

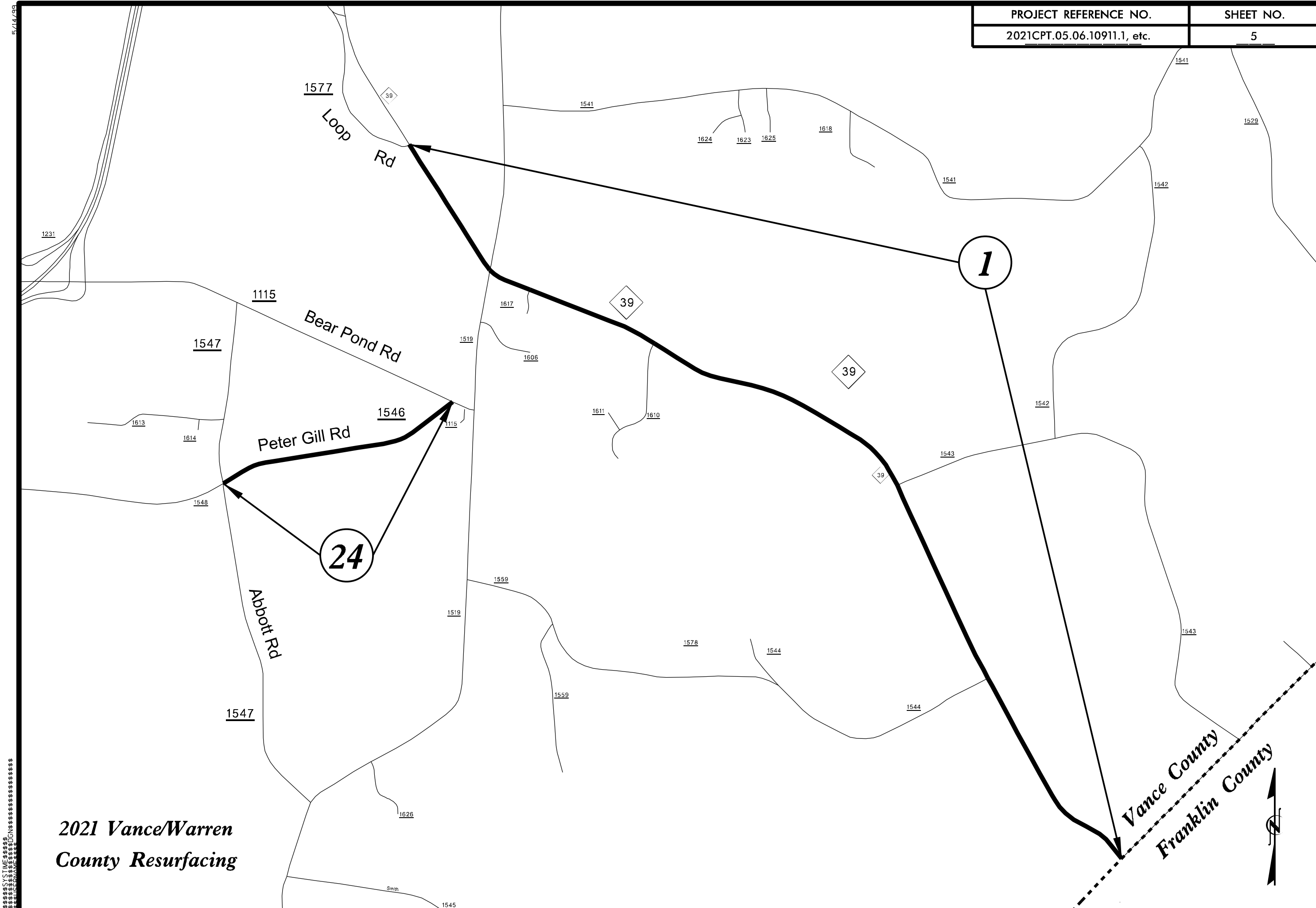
5/14/99

Virginia
Vance County



*2021 Vance/Warren
County Resurfacing*

SECTION 1348 1349 1350 1351 1352 1353 1354 1355 1356 1357 1358 1359

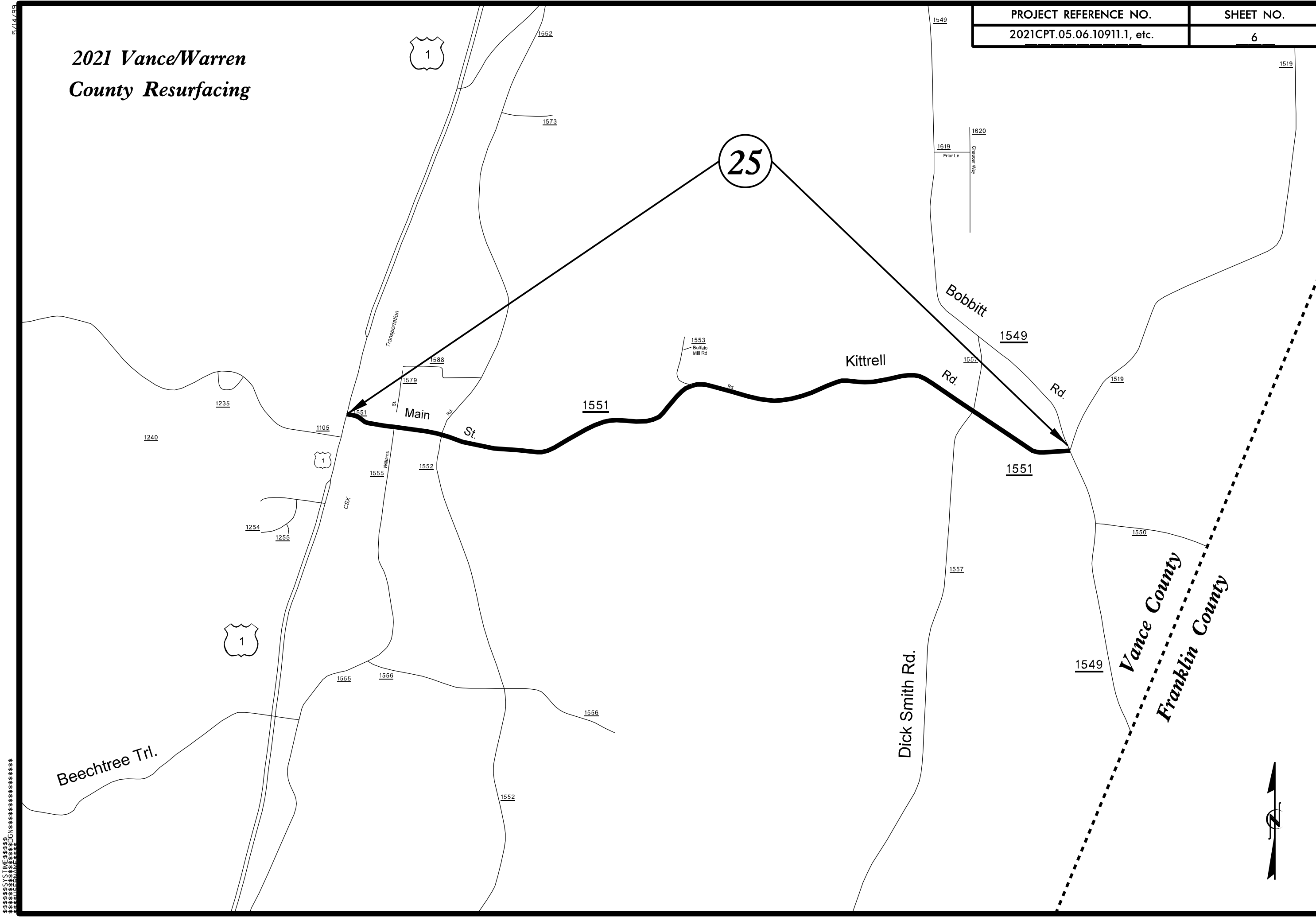


*2021 Vance/Warren
County Resurfacing*

5/14/2021
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2021 Vance/Warren
County Resurfacing

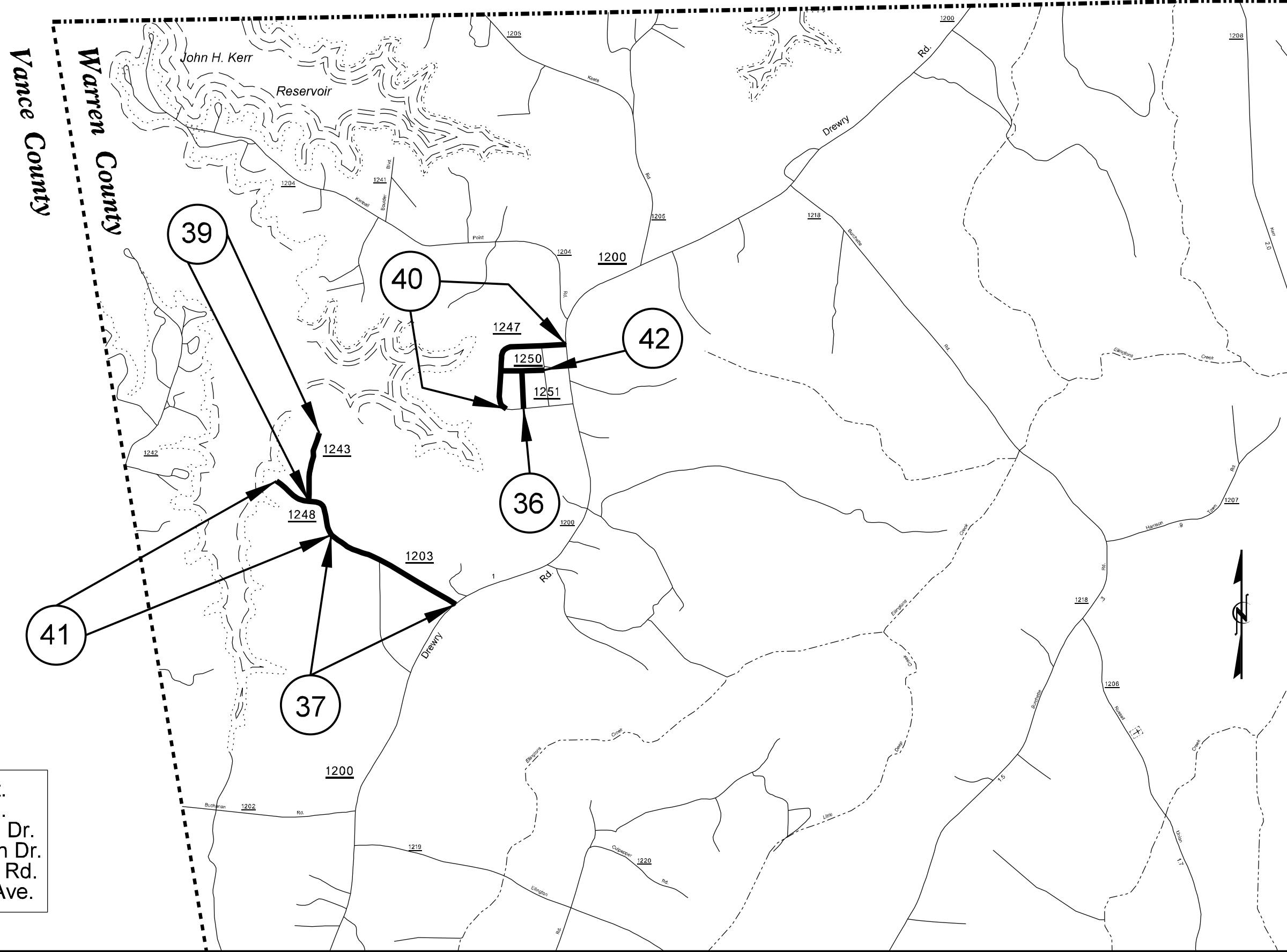
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.06.10911.1, etc.	6



5/14/99
C:\PROJECTS\2021\2021CPT\2021CPT.DWG

2021 Vance/Warren County Resurfacing

Virginia



- 36 - SR 1251 Walter St.
- 37 - SR 1203 Spain Rd.
- 39 - SR 1243 Maryland Dr.
- 40 - SR 1247 Nut Brush Dr.
- 41 - SR 1248 Rose Hill Rd.
- 42 - SR 1250 Cynthia Ave.

