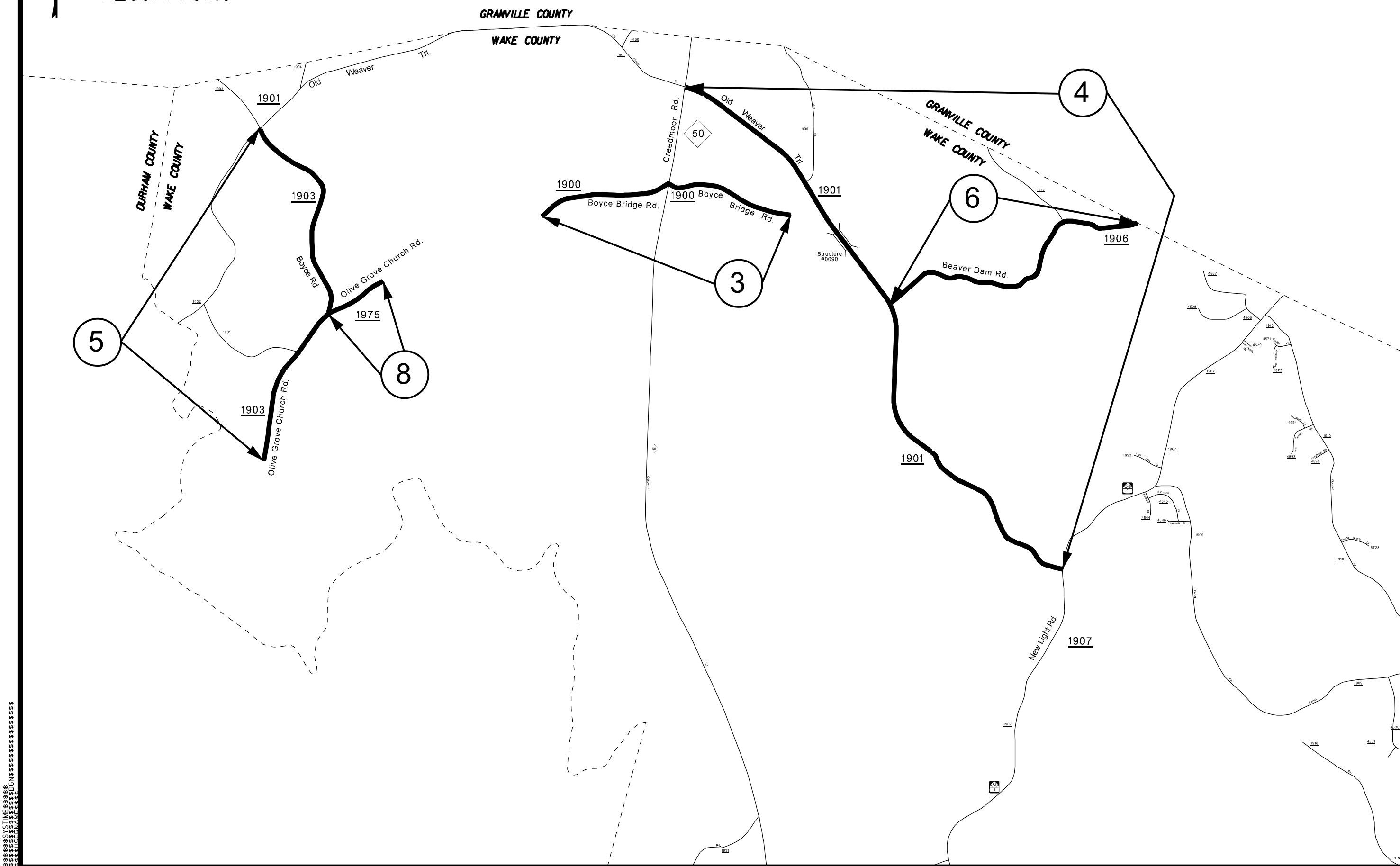


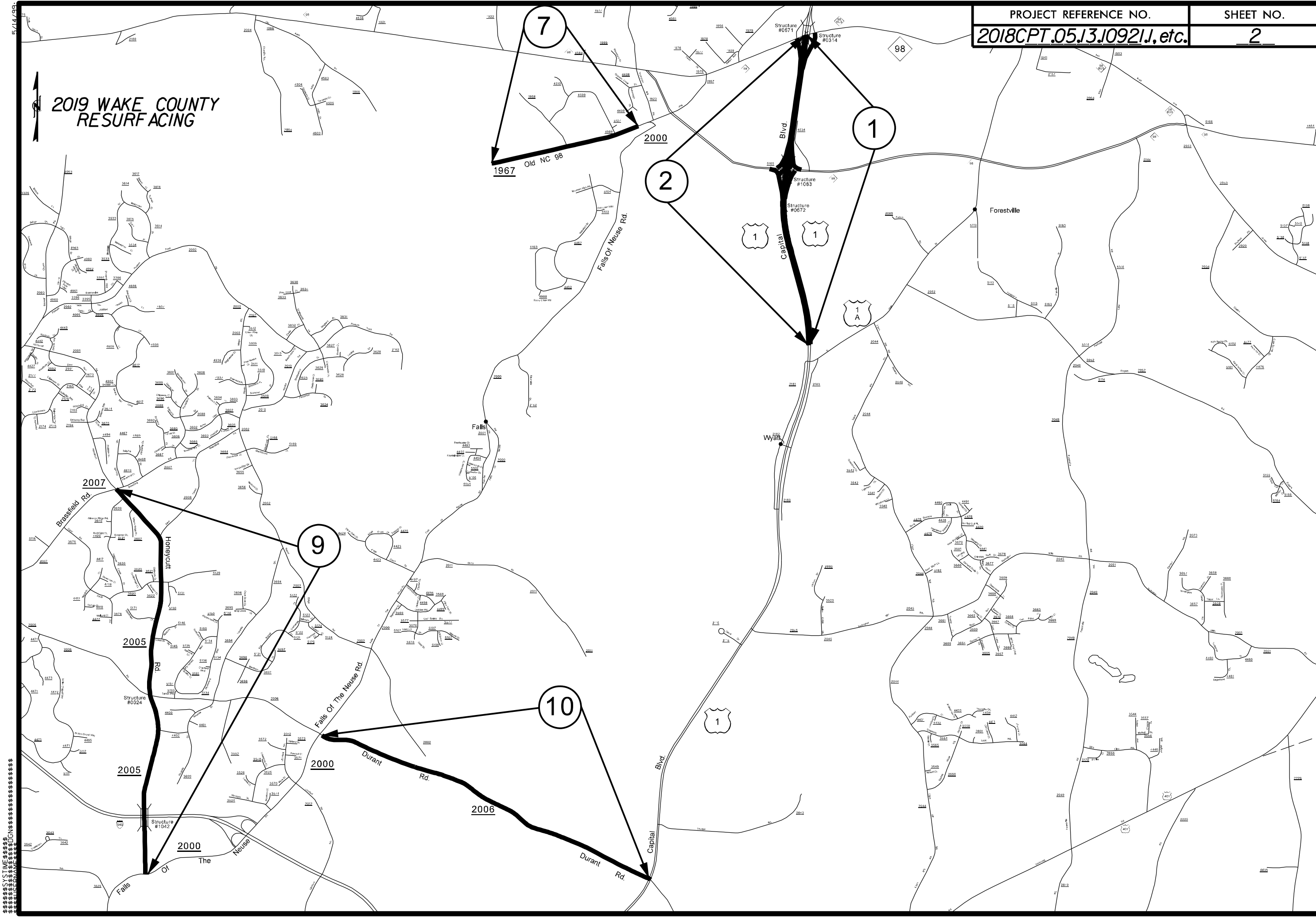
2019 WAKE COUNTY  
RESURFACING



5/14/19

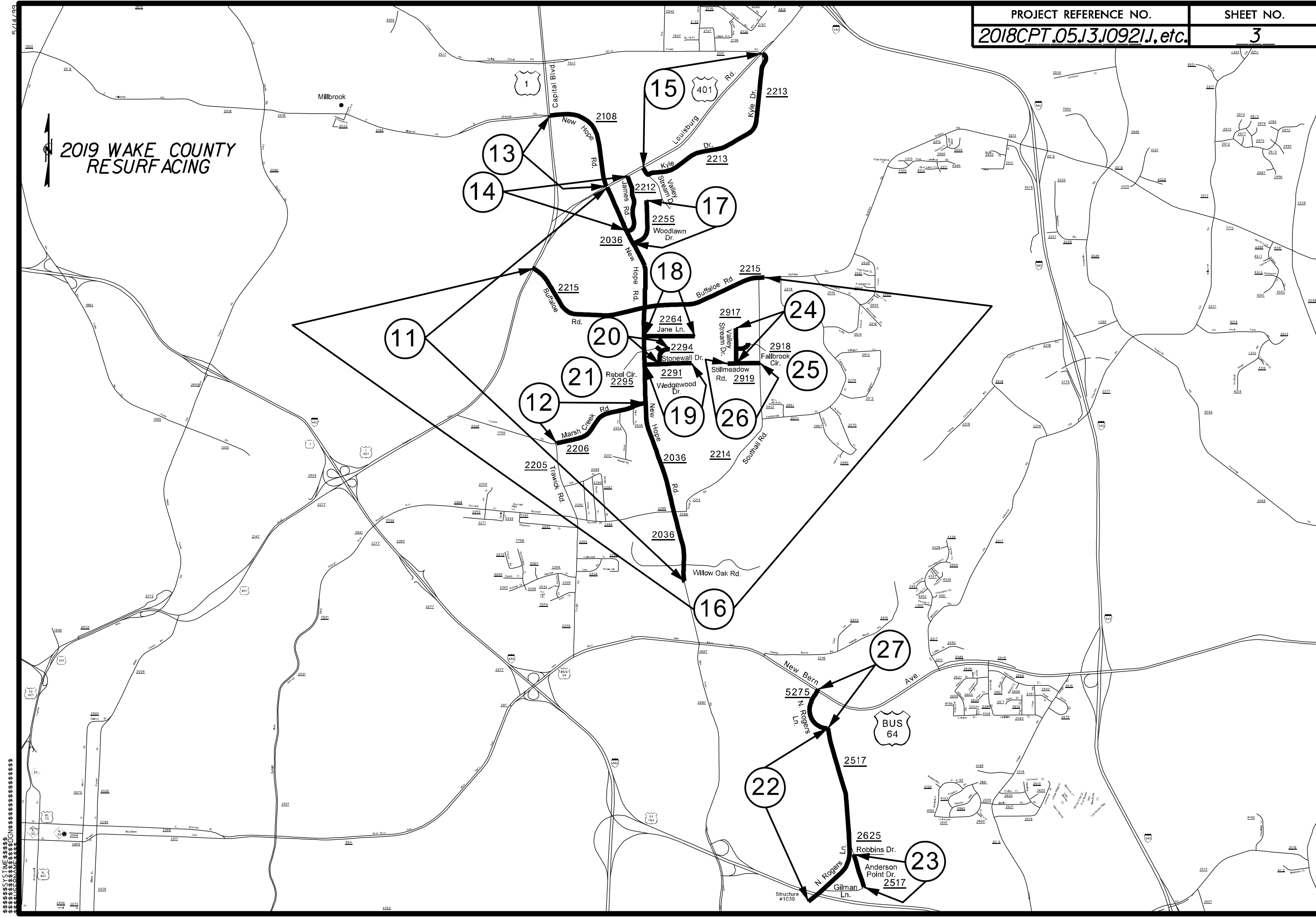
PROJECTIVE  
DRAWING

**2019 WAKE COUNTY  
RESURFACING**



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 5/14/19

**2019 WAKE COUNTY  
RESURFACING**



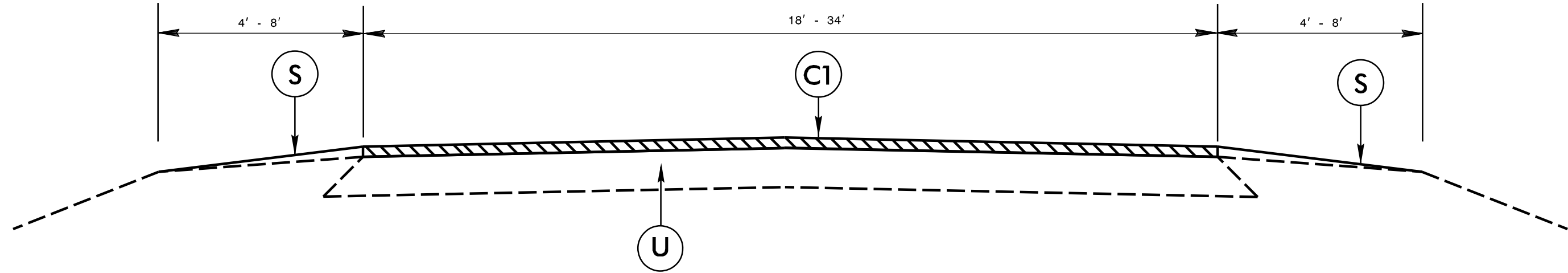
STRUCTURE #1039

PAVEMENT SCHEDULE

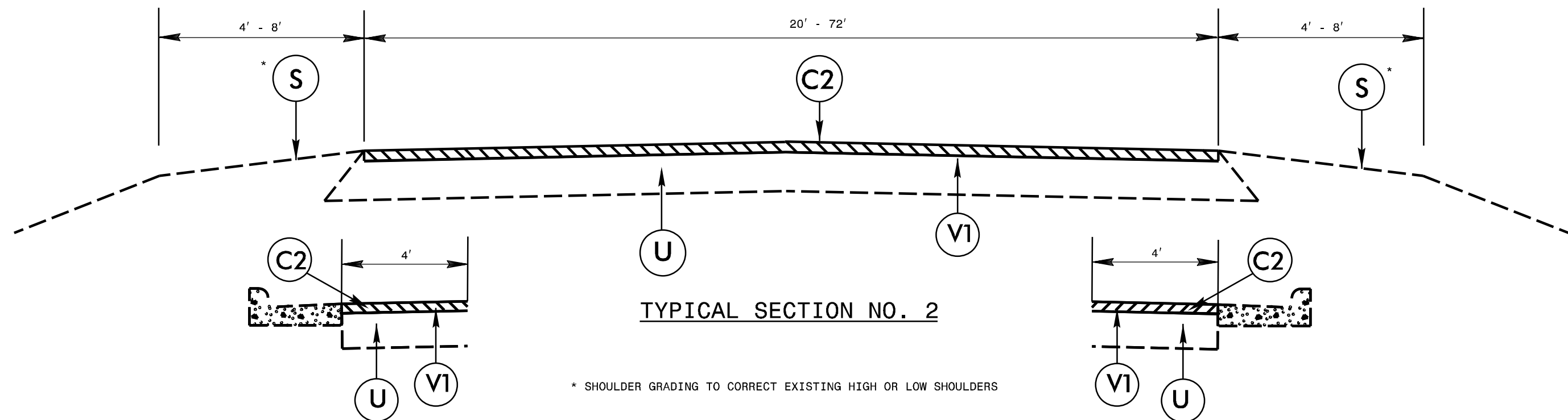
PROJECT REFERENCE NO.  
2018CPT.05.13.10921.1, etc.

