB) MATERIAL SHALL BE PLACED USING A WIDENING MACHINE OR SIMILAR DEVICE AND COMPACTED USING A ROLLER ASB SHALL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

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.

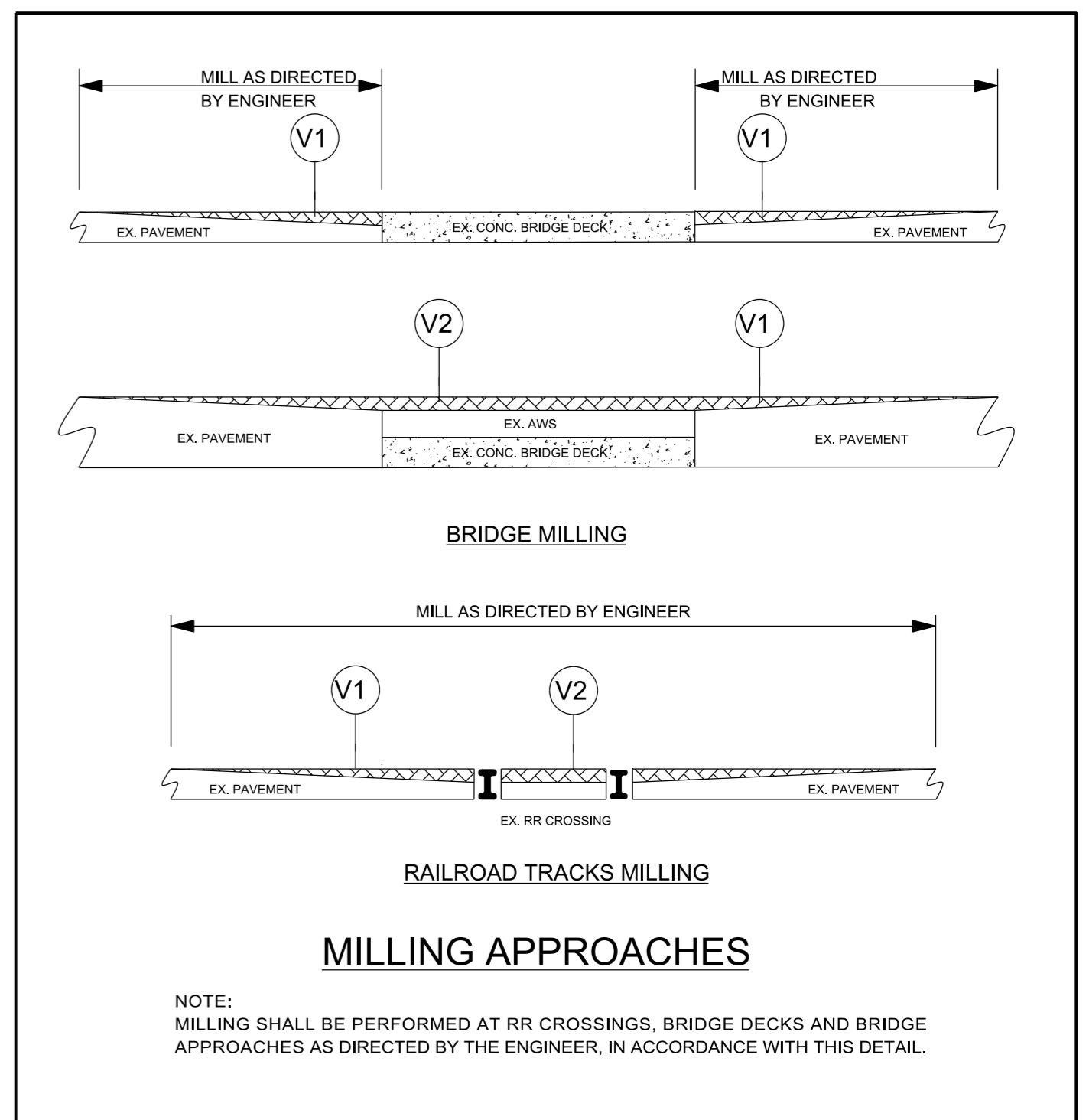
PERFORM THE WORK IN ACCORDANCE WITH SECTION 607 OF THE JANUARY 2012 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. RESURFACING WILL BE ACCOMPLISHED AT THE SAME TIME AS THE MILLING OPERATION.



