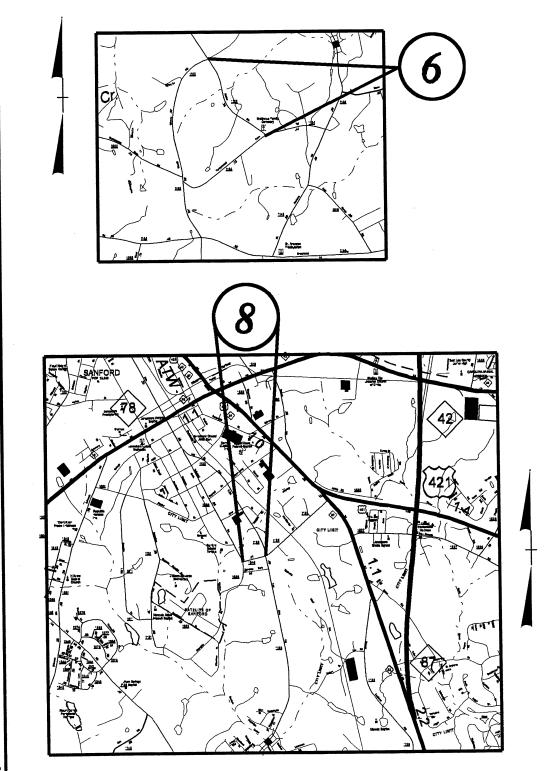
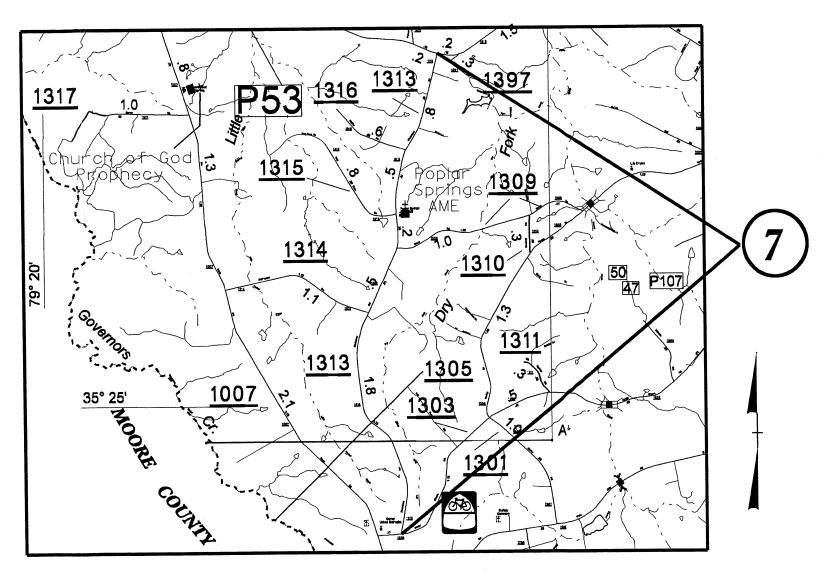
LEE COUNTY

 
 PROJECT REPERENCE NO.
 SHEET NO.

