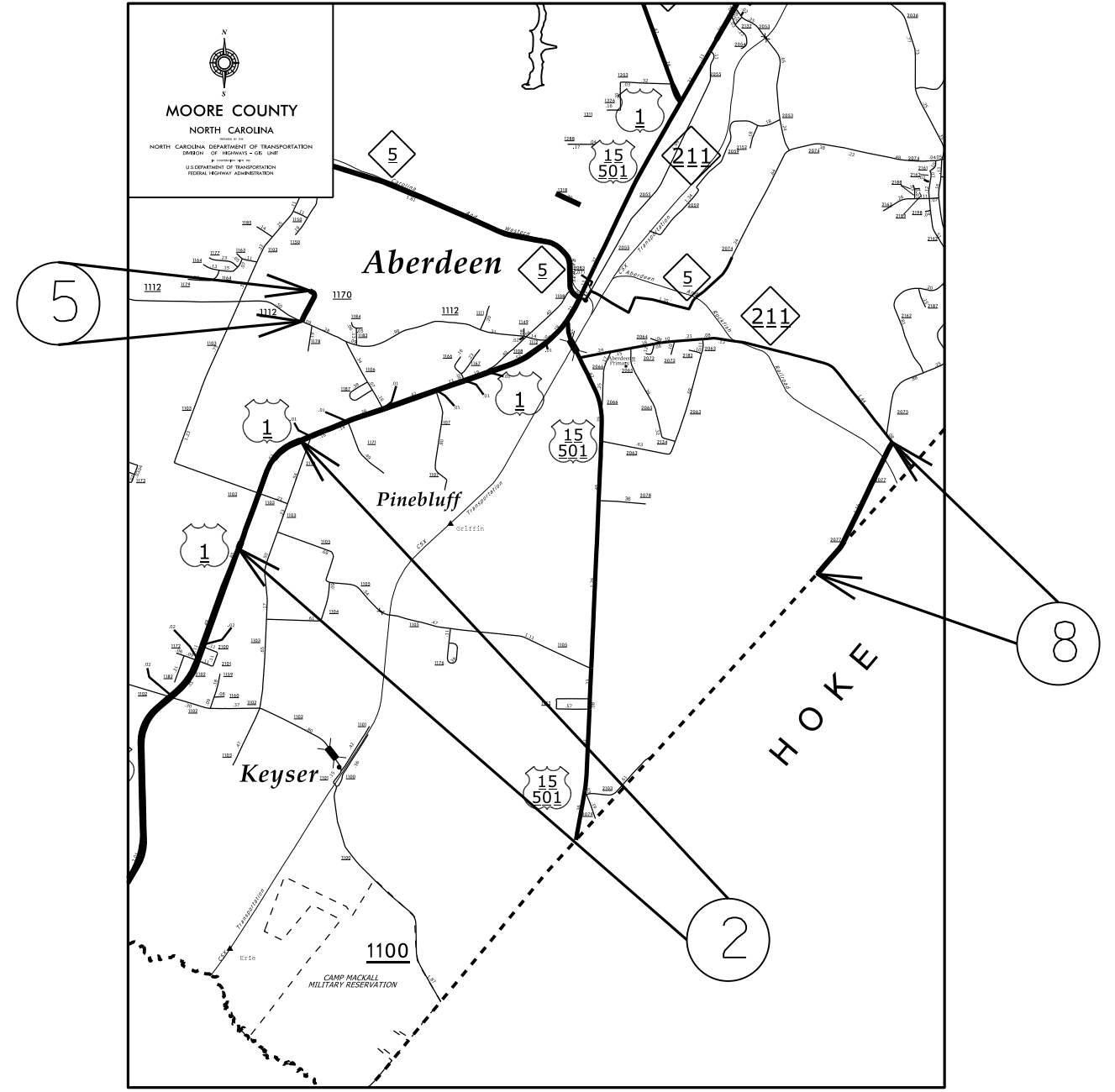
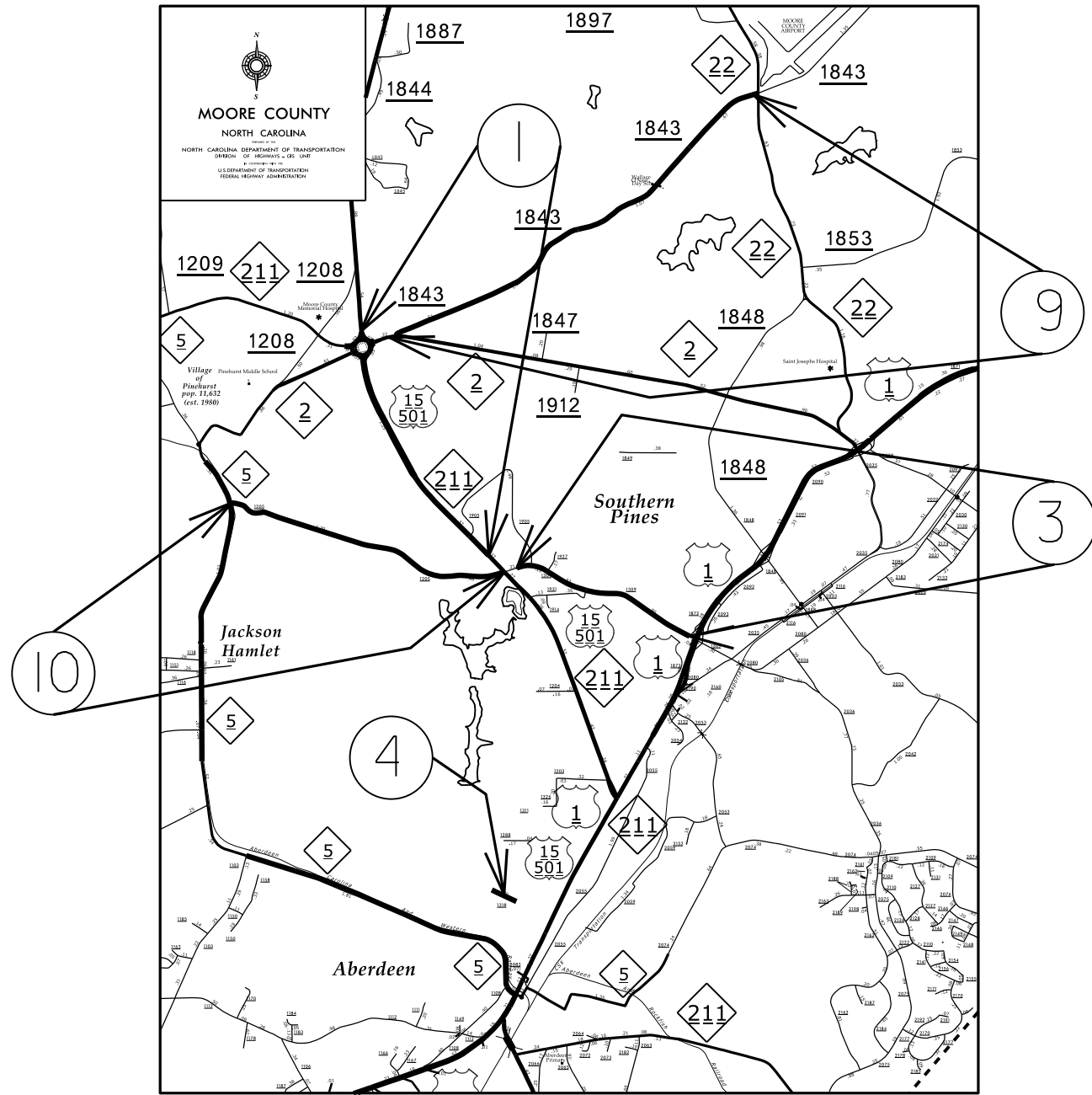
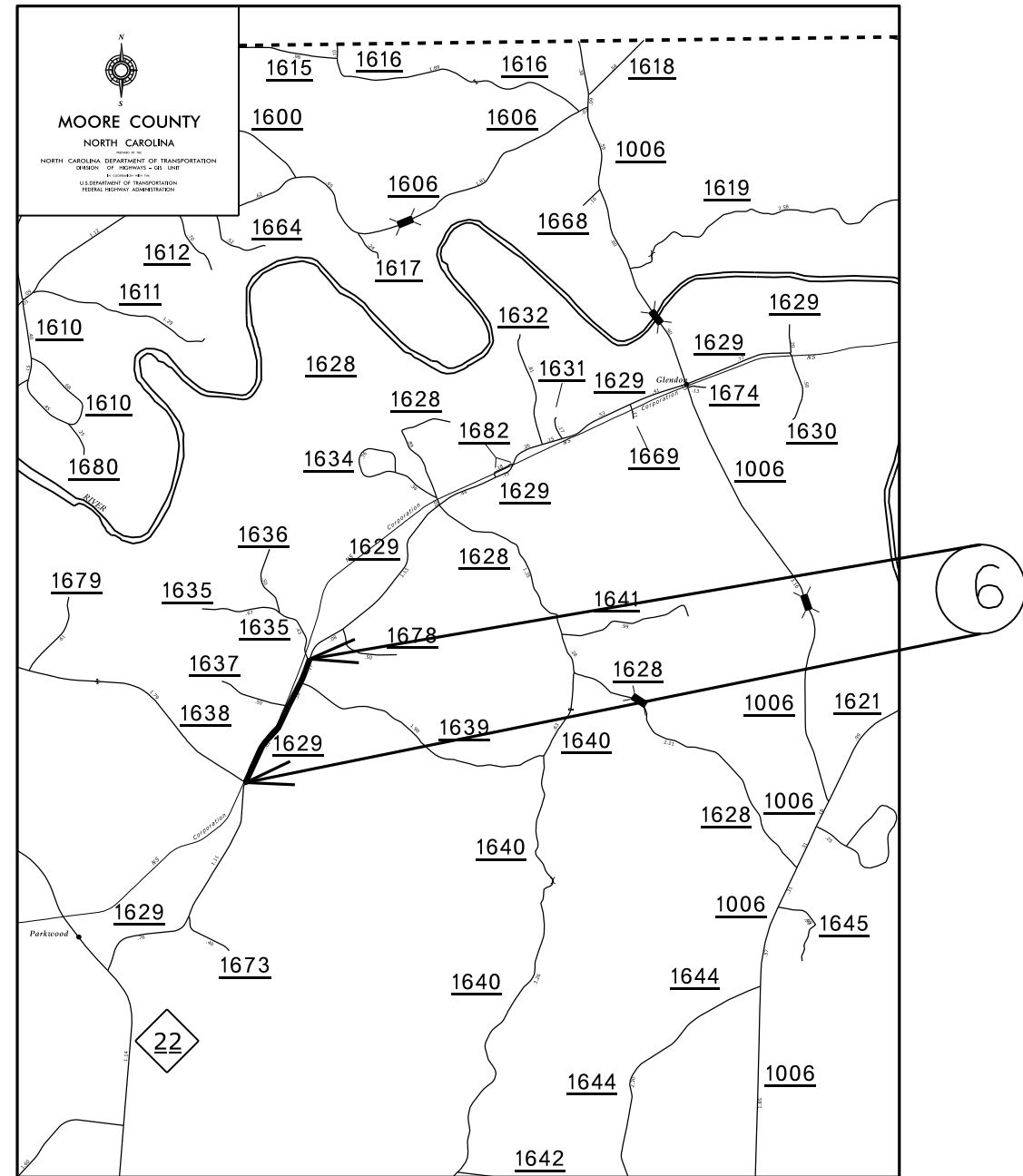