MILLING AT PAVEMENT TIE-INS DETAIL

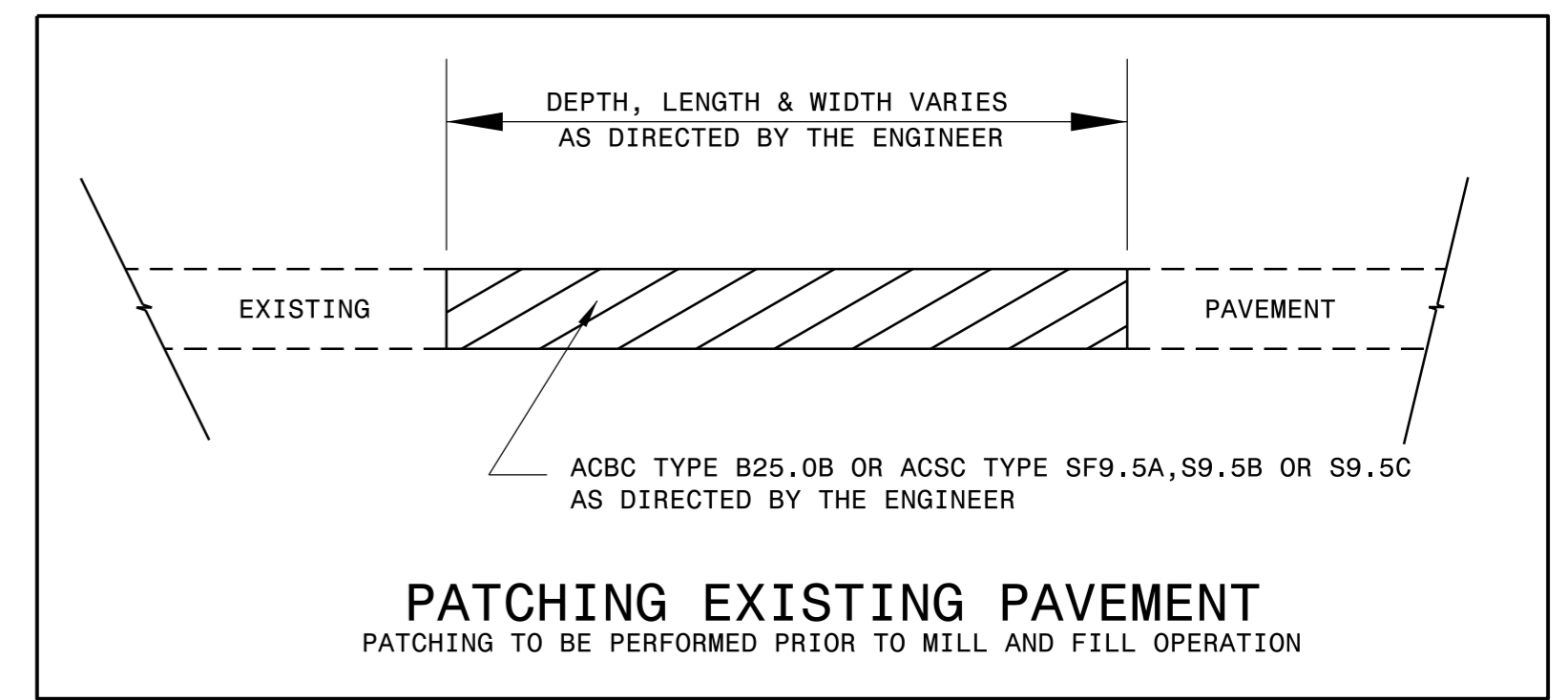
NOTES:

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



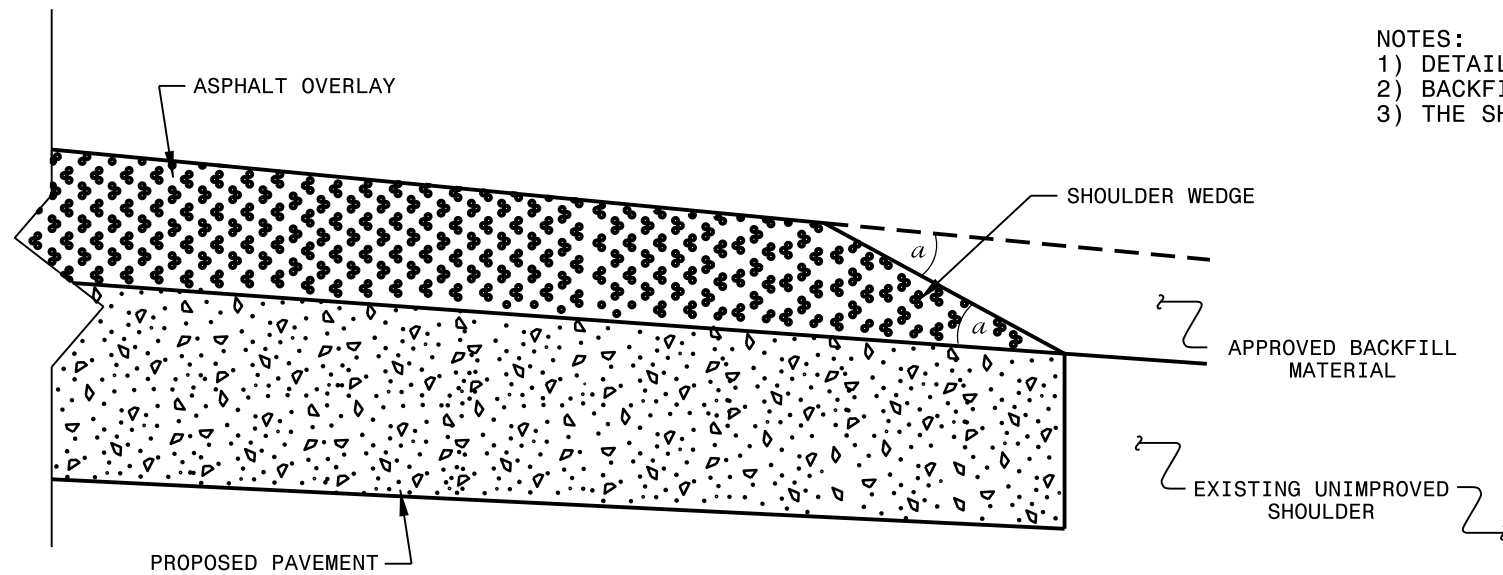
MILLING APPROACHES

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

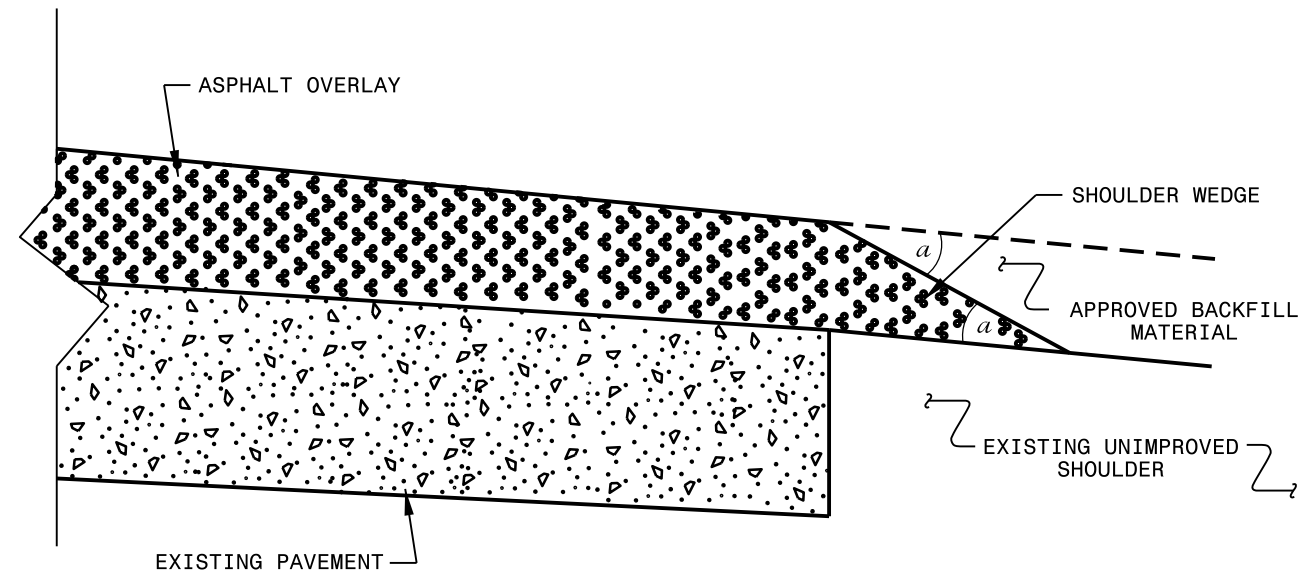