 8CR.10531.24, 8CR.10531.24
 Z
 CLINE 56 59 Z Little

PROJECT REFERENCE NO.	SHEET NO.
8CR.10531.24, 8CR.10531.24	3

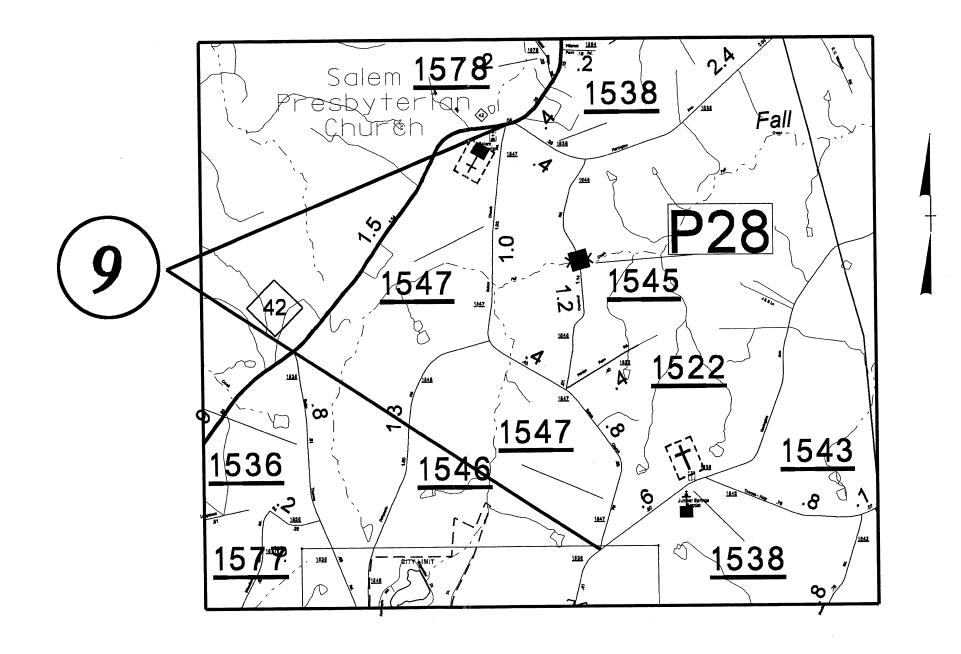




-2014/Lee/Lee\_Submital\_June2014/vic

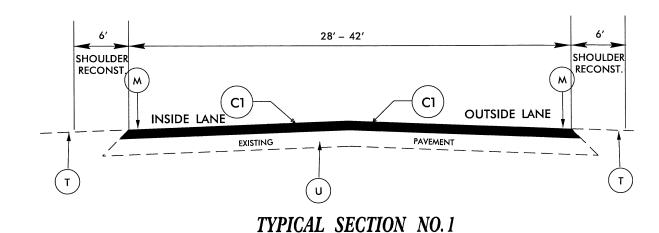
3014 10.36

PROJECT REFERENCE NO.	SHEET NO.
8CR.10531.24, 8CR.10531.24	4



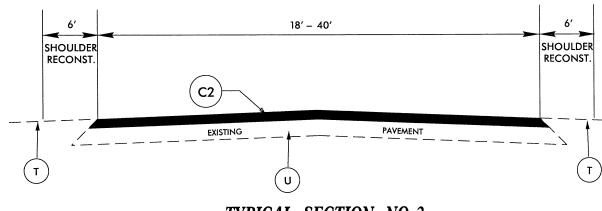
e\_Submital\_June2014\vic\_n

\div8\_projects\Resurfacing\



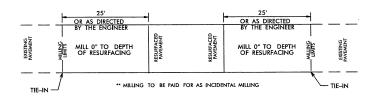
- REPLACE MILLED RUMBLE STRIPS ON MAPS 1 AND 2 ONLY.

  0 1.5" MILLING TO BE USED AT INTERSECTIONS ON MAPS 3 AND 4 AS DIRECTED BY THE ENGINEER TO TAKE CARE OF RUTTING

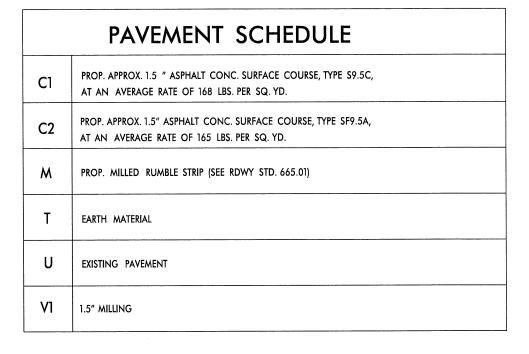


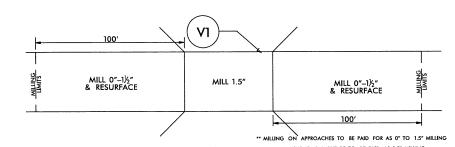
TYPICAL SECTION NO. 2

NOTE: ON MAPS #5, #6, #8 & #9, CONTRACTOR SHALL STOP RESURFACING AT THE EDGE OF TRAVEL ON THE INTERSECTING ROAD.