SHEET NO.  
4

		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1½" MILLING
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0"-1½" MILLING
C4	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		



TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2

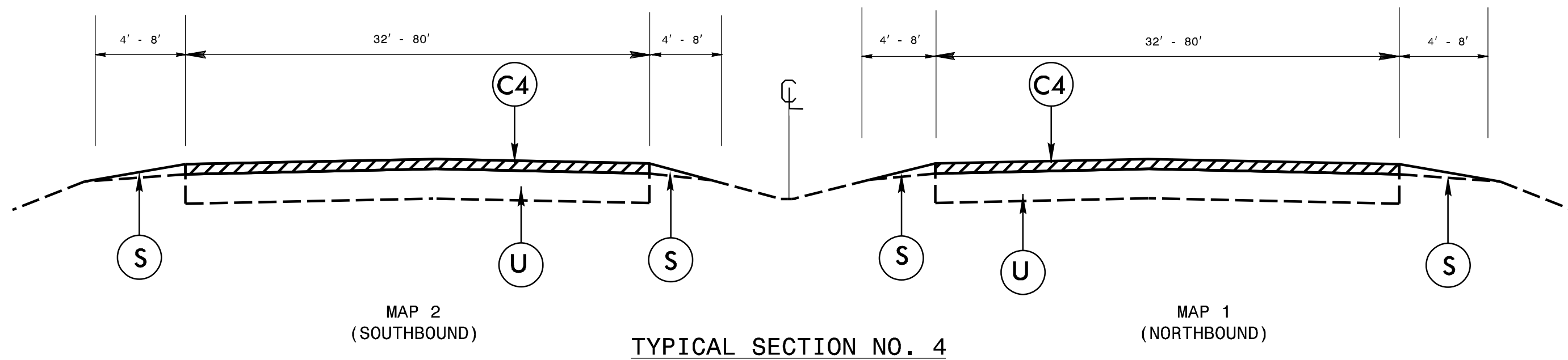
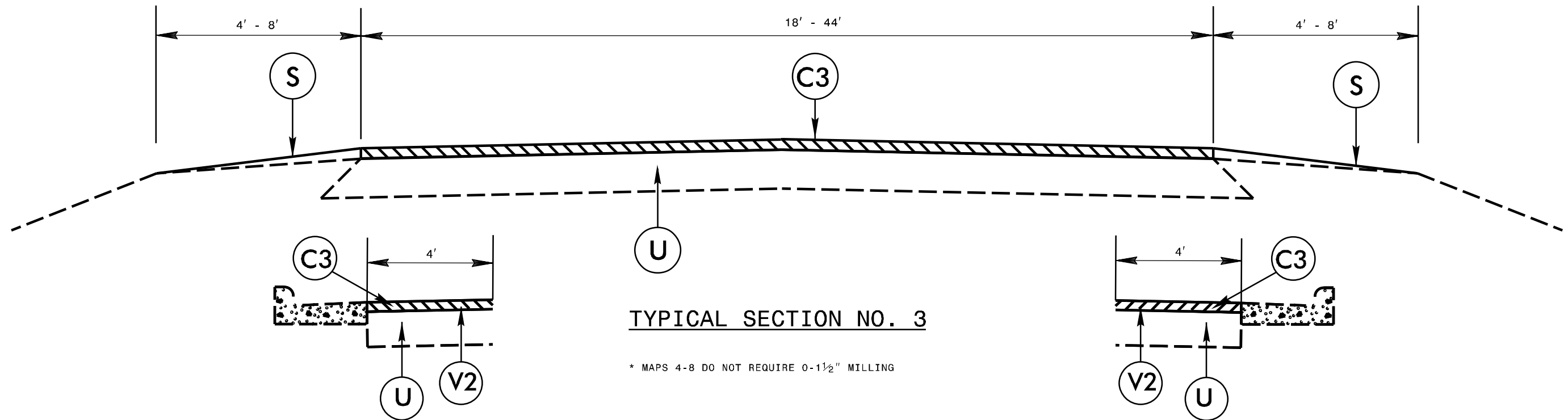
\* SHOULDER GRADING TO CORRECT EXISTING HIGH OR LOW SHOULDERS

**PAVEMENT SCHEDULE**

**PROJECT REFERENCE NO.**  
2018CPT.05.13.10921.1, etc.

**SHEET NO.**  
5

	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	U	EXISTING PAVEMENT
C2	V1	1½" MILLING
C3	V2	0"-1½" MILLING
C4		



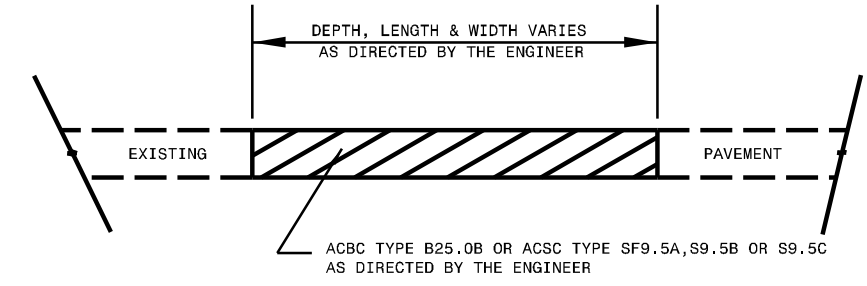
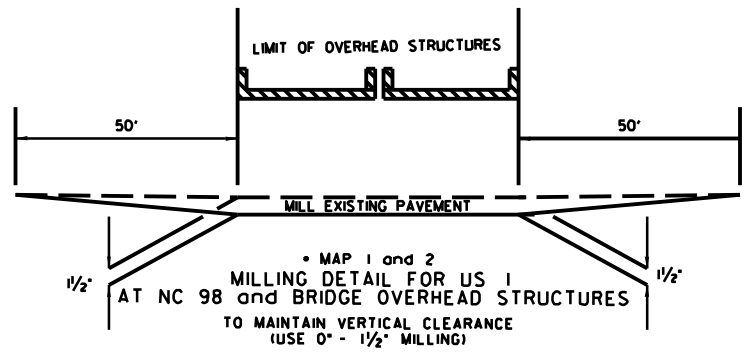
# PAVEMENT SCHEDULE

		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1 1/2" MILLING
C3	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0"-1 1/2" MILLING
C4	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		

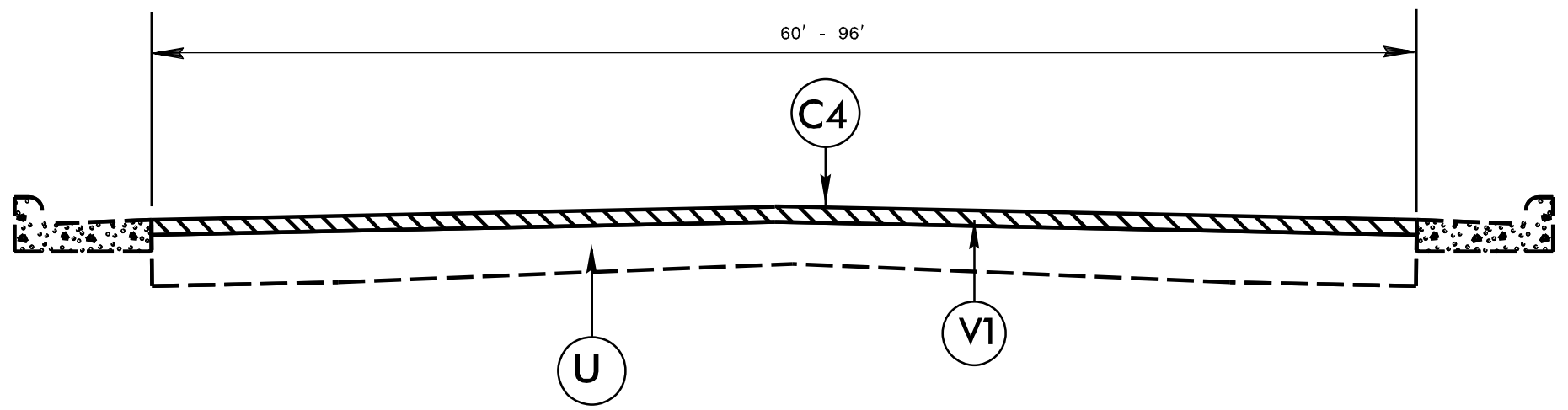
PROJECT REFERENCE NO.	SHEET NO.
2018CPT.05.13.10921.1, etc.	6

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 (IF REQUIRED BY TYPICAL) TO BE PERFORMED PRIOR TO PATCHING



TYPICAL SECTION NO. 5

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.13.10921.1, etc.	7.00	

## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		BORROW	AGGREGATE SHOULDER BORROW (ASB)	SHOULDER GRADING	INCIDENTAL STONE BASE	1½" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	SURFACE COURSE, SF9.5A	ASPHALT BINDER FOR PLANT MIX						
									MI	FT												TON	TON	TON	TON	TON	TON
									0106000000-E	0255000000-E												0264000000-E	1220000000-E	1297000000-E	1308000000-E	1330000000-E	1519000000-E
2018CPT.05.13.10921.1	Wake	1	US 1 NORTH BOUND - CAPITAL BLVD	.1 MI N OF US 1A TO NC 98 - DURHAM RD	4	3	NO	NO	2.19	32-80		536	5.58	139	1,203		1,375		6,703		395						
		2	US 1 SOUTH BOUND - CAPITAL BLVD	NC 98 - DURHAM RD TO .1 MI N OF US 1A	4	3	NO	NO	2.19	32-80		556	5.79	145	1,203		1,450		5,823		344						
<b>TOTAL FOR PROJ NO. 2018CPT.05.13.10921.1</b>									<b>4.38</b>			<b>1,092</b>	<b>11.37</b>	<b>284</b>	<b>2,406</b>		<b>2,825</b>		<b>12,526</b>		<b>739</b>						
2018CPT.05.13.20921.1	Wake	3	SR 1900 - BOYCE BRIDGE RD	START OF MAINTENANCE TO DEAD END	3	2	NO	NO	1.56	18	77	222	3.08	77		84	201	1,463			88						
		4	SR 1901 - OLD WEAVER TRL	SR 1907 - NEW LIGHT RD TO NC 50	3	2	NO	NO	4	24	200	576	7.99	200				1,355	5,113			307					
		5	SR 1903 - OLIVE GROVE CHURCH RD/BOYCE RD	SR 1901 - OLD WEAVER TRL TO DEAD END	3	2	NO	NO	2.33	20	233	223	4.65	116				426	2,456			147					
		6	SR 1906 - BEAVER DAM RD	GRANVILLE CO TO SR 1901 - OLD WEAVER TRL	3	2	NO	NO	1.88	20	38	326	3.77	94				86	1,971			118					
		7	SR 1967 - OLD NC 98	480' WEST OF SR 2000 - FALLS OF NEUSE RD TO DEAD END	3	2	NO	NO	1.1	20	110	106	2.20	55				1,045	1,231			74					
		8	SR 1975 - OLIVE GROVE CHURCH RD	SR 1903 - BOYCE RD TO END MAINT	3	2	NO	NO	0.4	18	40	38	0.79	20					375			23					
		9	SR 2005 - HONEYCUTT RD	SR 2000 - FALLS OF NEUSE RD TO SR 2007 - BRASSFIELD RD (SKIP SR - 2006 DURANT RD INTERSECTION)	3	2	NO	NO	2.73	20-44	156	351	5.21	130		558	2,595	3,221				193					
		10	SR 2006 - DURANT RD	US 1 - CAPITAL BLVD TO SR 2000 - FALLS OF NEUSE RD (SKIP CAMP DURANT RD INTERSECTION)	5	5	NO	NO	2.49	62-96						92,117		1,157		8,226		485					
		11	SR 2036 - NEW HOPE RD	.11 MI S OF WILLOW OAK RD. TO US 401 - LOUISBURG RD	5	5	NO	NO	2.74	60-72						100,429		1,728		9,010		532					
		12	SR 2206 - MARSH CREEK RD	SR 2205 - TRAWICK RD TO SR 2036 - NEW HOPE RD	3	2	NO	NO	0.68	24-48	84	35	1.20	30		1,100	412	953				57					
		13	SR 2108 - NEW HOPE RD	0.1 MI N OF US 401 - LOUISBURD RD TO US 1 - CAPITAL BLVD	5	5	NO	NO	0.62	64-70						23,646		367		2,090		123					
		14	SR 2212 - JAMES RD	US 401 - LOUISBURG RD ST TO SR 2036 - NEW HOPE RD	2	2	NO	NO	0.3	22	54		0.54	13		3,872		183			351	24					
		15	SR 2213 - KYLE DR/VALLEY STREAM DR	US 401 - LOUISBURG RD TO US 401 - LOUISBURG RD	2	2	NO	NO	1.35	20-36	133	128	2.66	67		20,680	832	883			1,867	125					
		16	SR 2215 - BUFFALOE RD	.04 MI E OF SR 2214 - SOUTHALL RD TO US 1 - CAPITAL BLVD	5	5	NO	NO	1.71	60-72						61,143		863		5,469		323					
		17	SR 2255 - WOODLAWN DR	SR 2036 - NEW HOPE RD TO CUL-DE-SAC	2	2	NO	NO	0.29	24						4,083					356	24					
		18	SR 2264 - JANE LN	SR 2036 - NEW HOPE RD TO DEAD END	1	2	NO	NO	0.3	18-34	68		0.68	17				150			230	15					
		19	SR 2291 - WEDGEWOOD DR	SR 2036 - NEW HOPE RD TO END MAINT	2	2	NO	NO	0.31	23-27						4,183					364	24					
		20	SR 2294 - STONEWALL DR	SR 2291 - WEDGEWOOD DR TO END MAINT	2	2	NO	NO	0.16	23						2,249					196	13					
		21	SR 2295 - REBEL CIR	SR 2294 - STONEWALL DR TO CUL-DE-SAC	2	2	NO	NO	0.05	23						812					71	5					
		22	SR 2517 - N ROGERS LN	SR 5275 - N ROGERS LN TO BRIDGE	2	2	NO	NO	1.14	52-70						36,280		1,503			3,273	211					
		23	SR 2517 - ANDERSON POINT DR	SR 2625 - ROBBINS DRIVE TO GILMAN LN	2	2	NO	NO	0.23	23	7	15	0.22	6		3,698		573			370	25					
		24	SR 2917 - VALLEY STREAM DR	SR 2919 - STILLMEADOW RD TO END MAINT	2	2	NO	NO	0.23	23						3,785					329	22					
		25	SR 2918 - FALLBROOK CIR	SR 2917 - VALLEY STREAM DR TO CUL-DE-SAC	2	2	NO	NO	0.1	23						1,660					144	10					
		26	SR 2919 - STILLMEADOW RD	SR 2214 - SOUTHALL RD TO END MAINT	2	2	NO	NO	0.18	23						2,429					212	14					
		27	SR 5275 - N ROGERS LN	US 64 - NEW BERN AVE TO SR 2517 - N ROGERS LN	2	2	NO	NO	0.33	63-72						12,346					1,072	72					
		<b>TOTAL FOR PROJ NO. 2018CPT.05.13.20921.1</b>									<b>27.21</b>		<b>1,200</b>	<b>2,020</b>	<b>32.99</b>	<b>825</b>	<b>373,412</b>	<b>2,574</b>	<b>13,527</b>	<b>16,783</b>	<b>24,795</b>	<b>8,835</b>	<b>3,054</b>				
		<b>GRAND TOTAL</b>									<b>31.59</b>		<b>1,200</b>	<b>3,112</b>	<b>44.36</b>	<b>1,109</b>	<b>375,818</b>	<b>2,574</b>	<b>16,352</b>	<b>16,783</b>	<b>37,321</b>	<b>8,835</b>	<b>3,793</b>				