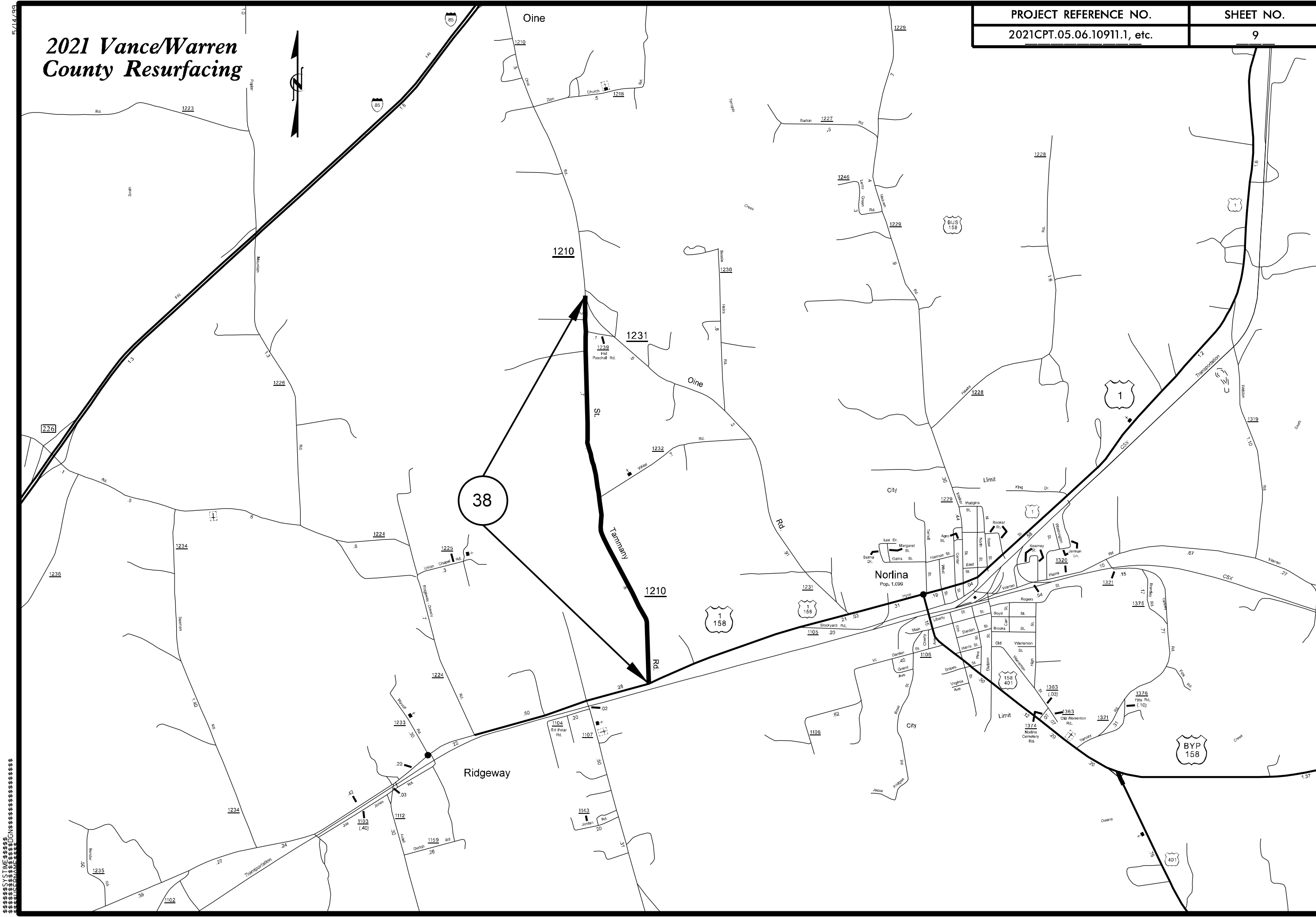
5/14/20

5/14/20

2021 Vance/Warren County Resurfacing



PROJECT REFERENCE NO. 2021CPT.05.06.10911.1, etc.	SHEET NO. 9
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5/14/2021

PAVEMENT SCHEDULE

S SHOULDER GRADING
ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

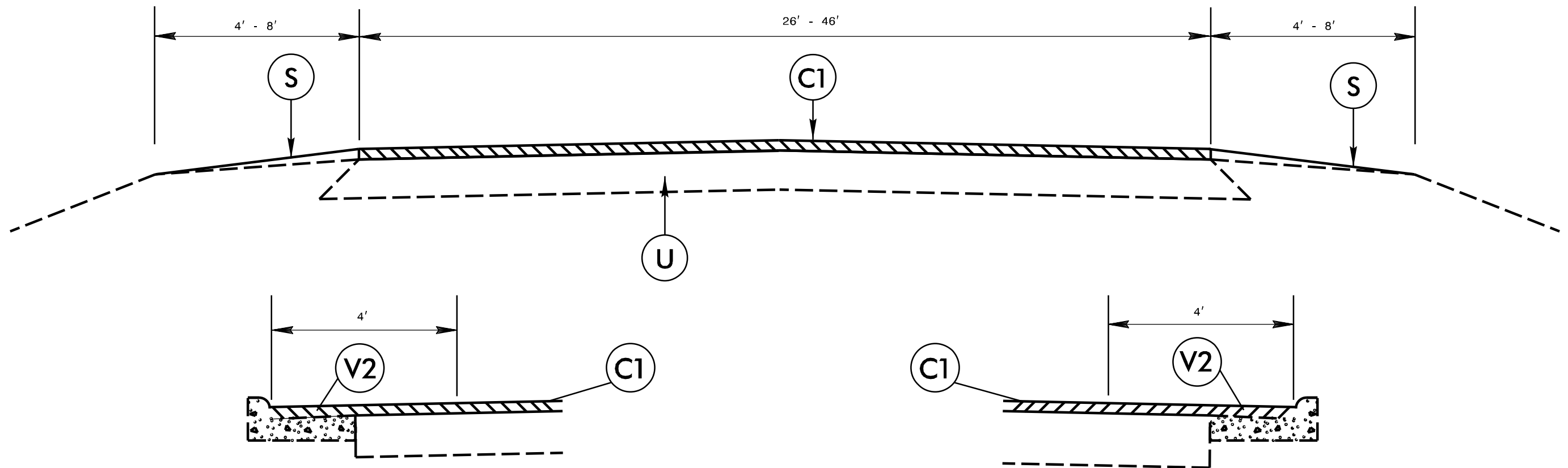
PROJECT REFERENCE NO.

SHEET NO.

2021CPT.05.06.10911.1, etc.

10

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	0" - 1¼" MILLING
C3	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V2	0" - 1½" MILLING



TYPICAL SECTION NO. 1

PAVEMENT SCHEDULE

S SHOULDER GRADING
ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

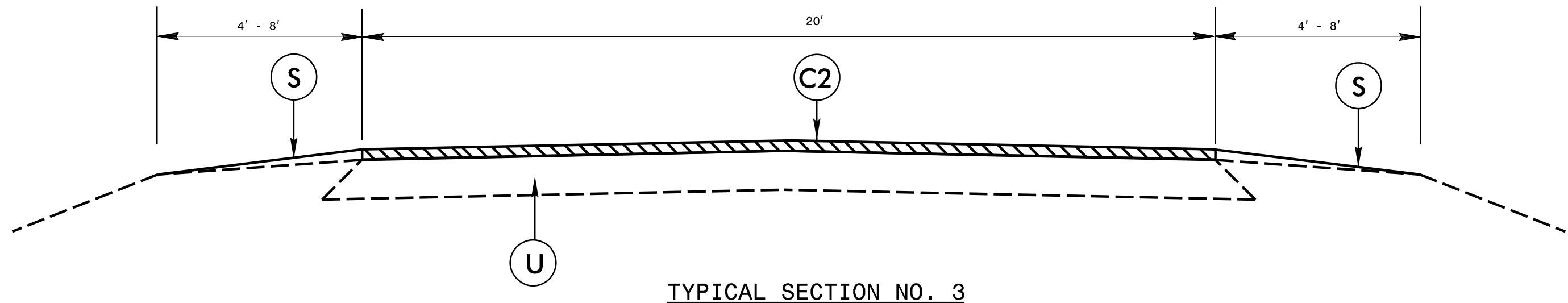
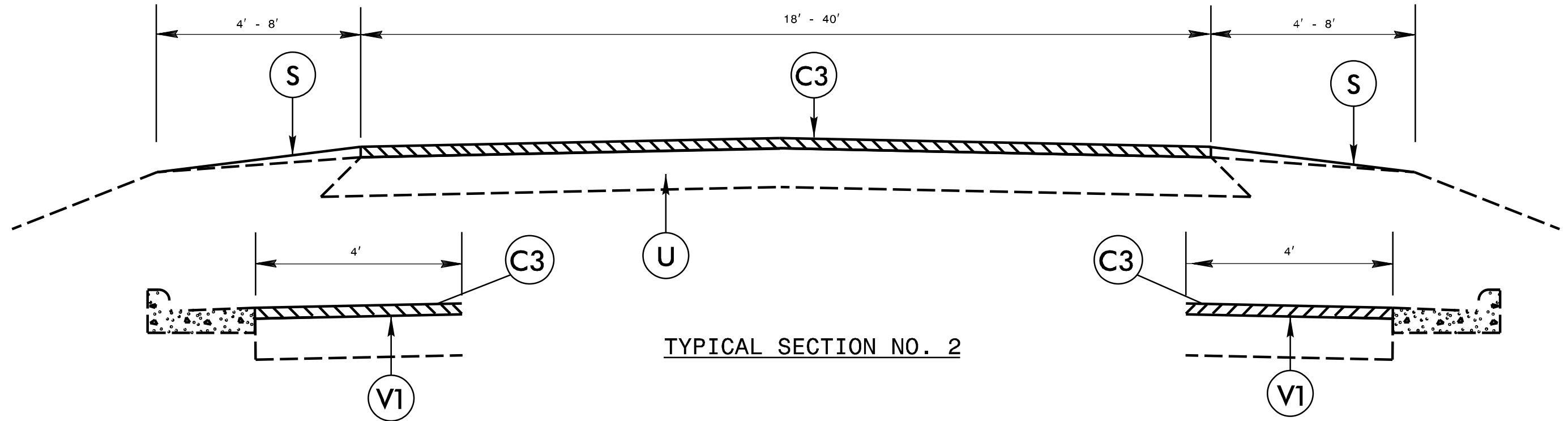
PROJECT REFERENCE NO.

SHEET NO.

2021CPT.05.06.10911.1, etc.

11

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	0" - 1¼" MILLING
C3	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V2	0" - 1½" MILLING



PAVEMENT SCHEDULE

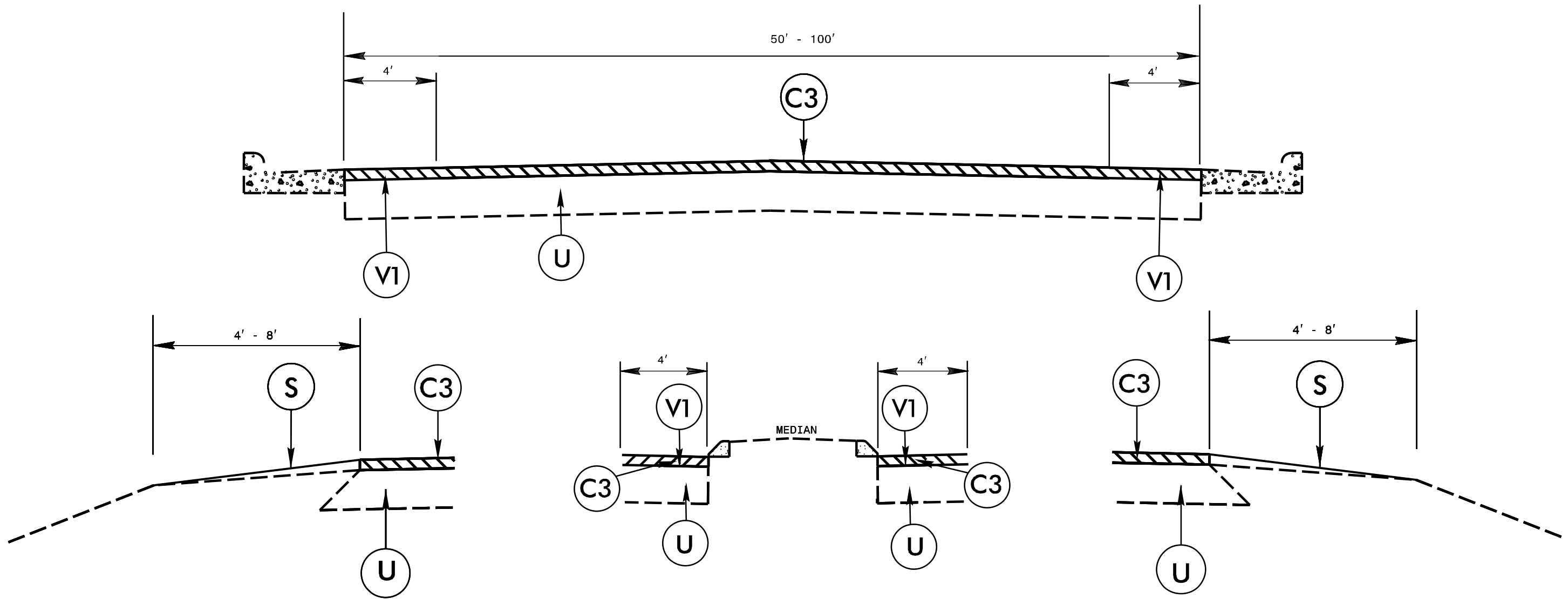
		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	0" - 1¼" MILLING
C3	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V2	0" - 1½" MILLING

PROJECT REFERENCE NO.