PAVEMENT TIE-IN DETAIL

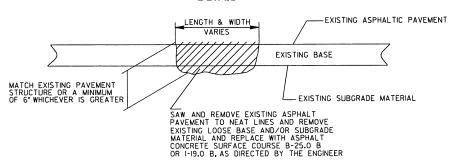


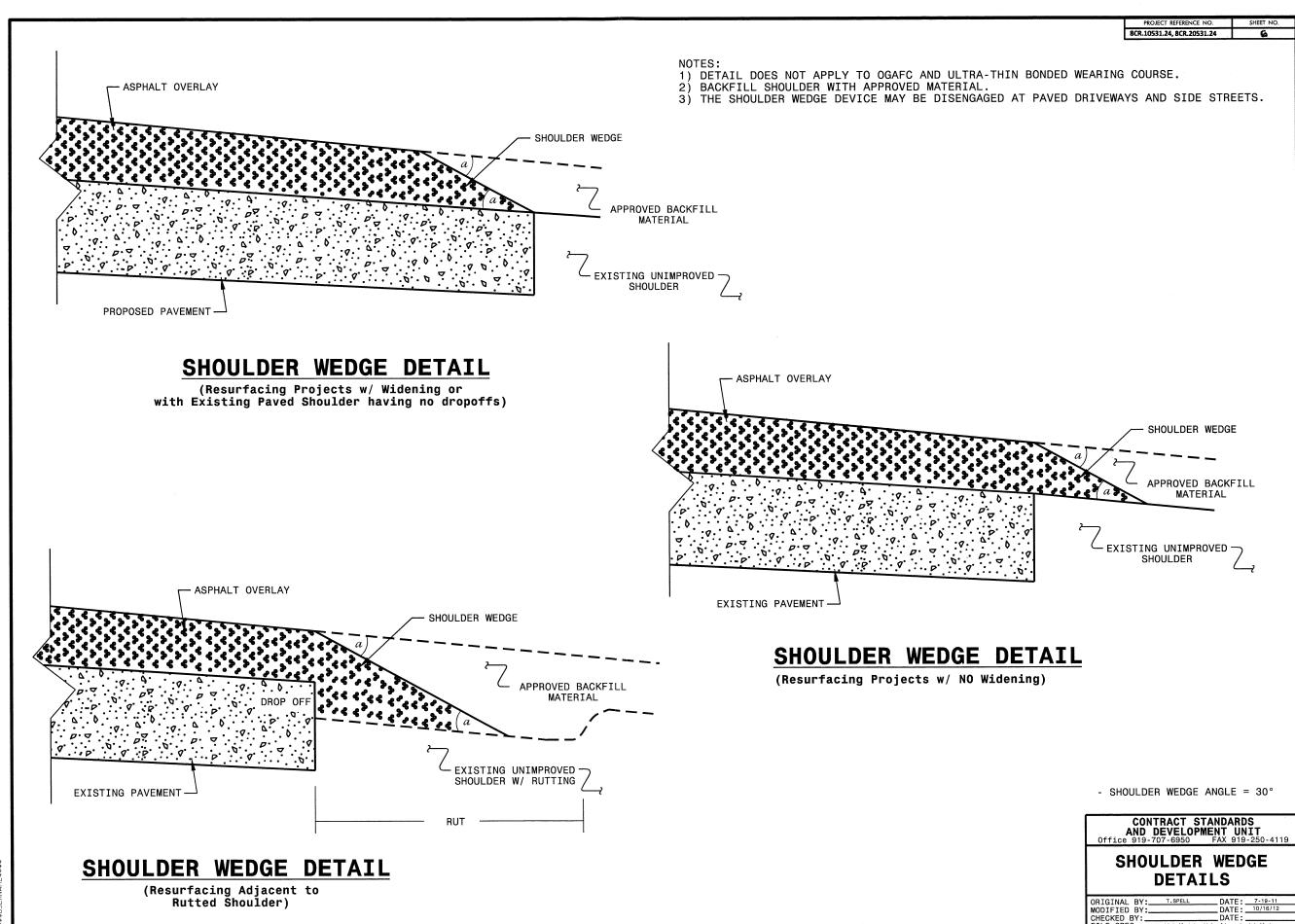


BRIDGE DRAWING FOR SR 1332 (BRIDGE NO 59)