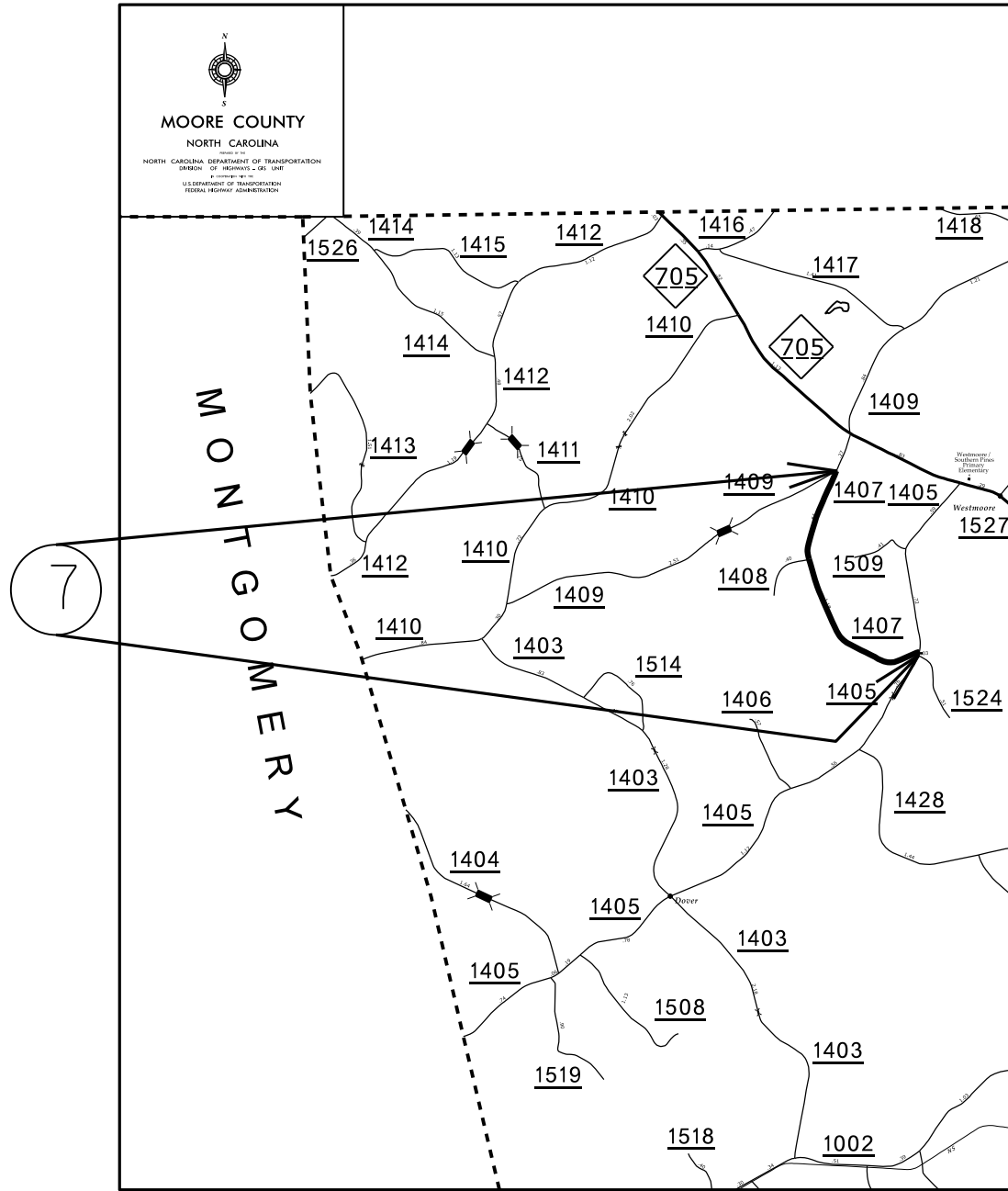
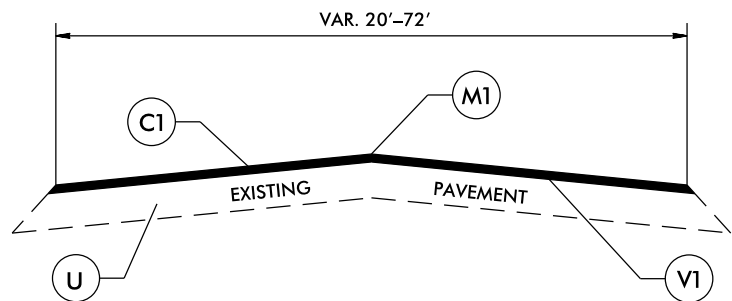