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.13.10921.1, etc.	8.00	

**SUMMARY OF QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1704000000-E	2815000000-N	2830000000-N	2845000000-N	6000000000-E	6071010000-E	6084000000-E	7444000000-E			
									MI	FT	PATCHING EXISTING PAVEMENT	ADJUST DROP INLET	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	TEMPORARY SILT FENCE	WATTLE	SEED & MULCHING	INDUCTIVE LOOP SAWCUT			
									EA	EA	EA	EA	EA	EA	EA	EA	EA	EA			
2018CPT.05.13.10921.1	Wake	1	US 1 NORTH BOUND - CAPITAL BLVD	.1 MI N OF US 1A TO NC 98 - DURHAM RD	4	3	NO	NO	2.19	32-80	145								1,404		
		2	US 1 SOUTH BOUND - CAPITAL BLVD	NC 98 - DURHAM RD TO .1 MI N OF US 1A	4	3	NO	NO	2.19	32-80	147									1,200	
<b>TOTAL FOR PROJ NO. 2018CPT.05.13.10921.1</b>									<b>4.38</b>		<b>292</b>								<b>2,604</b>		
2018CPT.05.13.20921.1	Wake	3	SR 1900 - BOYCE BRIDGE RD	START OF MAINTENANCE TO DEAD END	3	2	NO	NO	1.56	18	46				56	150	0.56				
		4	SR 1901 - OLD WEAVER TRL	SR 1907 - NEW LIGHT RD TO NC 50	3	2	NO	NO	4	24	128				145	370	1.45				
		5	SR 1903 - OLIVE GROVE CHURCH RD/BOYCE RD	SR 1901 - OLD WEAVER TRL TO DEAD END	3	2	NO	NO	2.33	20	96				169	430	1.69				
		6	SR 1906 - BEAVER DAM RD	GRANVILLE CO TO SR 1901 - OLD WEAVER TRL	3	2	NO	NO	1.88	20	42				27	70	0.27				
		7	SR 1967 - OLD NC 98	480' WEST OF SR 2000 - FALLS OF NEUSE RD TO DEAD END	3	2	NO	NO	1.1	20	22				80	200	0.80				
		8	SR 1975 - OLIVE GROVE CHURCH RD	SR 1903 - BOYCE RD TO END MAINT	3	2	NO	NO	0.4	18	8				29	80	0.29				
		9	SR 2005 - HONEYCUTT RD	SR 2000 - FALLS OF NEUSE RD TO SR 2007 - BRASSFIELD RD (SKIP SR - 2006 DURANT RD INTERSECTION)	3	2	NO	NO	2.73	20-44	120			2	10	114	290	1.14			
		10	SR 2006 - DURANT RD	US 1 -CAPITAL BLVD TO SR 2000 - FALLS OF NEUSE RD (SKIP CAMP DURANT RD INTERSECTION)	5	5	NO	NO	2.49	62-96											4,104
		11	SR 2036 - NEW HOPE RD	.11 MI S OF WILLOW OAK RD. TO US 401 - LOUISBURG RD	5	5	NO	NO	2.74	60-72											
		12	SR 2206 - MARSH CREEK RD	SR 2205 - TRAWICK RD TO SR 2036 - NEW HOPE RD	3	2	NO	NO	0.68	24-48	88			2	8						660
		13	SR 2108 - NEW HOPE RD	0.1 MI N OF US 401 - LOUISBURD RD TO US 1 - CAPITAL BLVD	5	5	NO	NO	0.62	64-70											678
		14	SR 2212 - JAMES RD	US 401 - LOUISBURG RD ST TO SR 2036 - NEW HOPE RD	2	2	NO	NO	0.3	22	137										
		15	SR 2213 - KYLE DR/VALLEY STREAM DR	US 401 - LOUISBURG RD TO US 401 - LOUISBURG RD	2	2	NO	NO	1.35	20-36	250		1	1	5						
		16	SR 2215 - BUFFALOE RD	.04 MI E OF SR 2214 - SOUTHALL RD TO US 1 - CAPITAL BLVD	5	5	NO	NO	1.71	60-72											1,560
		17	SR 2255 - WOODLAWN DR	SR 2036 - NEW HOPE RD TO CUL-DE-SAC	2	2	NO	NO	0.29	24	5										
		18	SR 2264 - JANE LN	SR 2036 - NEW HOPE RD TO DEAD END	1	2	NO	NO	0.3	18-34	12					50	130	0.50			
		19	SR 2291 - WEDGEWOOD DR	SR 2036 - NEW HOPE RD TO END MAINT	2	2	NO	NO	0.31	23-27											
		20	SR 2294 - STONEWALL DR	SR 2291 - WEDGEWOOD DR TO END MAINT	2	2	NO	NO	0.16	23											
		21	SR 2295 - REBEL CIR	SR 2294 - STONEWALL DR TO CUL-DE-SAC	2	2	NO	NO	0.05	23											
		22	SR 2517 - N ROGERS LN	SR 5275 - N ROGERS LN TO BRIDGE	2	2	NO	NO	1.14	52-70	204										
		23	SR 2517 - ANDERSON POINT DR	SR 2625 - ROBBINS DRIVE TO GILMAN LN	2	2	NO	NO	0.23	23	25			3	5						
		24	SR 2917 - VALLEY STREAM DR	SR 2919 - STILLMEADOW RD TO END MAINT	2	2	NO	NO	0.23	23											
		25	SR 2918 - FALLBROOK CIR	SR 2917 - VALLEY STREAM DR TO CUL-DE-SAC	2	2	NO	NO	0.1	23											
		26	SR 2919 - STILLMEADOW RD	SR 2214 - SOUTHALL RD TO END MAINT	2	2	NO	NO	0.18	23											
		27	SR 5275 - N ROGERS LN	US 64 - NEW BERN AVE TO SR 2517 - N ROGERS LN	2	2	NO	NO	0.33	63-72	37										3,120
		<b>TOTAL FOR PROJ NO. 2018CPT.05.13.20921.1</b>									<b>27.21</b>		<b>1,220</b>	<b>1</b>	<b>8</b>	<b>28</b>	<b>670</b>	<b>1,720</b>	<b>6.70</b>		<b>10,122</b>
		<b>GRAND TOTAL</b>									<b>31.59</b>		<b>1,512</b>	<b>1</b>	<b>8</b>	<b>28</b>	<b>670</b>	<b>1,720</b>	<b>6.70</b>		<b>12,726</b>



PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.13.10921.1, etc.	9	

**THERMOPLASTIC AND PAINT QUANTITIES**

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP NO.	LANES	LENGTH	WIDTH	4413000000-E	4457000000-N	4510000000-N	4685000000-E	4686000000-E	4688000000-E	4690000000-E	4695000000-E	4697000000-E	4700000000-E		4702000000-E	4705000000-E						
									WORK ZONE ADVANCE/ GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M YELLOW THERMO	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	6" X 90 M YELLOW THERMO	6" X 90 M WHITE THERMO	6" X 120 M WHITE THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	8" X 120 M WHITE THERMO	12" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	12" X 120 M WHITE THERMO	16" X 120 M WHITE THERMO		
									MI	FT	SF	LS	HR	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
2018CPT.05.13.10921.1	Wake	1	US 1 NORTH BOUND - CAPITAL BLVD	.1 MI N OF US 1A TO NC 98 - DURHAM RD (INCLUDE EXIT RAMPS)	4	3	2.19	32-80	484	0.07	120	256								12	3,568						
		2	US 1 SOUTH BOUND - CAPITAL BLVD	NC 98 - DURHAM RD TO .1 MI N OF US 1A (INCLUDE EXIT RAMPS)	4	3	2.19	32-80	488	0.07	40					15,183	15,321	5,988					12	3,639			
<b>TOTAL FOR PROJ NO. 2018CPT.05.13.10921.1</b>									<b>972</b>	<b>0.14</b>	<b>160</b>	<b>256</b>			<b>30,041</b>	<b>30,220</b>	<b>12,387</b>			<b>12</b>	<b>7,207</b>						
															<b>60,261</b>				<b>7,219</b>								
2018CPT.05.13.20921.1	Wake	3	SR 1900 - BOYCE BRIDGE RD	START OF MAINTENANCE TO DEAD END	3	2	1.56	18	175	0.05			16,786	16,474													
		4	SR 1901 - OLD WEAVER TRL	SR 1907 - NEW LIGHT RD TO NC 50	3	2	4	24	447		0.13			43,040	39,971	83											
		5	SR 1903 - OLIVE GROVE CHURCH RD/BOYCE RD	SR 1901 - OLD WEAVER TRL TO DEAD END	3	2	2.33	20	260		0.07			25,071	24,482												
		6	SR 1906 - BEAVER DAM RD	GRANVILLE CO TO SR 1901 - OLD WEAVER TRL	3	2	1.88	20	211		0.06			20,229	19,900	63											
		7	SR 1967 - OLD NC 98	480' WEST OF SR 2000 - FALLS OF NEUSE RD TO DEAD END	3	2	1.1	20	123		0.03			11,836	8,178	101											
		8	SR 1975 - OLIVE GROVE CHURCH RD	SR 1903 - BOYCE RD TO END MAINT	3	2	0.4	18	44		0.01			4,304	4,222												
		9	SR 2005 - HONEYCUTT RD	SR 2000 - FALLS OF NEUSE RD TO SR 2007 - BRASSFIELD RD (SKIP SR - 2006 DURANT RD INTERSECTION)	3	2	2.73	20-44	305		0.09	40			29,375	31,699	1,328					312					
		10	SR 2006 - DURANT RD	US 1 - CAPITAL BLVD TO SR 2000 - FALLS OF NEUSE RD (SKIP CAMP DURANT RD INTERSECTION)	5	5	2.49	62-96	279		0.08	240			27,456	9,527				574		1,825	36	1,532	450		
		11	SR 2036 - NEW HOPE RD	.11 MI S OF WILLOW OAK RD. TO US 401 - LOUISBURG RD	5	5	2.74	60-72	375		0.10	240			15,750	12,437					1,700	84					
		12	SR 2206 - MARSH CREEK RD	SR 2205 - TRAWICK RD TO SR 2036 - NEW HOPE RD	3	2	0.68	24-48	76		0.02				7,317	9,390	861			159	96						
		13	SR 2108 - NEW HOPE RD	0.1 MI N OF US 401 - LOUISBURG RD TO US 1 - CAPITAL BLVD	5	5	0.62	64-70	69		0.01	80			8,185	1,637						132	72		132		
		14	SR 2212 - JAMES RD	US 401 - LOUISBURG RD ST TO SR 2036 - NEW HOPE RD	2	2	0.3	22	41		0.01																
		15	SR 2213 - KYLE DR/VALLEY STREAM DR	US 401 - LOUISBURG RD TO US 401 - LOUISBURG RD	2	2	1.35	20-36	151		0.03				14,526	14,260	404										
		16	SR 2215 - BUFFALOE RD	.04 MI E OF SR 2214 - SOUTHWALL RD TO US 1 - CAPITAL BLVD	5	5	1.71	60-72	192		0.05	160			16,149	6,054				259	129	479					
		17	SR 2255 - WOODLAWN DR	SR 2036 - NEW HOPE RD TO CUL-DE-SAC	2	2	0.29	24	38		0.01																
		18	SR 2264 - JANE LN	SR 2036 - NEW HOPE RD TO DEAD END	1	2	0.3	18-34	38		0.01				3,658												
		19	SR 2291 - WEDGEWOOD DR	SR 2036 - NEW HOPE RD TO END MAINT	2	2	0.31	23-27	35		0.01																
		20	SR 2294 - STONEWALL DR	SR 2291 - WEDGEWOOD DR TO END MAINT	2	2	0.16	23	16		0.01																
		21	SR 2295 - REBEL CIR	SR 2294 - STONEWALL DR TO CUL-DE-SAC	2	2	0.05	23	6		0.01																
		22	SR 2517 - N ROGERS LN	SR 5275 - N ROGERS LN TO BRIDGE	2	2	1.14	52-70	128		0.02				1,425	11,063	2,517					402		919	288	125	769
		23	SR 2517 - ANDERSON POINT DR	SR 2625 - ROBBINS DRIVE TO GILMAN LN	2	2	0.23	23	26		0.01				2,475	1,518											
		24	SR 2917 - VALLEY STREAM DR	SR 2919 - STILLMEADOW RD TO END MAINT	2	2	0.23	23	26		0.01																
		25	SR 2918 - FALLBROOK CIR	SR 2917 - VALLEY STREAM DR TO CUL-DE-SAC	2	2	0.1	23	11		0.01																
		26	SR 2919 - STILLMEADOW RD	SR 2214 - SOUTHWALL RD TO END MAINT	2	2	0.18	23	24		0.01																
		27	SR 5275 - N ROGERS LN	US 64 - NEW BERN AVE TO SR 2517 - N ROGERS LN	2	2	0.33	63-72	37		0.01	40				2,755	1,479					585		166	64	1,246	
		<b>TOTAL FOR PROJ NO. 2018CPT.05.13.20921.1</b>									<b>3,133</b>	<b>0.86</b>	<b>800</b>	<b>180,042</b>	<b>251,452</b>	<b>36,491</b>			<b>1,979</b>	<b>225</b>	<b>5,221</b>	<b>756</b>	<b>225</b>	<b>1,246</b>	<b>450</b>		
														<b>180,042</b>	<b>287,943</b>			<b>2,204</b>			<b>981</b>						
<b>GRAND TOTAL</b>									<b>31.59</b>	<b>4,105</b>	<b>1.00</b>	<b>960</b>	<b>256</b>	<b>180,042</b>	<b>251,452</b>	<b>36,491</b>	<b>30,041</b>	<b>30,220</b>	<b>12,387</b>	<b>1,979</b>	<b>225</b>	<b>5,221</b>	<b>768</b>	<b>7,432</b>	<b>3,679</b>	<b>450</b>	
												<b>180,298</b>	<b>287,943</b>		<b>60,261</b>		<b>2,204</b>		<b>8,200</b>								