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING

DETAIL





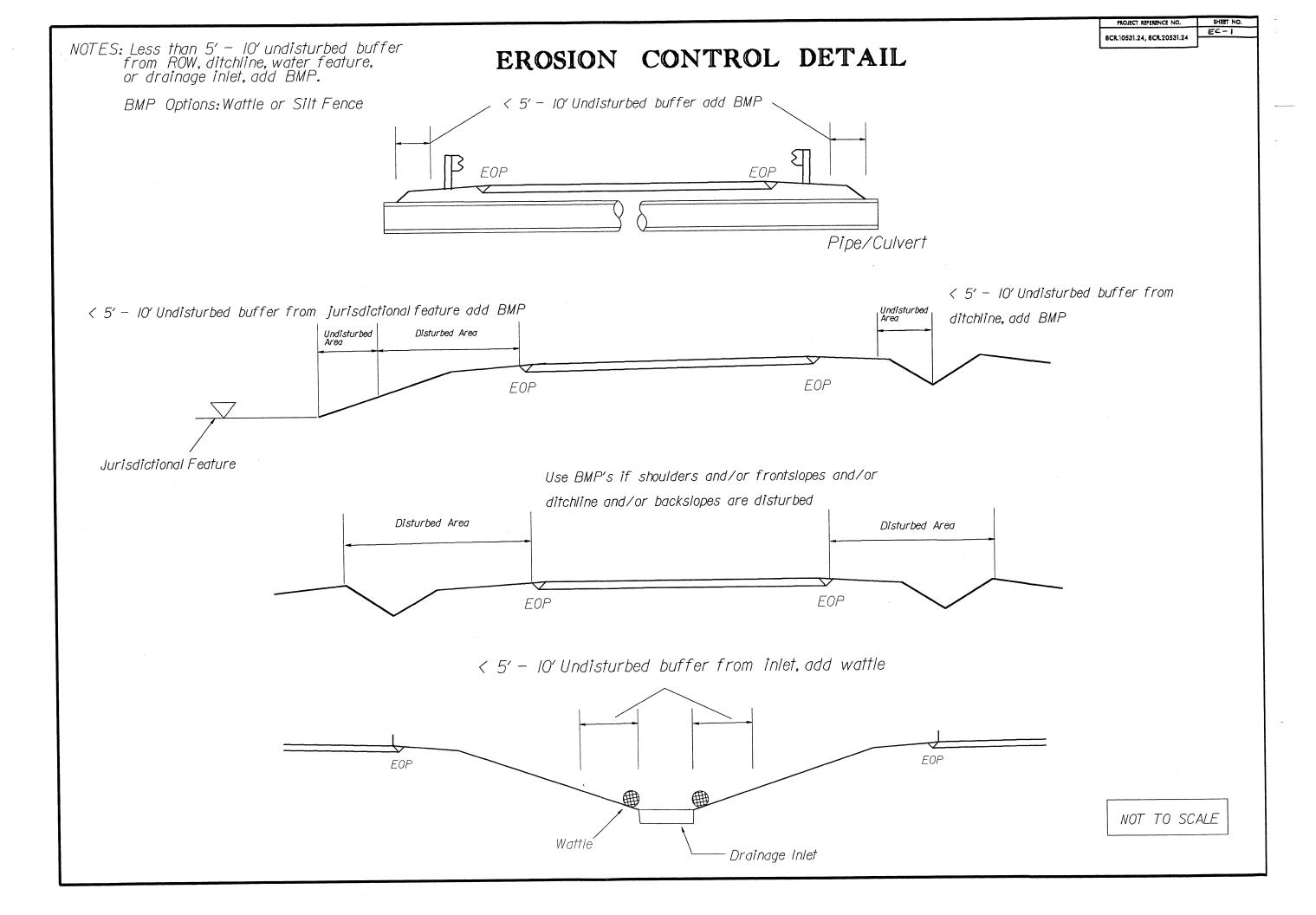
PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10531.24, 8CR.20531.24	7	