# MOORE COUNTY



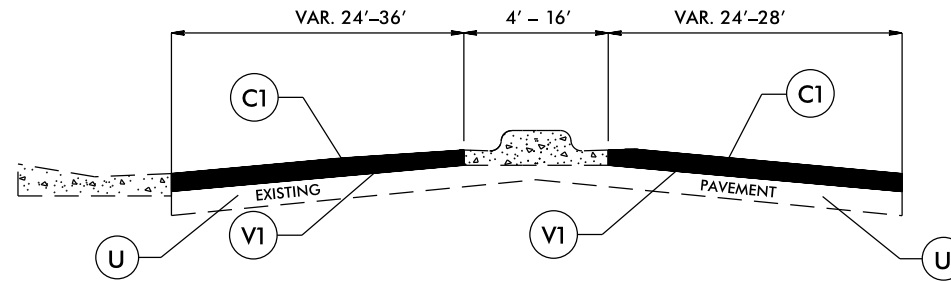


### TYPICAL SECTION NO. 1



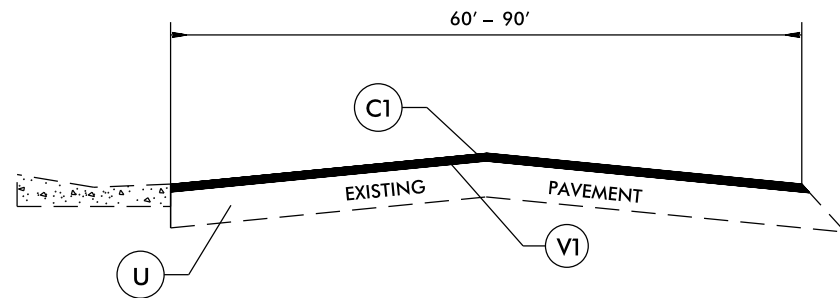
NOTE: REPLACE EXISTING MILLED RUMBLE STRIP BETWEEN LANES ON MAP #1 ONLY

### TYPICAL SECTION NO. 3

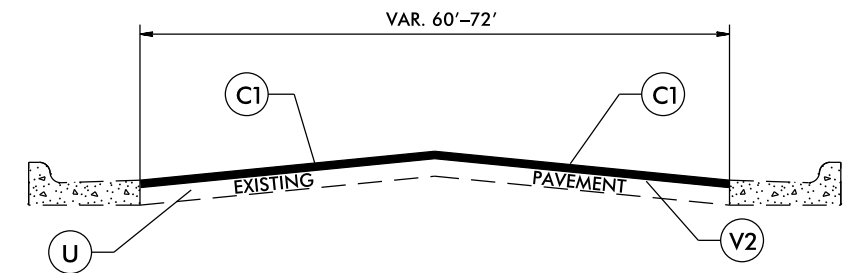


NOTE: PLACE LEVELING COURSE S9.5C AS DIRECTED TO ADDRESS SETTLING IN ROADWAY. LOCATION TO BE COORDINATED WITH MOORE COUNTY MAINTENANCE ENGINEER. C4