2021CPT.05.06.10911.1, etc.

SHEET NO.

12

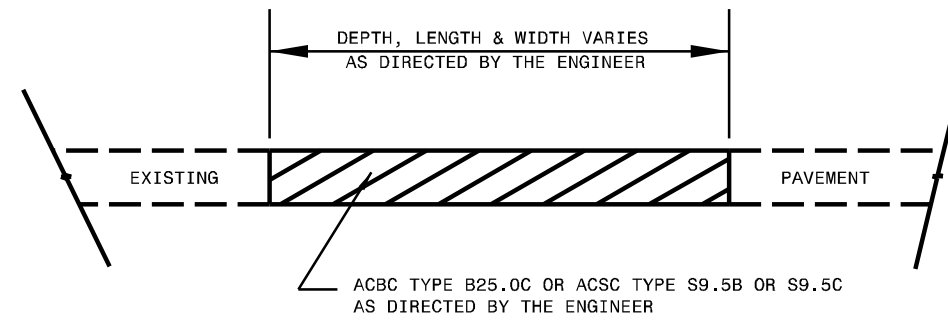


* MILL 0" - 1.25" FROM CURB FOR A DISTANCE OF 4'
TO ALLOW PAVEMENT TO TIE BACK IN FLUSH WITH CURB

TYPICAL SECTION NO. 4

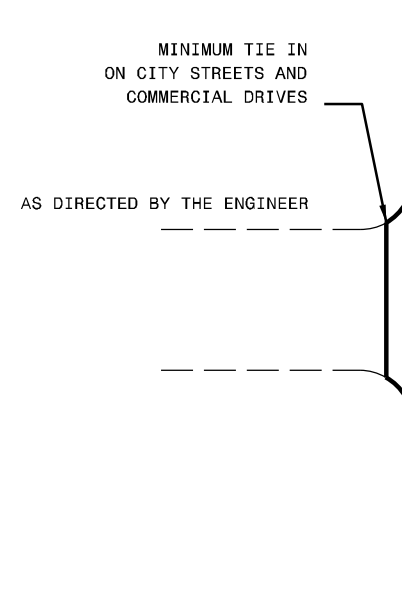
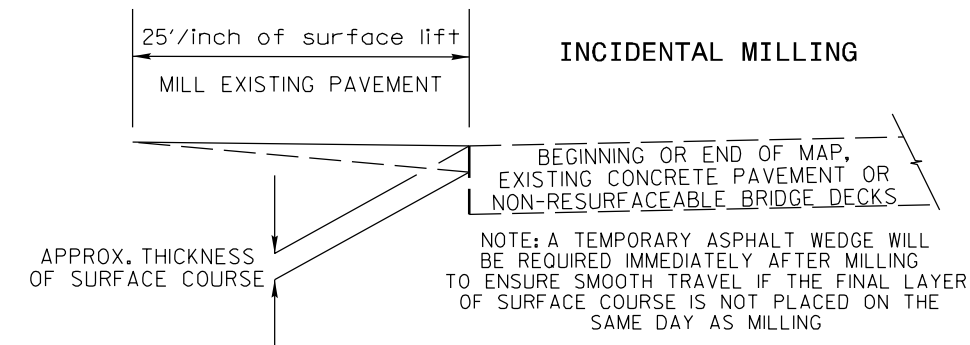
NOTES

ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

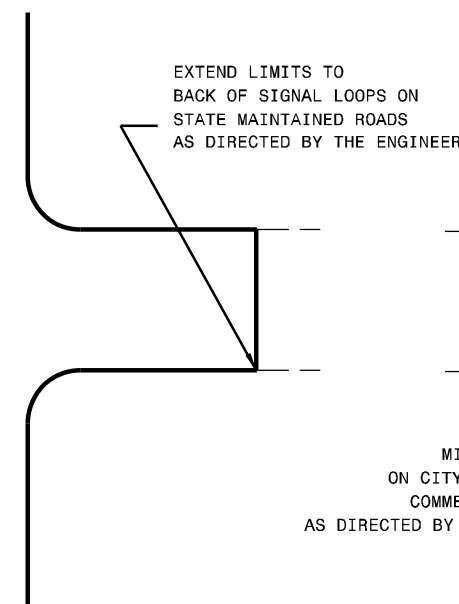


PATCHING EXISTING PAVEMENT

MILLING TO BE PERFORMED PRIOR TO PATCHING

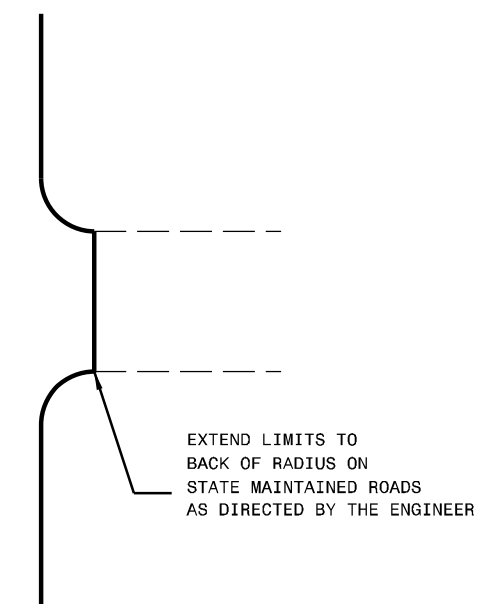


DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



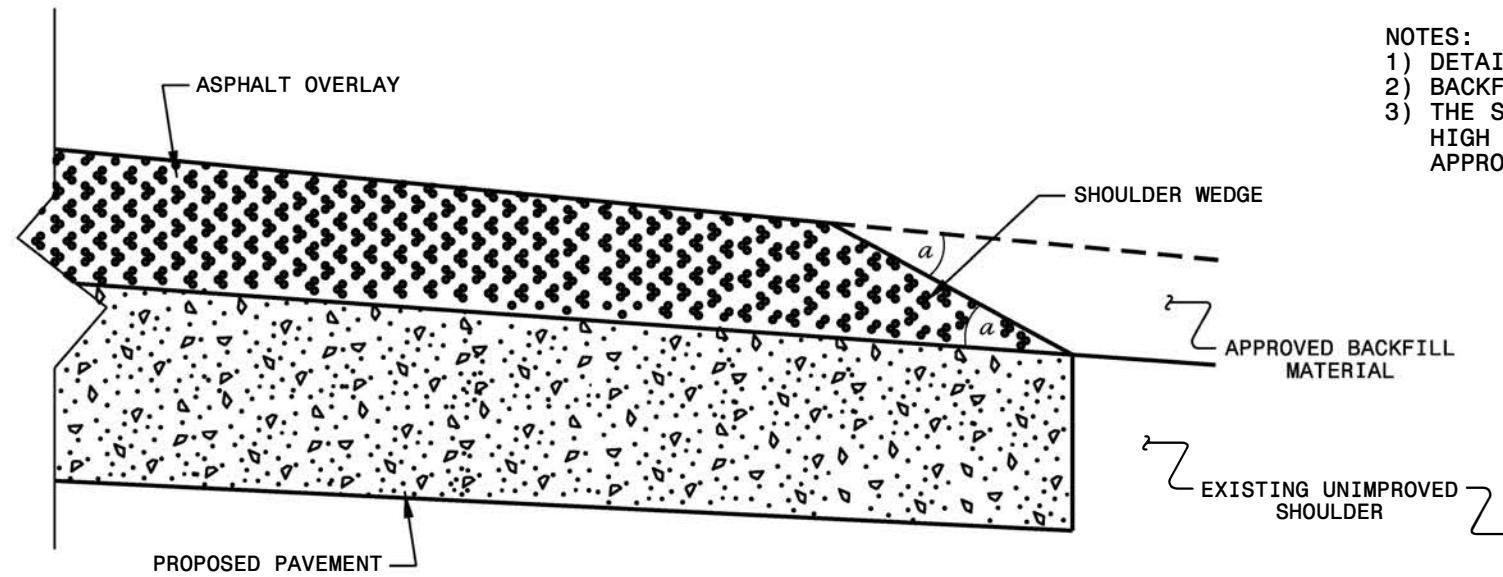
MINIMUM TIE IN ON CITY STREETS AND COMMERCIAL DRIVES AS DIRECTED BY THE ENGINEER

DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES



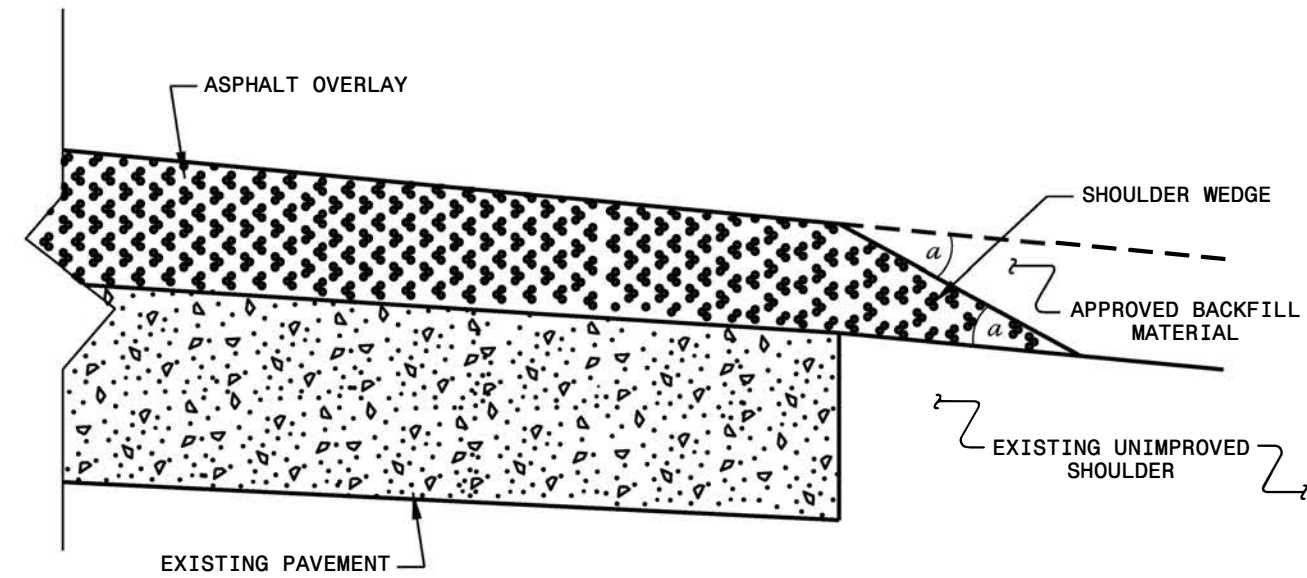
NOTES:

- 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.



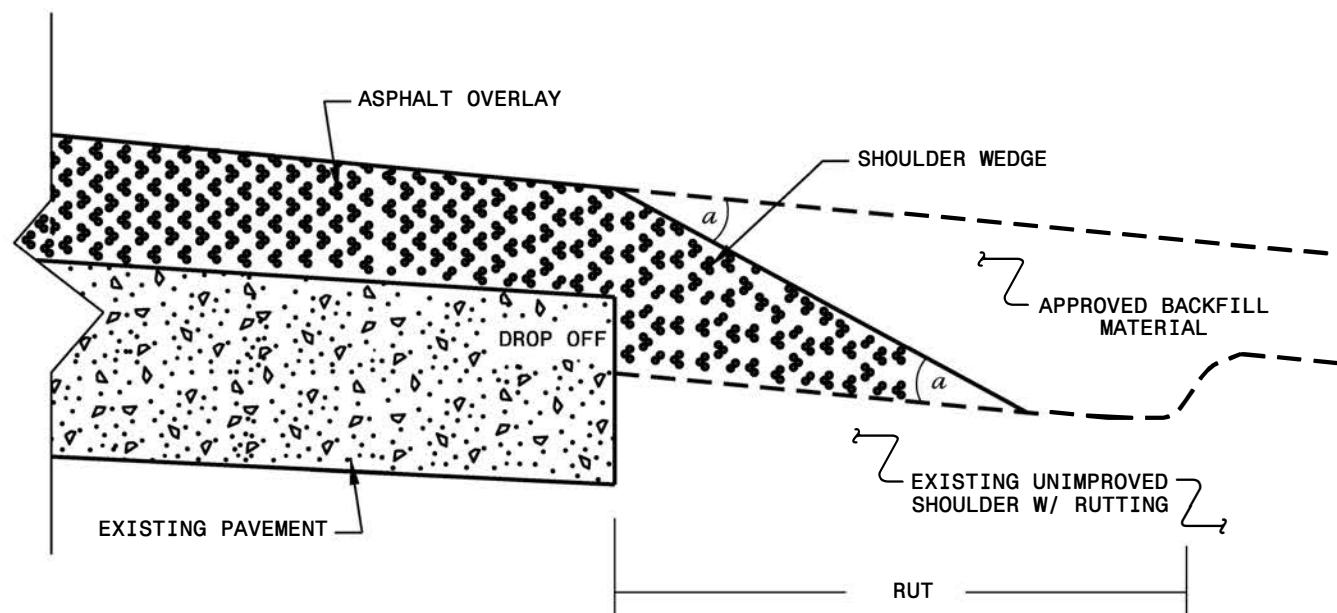
SHOULDER WEDGE DETAIL

(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.: s:\usr\details\stand\shoulderwedgedetail.dgn	