### SUMMARY OF QUANTITIES

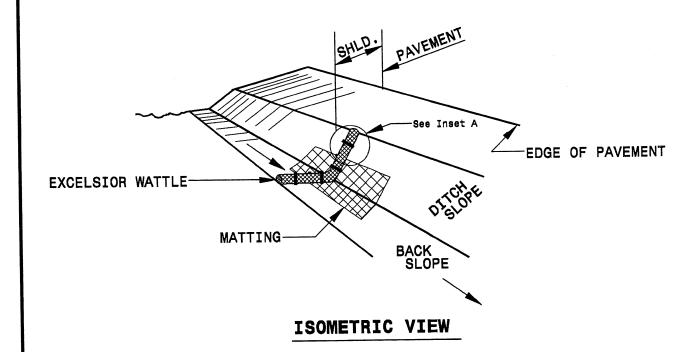
					_				1 01	~ .	,,,,,															
PROJECT	COUNT	Y MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	FINAL	WARM MIX	LENGTH	WIDTH	BORROW	INCIDENTAL	SHOULDER	1.5"	0" TO	INCIDENTAL	SURFACE	SURFACE	ASPHALT	PATCHING	MILLED	TEMP-	1 1	1	1 1
							TYPE	SURFACE	ASPHALT			EXCAVATI	STONE BASE	RECONSTR	MILLING	1.5"	MILLING	COURSE,	COURSE,	BINDER	EXISTING	RUMBLE	ORARY	, ,	MULCHI	TIVE
	l							TESTING	REQUIRED			ON		UCTION		MILLING		S9.5C	SF9.5A	FOR	PAVEMENT	STRIPS	SILT	, 1	NG	LOOP
								REQUIRED							Ì					PLANT			FENCE	, 1	l '	SAWCU
								I LL COMPA												MIX				, 1	i '	T
NO		NO	·	·	NO					MI	FT	CY	TONS	SMI	SY	SY	SY	TONS	TON	TONS	TONS	LF	LF	LF	AC	LF
140		NO		FROM SOUTH SIDE OF BRIDGE AT NC42 TO INTERSECTION OF SR	140	ļ	<u> </u>			1011	1.		10.05	3		+										
	l .	١.			١				110	2.045	20	300		4.10			250	3,415		201	300	21,500	300	750	3.00	
8CR.10531.24	Lee	1	US 1 (NBL)	1334 (PENDERGRASS) (INCLUDE DECELERATION RAMP)	1	2	MD	NO	NO	2.045	28	300		4.10	ļ	-	250	3,413		201	300	21,300	300	<del>- /30  </del>	3.00	$\vdash$
				FROM SOUTH OF BRIDGE AT NC 42 TO START OF TAPER FOR RT													250	2 250		400	200	20.450	205	710	2.85	
8CR.10531.24	Lee	2	US 1 (SBL)	TURN LANE FOR SR 1334 (INCLUDE ACCELERATION LANE)	1	2	MD	NO	NO	1.932	28	285		3.90	ļ		250	3,250		192	300	20,450	285	710	2.85	
000 40504 04		1	LIC 4 (NIDL)	EDOM CD 1100 (DDVAN DD) TO CD 1731 (OUAL DIDGE DD)		٦	MD	NO	NO	2.992	28-42	430	140	6.00		2,500	250	5,220		308	200		435	1,090	4.35	500
8CR.10531.24	Lee	3	US 1 (NBL)	FROM SR 1198 (BRYAN DR) TO SR 1731 (QUAIL RIDGE DR)	-	2	IND	NO	NO	2.992	20-42	430	140	0.00	<u> </u>	2,300	230	3,220		300	200		733	1,050	1.33	1 300
8CR.10531.24	Lee	1 4	US 1 (SBL)	FROM SR 1198 (BRYAN DR) TO SR 1731 (QUAIL RIDGE DR)	1	2	MD	NO	NO	2.992	28-42	440	200	6.00		2,500	250	5,075		299	25		435	1,100	4.35	500
	<del></del>	DPOLN	O. 8CR.10531.24	THOM SHIPS (SHIPM SHIP TO SHIPS I (QOPME MISSE SHIP	<del>  -</del> -		12			9.961		1,455	340	20.00		5.000	1,000	16,960		1,000	825	41,950	1,455	3,650	14.55	1,000
			<b>Y</b>		г		1	Т		· · · · · · · · · · · · · · · · · · ·	Г	T	т	I	Т	Т	T	Т	T	I	Γ			г	Τ	
8CR.20531.24	Lee	5	SR 1332 (FRANKLIN DR)	FROM SR 1305 (HENLEY RD) TO SR 1334 (PENDERGRASS RD)	2	2	2WU	NO	NO	1.42	18	210	110	2.85	60	420	200		1,445	97	300		210	530	2.10	
				FROM SR 1164 (KENTRYEWOOD FARM RD.) TO SR 1162 (SHERIFF			ł					1				1								1 '		
8CR.20531.24	Lee	6	SR 1163 (HOLDER RD)	WATSON RD)	2	2	2WU	NO	NO	0.72	20	110	55	1.45			67		775	52	10		79	280	1.10	
				FROM SR 1318 (STEEL BRIDGE RD) TO SR 1303 (CENTER CHURCH													Į.							,	ļ	
8CR.20531.24	Lee	7	SR 1313 (BLACKSTONE RD)	RD)	2	2	2WU	NO	NO	3.674	18	540	420	7.35			180		3,590	241	40		535	1,340	5.34	
8CR.20531.24	Lee	8	SR 1240 (WILSON RD)	FROM SR 1133 (LEE AVE) TO SR 1239 (INDUSTRIAL DR )	2	2	2WU	NO	NO	0.153	22	50		0.31					185	12	20		22	60	0.22	
			SR 1547 (SALEM CHURCH				1											1						·		
8CR.20531.24	Lee	9	RD)	FROM NC 42 TO SR 1538 (BUCKHORN RD)	2	2	2WU	NO	NO	2.292	18	340	50	4.58			445		2,315	155	200		335	840	3.33	$\perp$
T	OTAL FOR	R PROJ N	O. 8CR.20531.24		<u> </u>		<u> </u>			8.259		1,250	635	16.54	60	420	892	<u></u>	8,310	557	570		1,181	3,050	12.09	
													<u> </u>		-		-	<b>_</b>				1	·	т		
		GRAND	TOTAL							18.22	L	2,705	975	36.54	60	5,420	1,892	16,960	8,310	1,557	1,395	41,950	2,636	6,700	26.64	1,000