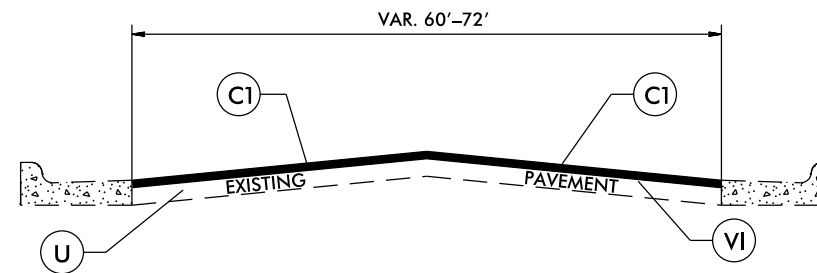
### TYPICAL SECTION NO. 2



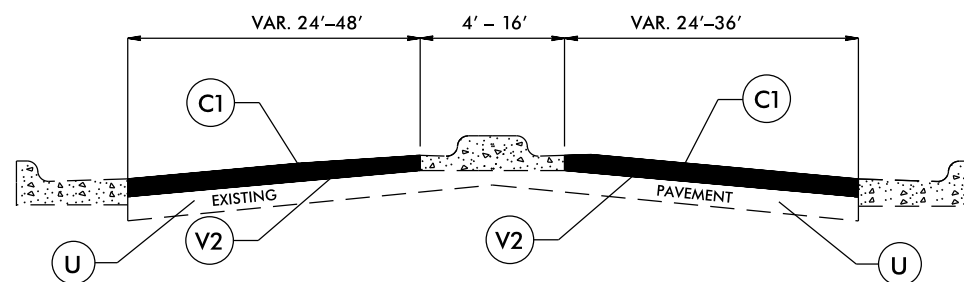
### TYPICAL SECTION NO. 4



### TYPICAL SECTION NO. 6



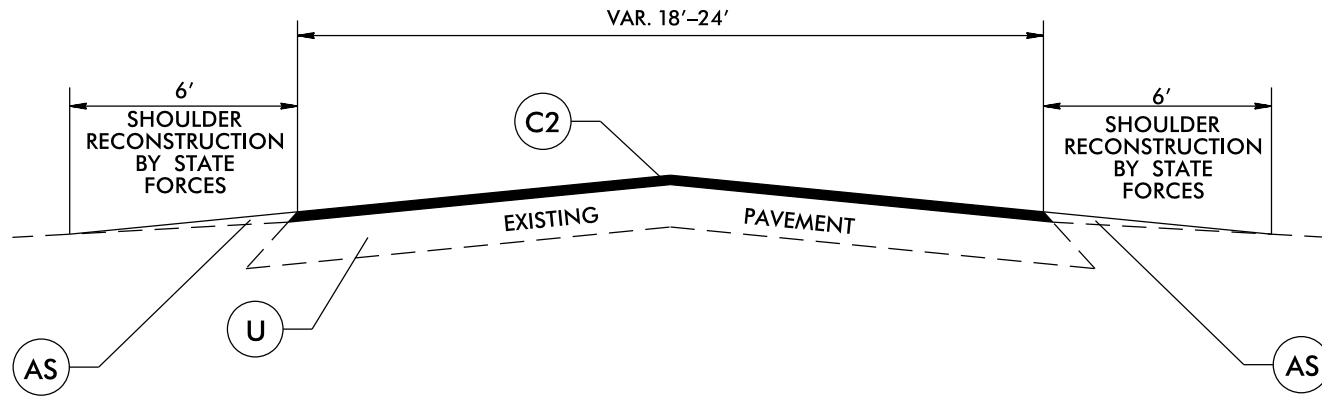
### TYPICAL SECTION NO. 5



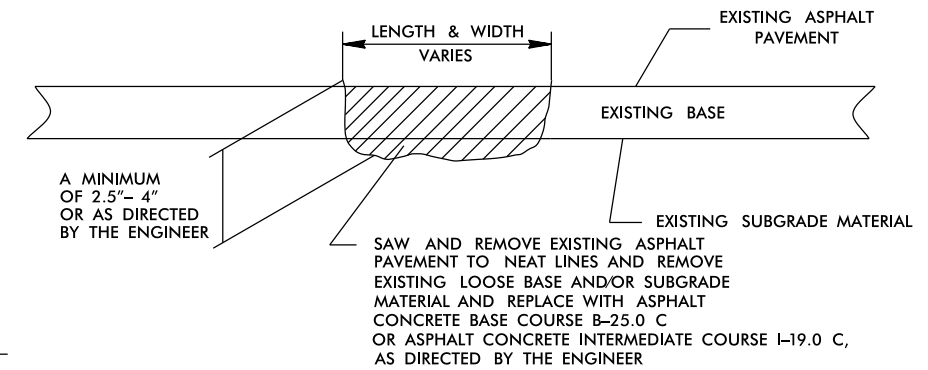
#### PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C4	PROP. VARIABLE DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
M1	MILLED RUMBLE STRIP (12")
V1	MILLING 1.5" IN DEPTH
V2	MILLING 1.5" TO 2" IN DEPTH
U	EXISTING PAVEMENT.