22 JAN-2018 09:41
 S:\Contracts\2018\Resurfacing Projects\Division 4\1-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn
 P:\polder\A1_CSD\210512

SUMMARY OF QUANTITIES

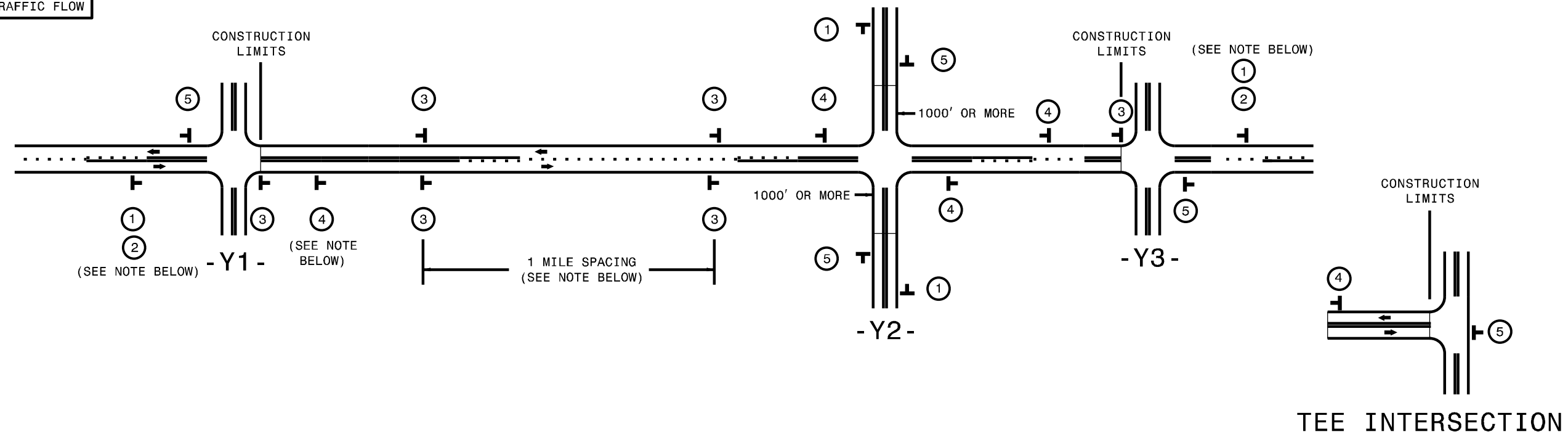
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	SHOULDER GRADING	INC. STONE BASE	AGGREGATE SHOULDER BORROW	0" TO 1.5" MILLING	0" TO 1.25" MILLING	INC. MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	TEMP.SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL	INDUCTIVE LOOP SAWCUT		
																													MI	FT
2021CPT.05.06.10911.1	Vance	1	NC 39	FRANKLIN CO TO SR 1577 LOOP RD	1	2	NO	NO	3.820	26-46	203	6.74	169	250	2,104		2,288		5,749	345	20			294	740	2.94	1			
TOTAL FOR PROJ NO. 2021CPT.05.06.10911.1																														
2021CPT.05.06.20911.1	Vance	2	SR 1126 - POPLAR CREEK RD	US 158 BUS TO SR 1304 BABNEY RD	2	2	NO	NO	3.122	22-36	281	6.24	156	58			1,168		3,231	216	145			409	1,030	4.09	1			
		3	SR 1136 - HIGHT ST	SR 1184 - MURPHY RD TO DEAD END	2	2	NO	NO	0.270	18	21	0.53	13	10						207	14	30		1	31	80	0.31			
		4	SR 1196 - HIGHT ST	SR 1172 - HARRIS ST TO SR 1184 - MURPHY RD	2	2	NO	NO	0.270	18	21	0.53	13	10						212		14	10	1		31	80	0.31		
		5	SR 1172 - HARRIS ST/N PINE ST	SR 1137 - OLD NORLINA RD TO SR 1184 - MURPHY RD	2	2	NO	NO	0.465	19-26	47	0.93	23						132	440		29	39	2	2	67	170	0.68	1	
		6	SR 1173 - E PARKER ST	SR 1137 - OLD NORLINA RD TO EOM	2	2	NO	NO	0.100	18	10	0.20	7						125	77		5	110			15	20	0.14		
		7	SR 1177 - CRAIG AVE	SR 1137 - OLD NORLINA RD TO DEAD END	2	2	NO	NO	0.080	18	8	0.15	4						125	64		4	75			12	30	0.11		
		8	SR 1184 - MURPHY RD	SR 1195 - WALTERS ST TO DEAD END	2	2	NO	NO	0.590	19	41	1.18	30	33						477		32	171			60	160	0.60	1	
		9	SR 1187 - BOBBIE ST	BOBBIT ST TO END MAINT	2	2	NO	NO	0.240	18	24	0.48	12	22					63	196		13				35	90	0.35		
		10	SR 1190 - DAVID ST	SR 1172 - HARRIS ST TO END MAINT	2	2	NO	NO	0.200	19	10	0.29	10	14					208	164		11	10		2	15	40	0.15		
		11	SR 1195 - WALTERS ST/MURPHY RD	SR 1172 - HARRIS ST TO SR 1184 - MURPHY	2	2	NO	NO	0.340	19	17	0.68	17	31					52	286		19	20	3	5	25	70	0.25		
		12	SR 1198 - BUNN ST	SR 1196 - HIGHT ST TO SR 1199 - TOPLEMAN ST	2	2	NO	NO	0.130	18	13	0.26	7							101		7				19	50	0.19		
		13	SR 1245 - BRODIE RD	US 158 BUS TO SR 1101 - OLD COUNTRY HOME RD	2	2	NO	NO	1.440	20	15	2.87	72	239					139	1,241		83	722			21	60	0.21	1	
		14	SR 1263 - HUNTERS RDG RD	US 158 BUS TO SR 1265 - WOOD TRAIL WAY	2	2	NO	NO	0.380	20-40	38	0.76	19						140	365		24	290			55	140	0.55		
		15	SR 1264 - SHADOWBROOK DR	SR 1263 - HUNTERS RDG RD TO END MAINT	2	2	NO	NO	0.131	20	13	0.26	7							170		11	130			17	50	0.19		
		16	SR 1270 - GLENN AVE	SR 1137 - OLD NORLINA RD TO DEAD END	2	2	NO	NO	0.070	18	7	0.14	4						125	56		4	100			11	30	0.10		
		17	SR 1271 - BICKETT ST	SR 1137 - OLD NORLINA RD TO US 158 BUS	2	2	NO	NO	0.160	20	16	0.32	8						245	143		10	107			23	60	0.23		198
		18	SR 1285 - BURNING TREE DR	US 158 BUS TO END MAINT	2	2	NO	NO	0.440	20	44	0.88	22					125	208	420		28	435			64	170	0.64		
		19	SR 1295 - TINY BROADWICK BLVD	SR 1101 - OLD COUNTRY HOME RD TO SR 1303 - DABNEY RD	4	2	NO	NO	3.450	50-100	181	6.90	90									622	200	2	8	264	660	2.64	1	6,806
		20	SR 1178 - PARHAM RD	SR 1137 - OLD NORLINA RD TO US 158 SR 1319 - SATTERWHITE POINTE RD TO US1	2	2	NO	NO	0.100	20	10	0.21	5						234	107		7	36			15	40	0.15		
		21	SR 1322 - MABRY MILL RD	SR 1319 - SATTERWHITE POINTE RD TO US1	2	2	NO	NO	1.410	20	84	2.81	70	104					625	1,511		101	655			123	310	1.23	1	
		22	SR 1356 - ROCK SPRING CHURCH RD	VIRGINIA TO NC 39	2	2	NO	NO	3.120	18	63	6.24	156	462					1,845	2,874		193	570			91	230	0.91	1	
		23	SR 1436 - NORTH WOODS RD	SR 1312 - PARHAM RD TO CUL-DE-SAC	2	2	NO	NO	0.160	20	16	0.32	8						70	170		11	290	1	1	24	60	0.26		
		24	SR 1546 - PETER GILL RD	SR 1115 - BEAR POND RD TO SR 1547 - ABBOTT RD	3	2	NO	NO	0.900	20	90	1.80	45						167	920		62	165			131	330	1.31	1	
		25	SR 1551 - W MAIN ST/ KITRELL RD	US 1 TO SR 1549 - BOBBITT RD	2	2	NO	NO	2.800	19-36	112	5.60	140	311					1,106	2,467		165	3,208			163	410	1.63	1	
		26	SR 1569 - ROSS AVE	SR 1518 - NEWTON DAIRY RD TO DEAD END	2	2	NO	NO	0.430	20	43	0.86	22						69	397		27	165			63	160	0.63	1	
		27	SR 1570 - BLUEBIRD LN	SR 1569 - ROSS AVE TO DEAD END	2	2	NO	NO	0.080	18	8	0.15	4							64		4	80			12	30	0.11		
		28	SR 1592 - E COACHWAY DR	SR 1569 - ROSS AVE TO DEAD END	2	2	NO	NO	0.060	18	6	0.12	3							56		4	51			10	30	0.09		
		29	SR 1593 - W COACHWAY DR	SR 1569 - ROSS AVE TO DEAD END	2	2	NO	NO	0.030	18	3	0.07	2							23		2	3			5	20	0.05		
		30	SR 1594 - LINWOOD LN	SR 1569 - ROSS AVE TO DEAD END	2	2	NO	NO	0.090	18	9	0.18	4							80		5	30			13	40	0.13		
		31	SR 1199 - TOPLEMAN ST	SR 1198 - BUNN ST TO DEAD END	2	2	NO	NO	0.140	18	14	0.28	7						63	112		8	51		1	21	60	0.20		
		32	SR 1286 - WINTERGREEN RD	SR 1285 - BURNING TREE DR TO DEAD END	2	2	NO	NO	0.080	20	8	0.16	4							84		6	70			12	30	0.12		
		33	SR 1265 - WOODTRAIL WAY	SR 1263 - HUNTERS RDG RD TO END MAINT	2	2	NO	NO	0.290	20	29	0.58	14							259		17	170			42	110	0.42		
		34	SR 1197 - IVEY ST	SR 1195 - WALTERS ST TO SR 1199 - TOPLEMAN ST	2	2	NO	NO	0.200	18	16	0.41	10							157		11	14	1	5	30	80	0.30		
		35	SR 1179 - MAIN ST	SR 1137 - OLD NORLINA RD TO SR 1190 - DAVID ST	2	2	NO	NO	0.190	20	19	0.39	10						347	174		12	15	5	6	28	80	0.28		
		TOTAL FOR PROJ NO. 2021CPT.05.06.20911.1																												
2021CPT.05.06.20931.1	Warren	36	SR 1251 - WALTER ST	SR 1247 - NUT BRUSH DR TO SR 1250 - CYNTHIA AVE	2	2	NO	NO	0.136	20	14	0.27	7						116		8				20	50	0.20			
		37	SR 1203 - SPAIN RD	SR 1200 - DREWRY VIRGINIA LINE RD TO SR 1248 - ROSE HILL RD	2	2	NO	NO	0.520	20	46	1.03	26					69	443		30	325			67	170	0.67	1		
		38	SR 1210 - ST TAMMANY RD	US 1 TO SR 1231 - OLIVE RD	3	2	NO	NO	1.752	20	140	3.50	88						350	1,808		121	405			204	510	2.04	1	
		39	SR 1243 - MARYLAND DR	SR 1248 - ROSE HILL RD TO CUL-DE-SAC	2	2	NO	NO	0.250	18	25	0.50	13							192		13				37	100	0.36		
		40	SR 1247 - NUT BRUSH DR	SR 1200 - DREWRY VIRGINIA LINE RD TO END PVMT	2	2	NO	NO	0.450	18	45	0.90	23						62	345		23	140			65	170	0.65		
		41	SR 1248 - ROSE HILL RD	SR 1203 - SPAIN RD TO DEAD END	2	2	NO	NO	0.320	20	32	0.64	16							272		18	55			47	120	0.47		
42	SR 1250 - CYNTHIA AVE	SR 1247 - NUT BRUSH DR TO CUL-DE-SAC	2	2	NO	NO	0.160	18	16	0.32	8							140		9	10			23	60	0.23				
TOTAL FOR PROJ NO. 2021CPT.05.06.20931.1																														
GRAND TOTAL									29.366		1,858	57.68	1,368	1,544	2,104	18,762	30,323	29,903	5,749	2,348	9,122	15	31	2,714	6,930	27.12	13	7,004		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4695000000-E	4700000000	4720000000-N			4725000000-E					4770000000-E		4805000000	4850000000-E	4891000000-E	4895000000				
									WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90M WHITE THERMO	4" X 90M YELLOW THERMO	8" X 90M WHITE THERMO	8" X 90M YELLOW THERMO	12" X 90M YELLOW THERMO	THERMO MSG ONLY 90 M	THERMO MSG SCHOOL 90 M	THERMO RXR 90M	THERMO LT ARROW 90 M	THERMO STR & LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO YIELD TRIANGLE 90M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4" WHITE COLD APPLIED PLASTIC, TYPE II	LEFT ARROW COLD APPLIED PLASTIC, TYPE II	4" LINE REMOVAL	24" X 90M WHITE THERMO	16" X 90M WHITE THERMO	NON-CAST IRON SNOW PLOWABLE MARKER
							MI	FT	SF	LS	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA				
2021CPT.05.06.10911.1	Vance	1	NC 39	FRANKLIN CO TO SR 1577 LOOP RD	1	2	3.820	26-46	428		41,735	29,890	22		140	12			7	5	5	5					350				
TOTAL FOR PROJ NO. 2021CPT.05.06.10911.1									428	*	41,735	29,890	22		140	12			7	5	5	5					350				
											71,625		22				12				22										
2021CPT.05.06.20911.1	Vance	2	SR 1126 - POPLAR CREEK RD	US 158 BUS TO SR 1304 BABNEY RD	2	2	3.122	22-36	53		33,315	32,828		78			12		6		1		2			142					
		3	SR 1136 - HIGHT ST	SR 1184 - MURPHY RD TO DEAD END	2	2	0.270	18	30																						
		4	SR 1196 - HIGHT ST	SR 1172 - HARRIS ST TO SR 1184 - MURPHY RD	2	2	0.270	18	30																						
		5	SR 1172 - HARRIS ST/N PINE ST	SR 1137 - OLD NORLINA RD TO SR 1184 - MURPHY RD	2	2	0.465	19-26	53								2										36	50			
		6	SR 1173 - E PARKER ST	SR 1137 - OLD NORLINA RD TO EOM	2	2	0.100	18	11																						
		7	SR 1177 - CRAIG AVE	SR 1137 - OLD NORLINA RD TO DEAD END	2	2	0.080	18	9																						
		8	SR 1184 - MURPHY RD	SR 1195 - WALTERS ST TO DEAD END	2	2	0.590	19	67																						
		9	SR 1187 - BODDIE ST	BOBBIT ST TO END MAINT	2	2	0.240	18	27																						
		10	SR 1190 - DAVID ST	SR 1172 - HARRIS ST TO END MAINT	2	2	0.200	19	23																						
		11	SR 1195 - WALTERS ST/MURPHY RD	SR 1172 - HARRIS ST TO SR 1184 - MURPHY RD	2	2	0.340	19	38																						
		12	SR 1198 - BUNN ST	SR 1196 - HIGHT ST TO SR 1199 - TOPLEMAN ST	2	2	0.130	18	15																						
		13	SR 1245 - BRODIE RD	US 158 BUS TO SR 1101 - OLD COUNTRY HOME RD	2	2	1.440	20	161			15,494	11,177																		
		14	SR 1263 - HUNTERS RDG RD	US 158 BUS TO SR 1265 - WOOD TRAIL WAY	2	2	0.380	20-40	43																						
		15	SR 1264 - SHADOWBROOK	SR 1263 - HUNTERS RDG RD TO END MAINT	2	2	0.131	20	15																						
		16	SR 1270 - GLENN AVE	SR 1137 - OLD NORLINA RD TO DEAD END	2	2	0.070	18	8																						
		17	SR 1271 - BICKETT ST	SR 1137 - OLD NORLINA RD TO US 158 BUS	2	2	0.160	20	18			1,722	1,520														30				
		18	SR 1285 - BURNING TREE DR	US 158 BUS TO END MAINT	2	2	0.440	20	50																						
		19	SR 1295 - TINY BROADWICK BLVD	SR 1101 - OLD COUNTRY HOME RD TO SR 1303 - DABNEY RD	4	2	3.450	50-100	126			36,756	10,095	545	420		28			45	1	26		46	5		235	1	1,030		
		20	SR 1178 - PARHAM RD	SR 1137 - OLD NORLINA RD TO US 158	2	2	0.100	20	12			1,076	930															20			
		21	SR 1322 - MABRY MILL RD	SR 1319 - SATTERWHITE POINTE RD TO US1	2	2	1.410	20	158			14,300	14,300														480	480	960		
		22	SR 1356 - ROCK SPRING CHURCH RD	VIRGINIA TO NC 39	2	2	3.120	18	350			33,571	32,948																		
		23	SR 1436 - NORTH WOODS RD	SR 1312 - PARHAM RD TO CUL-DE-SAC	2	2	0.160	20	19																						
		24	SR 1546 - PETER GILL RD	SR 1115 - BEAR POND RD TO SR 1547 - ABBOTT RD	3	2	0.900	20	101			9,684	9,350																		
		25	SR 1551 - W MAIN ST/KITRELL RD	US 1 TO SR 1549 - BOBBITT RD	2	2	2.800	19-36	314			30,128	29,568				4										72	100			
		26	SR 1569 - ROSS AVE	SR 1518 - NEWTON DAIRY RD TO DEAD END	2	2	0.430	20	95																						
		27	SR 1570 - BLUEBIRD LN	SR 1569 - ROSS AVE TO DEAD END	2	2	0.080	18	9																						
		28	SR 1592 - E COACHWAY DR	SR 1569 - ROSS AVE TO DEAD END	2	2	0.060	18	7																						
		29	SR 1593 - W COACHWAY DR	SR 1569 - ROSS AVE TO DEAD END	2	2	0.030	18	4																						
		30	SR 1594 - LINWOOD LN	SR 1569 - ROSS AVE TO DEAD END	2	2	0.090	18	10																						
		31	SR 1199 - TOPLEMAN ST	SR 1198 - BUNN ST TO DEAD END	2	2	0.140	18	16																						
		32	SR 1286 - WINTERGREEN RD	SR 1285 - BURNING TREE DR TO DEAD END	2	2	0.080	20	10																						
		33	SR 1265 - WOODTRAIL WAY	SR 1263 - HUNTERS RDG RD TO END MAINT	2	2	0.290	20	33																						
		34	SR 1197 - IVEY ST	SR 1195 - WALTERS ST TO SR 1199 - TOPLEMAN ST	2	2	0.200	18	23																						
		35	SR 1179 - MAIN ST	SR 1137 - OLD NORLINA RD TO SR 1190 - DAVID ST	2	2	0.190	20	22								4											60	100		
		TOTAL FOR PROJ NO. 2021CPT.05.06.20911.1									21,958	1,960	*	176,046	142,716	545	420	78	28	12	10	51	1	27	48	5	480	715	1	960	1,390
											318,762		965				50			132			1,195								
2021CPT.05.06.20931.1	Warren	36	SR 1251 - WALTER ST	SR 1247 - NUT BRUSH DR TO SR 1250 - CYNTHIA AVE	2	2	0.136	20	16																						
		37	SR 1203 - SPAIN RD	SR 1200 - DREWRY VIRGINIA LINE RD TO SR 1248 - ROSE HILL RD	2	2	0.520	20	58		5,595	4,795																			
		38	SR 1210 - ST TAMMANY RD	US 1 TO SR 1231 - OLIVE RD	3	2	1.752	20	197		18,852	18,500																			
		39	SR 1243 - MARYLAND DR	SR 1248 - ROSE HILL RD TO CUL-DE-SAC	2	2	0.250	18	28		2,690	2,640																			
		40	SR 1247 - NUT BRUSH DR	SR 1200 - DREWRY VIRGINIA LINE RD TO END PVMT	2	2	0.450	18	51																						
41	SR 1248 - ROSE HILL RD	SR 1203 - SPAIN RD TO DEAD END	2	2	0.320	20	36																								
42	SR 1250 - CYNTHIA AVE	SR 1247 - NUT BRUSH DR TO CUL-DE-SAC	2	2	0.160	18	18																								
TOTAL FOR PROJ NO. 2021CPT.05.06.20931.1									3,588	404	*	27,137	25,935																		
											53,072																				
GRAND TOTAL									29,366	2,792	*	244,918	198,541	567	420	218	40	12	10	58	6	32	5	48	5	480	715	1	960	1,390	250
											443,459		987				62			154			1,195								