PATCHING EXISTING PAVEMENT
PATCHING TO BE PERFORMED PRIOR TO MILL AND FILL OPERATION

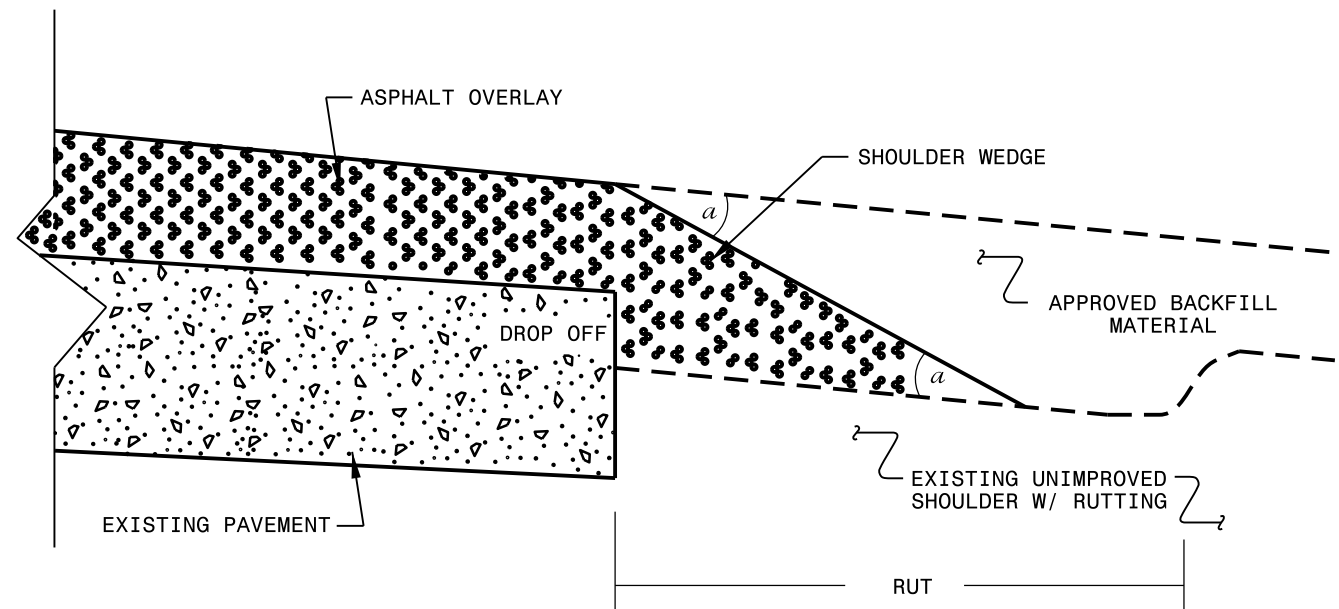
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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	