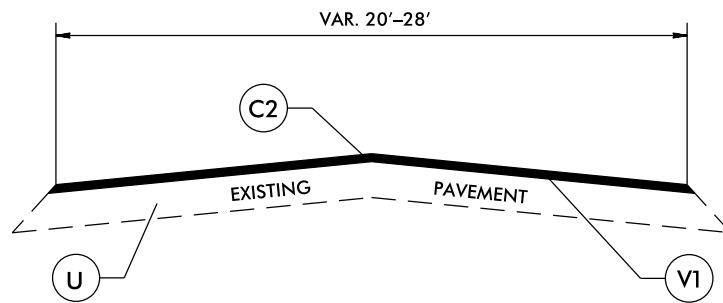
### TYPICAL SECTION NO. 7



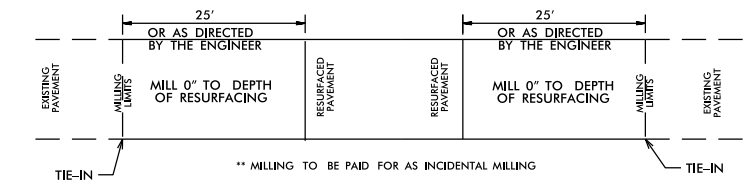
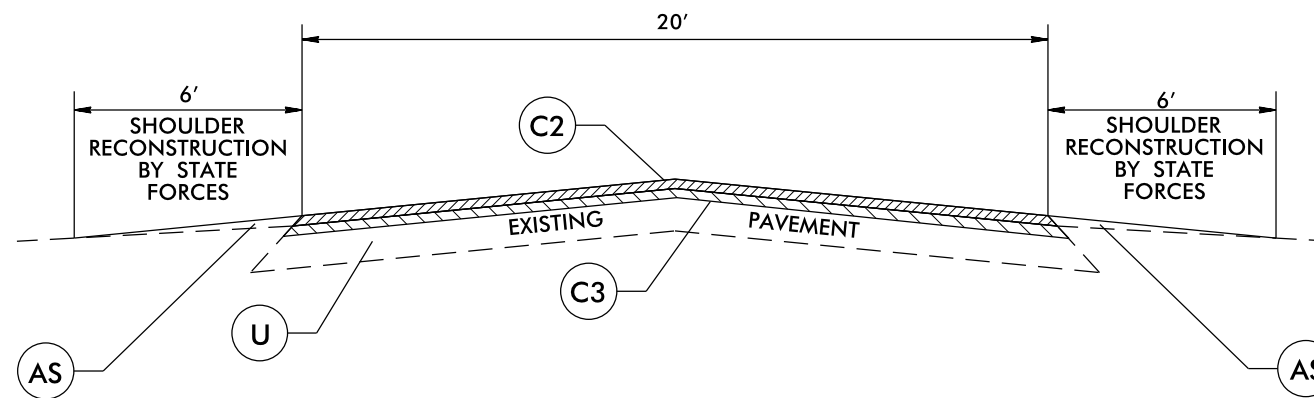
### DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING DETAIL



### TYPICAL SECTION NO. 8

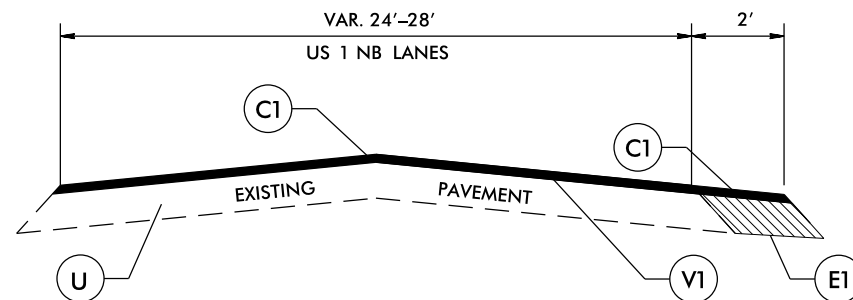


### TYPICAL SECTION NO. 9



### PAVEMENT TIE-IN DETAIL

### TYPICAL SECTION NO. 10



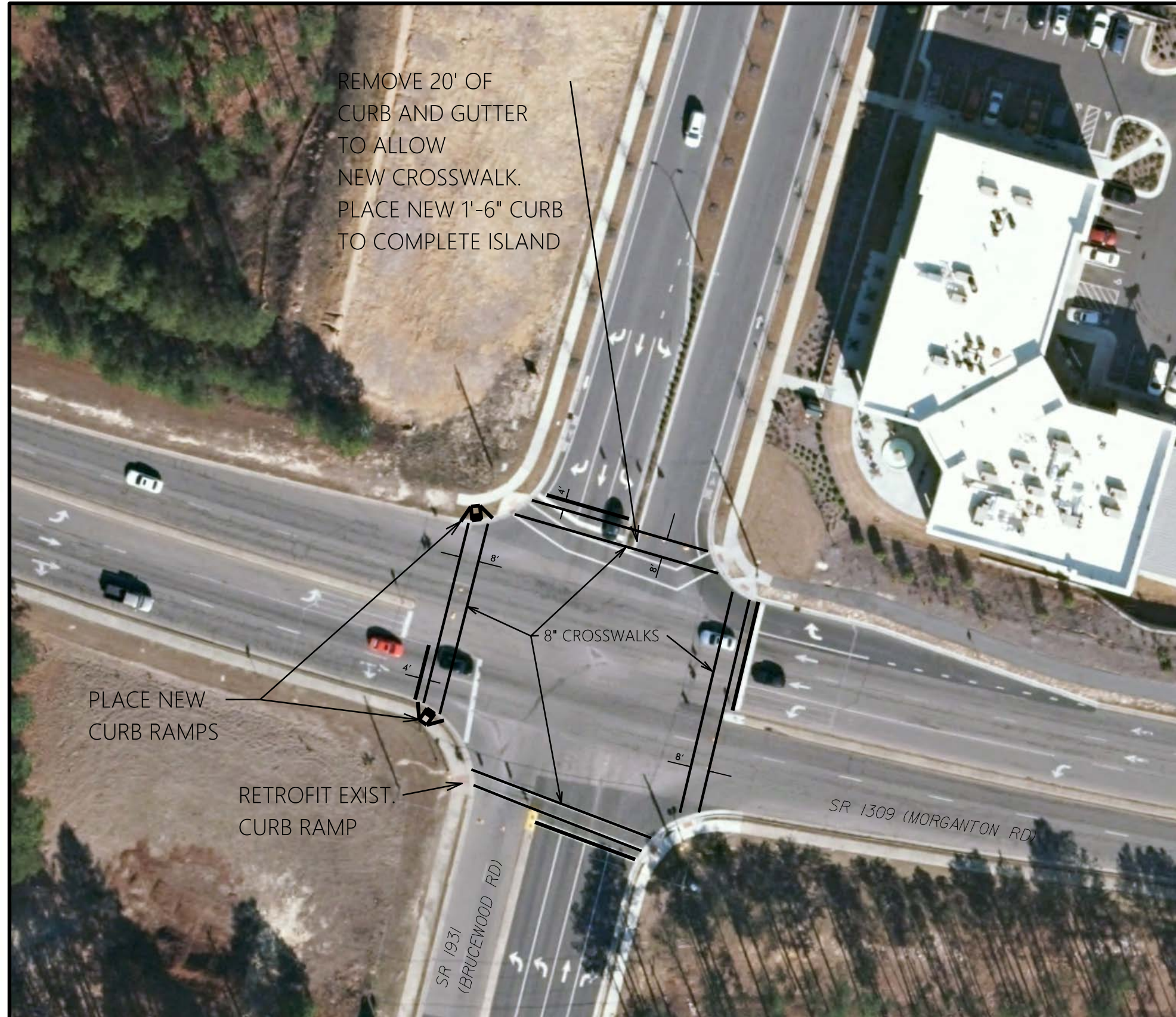
NOTE: 2' SHOULDER WIDENING TO BE AS DIRECTED. LOCATIONS ARE FROM 215' TO 600' AND 725' TO 922' NORTH OF SR 2118 (CARRANT ST).

### PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.0" ASPHALT CONCRETE LEVELING COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
V1	MILLING 1.5" IN DEPTH
V2	MILLING 1.5" TO 2" IN DEPTH
U	EXISTING PAVEMENT.
AS	AGGREGATE SHOULDER BORROW

# MAP #3 DETAIL SHEET

WBS ELEMENT	SHEET NO.
2019CPT.08.15.10631 2019CPT.08.15.20631 2021CPT.08.04.20631	6



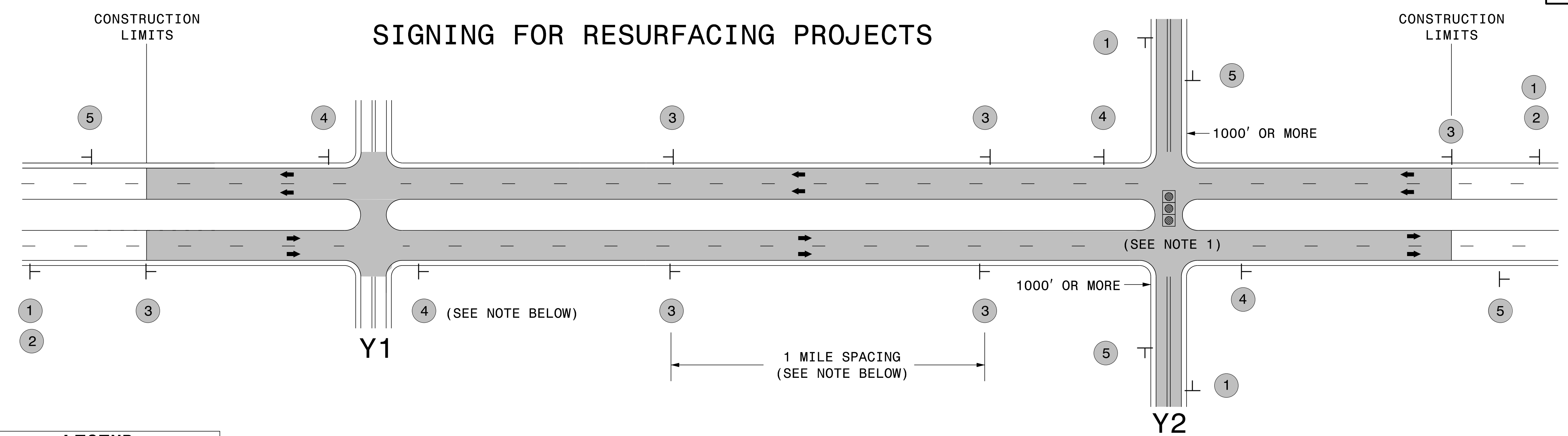


## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANE S	LANE TYPE	FINAL SURF. TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGT H	WID TH	REM. OF EXI. CONC PAV'T	1.5"	1.5" TO	INC.	B25. 0C	S9.5B	LEVEL-	S9.5C	LEVEL-	ASPH. BINDER FOR PLANT MIX	PATCH- ING EXI. PAV'T	MILLED RUMBLE STRIPS	1'-6" CURB & GUTTER	RETRO- FIT EXI. CURB RAMP	CONC. CURB RAMP	ADJ. OF MAN- HOLE S	ADJ. OF METER OR VALVE BOX	PORT- ABLE LIGHT- ING	IND. LOOP SAW- CUT	LEAD- IN CABLE (14-2 PAIR)			
													MILLING	2.0" MILLING	MILLIN G		TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	EA	EA	EA	EA	EA	EA	EA			
										MI	FT	SY	SY	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	TONS	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA		
2019CPT.08.15.10631	Moore	1	US 15-501	FROM 0.17 MILES NORTH OF INTERSECTION WITH SR 1305 (MORGANTON RD) TO TRAFFIC CIRCLE (INCLUDE CIRCLE)	1, 2, 3	2	2WU	NO	NO	2.05	30 - 60		82,500		850				7,420	7	446	1,950	3,428						*	1,600	800			
		2	US 1 (PINEBLUFF)	FROM PVMNT JOINT +900' NORTH OF FIRE DEPT. TO JOINT 0.08 OF SR 2118 (CURRANT ST)	1, 6, 10	2	MU	NO	NO	1.17	50		41,997		950	44				4,080		247						1	1					
<b>TOTAL FOR PROJ NO. 2019CPT.08.15.10631</b>										<b>3.22</b>			<b>124,497</b>		<b>1,800</b>	<b>44</b>			<b>11,500</b>	<b>7</b>	<b>693</b>	<b>1,950</b>	<b>3,428</b>			<b>1</b>	<b>1</b>				<b>1,600</b>	<b>800</b>		
2019CPT.08.15.20631	Moore	3	SR 1309 (MORGANTON RD)	FROM 0.07 MILES EAST OF INTERSECTION WITH US 15-501 TO PVMNT JT AT US 1	4,5	2	MU	NO	NO	1.32	60	4		46,125					4,150		249	300		10	1	2	2	3	*	2,000	1,000			
		<b>TOTAL FOR PROJ NO. 2019CPT.08.15.20631</b>										<b>1.32</b>		<b>4</b>		<b>46,125</b>				<b>4,150</b>		<b>249</b>	<b>300</b>		<b>10</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>		<b>2,000</b>	<b>1,000</b>		
2021CPT.08.04.20631	Moore	4	SR 1318 (ARNOLD AVE)	FROM BEG STATE MAINT. TO DEAD END	7	2	2WU	NO	NO	0.2	18						175				12	50												
		5	SR 1170 (SNOOZING PINE LN)	FROM SR 1112 (ROSELAND RD) TO DEAD END	7	2	2WU	NO	NO	0.28	18							245				16	140											
		6	SR 1629 (PUTNAM GLENDON RD)	FROM SR 1638 (PUTNAM CH RD) TO SR 1635 (HERBIE RD)	8	2	2WU	NO	NO	0.94	20			11,029		300		1,120				75												
		7	SR 1407 (MACK RD)	FROM SR 1405 (DOVER CH RD) TO SR 1409 (CHRISCO RD)	9	2	2WU	NO	NO	1.79	20					100		2,310	1,270				240	150										
		8	SR 2077 (CAROLINA RD)	FROM HOKE CO LINE TO NC 211	7	2	2WU	NO	NO	1.18	24					200		1,510					101	100										
		9	SR 1843 (AIRPORT RD)	FROM PAVEMENT JOINT WEST OF ROUNDABOUT AT NC 22 TO NC 2 (MIDLAND RD)	8	2	2WU	NO	NO	2.89	24				47,473	1,200		4,830					324	100										
		10	SR 1205 (MORGANTON RD)	FROM NC 5 TO TURNBERRY WAY	8	2	2WU	NO	NO	1.96	24				24,795	1,236		2,250					151							*	1,200	1,200		
		<b>TOTAL FOR PROJ NO. 2021CPT.08.04.20631</b>										<b>9.24</b>		<b>4</b>	<b>207,794</b>	<b>46,125</b>	<b>4,836</b>	<b>44</b>	<b>12,440</b>	<b>1,270</b>	<b>15,650</b>	<b>7</b>	<b>1,861</b>	<b>2,790</b>	<b>3,428</b>		<b>10</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>4,800</b>	<b>3,000</b>
		<b>GRAND TOTAL</b>										<b>13.78</b>		<b>4</b>	<b>207,794</b>	<b>46,125</b>	<b>4,836</b>	<b>44</b>	<b>12,440</b>	<b>1,270</b>	<b>15,650</b>	<b>7</b>	<b>1,861</b>	<b>2,790</b>	<b>3,428</b>		<b>10</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>4,800</b>	<b>3,000</b>