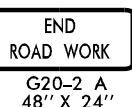
SIGNING FOR RESURFACING PROJECTS

LEGEND
 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

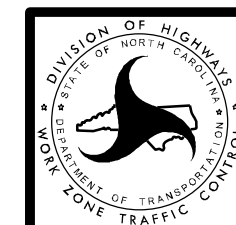
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	①	 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.	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.
	②	 W7-3aP 24" X 18"	#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	 SP 13107 48" X 48"	- 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	 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	 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.		

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

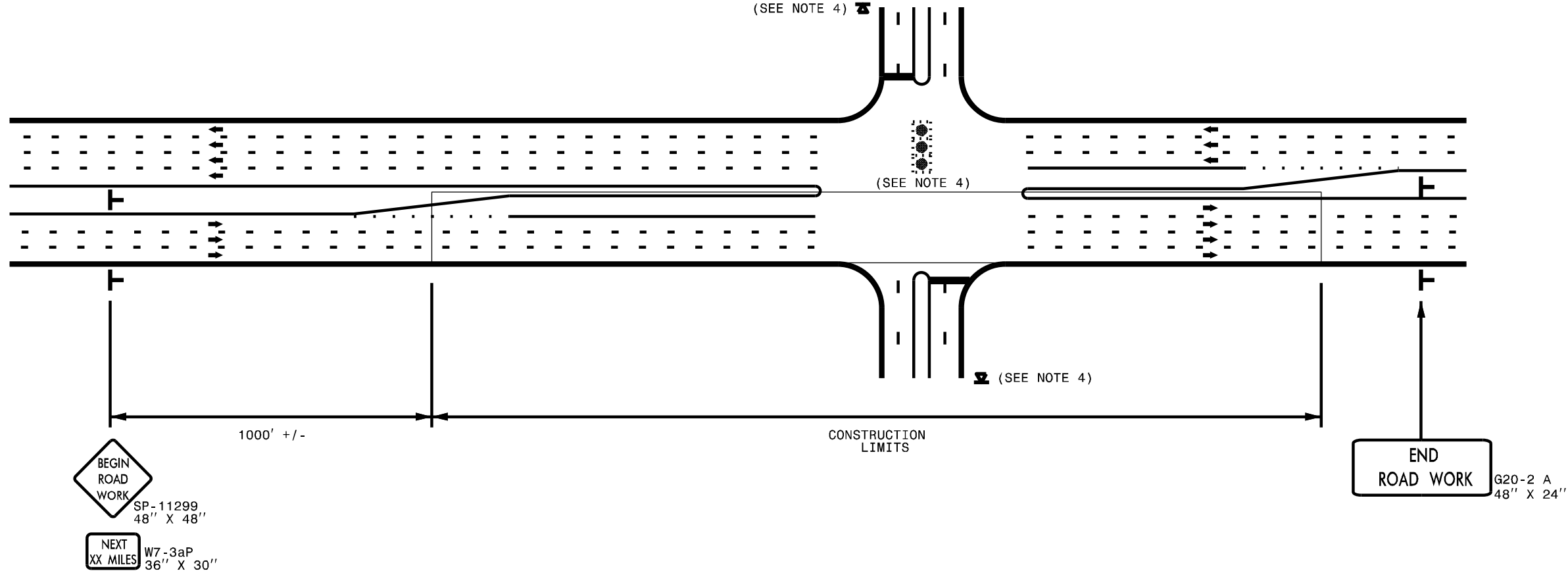
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



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

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

URBAN / SUBURBAN WORKZONES



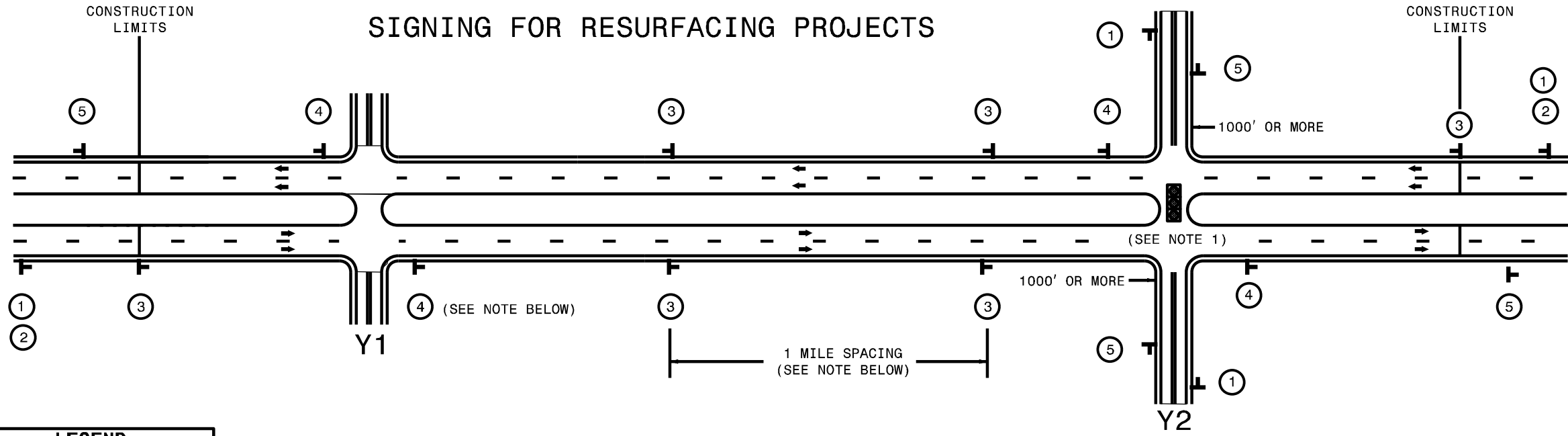
NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 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) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) 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.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) 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 WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND	
T	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW

	<p>RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES</p>
--	---------------------------------------------------------------------------------

\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$



LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	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, ADVANCE WARNING PORTABLE 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;"> <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	②		#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		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.	
	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.	
⑤		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		
NOTES:			<ol style="list-style-type: none"> 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. 	