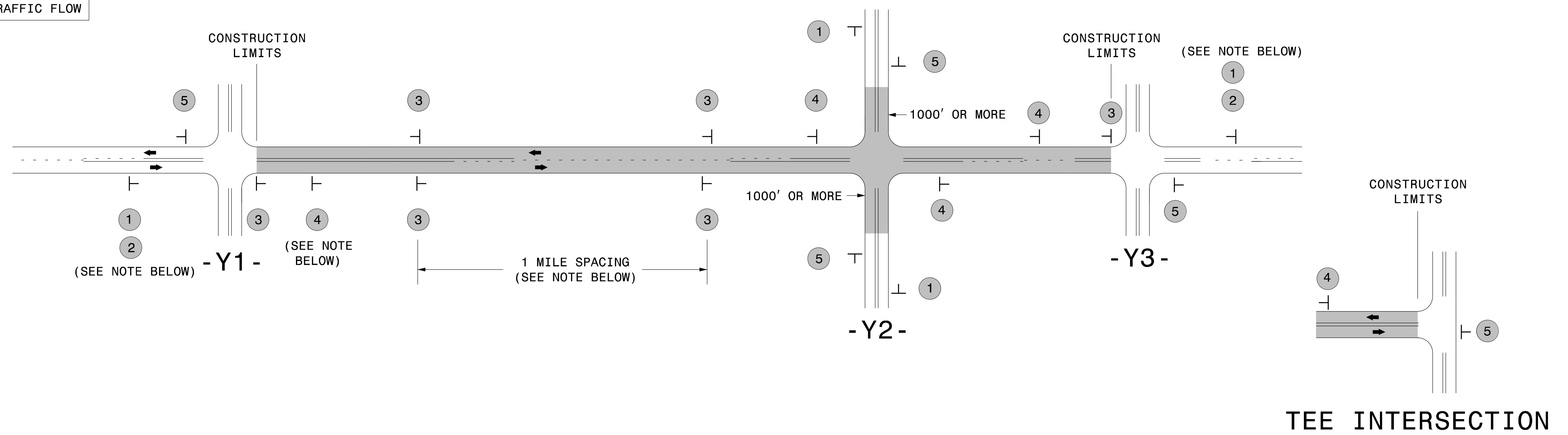
SYSTEM: 06/18/2022 10:00 AM
 USER: T.SPELL
 FILE: susr/details/stand/shoulderwedgedetail.dgn

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	
	2	 <small>W7-3aP 24" X 18"</small>	#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	 <small>SP 13107 48" X 48"</small>	- 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	 <small>SP 13106 48" X 48"</small>	- 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	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

W20-1
48" X 48"
 PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A
48" X 48"
 PLACED 250' IN ADVANCE OF FLAGGER.

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

5/15/2017 S:\TUXWZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:kadai

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'