**LEGEND**  
 ┆ STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW

**MAINLINE (-L-) SIGNING**

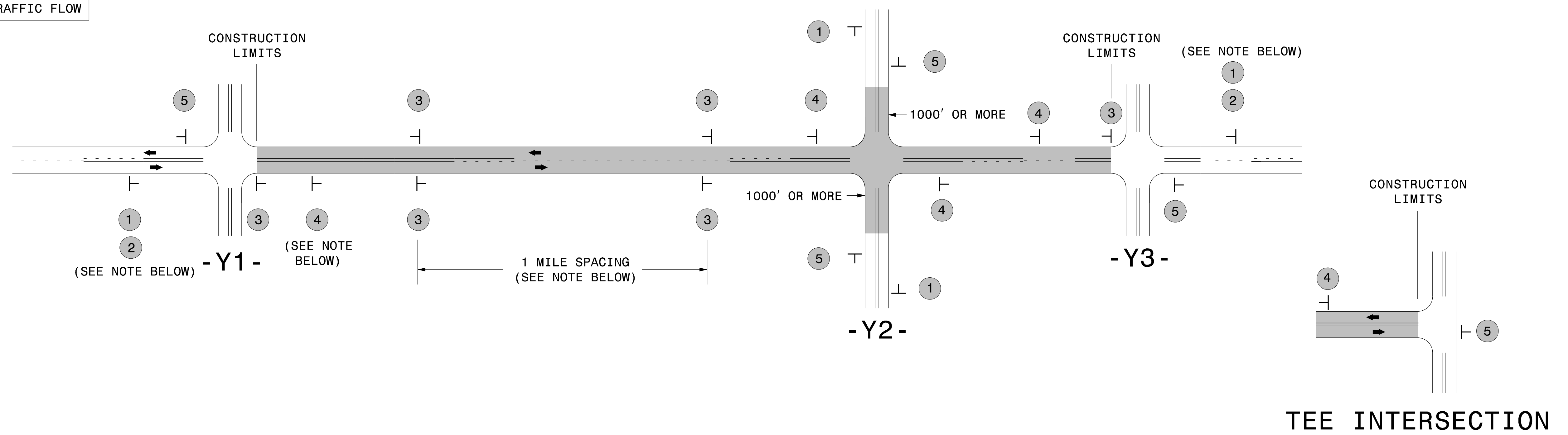
**-Y- LINE SIGNING**

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.	<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;">           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>
	2	 W7-3aP 24" X 18"	#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	 SP 13107 48" X 48"	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	 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.	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

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

# SIGNING FOR RESURFACING PROJECTS

**LEGEND**  
 ┆ STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW



## MAINLINE (-L-) SIGNING

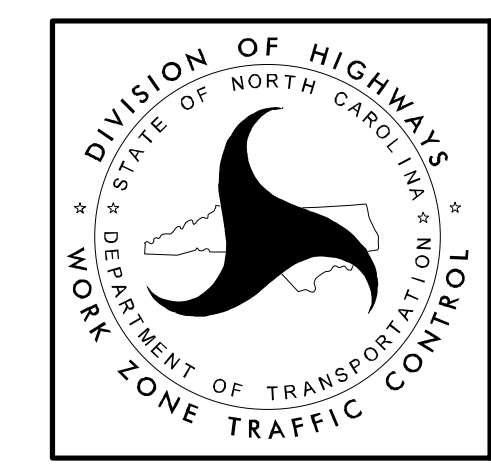
## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">             W20-1 48" X 48"            PLACED 500' IN ADVANCE OF FLAGGER.         </div> <div style="text-align: center;">             W20-7 A 48" X 48"            PLACED 250' IN ADVANCE OF FLAGGER.         </div> </div>
	2		#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4		- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

**MAPS LESS THAN 2 MILES**

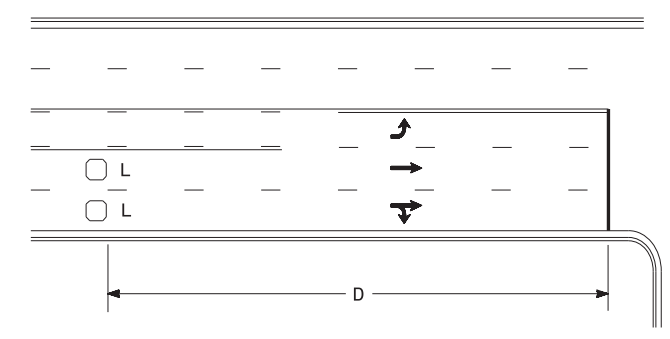
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