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.13.10921.1, etc.	10	

**THERMOPLASTIC AND PAINT QUANTITIES**

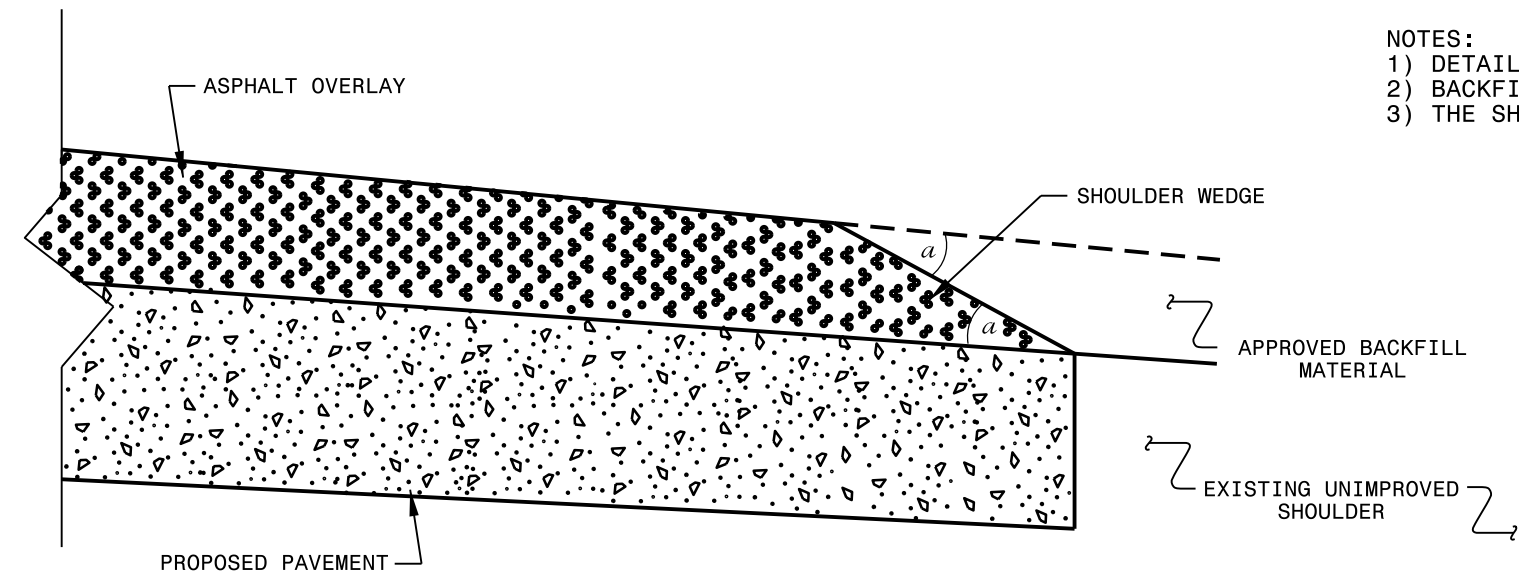
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	471000000-E		472100000-E					472500000-E					477000000-E		481000000-E		482000000-E										
									24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO MSG AHEAD 120 M	THERMO MSG STOP 120 M	THERMO MSG SCHOOL 120 M	THERMO RXR 120 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO MERGE ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO YIELD TRIANGLE 90M	THERMO STR & LT ARROW 90 M	4" WHITE COLD APPLIED PLASTIC, TYPE II	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4" YELLOW PAINT	4" WHITE PAINT	8" WHITE PAINT	8" YELLOW PAINT								
							MI	FT	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA							
2018CPT.05.13.10921.1	Wake	1	US 1 NORTH BOUND - CAPITAL BLVD	.1 MI N OF US 1A TO NC 98 - DURHAM RD (INCLUDE EXIT RAMPS)	4	3	2.19	32-80	263	4						6	13	14	6	2				219	175										
		2	US 1 SOUTH BOUND - CAPITAL BLVD	NC 98 - DURHAM RD TO .1 MI N OF US 1A (INCLUDE EXIT RAMPS)	4	3	2.19	32-80	134								8	8	11	3	2	8			234	181									
<b>TOTAL FOR PROJ NO. 2018CPT.05.13.10921.1</b>															<b>14</b>	<b>21</b>	<b>25</b>		<b>2</b>	<b>8</b>			<b>453</b>	<b>356</b>											
												<b>4</b>							<b>79</b>					<b>809</b>											
2018CPT.05.13.20921.1	Wake	3	SR 1900 - BOYCE BRIDGE RD	START OF MAINTENANCE TO DEAD END	3	2	1.56	18																											
		4	SR 1901 - OLD WEAVER TRL	SR 1907 - NEW LIGHT RD TO NC 50	3	2	4	24																	368	40									
		5	SR 1903 - OLIVE GROVE CHURCH RD/BOYCE RD	SR 1901 - OLD WEAVER TRL TO DEAD END	3	2	2.33	20																											
		6	SR 1906 - BEAVER DAM RD	GRANVILLE CO TO SR 1901 - OLD WEAVER TRL	3	2	1.88	20																											
		7	SR 1967 - OLD NC 98	480' WEST OF SR 2000 - FALLS OF NEUSE RD TO DEAD END	3	2	1.1	20																											
		8	SR 1975 - OLIVE GROVE CHURCH RD	SR 1903 - BOYCE RD TO END MAINT	3	2	0.4	18																											
		9	SR 2005 - HONEYCUTT RD	SR 2000 - FALLS OF NEUSE RD TO SR 2007 - BRASSFIELD RD (SKIP SR - 2006 DURANT RD INTERSECTION)	3	2	2.73	20-44	107		5	4				14	4								440	440									
		10	SR 2006 - DURANT RD	US 1 -CAPITAL BLVD TO SR 2000 - FALLS OF NEUSE RD (SKIP CAMP DURANT RD INTERSECTION)	5	5	2.49	62-96	1,489	24			42	12	80	19	30			4								27,456	9,527	2,399					
		11	SR 2036 - NEW HOPE RD	.11 MI S OF WILLOW OAK RD. TO US 401 - LOUISBURG RD	5	5	2.74	60-72	702						55	10	35											15,750	12,437	1,700					
		12	SR 2206 - MARSH CREEK RD	SR 2205 - TRAWICK RD TO SR 2036 - NEW HOPE RD	3	2	0.68	24-48	277				12		11	7	7			1															
		13	SR 2108 - NEW HOPE RD	0.1 MI N OF US 401 - LOUISBURD RD TO US 1 - CAPITAL BLVD	5	5	0.62	64-70	98						19		7			3								8,185	1,637	132					
		14	SR 2212 - JAMES RD	US 401 - LOUISBURG RD ST TO SR 2036 - NEW HOPE RD	2	2	0.3	22																											
		15	SR 2213 - KYLE DR/VALLEY STREAM DR	US 401 - LOUISBURG RD TO US 401 - LOUISBURG RD	2	2	1.35	20-36							2	3				1			3					14,260	14,930						
		16	SR 2215 - BUFFALO RD	.04 MI E OF SR 2214 - SOUTHWALL RD TO US 1 - CAPITAL BLVD	5	5	1.71	60-72	335	16					55	13	20			9								16,149	6,054	738	129				
		17	SR 2255 - WOODLAWN DR	SR 2036 - NEW HOPE RD TO CUL-DE-SAC	2	2	0.29	24																											
		18	SR 2264 - JANE LN	SR 2036 - NEW HOPE RD TO DEAD END	1	2	0.3	18-34																											
		19	SR 2291 - WEDGEWOOD DR	SR 2036 - NEW HOPE RD TO END MAINT	2	2	0.31	23-27																											
		20	SR 2294 - STONEWALL DR	SR 2291 - WEDGEWOOD DR TO END MAINT	2	2	0.16	23																											
		21	SR 2295 - REBEL CIR	SR 2294 - STONEWALL DR TO CUL-DE-SAC	2	2	0.05	23																											
		22	SR 2517 - N ROGERS LN	SR 5275 - N ROGERS LN TO BRIDGE	2	2	1.14	52-70	580	8						11	6	12			10							297	1,188	11,063	3,942	1,321			
		23	SR 2517 - ANDERSON POINT DR	SR 2625 - ROBBINS DRIVE TO GILMAN LN	2	2	0.23	23	14																										
		24	SR 2917 - VALLEY STREAM DR	SR 2919 - STILLMEADOW RD TO END MAINT	2	2	0.23	23																											
		25	SR 2918 - FALLBROOK CIR	SR 2917 - VALLEY STREAM DR TO CUL-DE-SAC	2	2	0.1	23																											
		26	SR 2919 - STILLMEADOW RD	SR 2214 - SOUTHWALL RD TO END MAINT	2	2	0.18	23																											
		27	SR 5275 - N ROGERS LN	US 64 - NEW BERN AVE TO SR 2517 - N ROGERS LN	2	2	0.33	63-72	71						15	1	7				3								2,755	1,479	751				
		<b>TOTAL FOR PROJ NO. 2018CPT.05.13.20921.1</b>									<b>3,673</b>	<b>48</b>	<b>5</b>	<b>4</b>	<b>54</b>	<b>12</b>	<b>262</b>	<b>63</b>	<b>118</b>			<b>31</b>		<b>3</b>			<b>1,105</b>	<b>1,668</b>	<b>97,136</b>	<b>52,481</b>	<b>7,041</b>	<b>129</b>			
														<b>123</b>						<b>477</b>						<b>2,773</b>		<b>149,617</b>		<b>7,792</b>					
<b>GRAND TOTAL</b>							<b>31.59</b>		<b>4,070</b>	<b>52</b>	<b>5</b>	<b>4</b>	<b>54</b>	<b>12</b>	<b>276</b>	<b>84</b>	<b>143</b>	<b>9</b>	<b>33</b>	<b>8</b>	<b>3</b>	<b>1,558</b>	<b>2,024</b>	<b>97,136</b>	<b>52,481</b>	<b>7,041</b>	<b>129</b>								
												<b>127</b>						<b>556</b>					<b>3,582</b>	<b>149,617</b>		<b>7,170</b>									

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.05.13.10921.1, etc.	11	

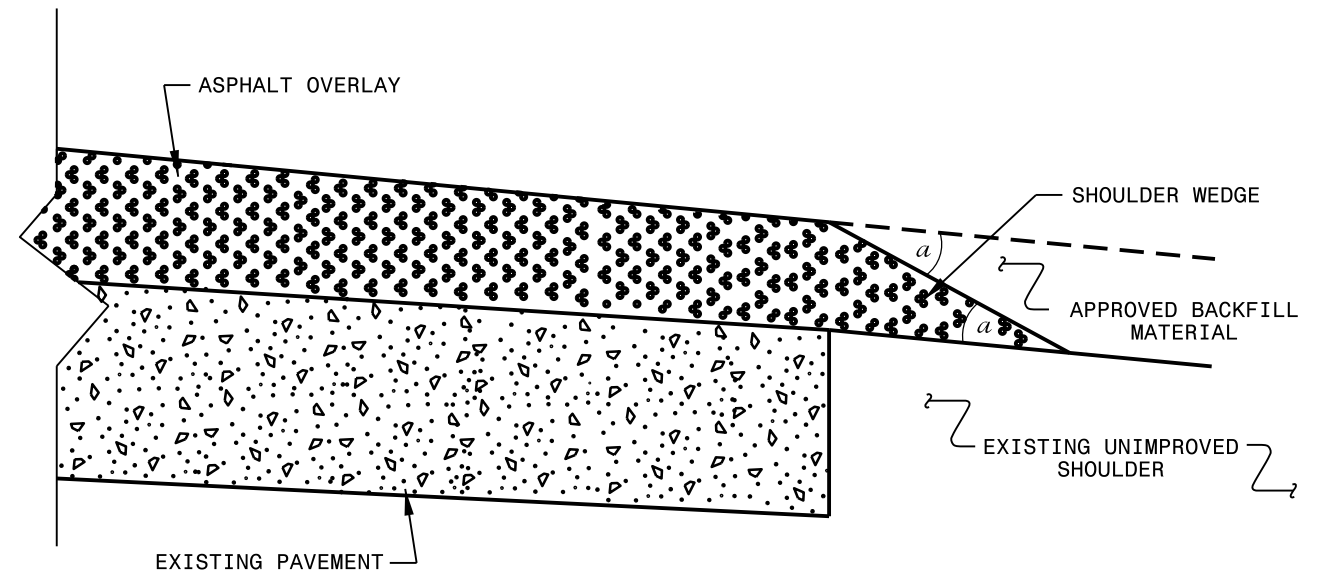
### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	4825000000-E		4830000000-E	35000000	4840000000-N			4845000000-N			4850000000-E	4905000000-N						
									12" YELLOW PAINT	12" WHITE PAINT	16" WHITE PAINT	24" WHITE PAINT	PAINT MSG ONLY	PAINT MSG SCHOOL	PAINT MSG RXR	PAINT LT ARROW	PAINT RT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	4" LINE REMOVAL	SNOW PLOWABLE MARKERS				
									MI	FT	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA						
2018CPT.05.13.10921.1	Wake	1	US 1 NORTH BOUND - CAPITAL BLVD	.1 MI N OF US 1A TO NC 98 - DURHAM RD (INCLUDE EXIT RAMP)	4	3	2.19	32-80												394	642					
		2	US 1 SOUTH BOUND - CAPITAL BLVD	NC 98 - DURHAM RD TO .1 MI N OF US 1A (INCLUDE EXIT RAMP)	4	3	2.19	32-80													415	694				
<b>TOTAL FOR PROJ NO. 2018CPT.05.13.10921.1</b>									<b>4.38</b>										<b>809</b>	<b>1,336</b>						
2018CPT.05.13.20921.1	Wake	3	SR 1900 - BOYCE BRIDGE RD	START OF MAINTENANCE TO DEAD END	3	2	1.56	18																		
		4	SR 1901 - OLD WEAVER TRL	SR 1907 - NEW LIGHT RD TO NC 50	3	2	4	24													408					
		5	SR 1903 - OLIVE GROVE CHURCH RD/BOYCE RD	SR 1901 - OLD WEAVER TRL TO DEAD END	3	2	2.33	20																		
		6	SR 1906 - BEAVER DAM RD	GRANVILLE CO TO SR 1901 - OLD WEAVER TRL	3	2	1.88	20																		
		7	SR 1967 - OLD NC 98	480' WEST OF SR 2000 - FALLS OF NEUSE RD TO DEAD END	3	2	1.1	20																		
		8	SR 1975 - OLIVE GROVE CHURCH RD	SR 1903 - BOYCE RD TO END MAINT	3	2	0.4	18																		
		9	SR 2005 - HONEYCUTT RD	SR 2000 - FALLS OF NEUSE RD TO SR 2007 - BRASSFIELD RD (SKIP SR - 2006 DURANT RD INTERSECTION)	3	2	2.73	20-44	312													880				
		10	SR 2006 - DURANT RD	US 1 - CAPITAL BLVD TO SR 2000 - FALLS OF NEUSE RD (SKIP CAMP DURANT RD INTERSECTION)	5	5	2.49	62-96		36	450.00	1,489	24	42	12	80	19	30	4				702			
		11	SR 2036 - NEW HOPE RD	.11 MI S OF WILLOW OAK RD. TO US 401 - LOUISBURG RD	5	5	2.74	60-72		84		702				55	10	35								
		12	SR 2206 - MARSH CREEK RD	SR 2205 - TRAWICK RD TO SR 2036 - NEW HOPE RD	3	2	0.68	24-48																		
		13	SR 2108 - NEW HOPE RD	0.1 MI N OF US 401 - LOUISBURG RD TO US 1 - CAPITAL BLVD	5	5	0.62	64-70	72			98				19		7	3				176			
		14	SR 2212 - JAMES RD	US 401 - LOUISBURG RD ST TO SR 2036 - NEW HOPE RD	2	2	0.3	22																		
		15	SR 2213 - KYLE DR/VALLEY STREAM DR	US 401 - LOUISBURG RD TO US 401 - LOUISBURG RD	2	2	1.35	20-36								2	3		1	3						
		16	SR 2215 - BUFFALO RD	.04 MI E OF SR 2214 - SOUTHWALL RD TO US 1 - CAPITAL BLVD	5	5	1.71	60-72				335	16			55	13	20	9				462			
		17	SR 2255 - WOODLAWN DR	SR 2036 - NEW HOPE RD TO CUL-DE-SAC	2	2	0.29	24																		
		18	SR 2264 - JANE LN	SR 2036 - NEW HOPE RD TO DEAD END	1	2	0.3	18-34																		
		19	SR 2291 - WEDGEWOOD DR	SR 2036 - NEW HOPE RD TO END MAINT	2	2	0.31	23-27																		
		20	SR 2294 - STONEWALL DR	SR 2291 - WEDGEWOOD DR TO END MAINT	2	2	0.16	23																		
		21	SR 2295 - REBEL CIR	SR 2294 - STONEWALL DR TO CUL-DE-SAC	2	2	0.05	23																		
		22	SR 2517 - N ROGERS LN	SR 5275 - N ROGERS LN TO BRIDGE	2	2	1.14	52-70	288	125		580	8			11	6	12	10			1,485				
		23	SR 2517 - ANDERSON POINT DR	SR 2625 - ROBBINS DRIVE TO GILMAN LN	2	2	0.23	23				14														
		24	SR 2917 - VALLEY STREAM DR	SR 2919 - STILLMEADOW RD TO END MAINT	2	2	0.23	23																		
		25	SR 2918 - FALLBROOK CIR	SR 2917 - VALLEY STREAM DR TO CUL-DE-SAC	2	2	0.1	23																		
		26	SR 2919 - STILLMEADOW RD	SR 2214 - SOUTHWALL RD TO END MAINT	2	2	0.18	23																		
		27	SR 5275 - N ROGERS LN	US 64 - NEW BERN AVE TO SR 2517 - N ROGERS LN	2	2	0.33	63-72																		
		<b>TOTAL FOR PROJ NO. 2018CPT.05.13.20921.1</b>									<b>27.21</b>		<b>672</b>	<b>309</b>	<b>450</b>	<b>3,289</b>	<b>48</b>	<b>42</b>	<b>12</b>	<b>237</b>	<b>52</b>	<b>111</b>	<b>30</b>	<b>3</b>	<b>2,773</b>	<b>1,340</b>
													<b>981</b>				<b>102</b>			<b>433</b>						
<b>GRAND TOTAL</b>										<b>31.59</b>	<b>672</b>	<b>309</b>	<b>450</b>	<b>3,289</b>	<b>48</b>	<b>42</b>	<b>12</b>	<b>237</b>	<b>52</b>	<b>111</b>	<b>30</b>	<b>3</b>	<b>3,582</b>	<b>2,676</b>		
											<b>981</b>				<b>102</b>			<b>433</b>								