\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

**RESURFACING
 ADVANCE WARNING SIGNS
 FOR RURAL AND SUBURBAN
 MULTI-LANE ROADWAYS
 W/ SHOULDER SECTIONS**

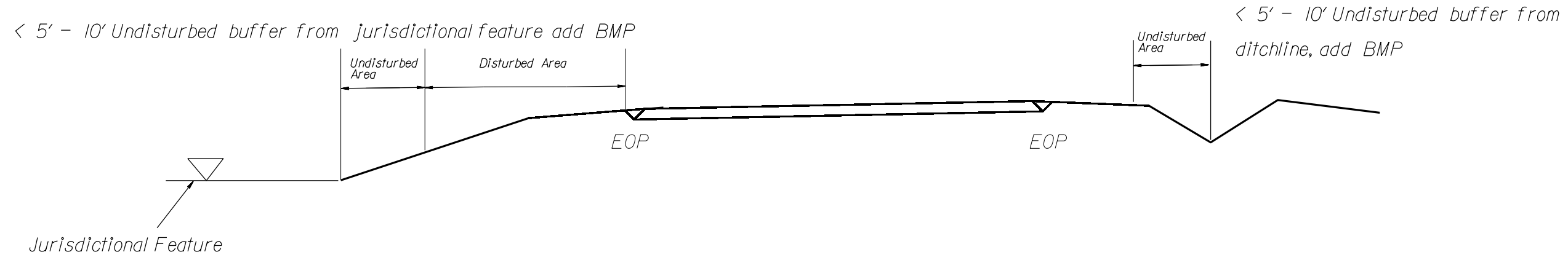
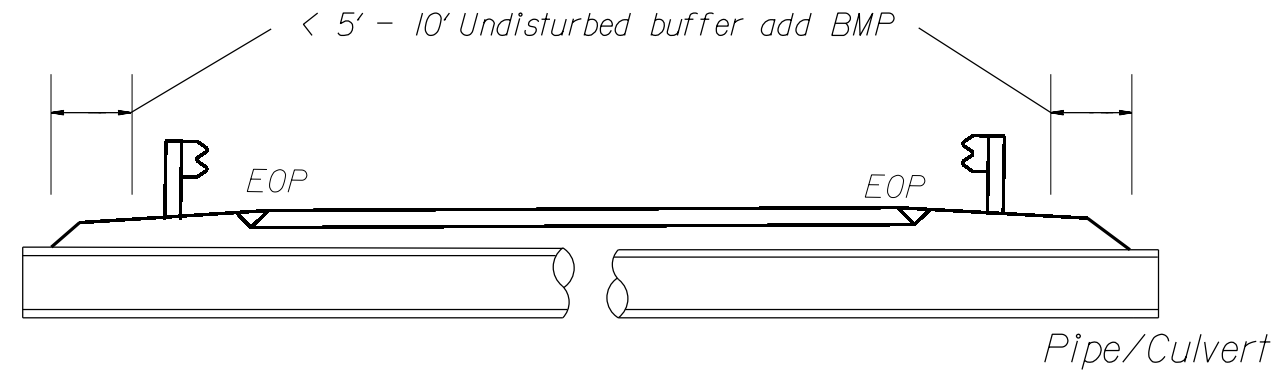
**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

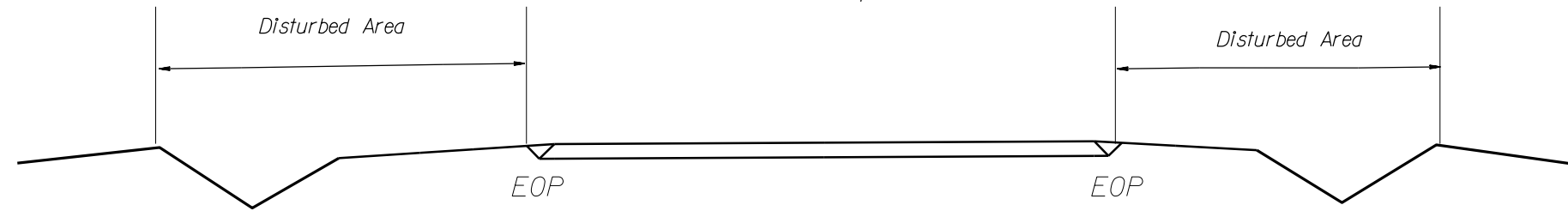
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

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.

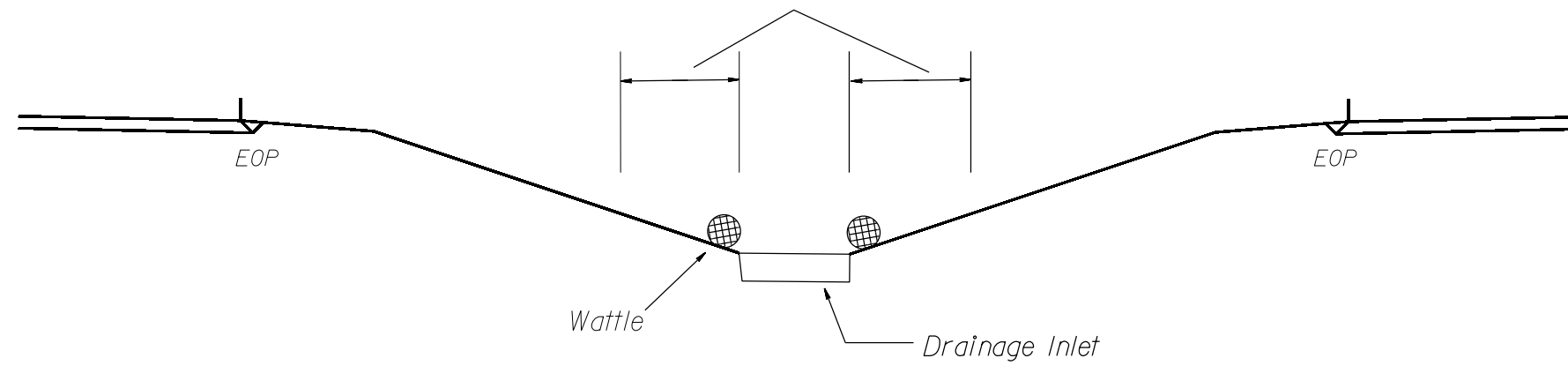
EROSION CONTROL DETAIL



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

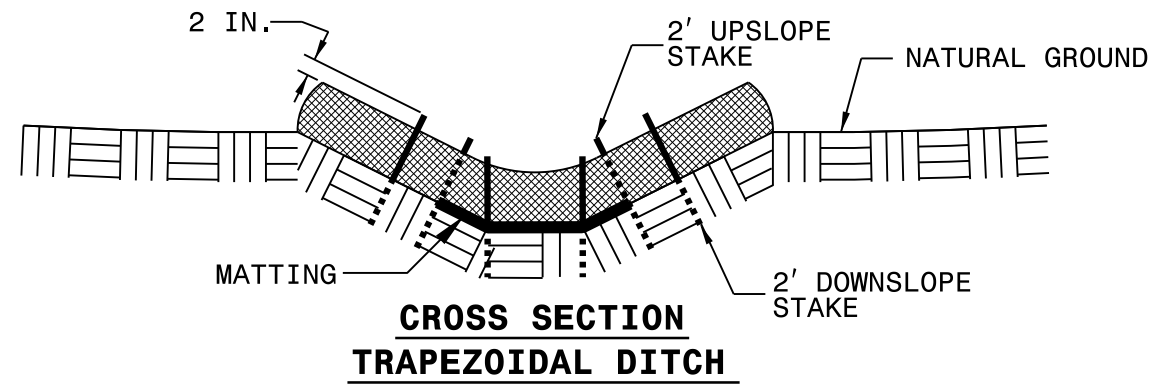
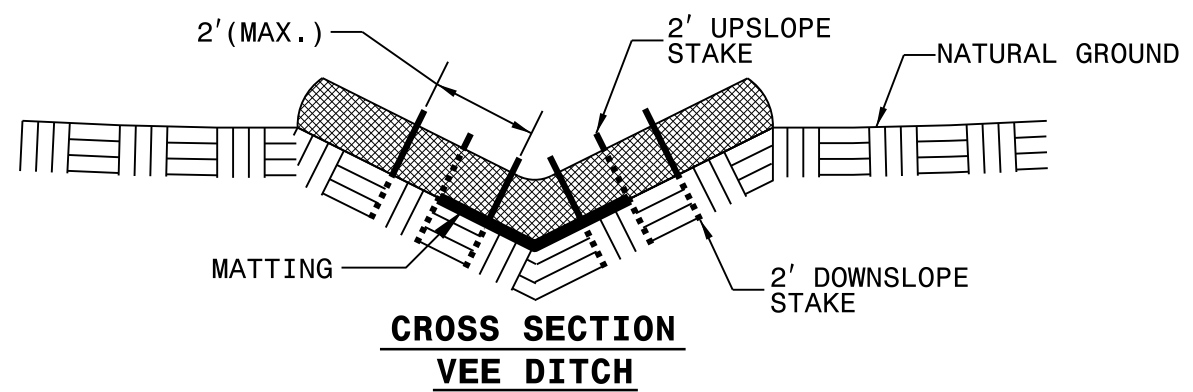
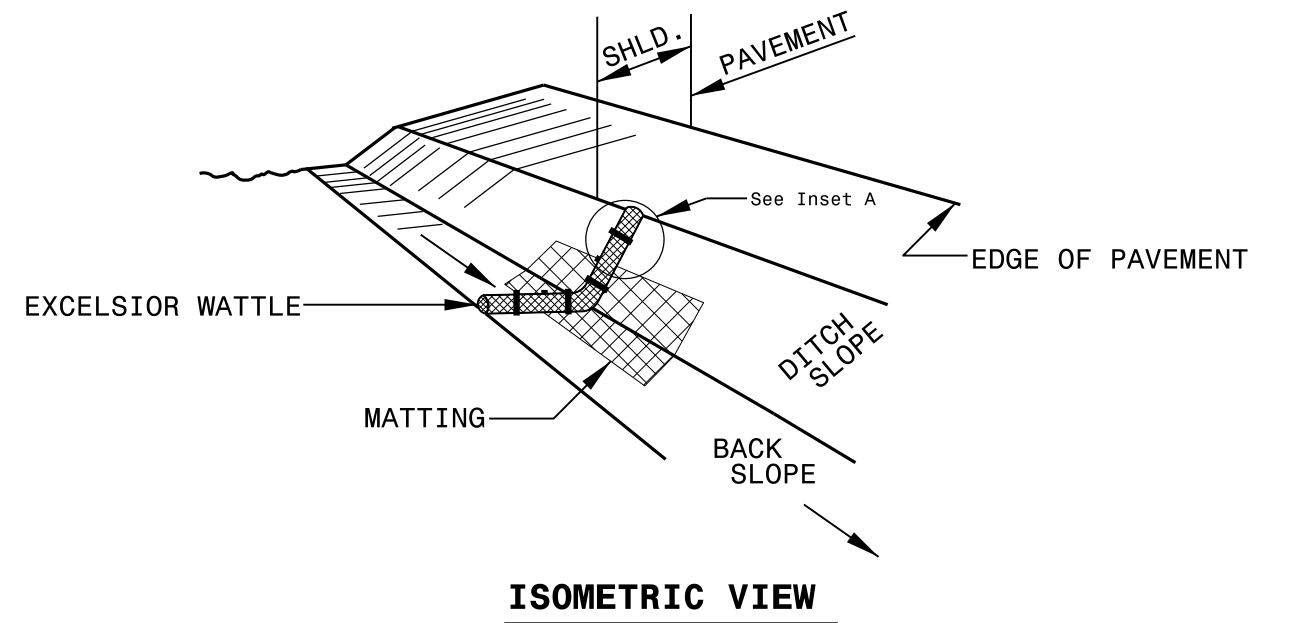