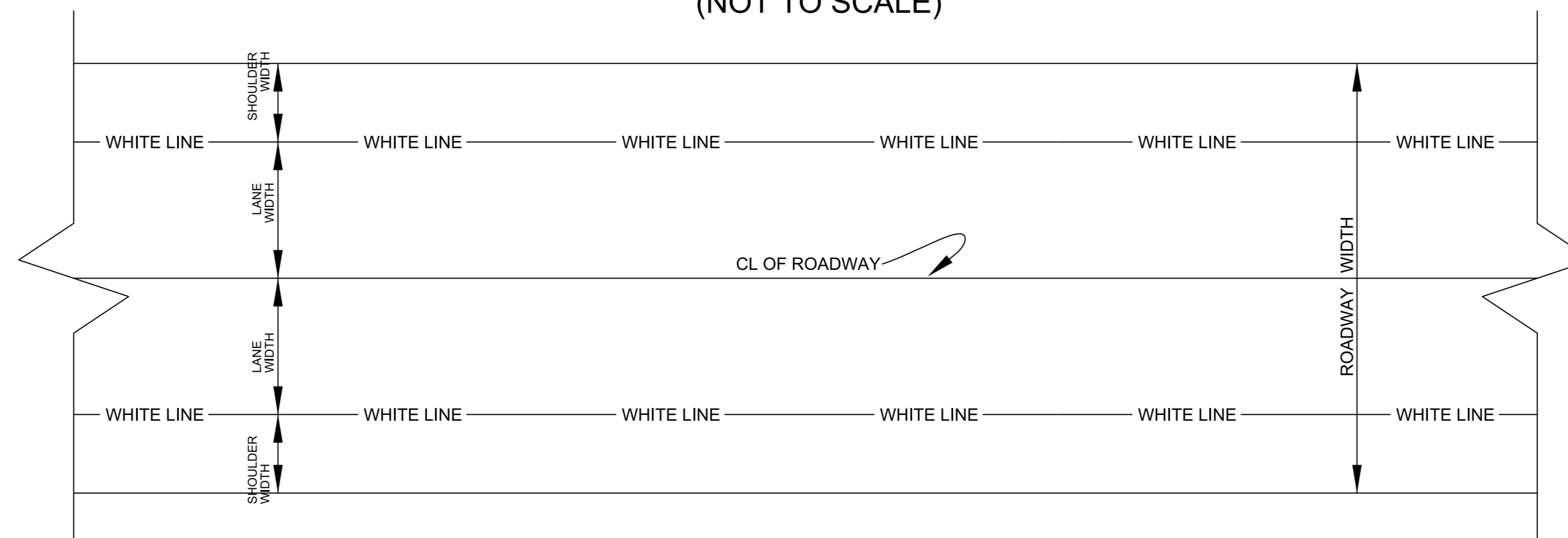
* May vary due to pavement width

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.06.18.20431.1					
												1245000000-E		1260000000-E	1297000000-E	1330000000-E	1491000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C	
										MI	FT						SMI
2022CPT.06.18.20431.1	Harnett	1	SR 1002	FROM SAMPSON CO. LINE PVMT JT MP 24.30 TO SR 1793 MP 0.31	1	2	2WU	NO	NO	0.31	24	0.60	100	598	1,126		
TOTAL FOR MAP NO. 1										0.31		0.60	100	598	1,126		
2022CPT.06.18.20431.1	Harnett	2	SR 1412	FROM SR 1425 MP 5.54 TO WAKE CO. LINE MP 9.48	2	2	2WU	NO	NO	3.94	22	7.90	1,274		1,556	2,899	
TOTAL FOR MAP NO. 2										3.94		7.90	1,274		1,556	2,899	
2022CPT.06.18.20431.1	Harnett	3	SR 1707	FROM SR 1709 MP 0.00 TO US HWY 301 MP 2.48	1	2	2WU	NO	NO	2.45	20	4.90	792		389	18	
TOTAL FOR MAP NO. 3										2.45		4.90	792		389	18	
2022CPT.06.18.20431.1	Harnett	4	SR 1711	FROM SR 1707 MP 0.00 TO SR 1712 MP 0.69	1	2	2WU	NO	NO	0.69	19	1.30	217				
TOTAL FOR MAP NO. 4										0.69		1.30	217				
2022CPT.06.18.20431.1	Harnett	5	SR 1793	FROM END I 5878 PROJECT LIMITS MP 1.34 TO SR 1002 MP 3.12	3	2	2WU	NO	NO	1.78	24	3.60	576	25,062	583		
TOTAL FOR MAP NO. 5										1.78		3.60	576	25,062	583		
2022CPT.06.18.20431.1	Harnett	6	SR 2010	FROM NC HWY 55 MP 0.00 TO DEAD END MP 0.35	1	2	2WU	NO	NO	0.35	18	0.70	113				
TOTAL FOR MAP NO. 6										0.35		0.70	113				
2022CPT.06.18.20431.1	Harnett	7	SR 2016	FROM END CURB & GUTTER MP 1.16 TO SR 1779 MP 7.61	1	2	2WU	NO	NO	6.45	22	12.90	2,086	422	2,050		
TOTAL FOR MAP NO. 7										6.45		12.90	2,086	422	2,050		
TOTAL FOR PROJ NO. 2022CPT.06.18.20431.1										15.97		31.90	5,158	26,082	5,704	2,917	
GRAND TOTAL										15.97		31.90	5,158	26,082	5,704	2,917	