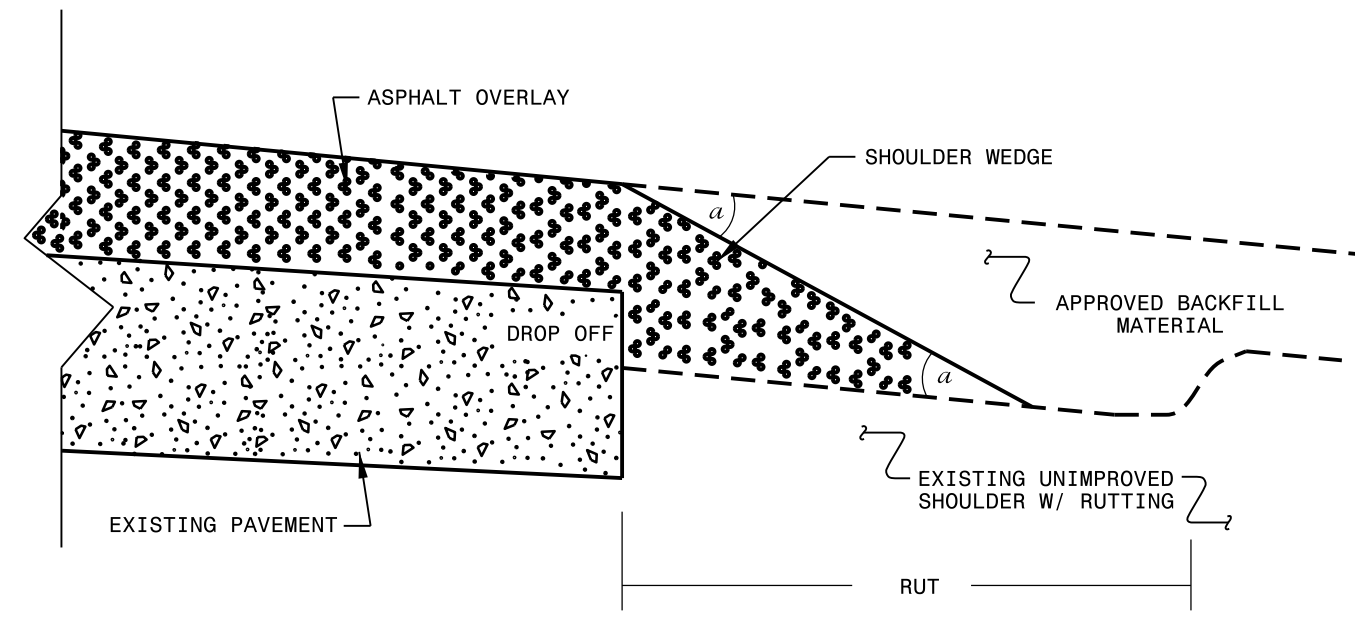
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)

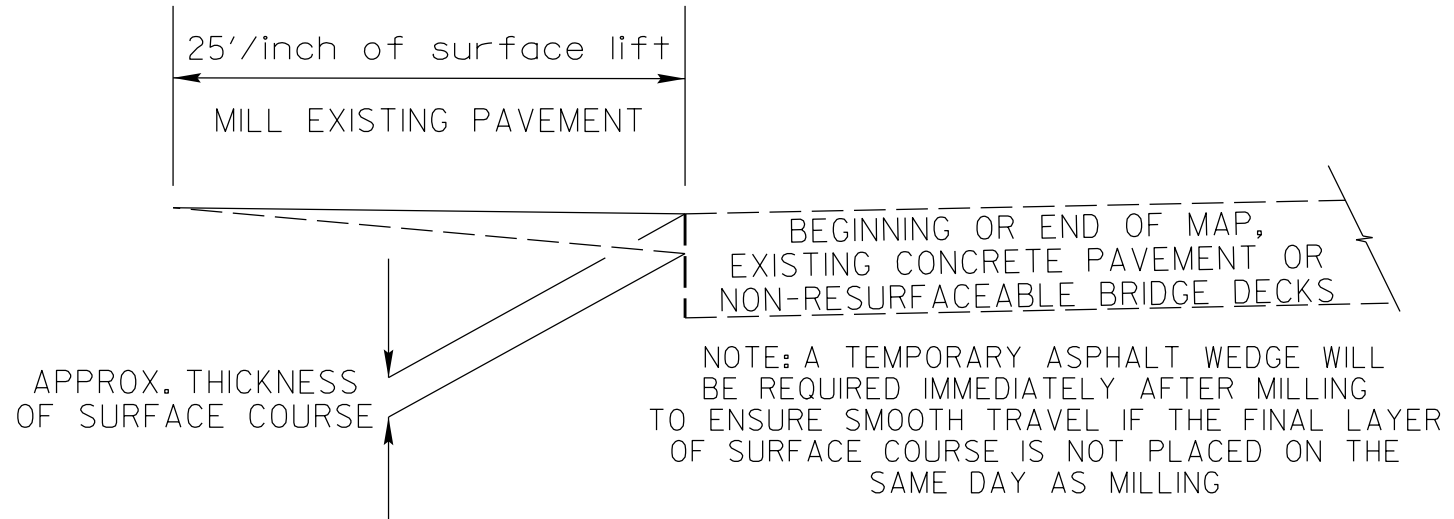


**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

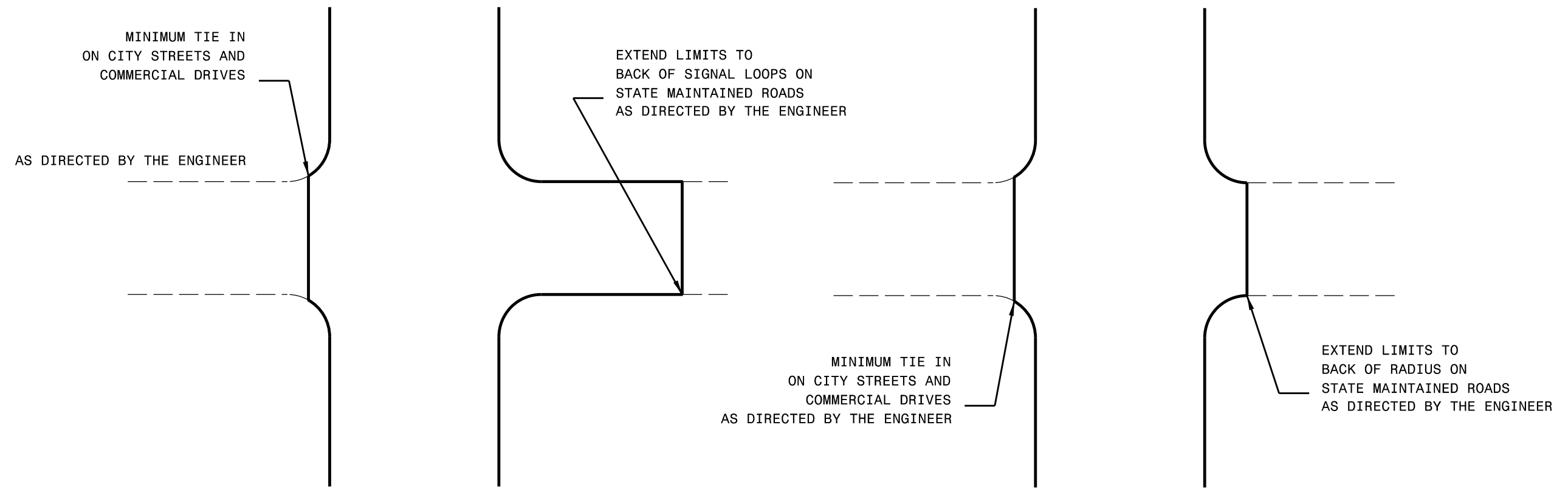
- SHOULDER WEDGE ANGLE = 30°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
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



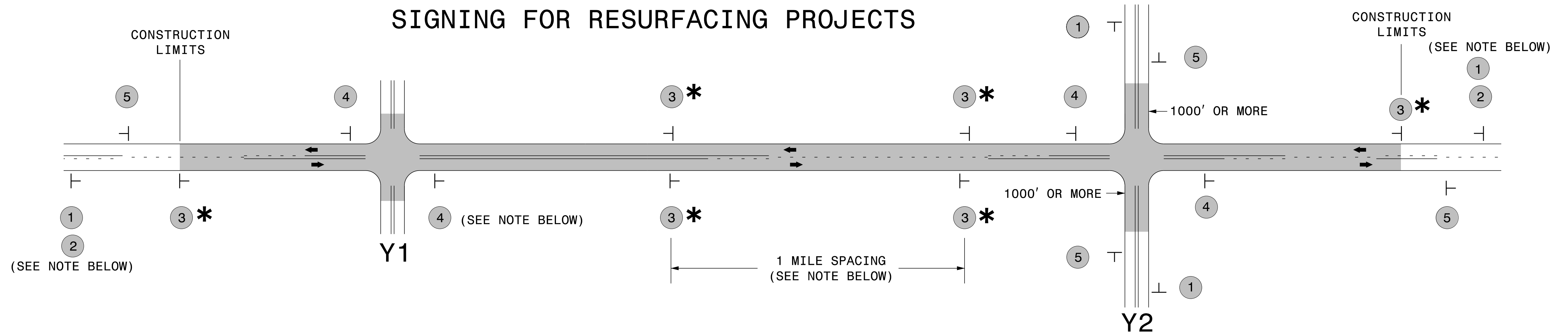
**DETAIL OF INCIDENTAL MILLING**



**DETAIL OF PROJECT LIMITS AT  
SIGNALIZED Y LINES**

**DETAIL OF PROJECT LIMITS AT  
UNSIGNALIZED Y LINES**

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

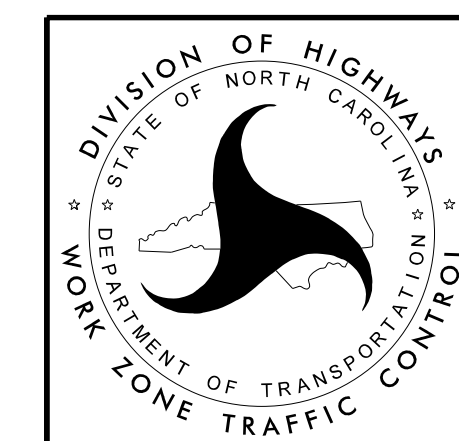
### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING	-Y- LINE SIGNING
1 2	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
3 *	<p>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.</p>	
4	<p>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.</p>	
5	<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