< 5' - 10' Undisturbed buffer from inlet, add wattle

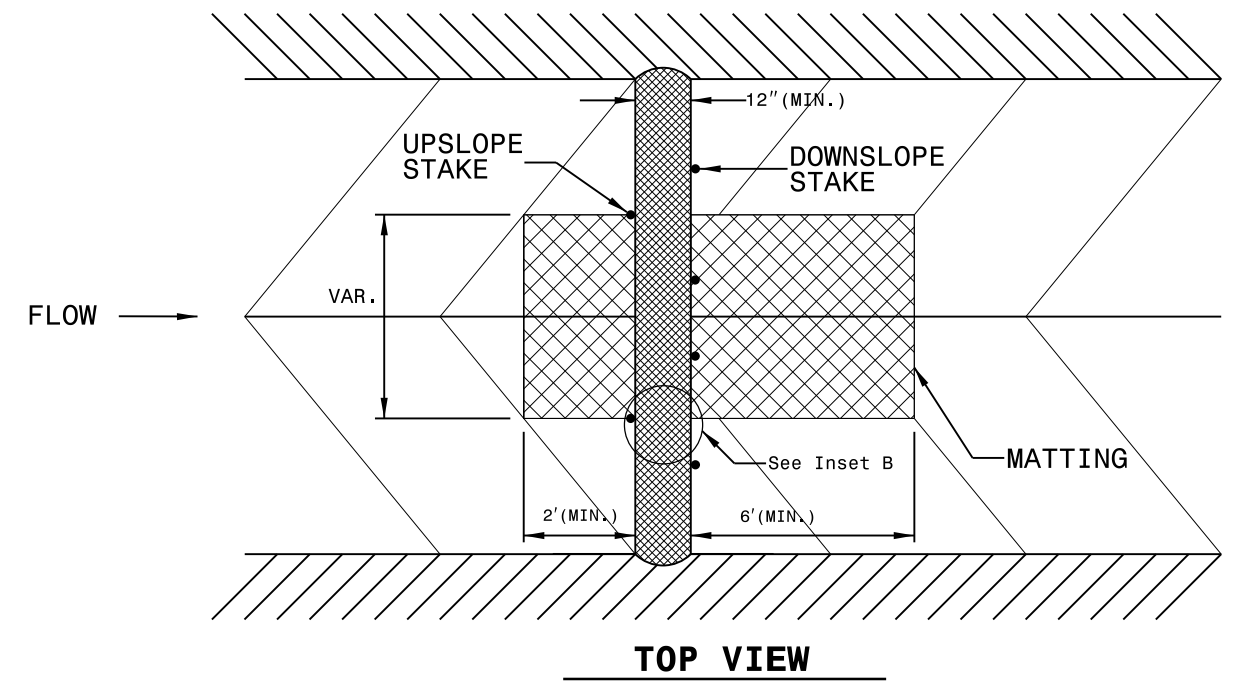
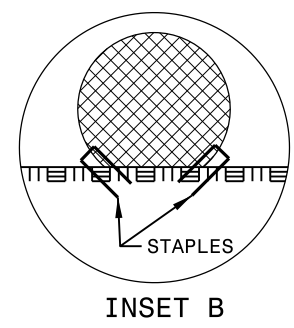
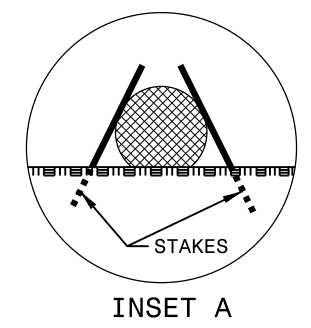


NOT TO SCALE

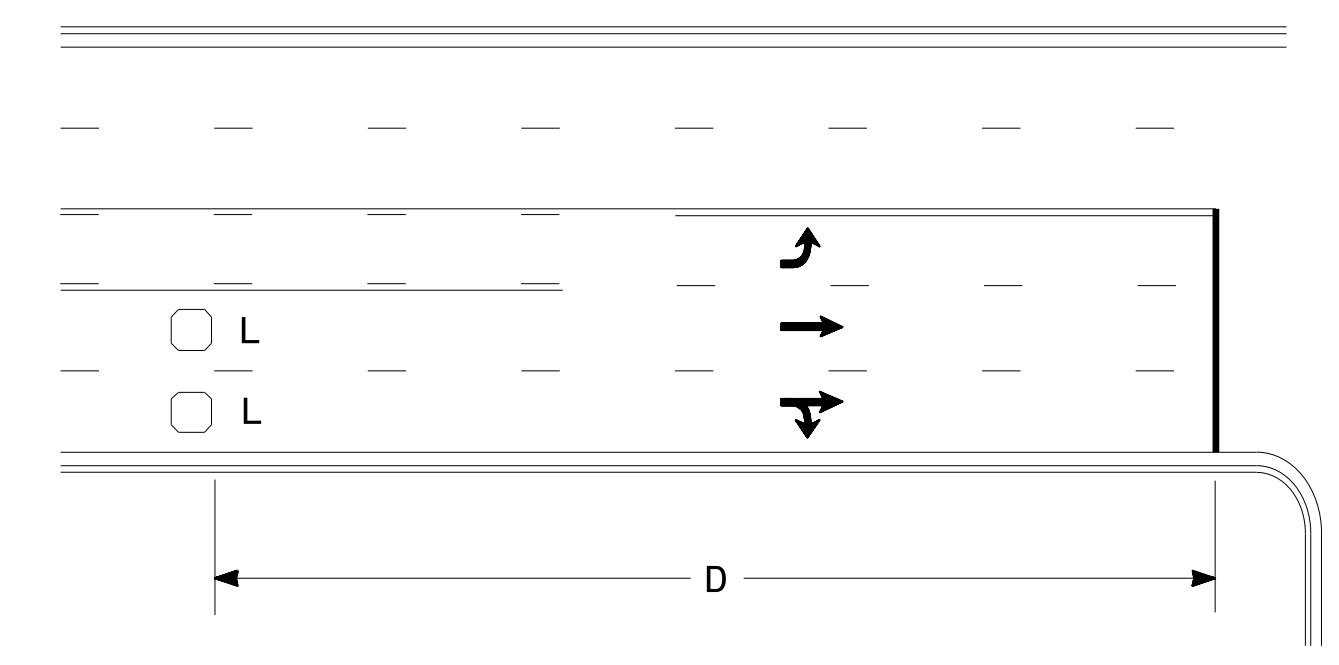
WATTLE DETAIL



- 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.



High Speed Detection (≥40 mph)

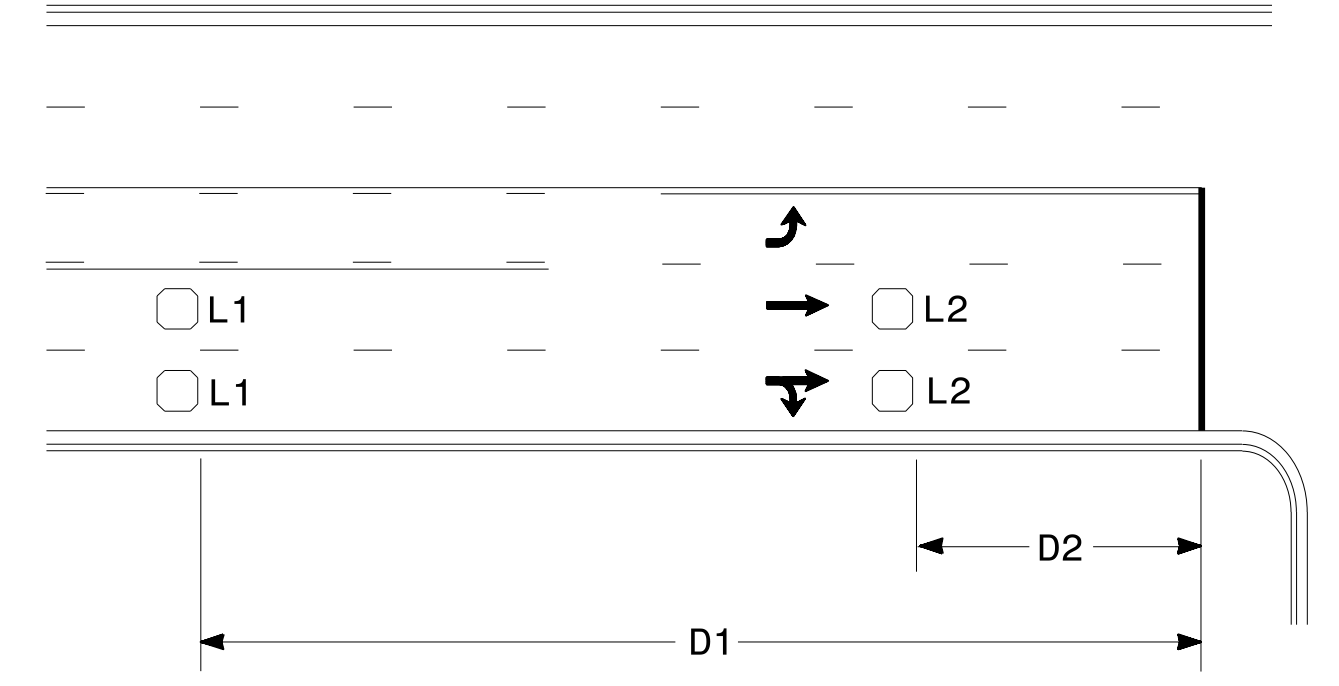


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

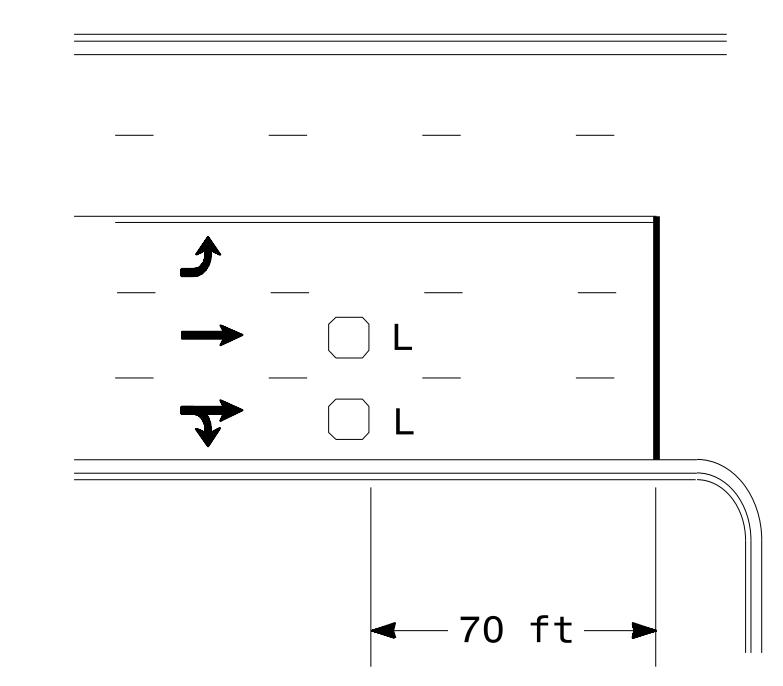


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

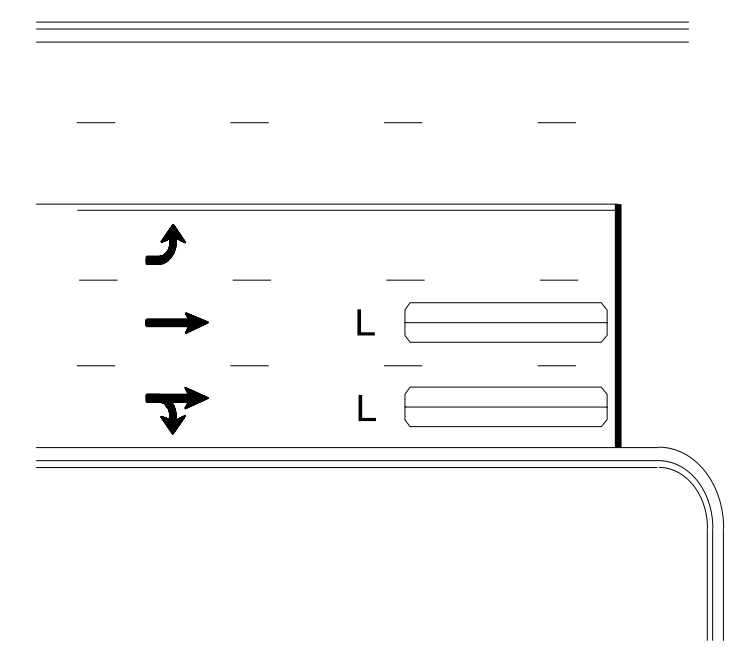
"Stretch" Operation

Low Speed Detection (≤35 mph)