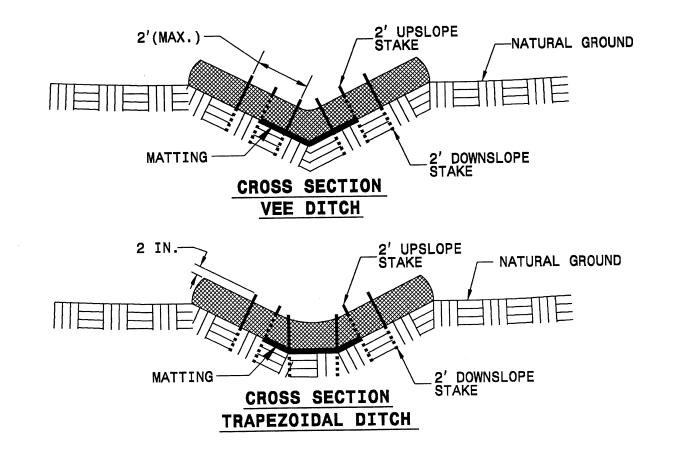
# THERMOPLASTIC AND PAINT QUANTITIES

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							1				441300000		468800				4710000000-				25000000-E						
PROJECT	COUNT	Y MAP	ROUTE	DESCRIPTION	TYP	LANES	1	LENGTH	WIDTH	LAW	1	TEMPORA	1		1		24" X 120 M	1	1	THERMO	1		THERM			I	CRYSTA
1							TYPE			ENFORCE		RY TRAFFIC	WHITE		M WHITE		WHITE	MSG	RT	LT		O STR &		PAINT	YELLOW	1	1
						l				MENT	ADVANCE/	CONTROL	THERMO	THERMO	THERMO	1	1	SCHOOL	ARROW	1	ARROW 90	4	MERGE		PAINT	PAINT	RED
		1	*		1					1	GENERAL			1		THERMO		120 M	90 M	90 M	М	ARROW			1 '	1	MARKE
		į			1						WARNING											90 M	90 M		'		RS
											SIGNING			1											· '	1	
NO		NO			NO					HR	SF	LS	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA
				FROM SOUTH SIDE OF BRIDGE AT NC42 TO INTERSECTION OF SR														1							1	1	
8CR.10531.24	Lee	1	US 1 (NBL)	1334 (PENDERGRASS)(INCLUDE DECELERATION RAMP)	1	2	MD	2.045	28	20	130		11,000	11,000	2,800	880	28		1	1	1				<u> </u>	<u></u>	185
				FROM SOUTH OF BRIDGE AT NC 42 TO START OF TAPER FOR RT								1													'		
8CR.10531.24	Lee	1 2	US 1 (SBL)	TURN LANE FOR SR 1334 (INCLUDE ACCELERATION LANE)	1	2	MD	1.932	28	20	130	*	10,250	10,250	2,500	800	50		2	3		2	3		· '	1	180
001110331121		+-	33 1 (332)	Total Data Control	✝▔	<u> </u>	<del>                                     </del>		<del>                                     </del>			1			<u> </u>					***************************************							
8CR.10531.24	Lee	3	US 1 (NBL)	FROM SR 1198 (BRYAN DR) TO SR 1731 (QUAIL RIDGE DR)	1	2	MD	2.992	28-42	80	130	1	15,800	15,800	3,950	1,200	200	6	2	22	5				<u> </u>		200
																4.555	250		١.	1							300
8CR.10531.24	Lee	4	US 1 (SBL)	FROM SR 1198 (BRYAN DR) TO SR 1731 (QUAIL RIDGE DR)	1	2	MD		28-42	80	130		15,800	15,800	3,850	1,500	250	6	4	16	4				<del> </del>	+	200 <b>765</b>
то	TAL FOR	R PROJ N	O. 8CR.10531.24		<u> </u>		<b>_</b>	9.961	<u> </u>	200	520	1	52,850	52,850	13,100	4,380	528	12	9	42	10	2	3	<u> </u>	L	<del> </del>	165
					<u> </u>	l		L		_L			105,	,700			L		66								
			The state of the s			1							r	T	Т	T	T	Т	Τ	T	Т	T	T	I	Т	T	Т—
8CR.20531.24	Lee	5	SR 1332 (FRANKLIN DR)	FROM SR 1305 (HENLEY RD) TO SR 1334 (PENDERGRASS RD)	12	2	2WU	1.42	18		160													30,000	25,040		
GCN.20551.24		+-	Sit 1332 (Final Media Bit)	FROM SR 1164 (KENTRYEWOOD FARM RD.) TO SR 1162 (SHERIFF	╁	<u> </u>	12.110	1	1	<del>                                     </del>		1															
8CR.20531.24	Lee	ا	SR 1163 (HOLDER RD)	WATSON RD)	1,	2	2WU	0.72	20		80					1						ł		15,200	15,200		
OCN.20331.24	Lee	- <del>  "</del>	SK 1103 (HOLDEK KD)	FROM SR 1318 (STEEL BRIDGE RD) TO SR 1303 (CENTER CHURCH	+-		12110	0.72		<del>                                     </del>	+	1			i										1		1
8CR.20531.24	Lee	7	SR 1313 (BLACKSTONE RD)	RD)	1,	2	2WU	3.674	18		415	*					l		ŀ				į	77,600	65,520	ļ	
3CN.20331.24	Lee	+	SK 1313 (BEACKSTONE KD)	i noj	+-	<u> </u>	12113	3.074	+		1	1		<u> </u>													1
8CR.20531.24	Lee	8	SR 1240 (WILSON RD)	FROM SR 1133 (LEE AVE) TO SR 1239 (INDUSTRIAL DR )	2	2	2WU	0.153	22		20							<u> </u>	<u> </u>					3,240	3,240	25	
			SR 1547 (SALEM CHURCH									1														1	
			RD)	500M NO 40 TO 50 4520 (DUGINION DD)	1	1 .	244		10		260									1				48 400	37.000		
8CR.20531.24	Lee	9	10)	FROM NC 42 TO SR 1538 (BUCKHORN RD)	1-	2	2WU		18		935	+ ,		<del> </del>	1	-	-	-	<del> </del>		<b> </b>	+			146,000	25	+
тс	TAL FOR	R PROJ N	IO. 8CR.20531.24		+	<del> </del>	+-	8.259		+	333	+			+	<del>                                     </del>	<del>                                     </del>	+	1	L	J				0.440	+	+
	············			<u> </u>	1	L							L				1		1					1 320	9770	т	
				<u></u>	т	Т		10.22	T	300	1 455	1 1	52,850	52,850	12 100	4,380	528	12	T a	42	10	2	1 3	174 440	146,000	25	765
		GRAND	TOTAL		-	ļ	+	18.22		200	1,455	+		,700	15,100	4,360	320	12	-	1 42	66	1		<del></del>	0.440	+	+ ,03
1				i	1	1	ı	1	1	1	1	1	1 105	,700	1	1	1	1			00			320	7,770		



# 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.

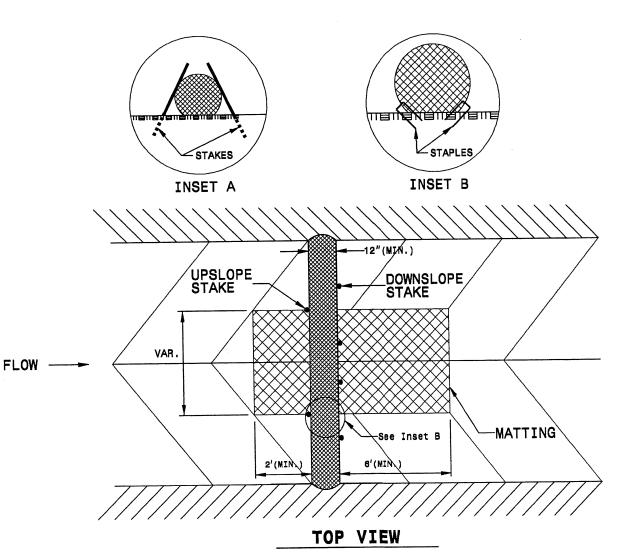
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