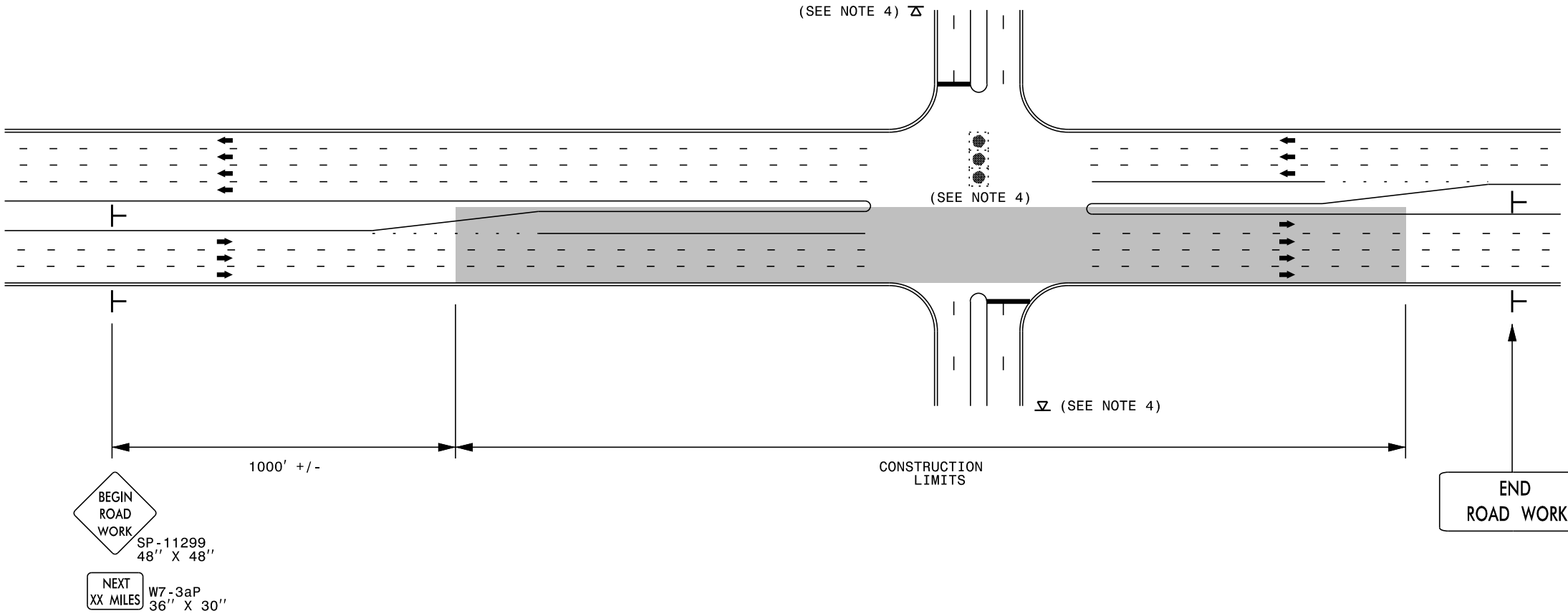
### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS: STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

# 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.

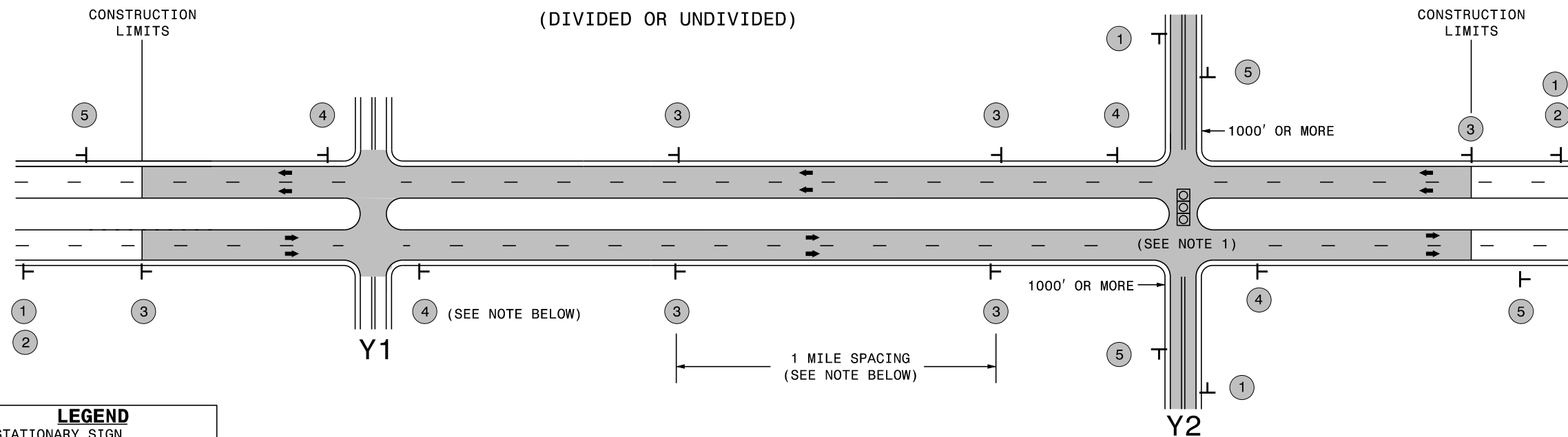
LEGEND	
├	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES**

2/24/2014 S:\TMD\WZTC\Resurfacing\2013Documents\New\_Procedures\_05\_09\_2013\Resurfacing\_AdvWarn\_UrSub.dgn

## SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

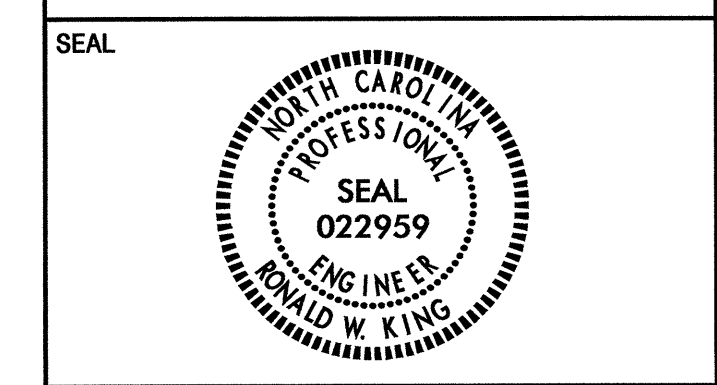
SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2	 W20-1 48" X 48" W7-3aP 24" X 18"	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>
3	 SP 13107 48" X 48"	<p>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.</p>
4	 SP 13106 48" X 48"	<p>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.</p>
5	 G20-2 A 48" X 24"	<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>
		<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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; align-items: center;"> <div style="text-align: center;">             W20-1 48" X 48"         </div> <div style="text-align: center;">             W20-7 A 48" X 48"         </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>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.</li> </ol>



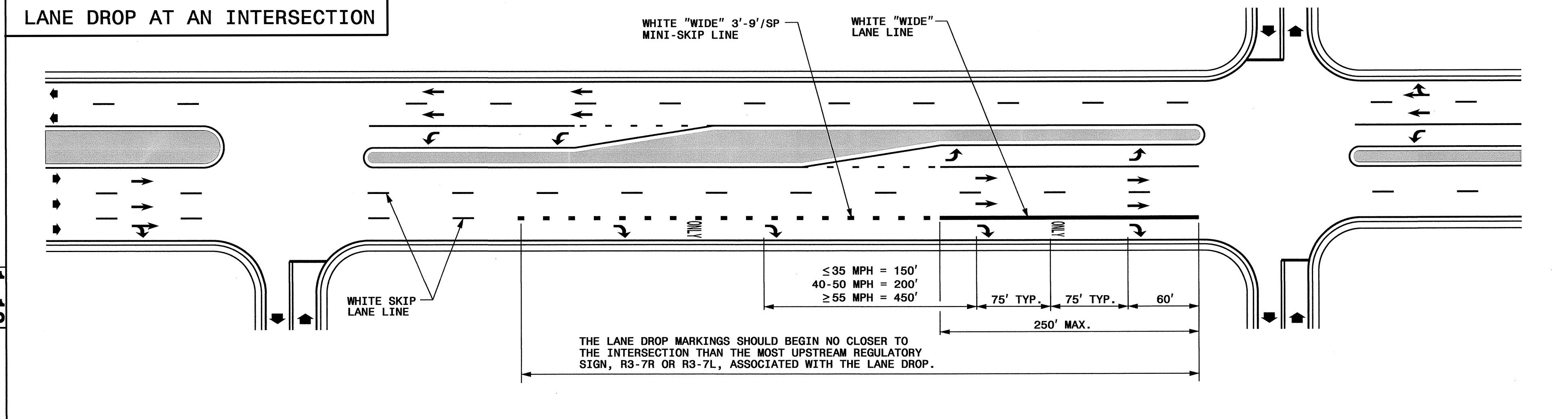
**RESURFACING  
ADVANCE WARNING SIGNS  
FOR RURAL AND SUBURBAN  
MULTI-LANE ROADWAYS  
W/ SHOULDER SECTIONS**



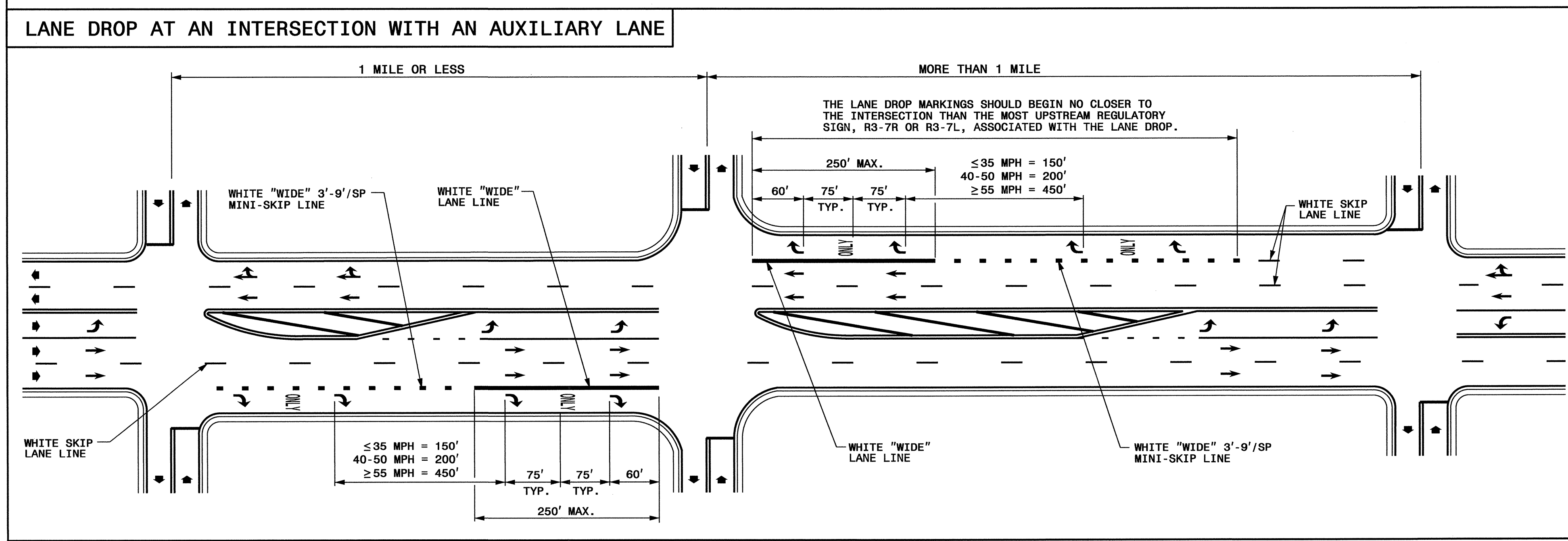
APPROVED: *RW*  
 DATE: 3/6/12



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.  
 1-12



ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 LANE DROPS



- GENERAL NOTES:**
- 1- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
  - 2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W = WIDTH OF TRAVEL LANE	ONLY PAVEMENT MARKING SYMBOLS & CHARACTERS
➔ DIRECTION OF TRAFFIC FLOW	

STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.  
 1-12

ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 LANE DROPS

SHEET 1 OF 3  
**1205D06**

SHEET 1 OF 3  
**1205D06**

**REVISED PAVEMENT MARKING  
 ROADWAY STANDARD DRAWING**

08-MAR-2012 11:09  
 C:\Users\Standard Drawings\Desktop\Drawings\Standard Drawings\2012 Standard Drawings\Group\MP\2012 Standard Drawings\2012 Standard Drawings\1205D06.dwg  
 At 12:24:45

**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

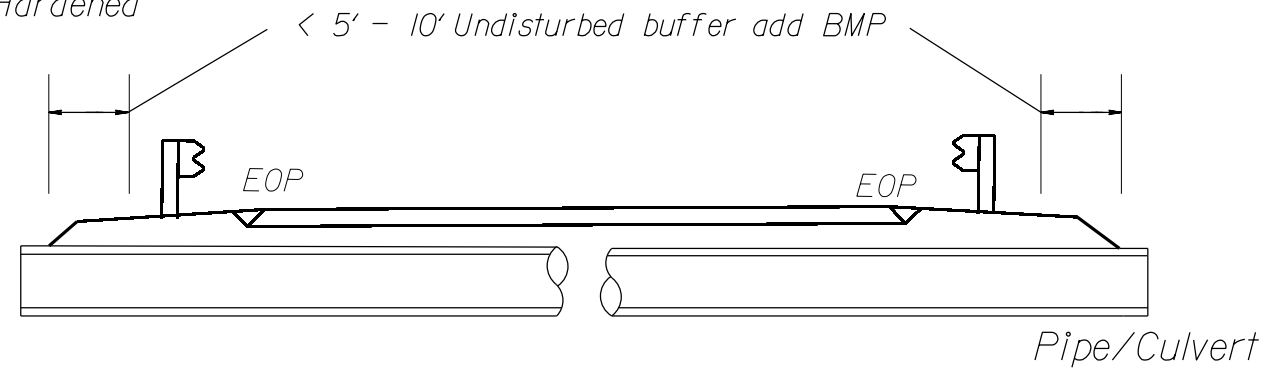
***SOIL STABILIZATION TIMEFRAMES***

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

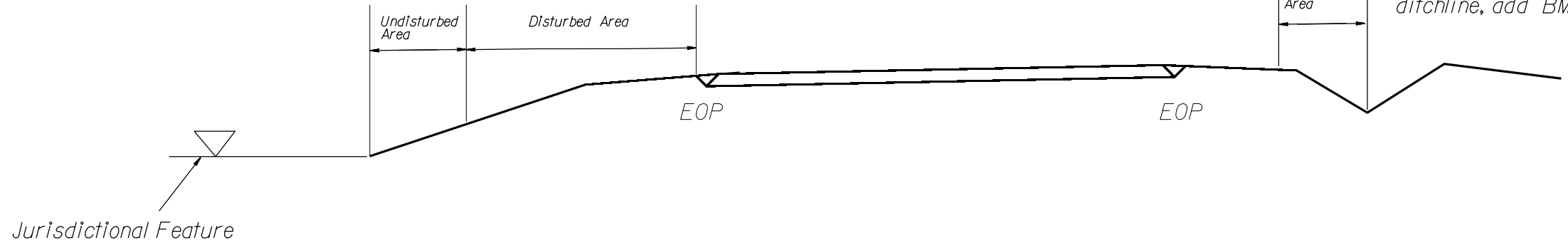
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