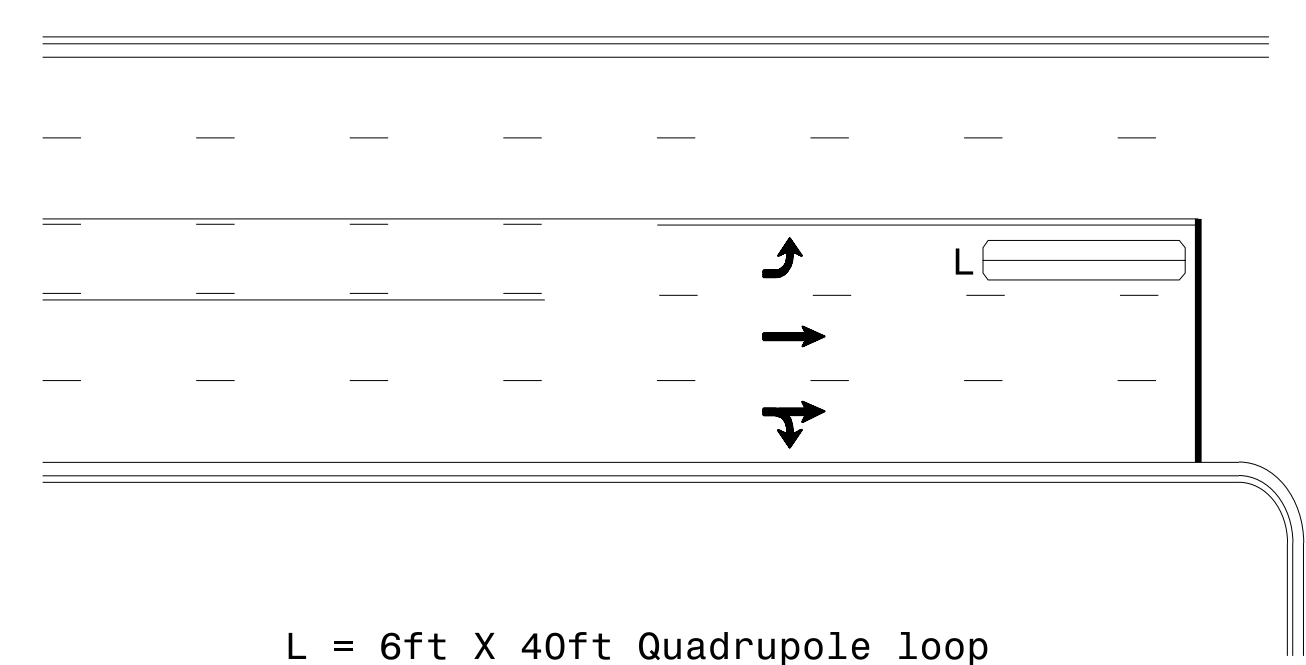
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

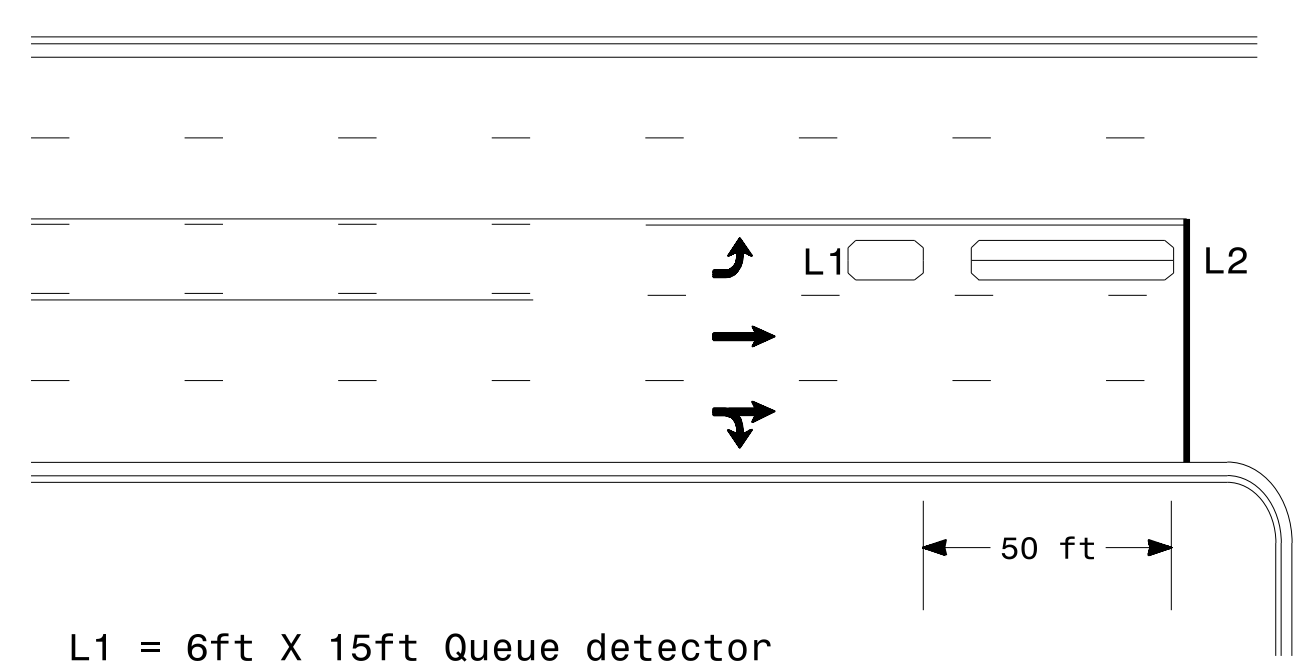
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

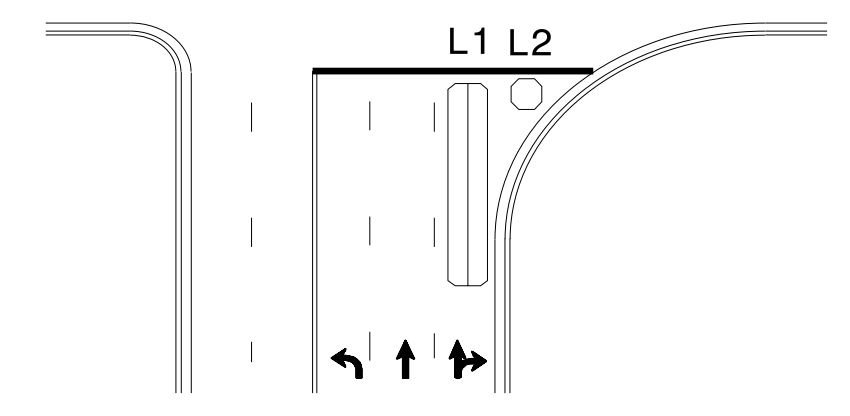
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

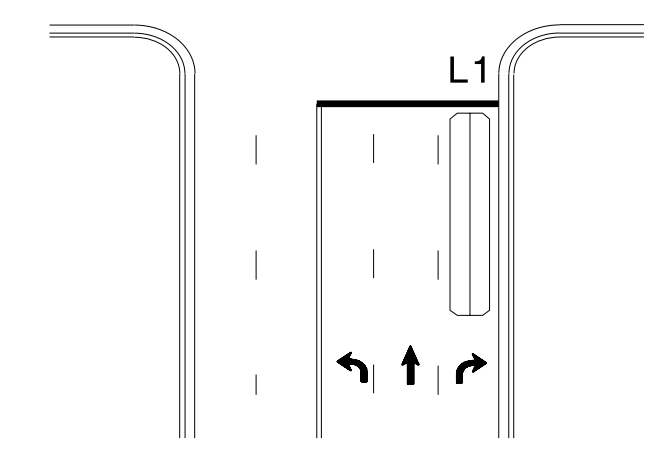
Queue Loop Detection

Right Turn Lane Detection

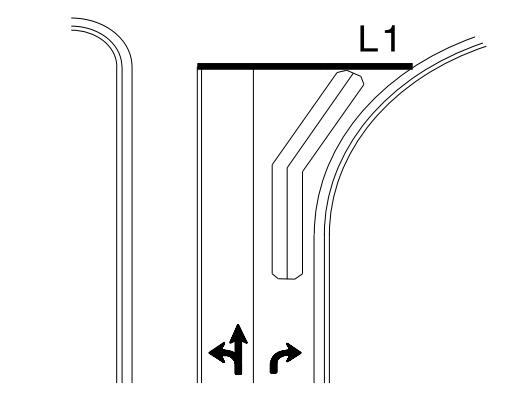


Shared Lane/
Wide Radius Turn

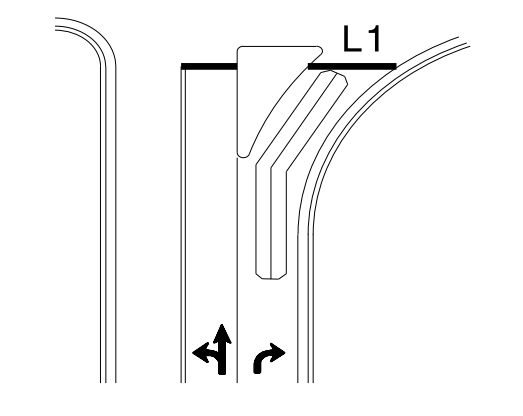
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

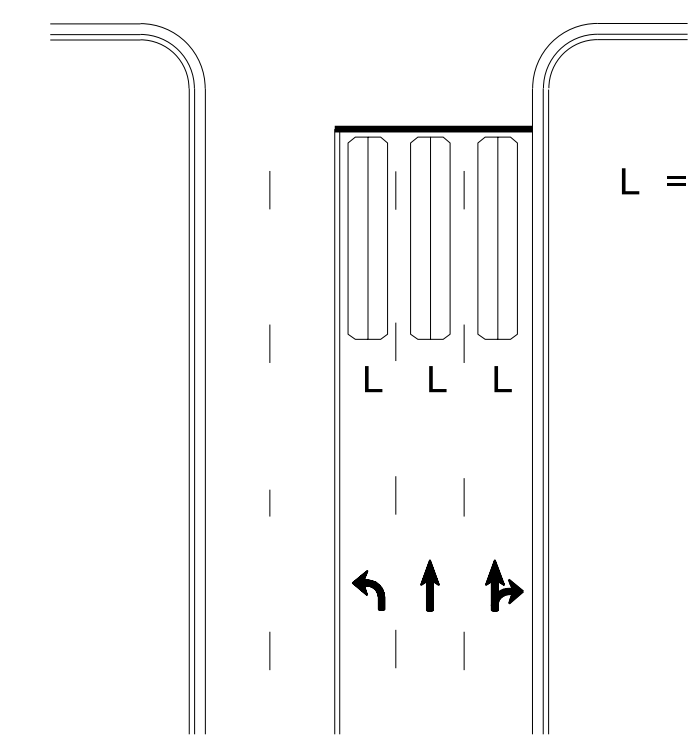


Wide Radius Turn



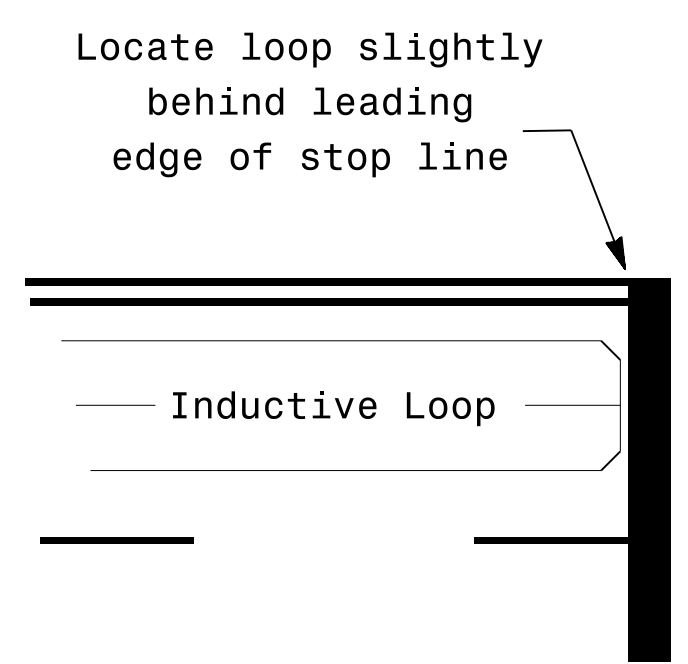
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Note:
Loop may be located in advance
of stop line under any of the
following conditions:
1) stop line is greater than 15'
from edge of intersecting
roadway
2) loop detects a permissive or
protected/permissive left turn
3) for an exclusive right turn
lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns
6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

750 N. Greenfield Pkwy, Garner, NC 27529

Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
REVISIONS	INIT. DATE

SCALE: N/A

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
PAMELA L. ALEXANDER
23489

DocuSigned by:
P. Alexander
1/30/2015 10:44:44 AM
B4756E00CE4E4ED
SIG. INVENTORY NO.

3D:\AH\2015\12\29
 S:\ITS\AS\15\SIGNAL\Signal Design\Section\Eastern\Region\loop\yp\lca\2015.dgn
 paalexander