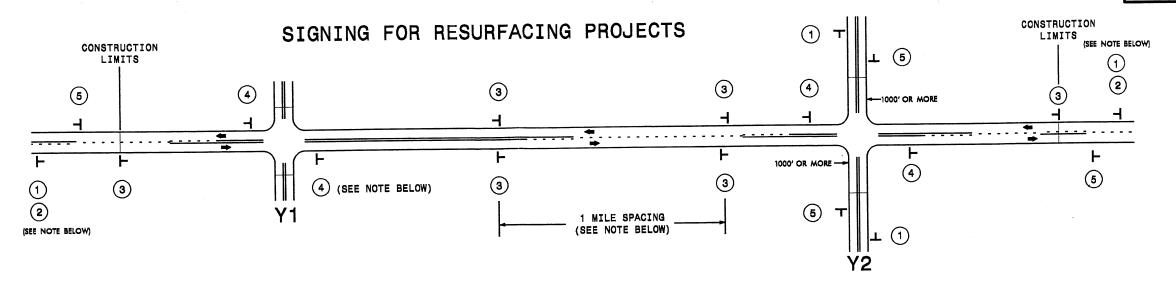
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.



PROJ. REFERENCE NO. SHEET NO. 8CR.10531.24, etc SIGN-1



LEGEND - STATIONARY SIGN - DIRECTION OF TRAFFIC FLOW

(5)

ROAD WORK G20-2 A 48" X 24"

# MAINLINE (-L-) SIGNING

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

# -Y- LINE SIGNING

#### PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. WORK NOTES AND PER DIRECTION AHEAD #2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. (2) ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS) PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART LOW/SOFT SHOULDER THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE (3) CONSTRUCTION LIMITS AND THEN SPACE 1 WILE THEREAFTER. THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SIGNING SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM PLACEMENT EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ROAD ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL 4 UNDER WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT CONST WITHIN SOU OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT SP 13106 INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.