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

5/15/2017 S:\TUXWZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing\_AdvWarn\_2Ln.dgn User:kadai

### High Speed Detection (≥40 mph)

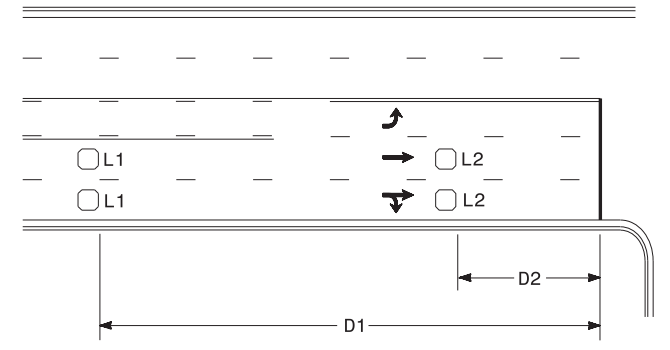


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft  
Wired separately

Volume Density Operation

OR

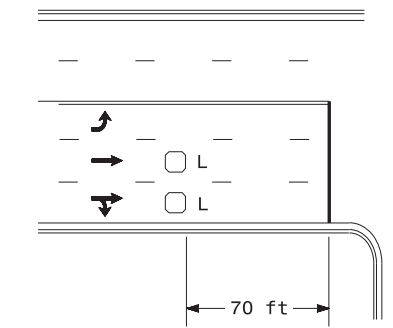


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

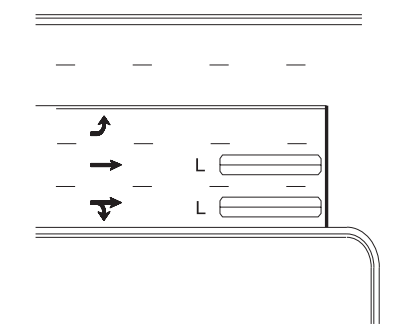
"Stretch" Operation

### Low Speed Detection (≤35 mph)



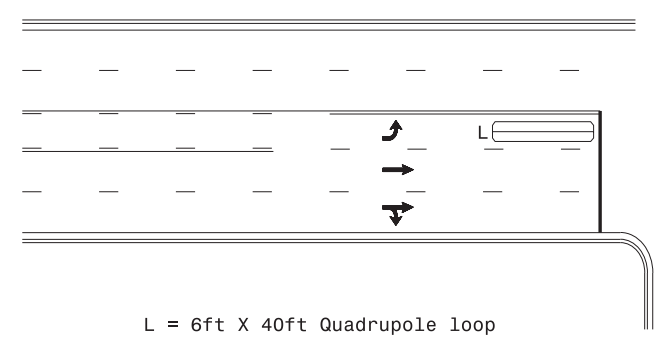
L = 6ft X 6ft  
Wired in series

OR



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

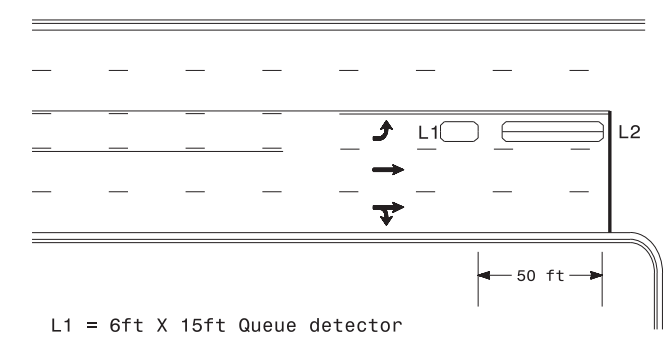
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

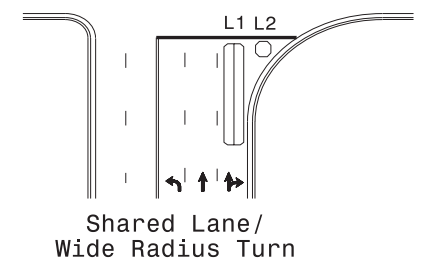
OR



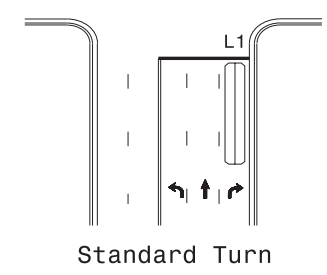
L1 = 6ft X 15ft Queue detector  
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

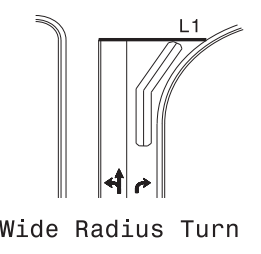
### Right Turn Lane Detection



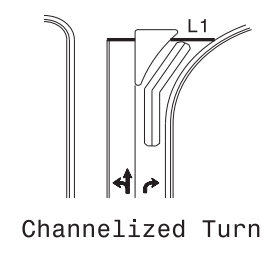
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

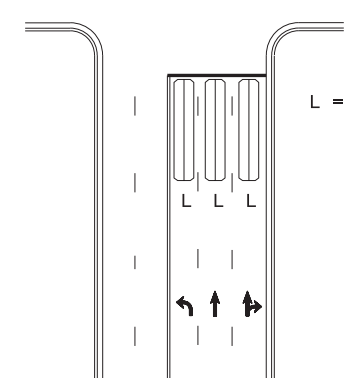


Wide Radius Turn



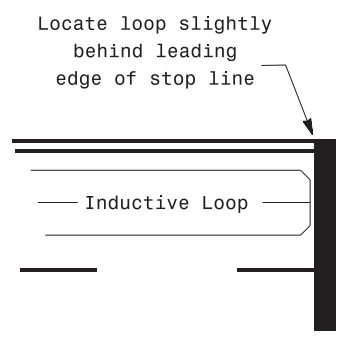
Channelized Turn

### Side Street Detection



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

### Presence Loop Placement at Stop Lines



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

Prepared In the Offices of:

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
REVISIONS	INIT. DATE

9/8/2020

SIG. INVENTORY NO.