												1519000000-E		1575000000-E	1704000000-E	2815000000-N	2845000000-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 DROP INLET	ADJ. OF METER OR VALVE BOX	
										MI	FT						TONS
2022CPT.06.18.20431.1	Harnett	1	SR 1002	FROM SAMPSON CO. LINE PVMT JT MP 24.30 TO SR 1793 MP 0.31	1	2	2WU	NO	NO	0.31	24	375	25				
TOTAL FOR MAP NO. 1										0.31		375	25				
2022CPT.06.18.20431.1	Harnett	2	SR 1412	FROM SR 1425 MP 5.54 TO WAKE CO. LINE MP 9.48	2	2	2WU	NO	NO	3.94	22	6,402	559		1	5	
TOTAL FOR MAP NO. 2										3.94		6,402	559		1	5	
2022CPT.06.18.20431.1	Harnett	3	SR 1707	FROM SR 1709 MP 0.00 TO US HWY 301 MP 2.48	1	2	2WU	NO	NO	2.45	20	2,401	162	1			
TOTAL FOR MAP NO. 3										2.45		2,401	162	1			
2022CPT.06.18.20431.1	Harnett	4	SR 1711	FROM SR 1707 MP 0.00 TO SR 1712 MP 0.69	1	2	2WU	NO	NO	0.69	19	616	41				
TOTAL FOR MAP NO. 4										0.69		616	41				
2022CPT.06.18.20431.1	Harnett	5	SR 1793	FROM END I 5878 PROJECT LIMITS MP 1.34 TO SR 1002 MP 3.12	3	2	2WU	NO	NO	1.78	24	2,105	141	19			
TOTAL FOR MAP NO. 5										1.78		2,105	141	19			
2022CPT.06.18.20431.1	Harnett	6	SR 2010	FROM NC HWY 55 MP 0.00 TO DEAD END MP 0.35	1	2	2WU	NO	NO	0.35	18	305	20				
TOTAL FOR MAP NO. 6										0.35		305	20				
2022CPT.06.18.20431.1	Harnett	7	SR 2016	FROM END CURB & GUTTER MP 1.16 TO SR 1779 MP 7.61	1	2	2WU	NO	NO	6.45	22	7,261	487	91			
TOTAL FOR MAP NO. 7										6.45		7,261	487	91			
TOTAL FOR PROJ NO. 2022CPT.06.18.20431.1										15.97		19,465	1,435	111	1	5	
GRAND TOTAL										15.97		19,465	1,435	111	1	5	

THERMOPLASTIC AND PAINT QUANTITIES

											PROJECT NO.		SHEET NO.	TOTAL NO.				
											2022CPT.06.18.20431.1							
											441300000-E		445700000-N		468500000-E		470000000-E	490000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH		WIDTH	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	YELLOW & YELLOW MARKERS		
								MI	FT								SF	LS
2022CPT.06.18.20431.1	Harnett	1	SR 1002	FROM SAMPSON CO. LINE PVMT JT MP 24.30 TO SR 1793 MP 0.31	1	2	2WU	0.31	24		35	1	3,274	3,274		24		
TOTAL FOR MAP NO. 1								0.31			35	1	3,274	3,274		24		
2022CPT.06.18.20431.1	Harnett	2	SR 1412	FROM SR 1425 MP 5.54 TO WAKE CO. LINE MP 9.48	2	2	2WU	3.94	22		441		41,500	38,283		260		
TOTAL FOR MAP NO. 2								3.94			441		41,500	38,283		260		
2022CPT.06.18.20431.1	Harnett	3	SR 1707	FROM SR 1709 MP 0.00 TO US HWY 301 MP 2.48	1	2	2WU	2.45	20		274		26,189	23,570		164		
TOTAL FOR MAP NO. 3								2.45			274		26,189	23,570		164		
2022CPT.06.18.20431.1	Harnett	4	SR 1711	FROM SR 1707 MP 0.00 TO SR 1712 MP 0.69	1	2	2WU	0.69	19		79		7,286	6,558		45		
TOTAL FOR MAP NO. 4								0.69			79		7,286	6,558		45		
2022CPT.06.18.20431.1	Harnett	5	SR 1793	FROM END I 5878 PROJECT LIMITS MP 1.34 TO SR 1002 MP 3.12	3	2	2WU	1.78	24		199		18,796	15,977		118		
TOTAL FOR MAP NO. 5								1.78			199		18,796	15,977		118		
2022CPT.06.18.20431.1	Harnett	6	SR 2010	FROM NC HWY 55 MP 0.00 TO DEAD END MP 0.35	1	2	2WU	0.35	18		39							
TOTAL FOR MAP NO. 6								0.35			39							
2022CPT.06.18.20431.1	Harnett	7	SR 2016	FROM END CURB & GUTTER MP 1.16 TO SR 1779 MP 7.61	1	2	2WU	6.45	22		722		68,144	54,515	210	430		
TOTAL FOR MAP NO. 7								6.45			722		68,144	54,515	210	430		
TOTAL FOR PROJ NO. 2022CPT.06.18.20431.1								15.97			1,789	1	165,189	142,177	210	1,041		
													307,366					
GRAND TOTAL								15.97			1,789	1	165,189	142,177	210	1,041		
													307,366					