# EROSION CONTROL DETAIL



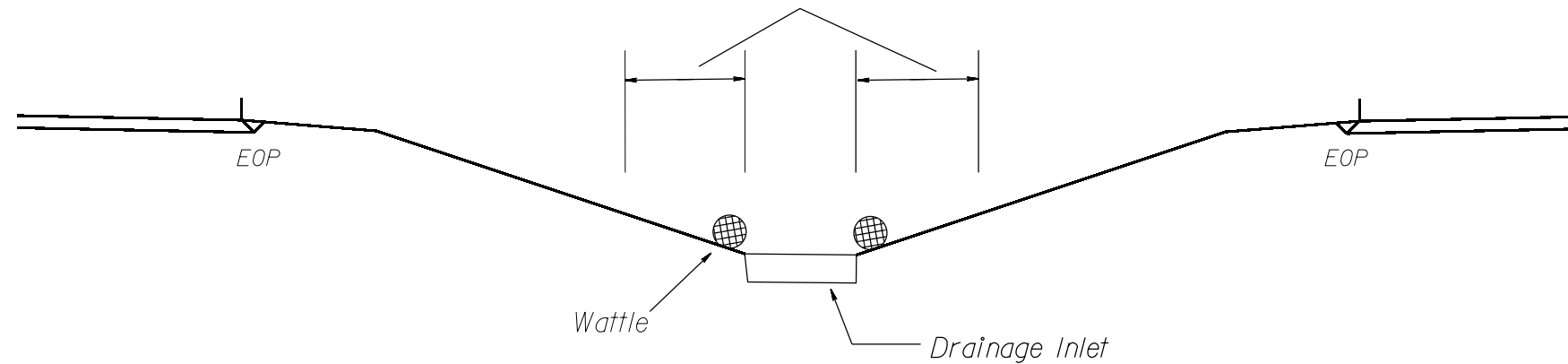
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



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

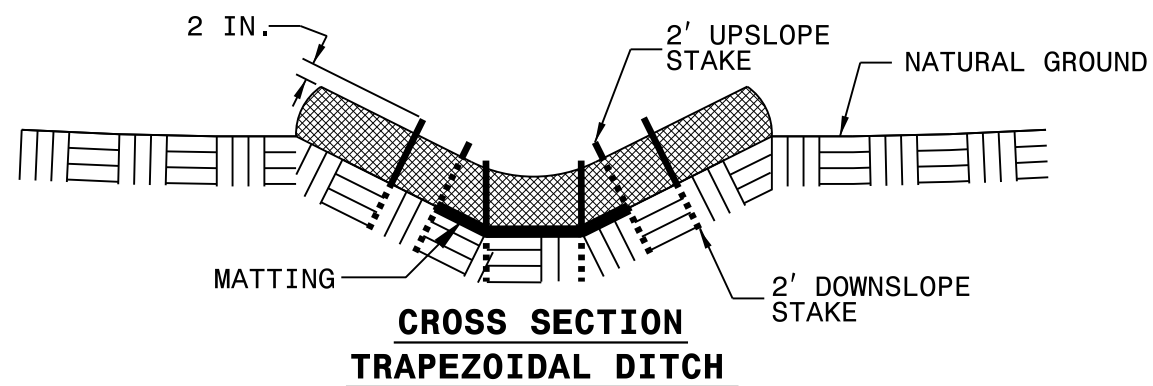
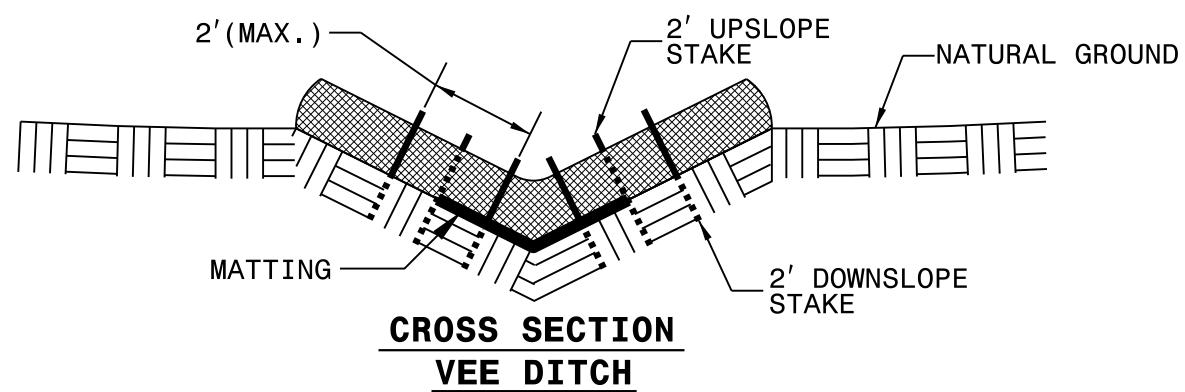
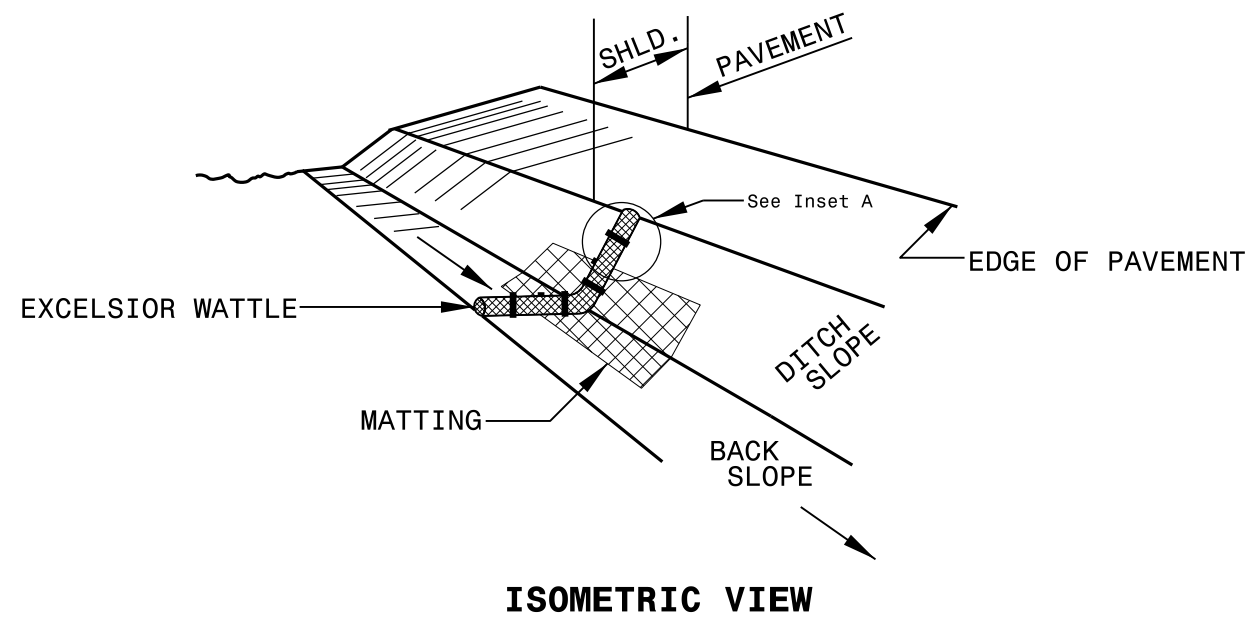


< 5' - 10' Undisturbed buffer from inlet, add wattle



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.

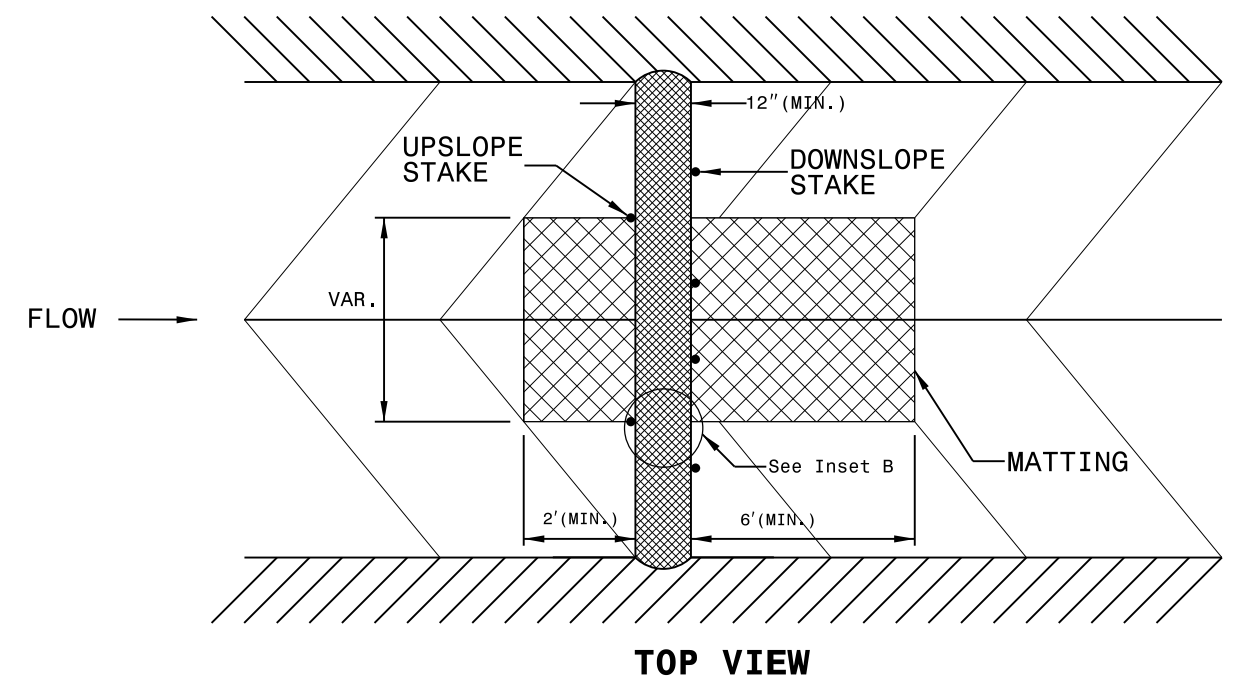
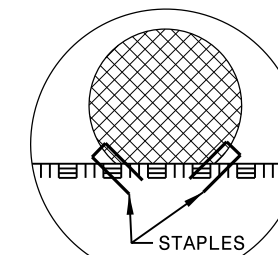
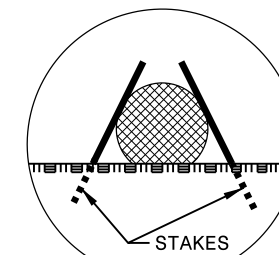
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

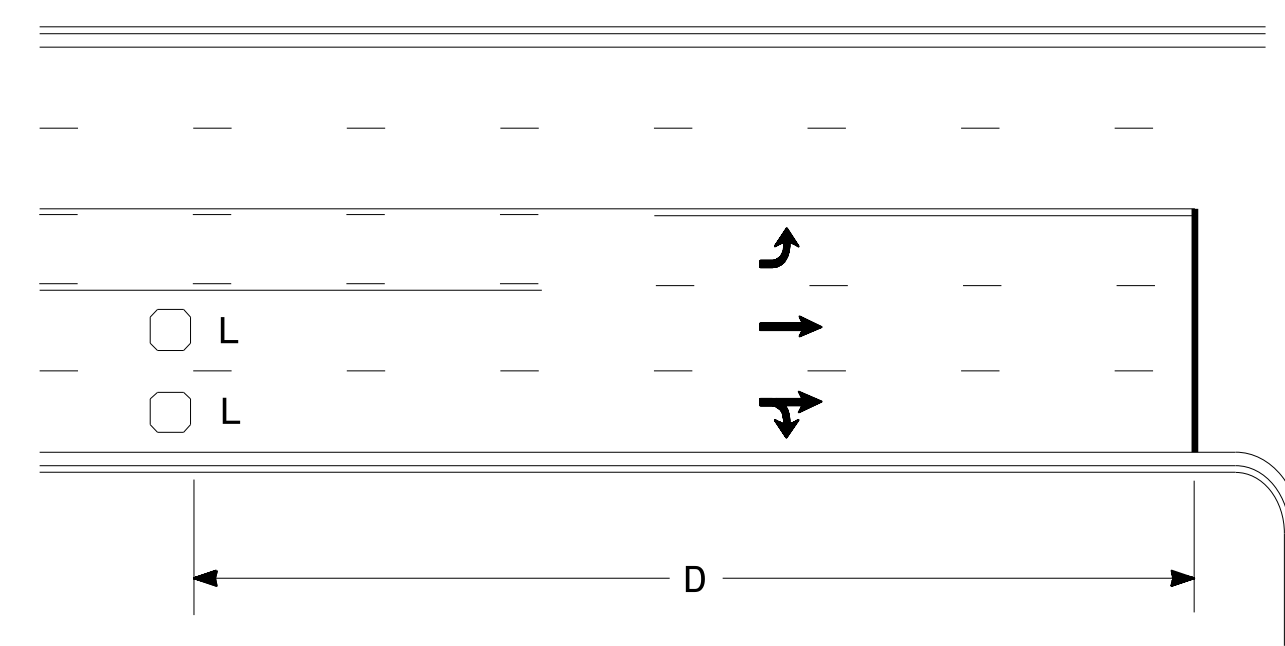
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.



### High Speed Detection (≥40 mph)

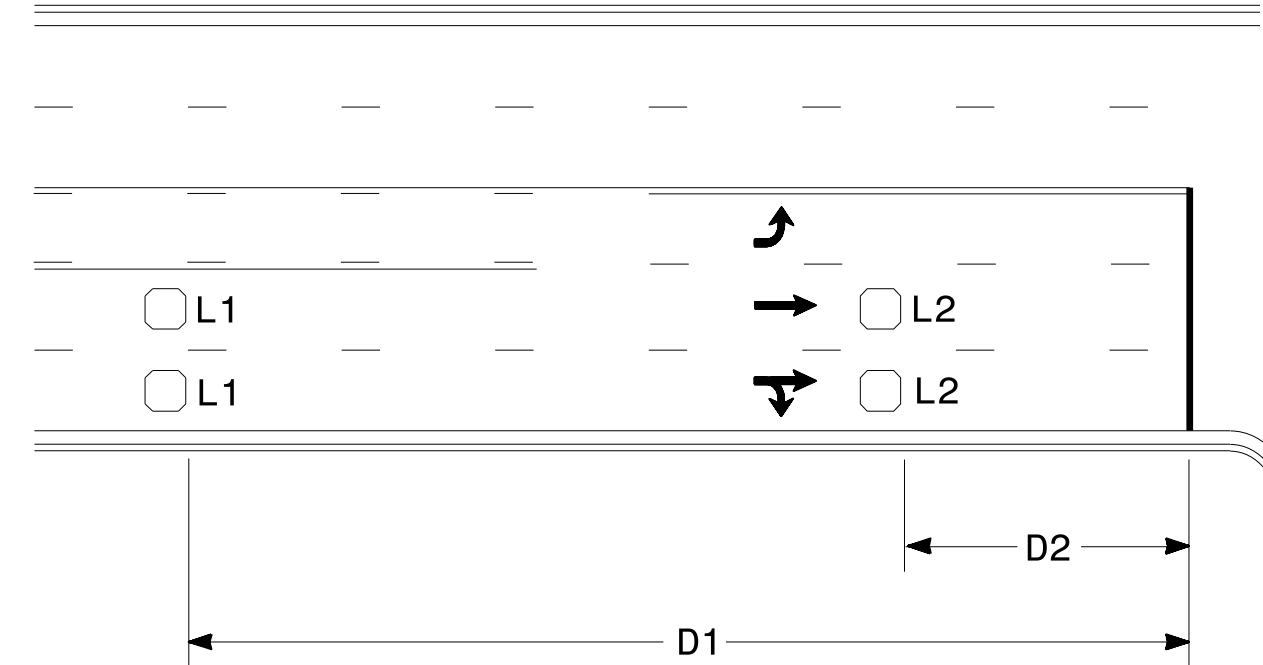


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

OR

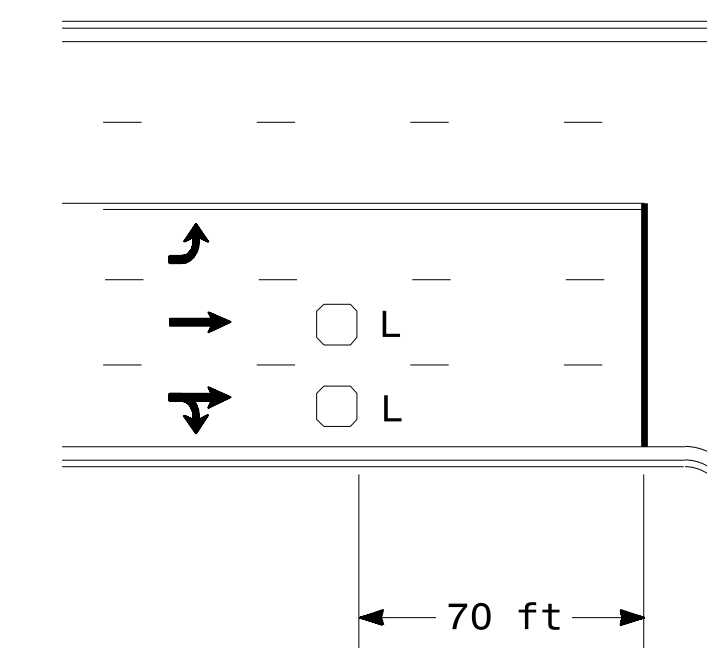


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

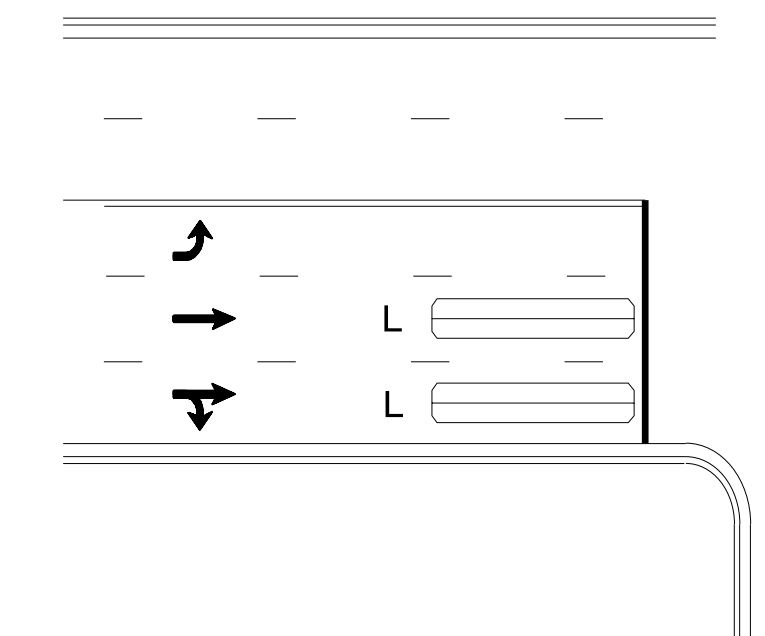
"Stretch" Operation

### Low Speed Detection (≤35 mph)



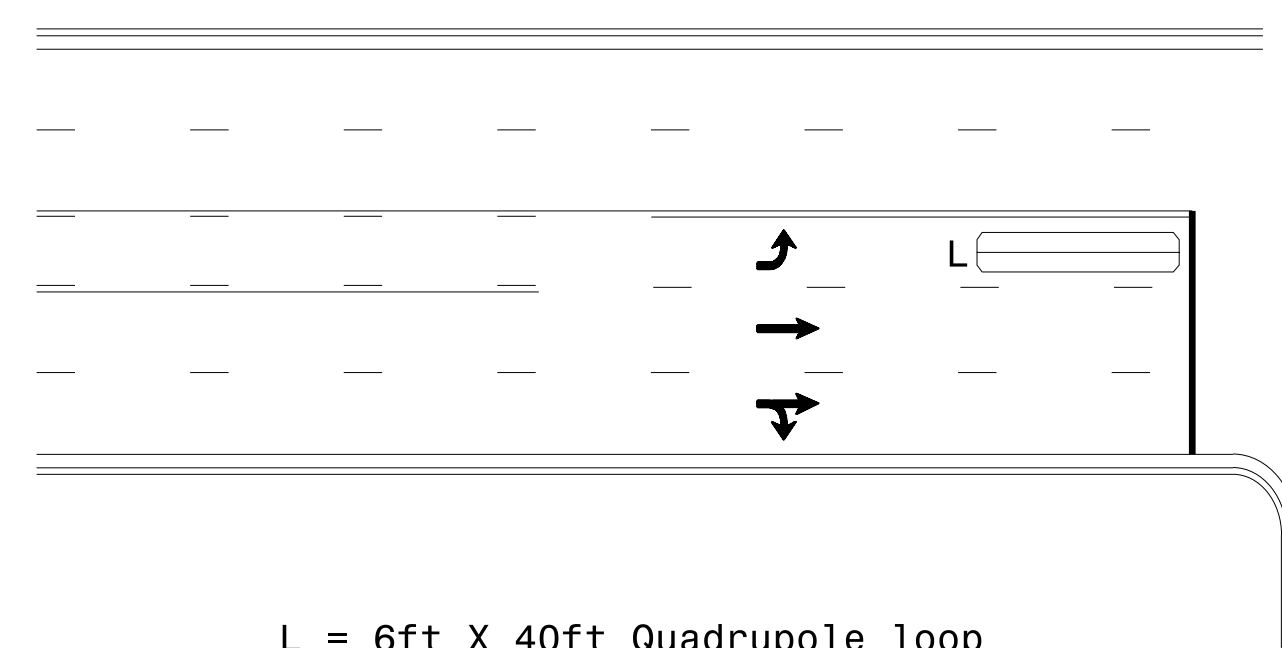
L = 6ft X 6ft  
Wired in series

OR



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

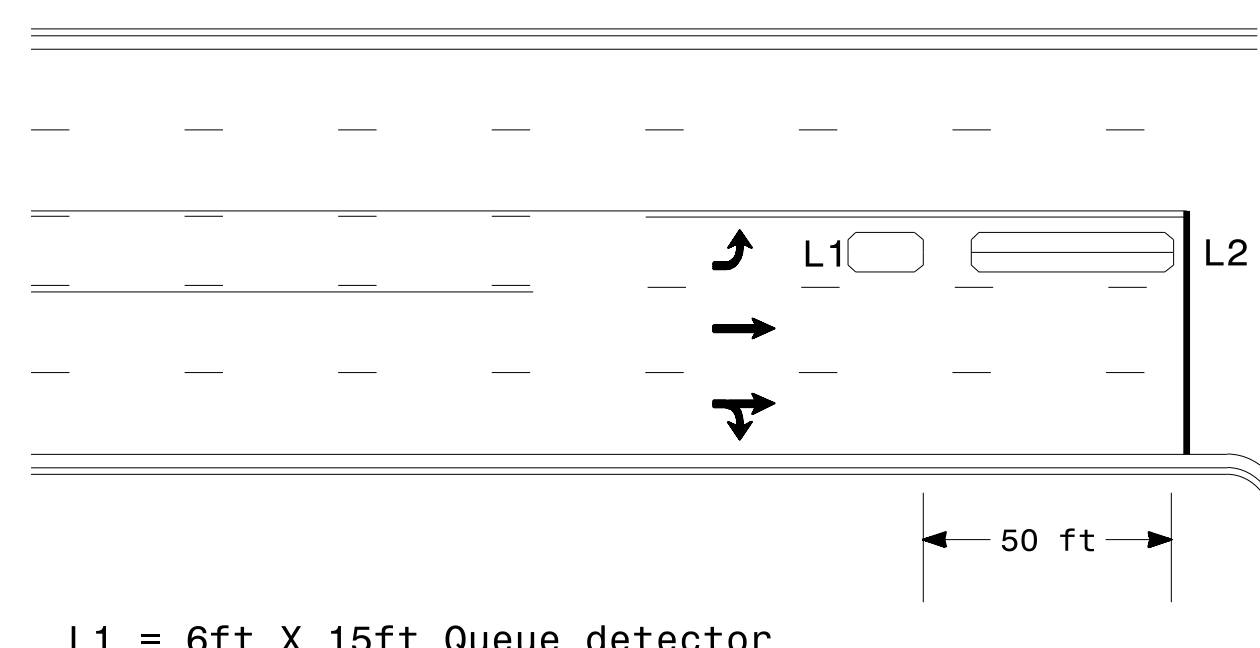
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

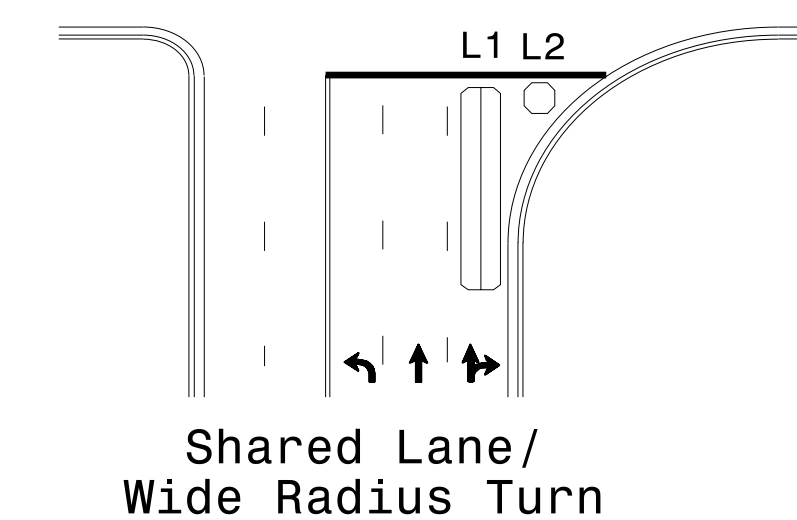
OR



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

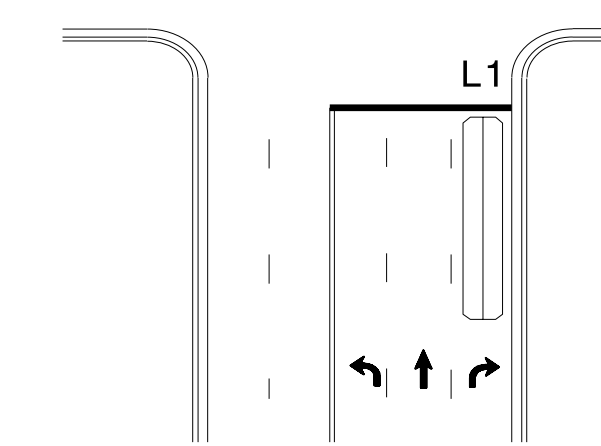
Queue Loop Detection

### Right Turn Lane Detection

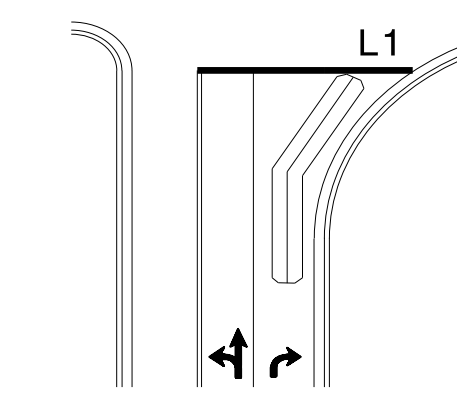


Shared Lane/  
Wide Radius Turn

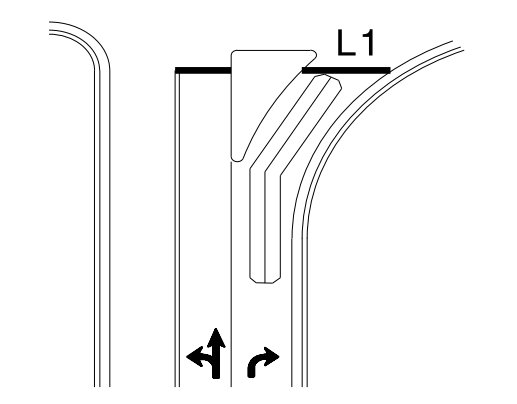
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

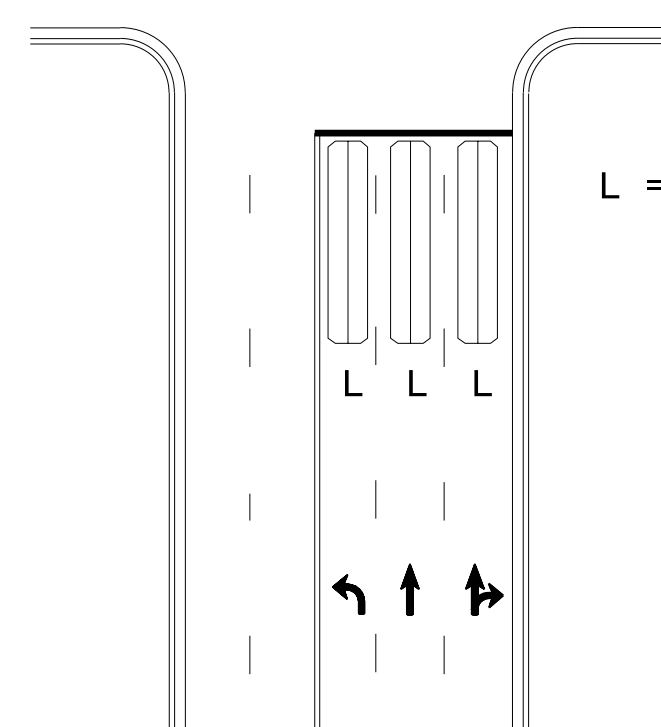


Wide Radius Turn



Channelized Turn

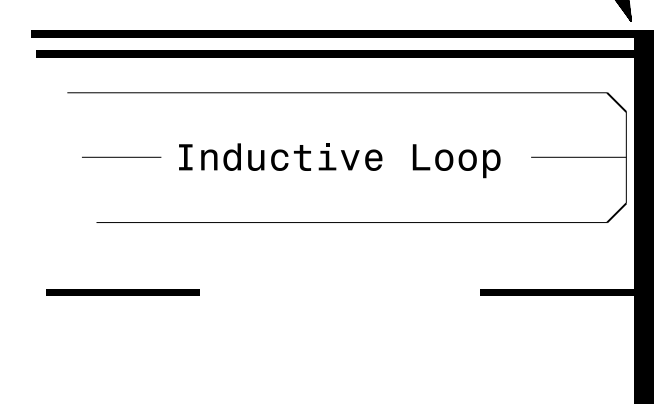
### Side Street Detection



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

SEAL  
NORTH CAROLINA  
PROFESSIONAL ENGINEER  
PAMELA L. ALEXANDER  
23489

DocuSigned by:  
P. Alexander  
1/30/2015 10:44:44 AM  
DATE