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

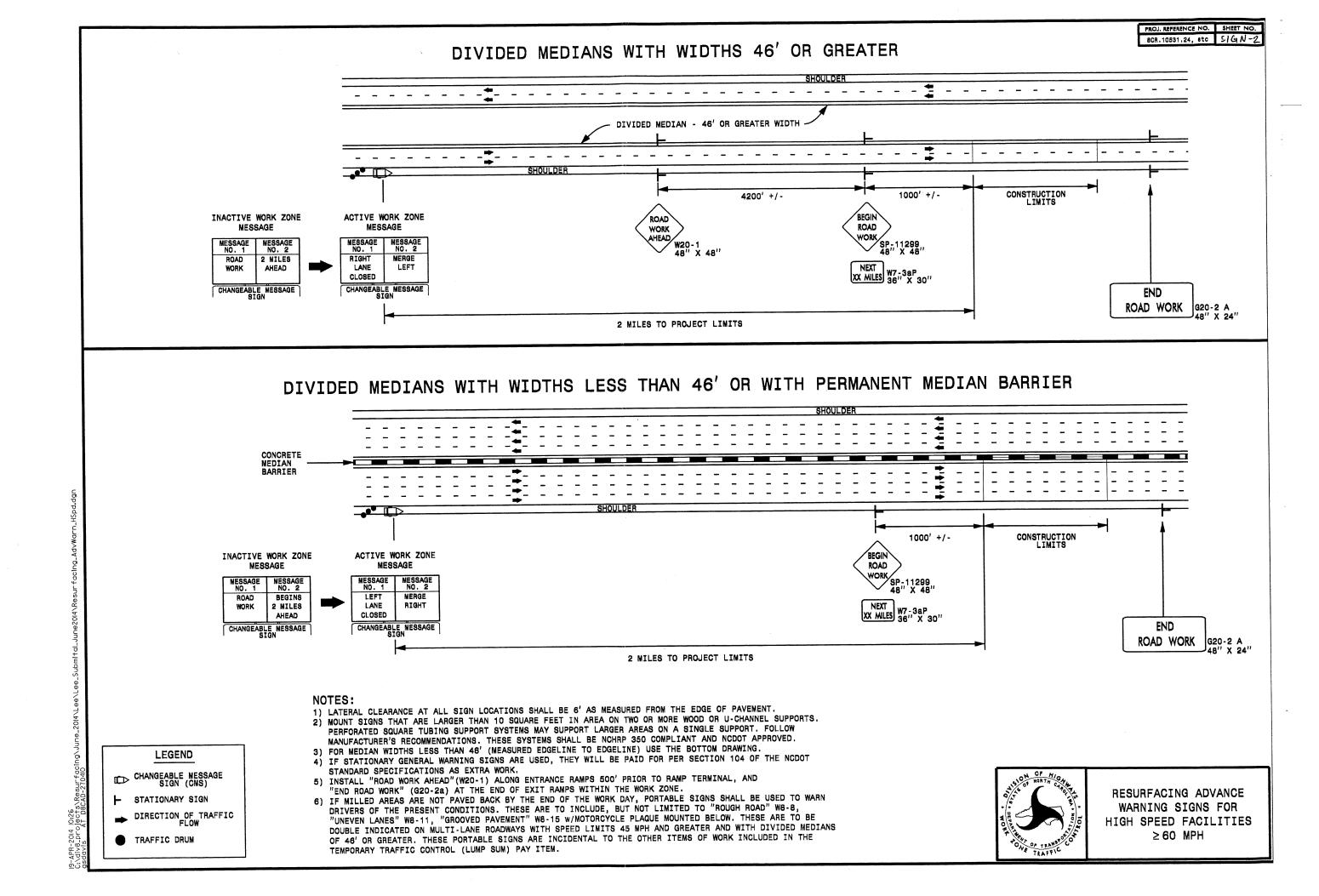


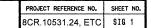


PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.



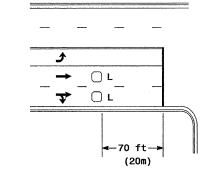
RESURFACING ADVANCE WARNING SIGNS RURAL AND SUBURBAN 2 LANE ROADWAYS



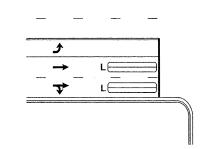


# Low Speed Detection [<35 mph (56 km/hr)]

OR



 $L = 6ft \times 6ft (1.8m \times 1.8m)$ Wired in series



 $L = 6ft \times 40ft (1.8m \times 12.0m)$ Quadrupole loop, wired separately

### High Speed Detection [≥40 mph (64 km/hr)]

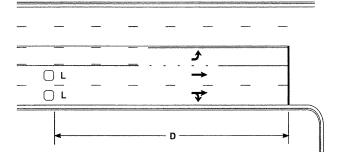
Speed Limit

mph (km/hr)

40 (64)

45 (72)

55 (88)



Spee	d Limit		D
mph	(km/hr)	ft	(m)
40	(64)	250	(75)
45	(72)	300	(90)
50	(80)	355	(110)
55	(88)	420	(130)

L = 6ft X 6ft (1.8m X 1.8m) Wired in series for TS1 Wired separately for TS2,

170, and 2070L Controllers

420 (130) 110 (35) "Stretch" Operation

ft (m)

250 (75)

300 (90)

355 (110)

D2

ft (m)

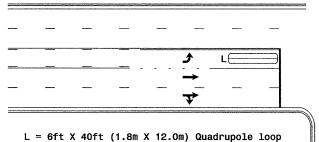
80 (25)

90 (27)

100 (30)

### Left Turn Lane Detection

OR



Volume Density Operation

Presence Loop Detection

 $L1 = 6ft \ X \ 15ft \ (1.8m \ X \ 4.6m)$  Queue detector L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

**▼** □ L2

– D2 -

 $L1 = 6ft \times 6ft$ 

L2 = 6ft X 6ft

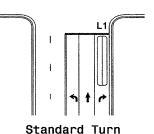
(1.8m X 1.8m)

(1.8m X 1.8m)

Wired in series

Wired in series

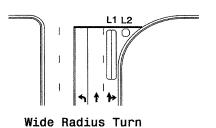
Queue Loop Detection

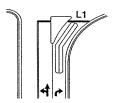


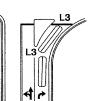
# Right Turn Lane Detection

 $L1 = 6ft \times 40ft (1.8m \times 12.0m)$  Quadrupole loop L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop Wired separately

L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop Wired in series

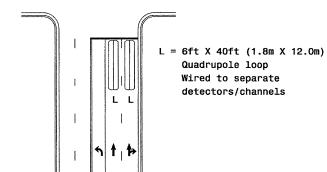




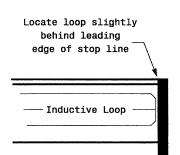


Channelized Turn

#### **Side Street Detection**



### Presence Loop Placement at Stop Lines



Loop may be located in advance of stop line when stop line is greater than 15' (4.5m) from edge of intersecting roadway; or, when loop detects a permissive or protected/permissive left turn.

## Single 6' X 6' (1.8m X 1.8m)

loop (wired separately):

Length of Lead-in ft (m)	Number of Turns
< 250 (75)	3
250-375 (75-115)	4
375-525 (115-160)	5
> 525 (160)	6

### Recommended Number of Turns

Quadrupole loops: Use 2-4-2 turns

6' X 15' (1.8m X 4.6m) Loops: Lead-in < 150' (45 m), use 2 turns Lead-in > 150' (45 m), use 3 turns



N/A

Typical Loop Locations

PLAN DATE: June 2006 REVIEWED BY:
PREPARED BY: P L Alexander REVIEWED BY:

