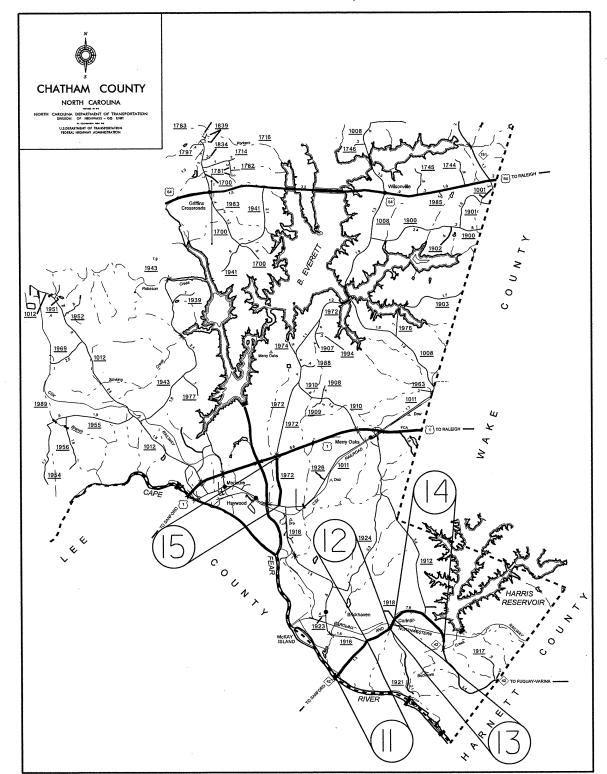


8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20 LEE COUNTY

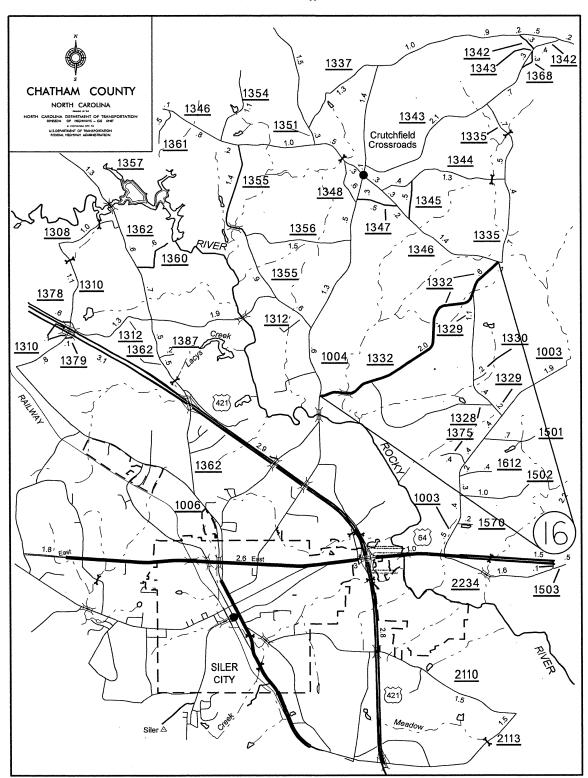
WBS ELEMENT SHEET N

BCR.10191.21, 8CR.20191.21
8CR.10531.20, 8CR.20531.20

# MAPS #11 - #14, & #15

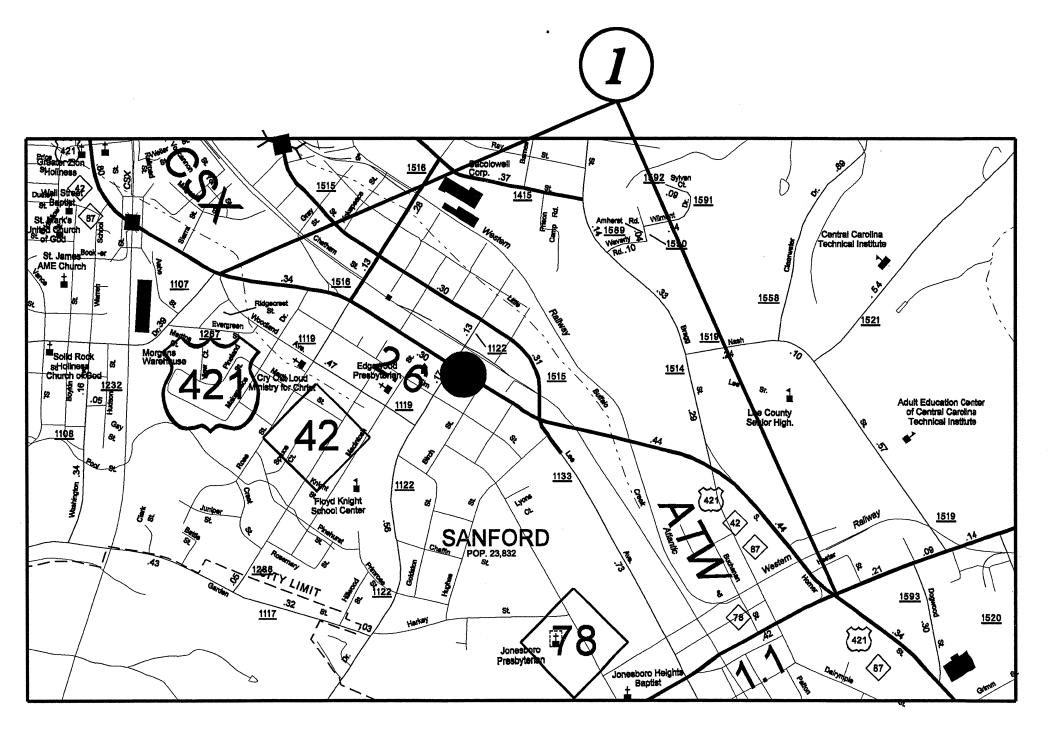


# MAPS #16



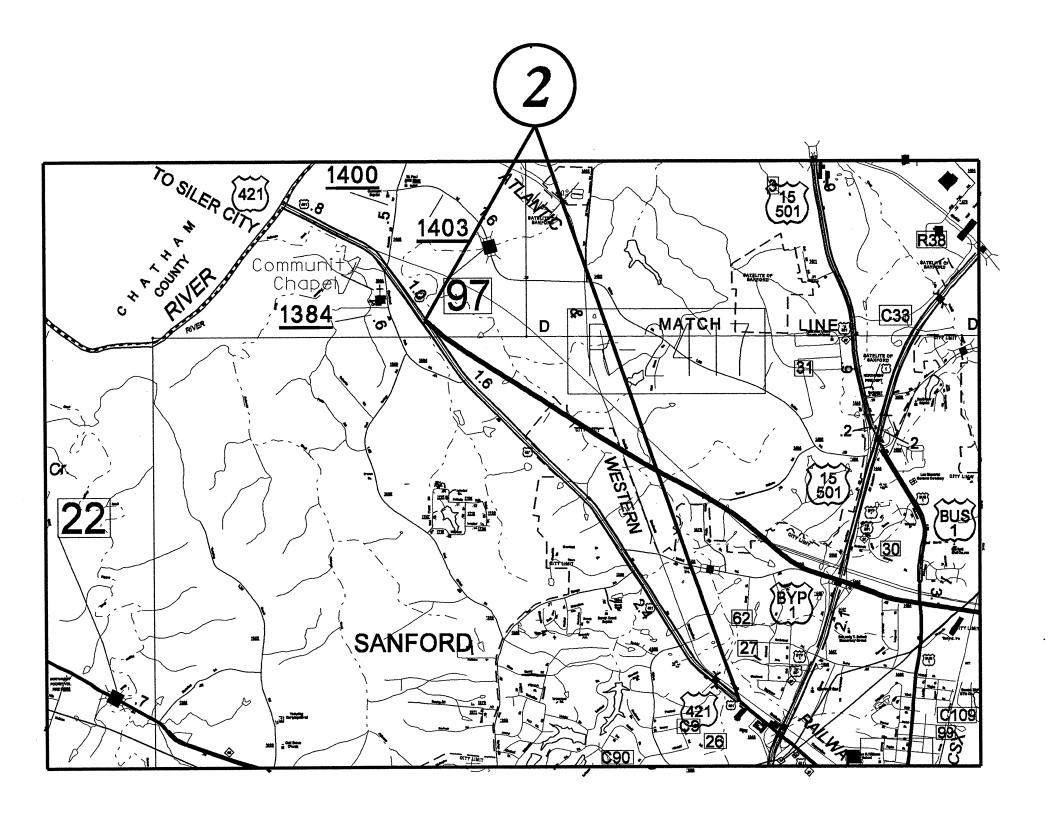
urfacing/UistrictZ/Lhatham\_Lee/chatham\_vicinity\_map.dgr AD-246463

PROJECT REFERENCE NO.	SHEET NO.
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	4



LEE COUNTY

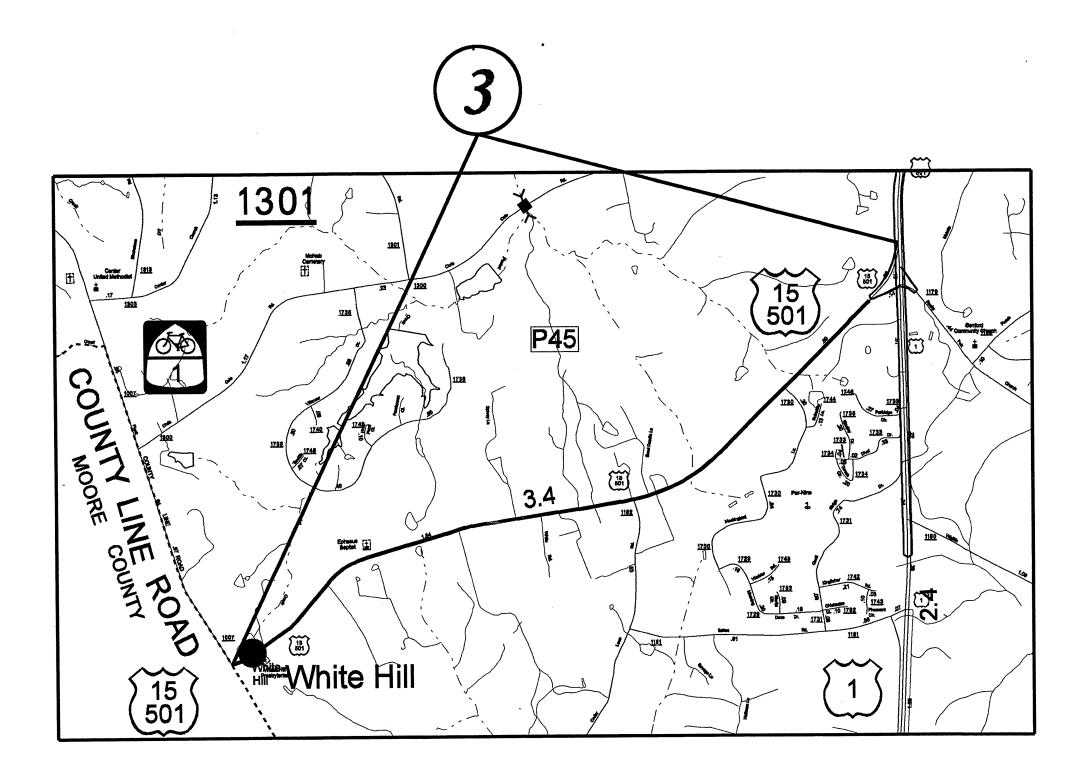
PROJECT REFERENCE NO.	SHEET N
8CR.10191.21, 8CR.20191.2	



LEE COUNTY

2013 17:03 -projects\Resurfacing\July-2013.Resurfaci

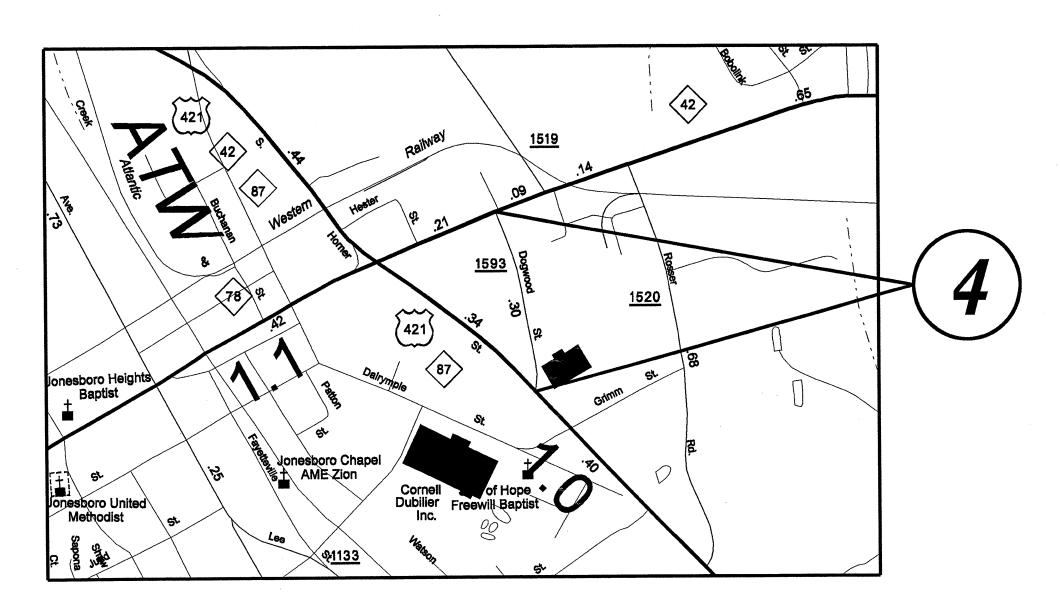
PROJECT REFERENCE NO.	SHEET
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	6



LEE COUNTY

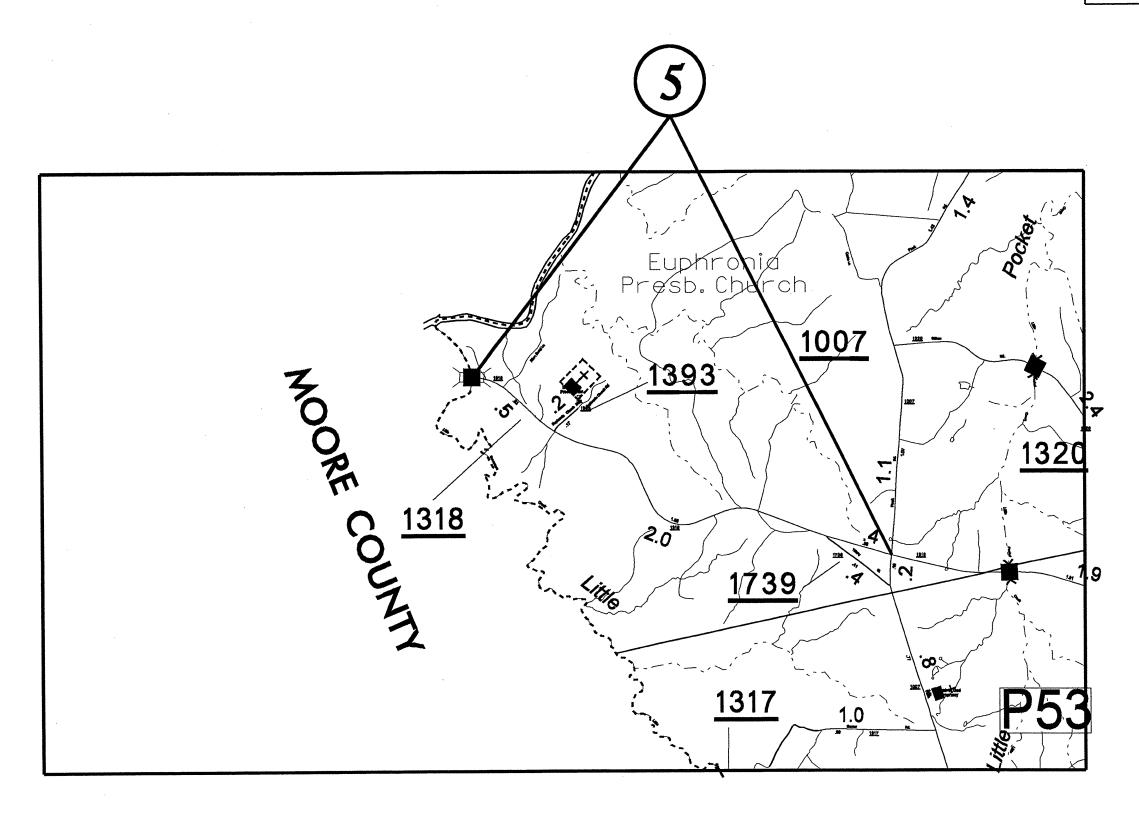
Cardina - projectary Resurfacing \July-2013. Resurf

PROJECT REFERENCE NO.	
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	L



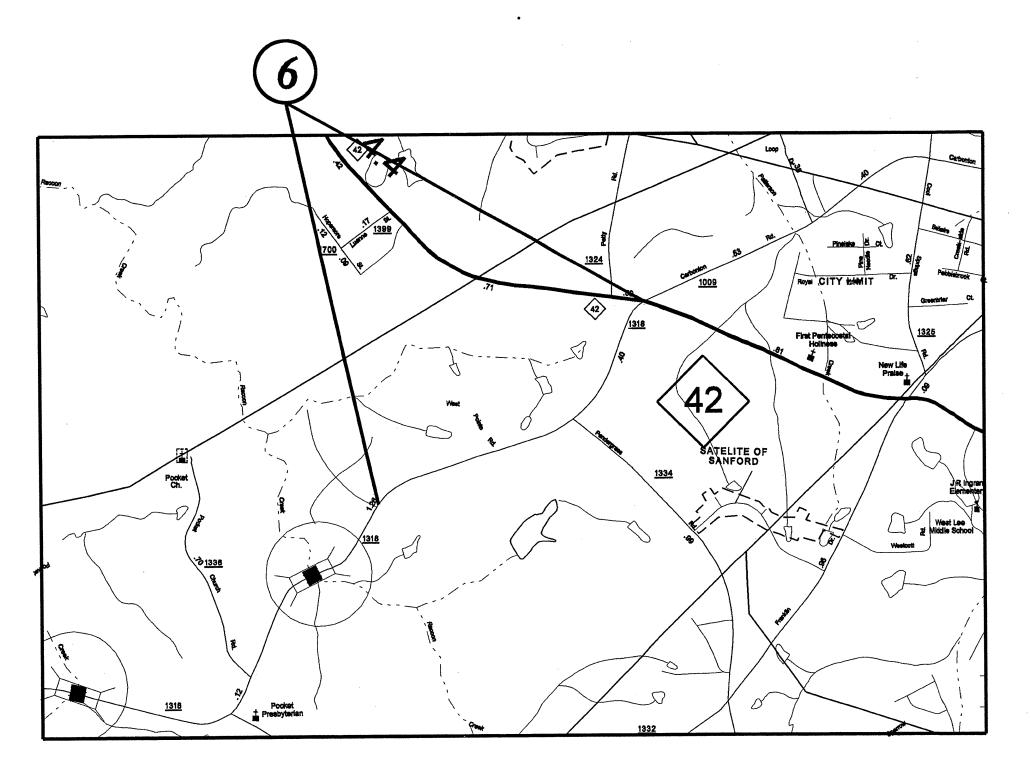
LEE COUNTY

PROJECT REFERENCE NO. SHEET 8CR.10191.21, 8CR.20191.21 8



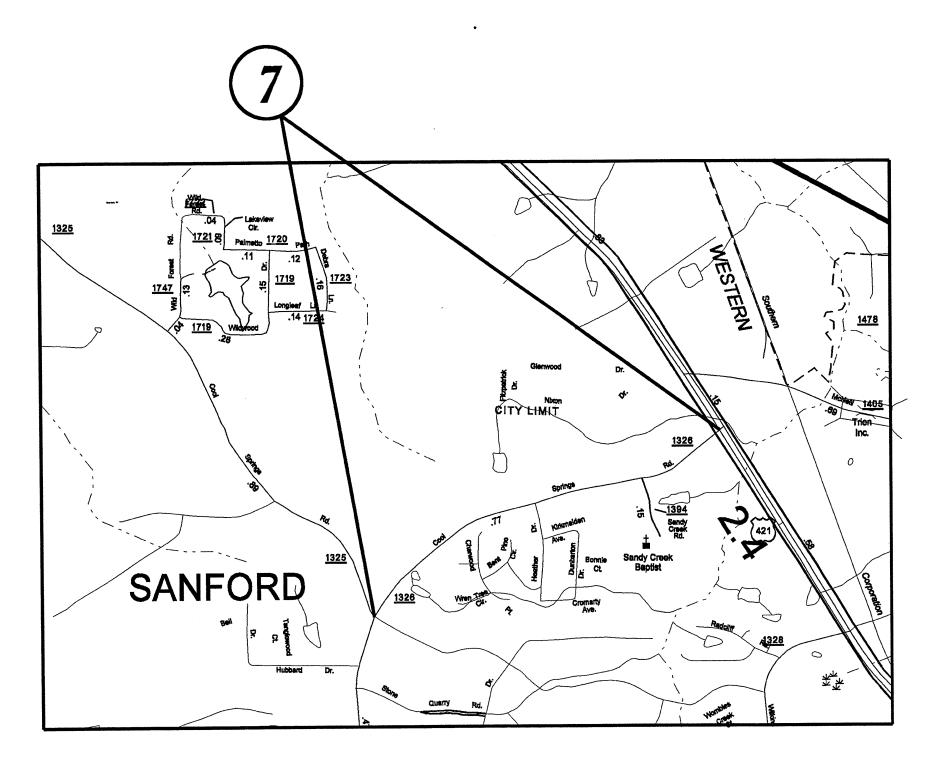
LEE COUNTY

PROJECT REFERENCE NO.	
SCR.10191.21, SCR.20191.21 CR.10531.20, SCR.20531.20	



LEE COUNTY

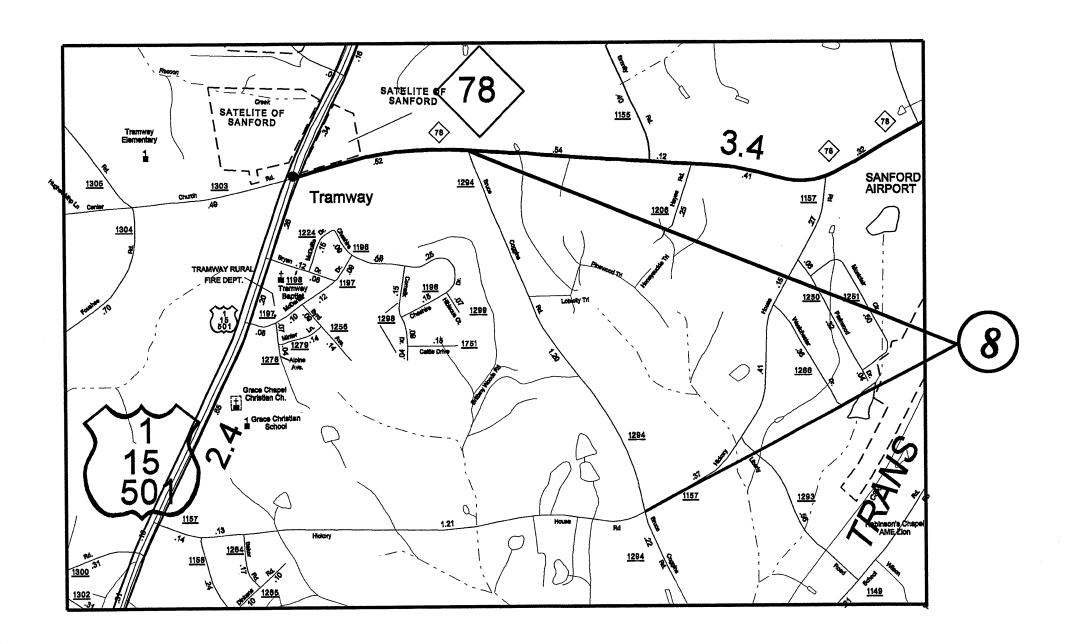
PROJECT REFERENCE NO.	SHEET NO.
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	10



LEE COUNTY

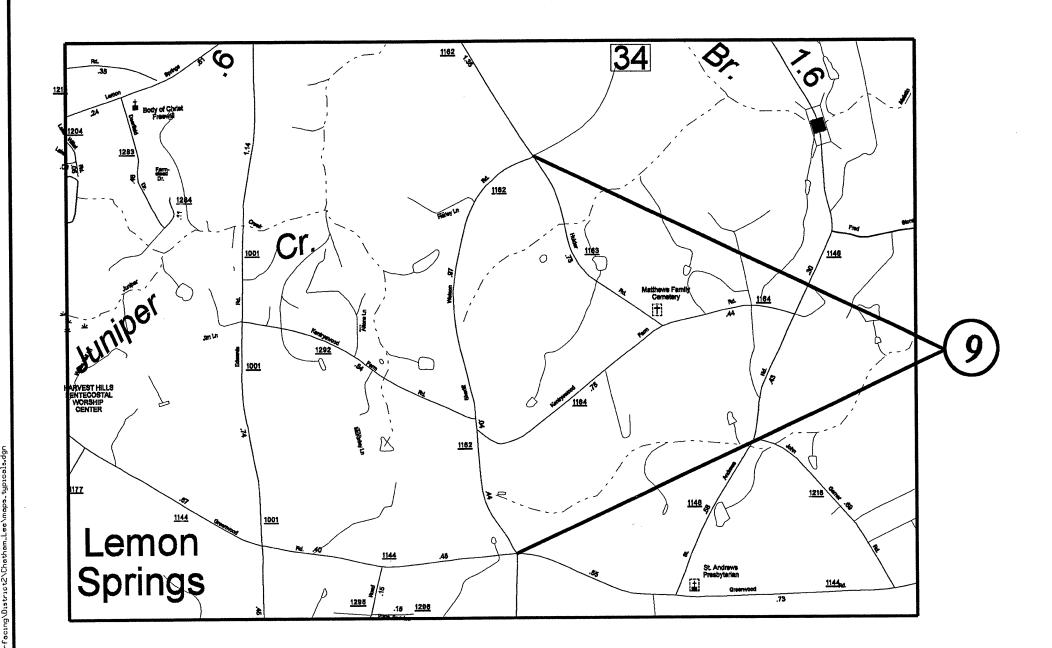
roječts/Resurfacing\July-2013.Resurfacing\District2\Chathom\_Lee\map: proječts\Resurfacing\July-2013.Resurfacing\District2\Chathom\_Lee\map:

PROJECT REPERENCE NO.	SI
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	



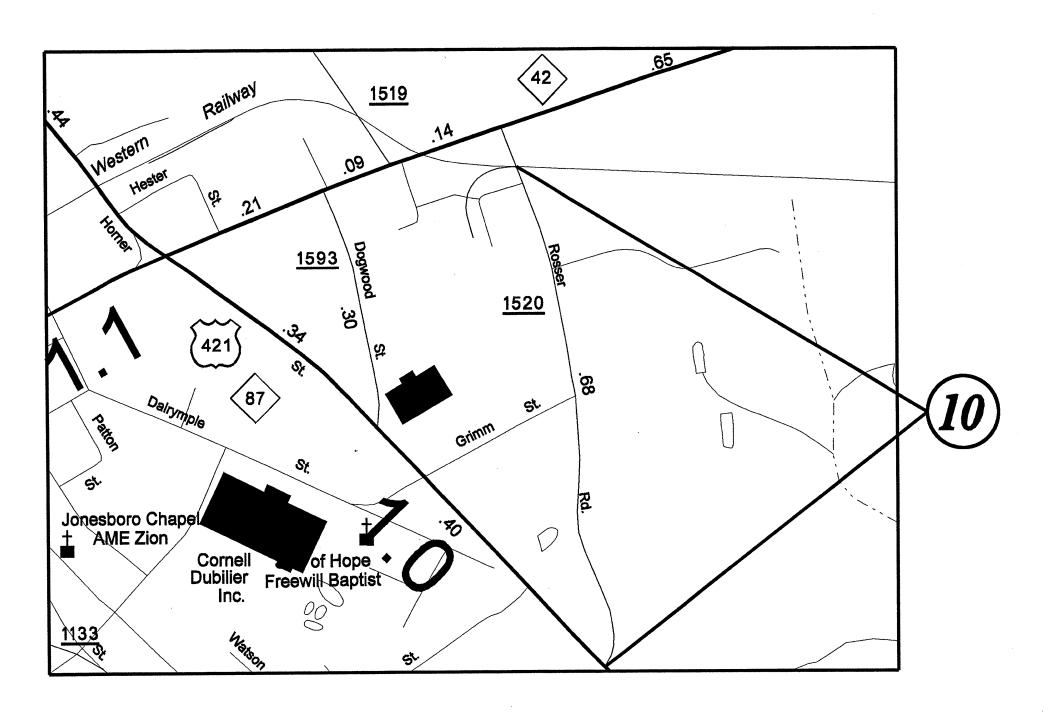
LEE COUNTY

PROJECT REFERENCE NO.	SHE
BCR.10191.21, BCR.20191.21	
BCR.10531.20, BCR.20531.20	



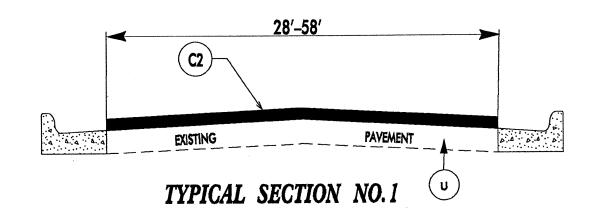
LEE COUNTY

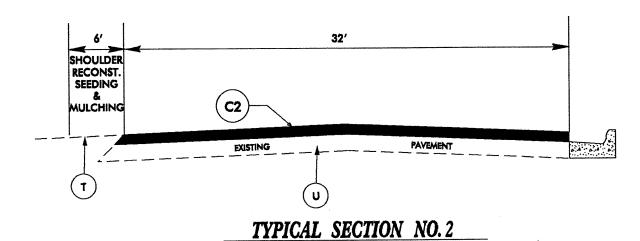
PROJECT REFERENCE NO.	SH
8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.20531.20	

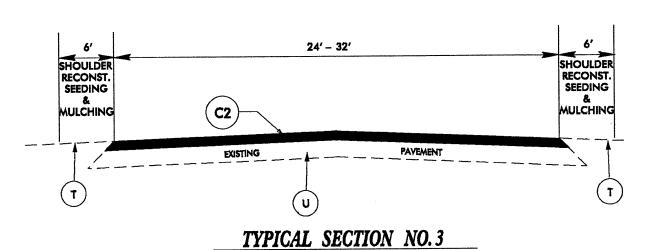


LEE COUNTY

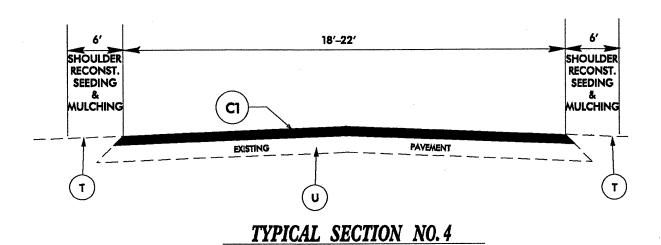
PROJECT REFERENCE NO. SHEET N
8CR.10191.21, 8CR.20191.21 14
8CR.10531.20, 8CR.20531.20







NOTE: ON MAP #12 ONLY, CONTRACTOR SHALL PLACE LEVELING COURSE \$9.5B AS DIRECTED BY THE ENGINEER.

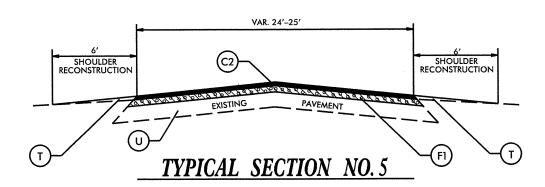


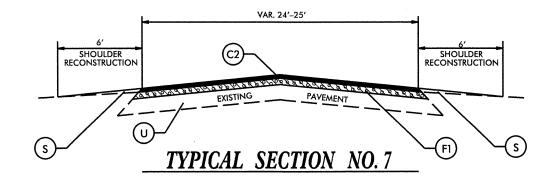
	PAVEMENT SCHEDULE
CI	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5 " ASPHALT CONC. SURFACE COURSE, TYPE \$9.5B, AT AN AYERAGE RATE OF 168 LBS. PER \$Q. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT

WBS ELEMENT SHEET NO.

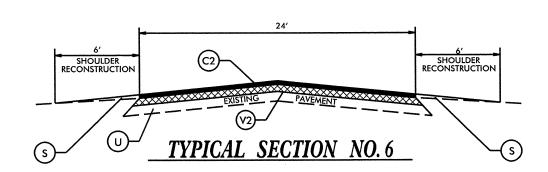
15

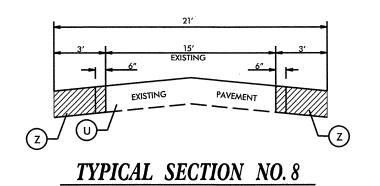
8CR.10191.21, 8CR.20191.21
8CR.10531.20, 8CR.20531.20

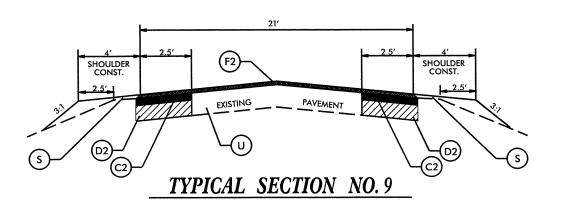


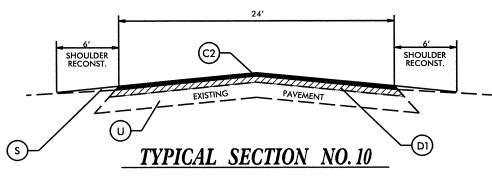


NOTE: CONTRACTOR SHALL PLACE LEVELING COURSE \$9.5B AS DIRECTED BY THE ENGINEER.

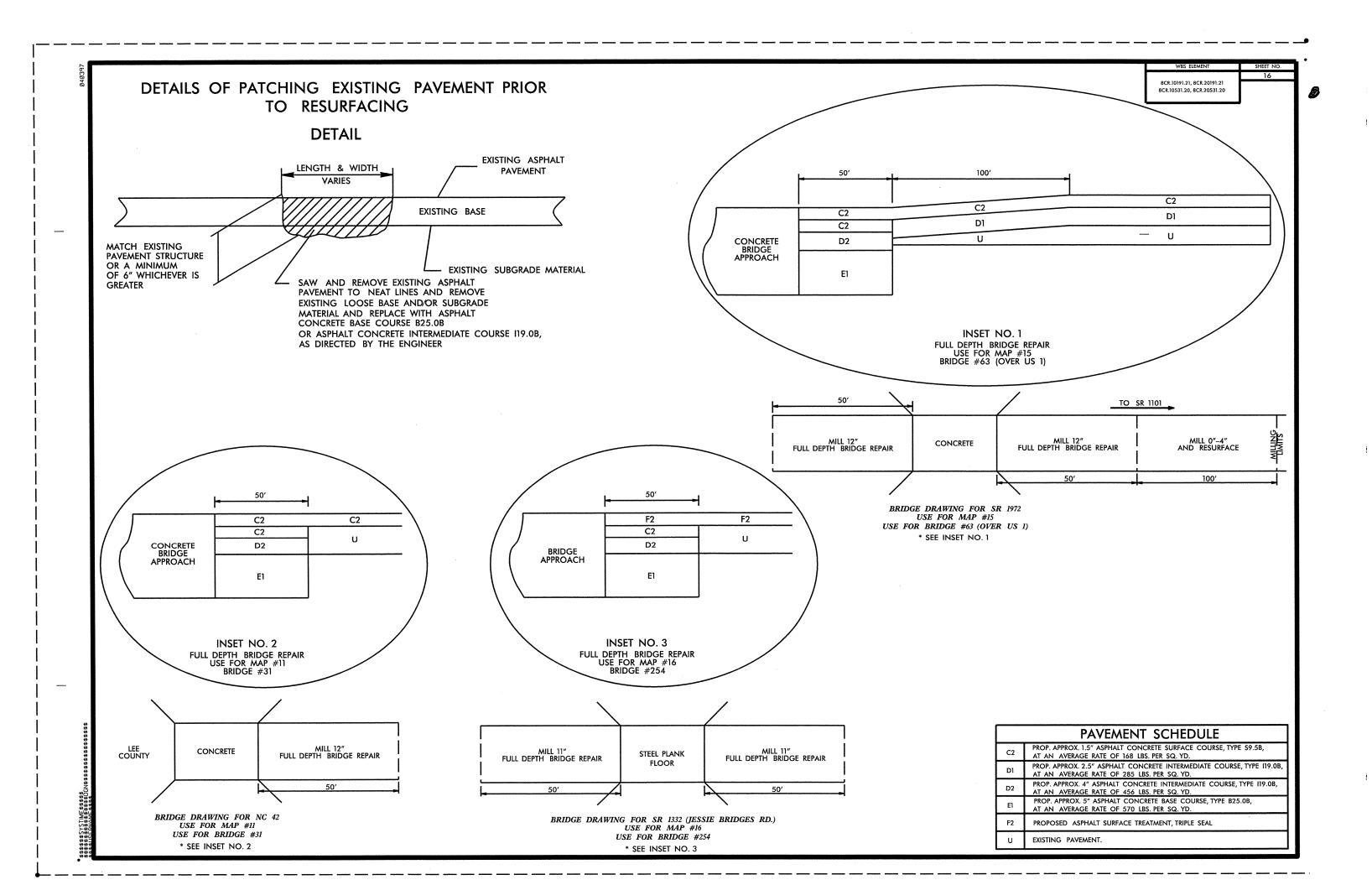








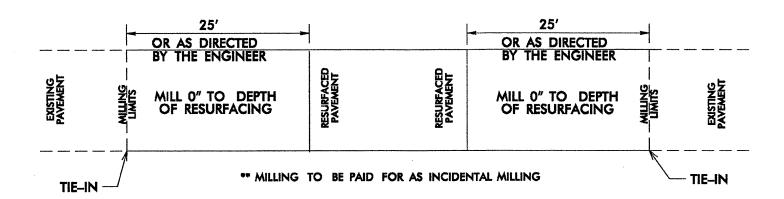
	PAVEMENT SCHEDULE
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
FI	PROPOSED ASPHALT SURFACE TREATMENT, MAT COAT WITH #6M STONE
F2	PROPOSED ASPHALT SURFACE TREATMENT, TRIPLE SEAL
s	AGGREGATE SHOULDER BORROW
Т	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V۱	MILLING 1.5" TO 0" IN DEPTH
V2	MILLING 1.5" IN DEPTH
z	TRENCHING FOR INTERMEDIATE COURSE



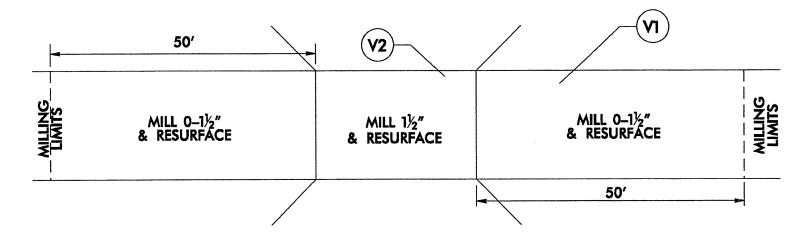
WIS ELEMENT SHEET NO.

17

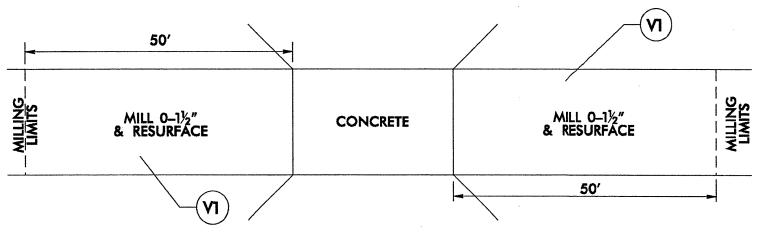
8CR.10191.21, 8CR.20191.21
8CR.20531.20, 8CR.10331.20



# PAVEMENT TIE-IN DETAIL



BRIDGE DRAWING FOR NC 42 USE FOR MAP #13

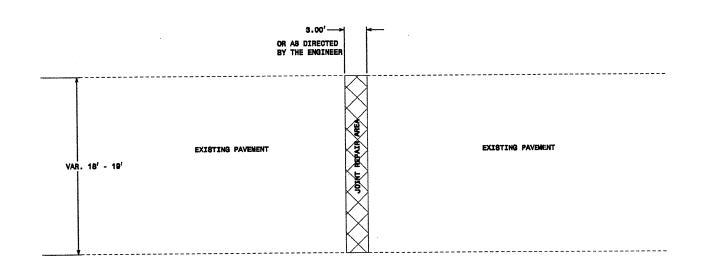


BRIDGE DRAWING FOR NC 42 USE FOR MAP #14

PROJECT REFERENCE NO. SH 8CR.10191.21, 8CR.20191.21 8CR.10531.20, 8CR.205331.20

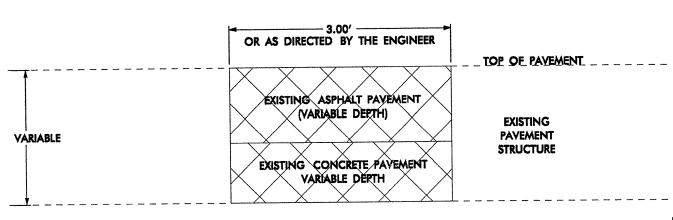
# JOINT REPAIR DETAIL

JOINT SCHEDULE		
MAP	# JOINTS	
3	30	
And the second s		



CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER'S OFFICE FOR LOCATION OF JOINTS TO BE REPAIRED.

## CROSS-SECTION



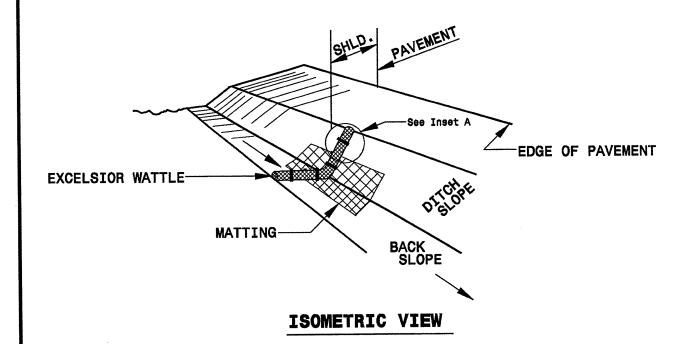
SUBGRADE

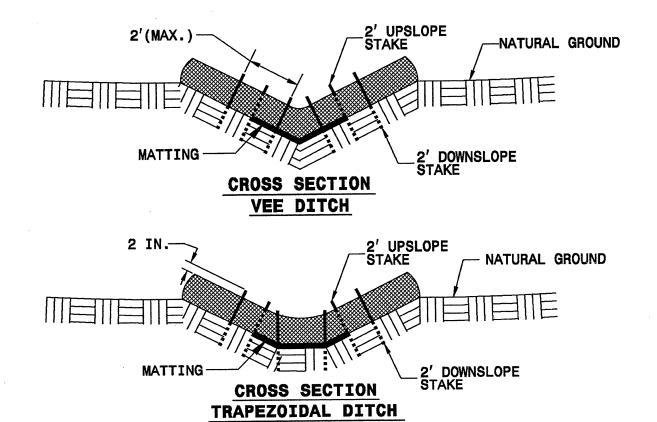
REMOVE ASPHALT AND CONCRETE AT JOINT LOCATIONS AS DIRECTED BY THE ENGINEER (BY SAWING CLEAN JOINTS).
REMOVE A TOTAL WIDTH OF 3' (APPROX. 1.5' EACH SIDE OF JOINT).
REMOVE AND REPLACE WITH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B.
THERE WILL BE NO DIRECT PAY FOR THIS WORK AS IT WILL BE CONSIDERED INCIDENTAL TO TO THE LINE ITEM, JOINT REPAIR (TONNAGE)

:803 | Possyl Resurfacing \ July-2013.Resurfacing \ District2 \ Chatham\_Lee \ maps

#ROJECT REFERENCE NO. SHEET NO.
8CR.10191.21, 8CR.20191.21 20
8CR.10531.20, 8CR.20531.20

# 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.

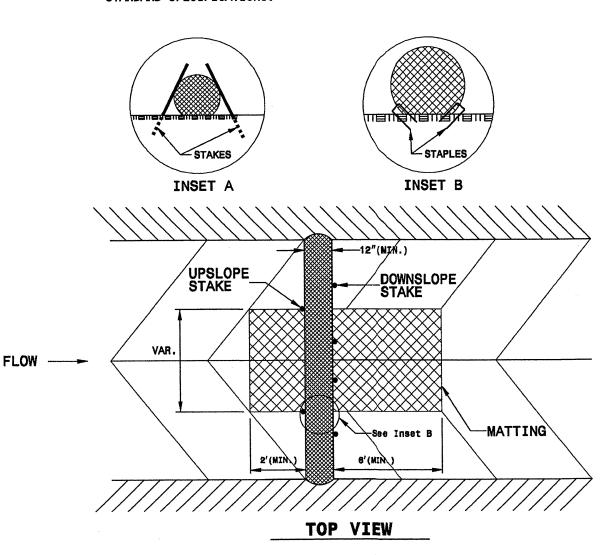
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



## SUMMARY OF QUANTITIES

PROJECT NO. SHEET NO. TOTAL NO. 8CR.10191.21, 8CR.20191.21

20

20

30

10

150 11.77

100

120

145

60

803

1.46

1.75

2.10

0.90

						SU	IVI IVI	AKY		F Q	UAN	1111	E S						91.21, 8CR.2 R.10531.20, E		21	
PROJECT	COUNTY	МАР	ROUTE	DESCRIPTION	ТҮР	FINAL SURFACE TESTING REQUIRED	MIX	į.	WIDTH	BORROW EXCAVATI ON	1		l .	SHOULDER RECONSTRU CTION	1	12" MILLING	11" MILLING	i	0" TO 4" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0B	INTERN IATE COURS I19.0
NO		NO			NO			MI	FT	СУ	TON	TONS	SMI	SMI	SY	SY	SY	SY	SY	SY	TONS	TON
R.10191.21	Chatham	11	NC 42	FROM BRIDGE #31 AT LEE CO. LINE TO SR 1916 (CORINTH RD.)	6	NO	NO	1.24	24		348			2.48	17,200	133					38	31
		12	NC 42	FROM SR 1916 (CORINTH RD.) TO SR 1921 (BUCKHORN RD)	3	NO	NO	0.717	24	108		40		1.43						70		
		13	NC 42	FROM SR 1921 (BUCKHORN RD) TO SR 1918 (DICKENS RD)	5	NO	NO	0.279	24	42		50		0.56	200			270		200		
		14	NC 42	FROM SR 1918 (DICKENS RD) TO 0.28 MI S. OF RR BRIDGE #44	7	NO	NO	1.9	24	<u> </u>	532			3.80			ļ	270		135		
	TOTAL F	FOR PF	OJ NO. 8CR.10191.21		لـــــا			4.136		150	880	90	<u> </u>	8.27	17,400	133	<u> </u>	540		405	38	31
CR.20191.21	Chatham	15	SR 1972 (PEA RIDGE RD)	FROM SR 1011 (OLD US 1) TO US 1	10	NO	NO	1.28	24	1	359	T	T	2.56	T	267	T	1	267	135	80	3,00
211.20131.21	Cridatium	1-3-	SK 1372 (FEX RIBOT RD)	FROM SR 1004 (SILER CITY SNOW CAMP RD) TO SR 1346 (SILK HOPE	1		+	1	<del></del>	<b>†</b>				1	<u> </u>		<b> </b>	1				1 7
		16	SR 1332 (JESSIE BRIDGE RD)	LIBERTY RD)	8,9	NO	NO	3.323	21		931		6.65				233			100	70	2,83
	TOTAL F	FOR PF	OJ NO. 8CR.20191.21					4.603			1,290		6.65	2.56		267	233		267	235	150	5,83
											,		<b>4</b>	_	T	,		· · · · · · · · · · · · · · · · · · ·	<del></del>			
				FROM CONST JT EAST OF NC 78 TO CONST JT EAST OF SR 1107 (FIELDS																		
R.10531.20	Lee	1	US 421	DR.)	1	NO	NO	1.71	28-58			ļ			<del> </del>		-	ļ		3,000	· · · · · · · · · · · · · · · · · · ·	
	ļ	2	US 421 NBL	FROM BEGIN DIVIDED HIGHWAY TO CONST. LIMITS AT US 421 BYPASS	+ - +	NO	NO	3.504	32	525	<del> </del>			7.00	<del> </del>		<del> </del>	<u> </u>	+	450	<del> </del>	+
	L	3	US 15/501	FROM MOORE CO LINE TO US 1 (INCLUDE SLIP LANE FROM US 1)	3	NO	NO	3.475	32	510	<b> </b>	260	ļ	6.95	<b>_</b>	L	<b> </b>	<u> </u>	1	215	<b></b>	+
	TOTAL F	FOR P	OJ NO. 8CR.10531.20	L	لــــا	L		8.689		1,035	<u> </u>	260	L	13.95	L	L	1	L		3,665	L	
D 20521 20	Loo	4	SR 1593 (DOGWOOD ST)	FROM EOP AT US 421 TO EOP AT NC 42	4	NO	NO	0.284	20	20	T	15	T	0.60	T	Γ	Τ	1	T	225	T	T
CR.20531.20	Lee	5	SR 1318 (STEEL BRIDGE ROAD)	FROM SR 1007 (PLANK RD) TO MOORE COUNTY LINE	4	NO NO	NO	2.5	20	360		150	<u> </u>	5.00	<b></b>	<b></b>	<del> </del>		+	225	<b>-</b>	+
		6	SR 1318 (STEEL BRIDGE ROAD)	FROM CONSTRUCTION JOINT TO NC 42	4	NO NO	NO	1.006	20	150		55	<u> </u>	2.01	<del> </del>	<b></b>	<del>                                     </del>		+	70		+
	<b></b>	7	SR 1326 (COOL SPRINGS ROAD)	FROM US 421 TO SR 1325	4	NO NO	. NO	1.004	20	150		35		2.01			<b> </b>		+	45	-	+
		8	SR 1294 (BRUCE COGGINS ROAD)	FROM NC 78 TO SR 1157 (HICKORY HOUSE RD)	4	NO	NO	1.184	18	175		245		2.40	<b>†</b>	<del>                                     </del>	<del> </del>		+	90		+
		9	SR 1162 (SHERRIFF WATSON ROAD)	FROM SR 1144 (GREENWOOD RD) TO SR 1163 (HOLDER RD)	4	NO	NO	1.42	20	60	<u> </u>	140		2.84	<b></b>		<del> </del>		+	115	<u> </u>	+
	<del> </del>	10	SR 1520 (ROSSER RD)	FROM US 421 TO R/R TRACKS	4	NO	NO	0.61	22	90		30	<b>†</b>	1.23	<b>†</b>		<b>†</b>		<del>  </del>	50		+
	TOTAL F		ROJ NO. 8CR.20531.20	11011 00 421 10 1911 11 1010	+	110	<del> </del>	8.008	<del> </del>	1,005		670		16.09	<del> </del>		<b>-</b>			820		1
		GR	AND TOTAL		لــــــــــــــــــــــــــــــــــــــ		_1	25.436		2,190	2,170	1,020	6.65	40.87	17,400	400	233	540	267	5,125	188	5,84
	т	·		<b>,</b>		·				<del></del>	1	·	T		T	·		T			T	
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LENGTH	WIDTH	į.	ELEVELING		l .	PATCHING		ASPHALT	JOINT	ADJUST	1	TEMPORARY	WATTLE	ł	INDUCTIVE	1
								COURSE,		1	BINDER FOR	1	SURFACE	SURFACE	REPAIR	MANHOL	1	SILT FENCE		MULCHING	LOOP	LIGHT
								S9.5B	S9.5B	SF9.5A	PLANT IVIIX	PAVEMENT	, MATCOAT	1	'	ES	OR VALVE			ı	SAWCUT	1
													#6M STONE	1			BOX			ı		
NO		NO			NO	мі	FT	TONS	TONS	TON	TONS	TONS	SY	SY	TON	EA	EA	LF	LF	AC	LF	L
R.10191.21	Chatham		NC 42	FROM BRIDGE #31 AT LEE CO. LINE TO SR 1916 (CORINTH RD.)	6	1.24	24	1,718		1	106	170		<b> </b>	1		<del>                                     </del>	1				1
	0.100.110.11	12	NC 42	FROM SR 1916 (CORINTH RD.) TO SR 1921 (BUCKHORN RD)	3	0.717	24	960	60		61				<b>†</b>			14	50	0.72		Ι,
***************************************		13	NC 42	FROM SR 1921 (BUCKHORN RD) TO SR 1918 (DICKENS RD)	5	0.279	24	370			22	25	3,930					10		0.28		7 1
		14	NC 42	FROM SR 1918 (DICKENS RD) TO 0.28 MI S. OF RR BRIDGE #44	7	1.9	24	2,540	563		189	100	26,800							ĺ		7
	TOTAL I	FOR PI	ROJ NO. 8CR.10191.21			4,136		5,588	623		378	295	30,730					24	50	1.00		1
		·		<b>-</b>		<del>,</del>				<del></del>	η	<u></u>	<del></del>		·	T		· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del>	
CR.20191.21	Chatham	15	SR 1972 (PEA RIDGE RD)	FROM SR 1011 (OLD US 1) TO US 1	10	1.28	24	2,041			270	<b></b>	-				<u> </u>	ļ	<u> </u>	<b></b>		┦,
			an 1000 (1555)5 Phinos ph)	FROM SR 1004 (SILER CITY SNOW CAMP RD) TO SR 1346 (SILK HOPE		2 222	10	1.000			100			41.000					!	i		
	TOTAL	16	SR 1332 (JESSIE BRIDGE RD)  ROJ NO. 8CR.20191.21	LIBERTY RD)	8,9	3.323 <b>4.603</b>	16	1,003 3,044			198 468	<b>_</b>	<u> </u>	41,000 41,000		<del> </del>	-	<del> </del>	+	<del>                                     </del>		+
	IUIALI	ruk Pi	(O) NO. 8CK.20191.21		لــــــــــــــــــــــــــــــــــــــ	4.003	L	3,044			400		1	41,000		<u> </u>		1		L		+
	T	T		FROM CONST JT EAST OF NC 78 TO CONST JT EAST OF SR 1107 (FIELDS	Т	I	1	T	T	T	T	T	T	T	T	T	T		T		T	+
CR.10531.20	Lee	1	US 421	DR.)	11	1.71	28-58	7,915			499	100				26	30			1	19,000	╛,
	1	2	US 421 NBL	FROM BEGIN DIVIDED HIGHWAY TO CONST. LIMITS AT US 421 BYPASS	1.2	<del></del>	32	6,415		1	404	600			1		1	510	1,280	5.10	1	1 '
	<del>                                     </del>	3	US 15/501	FROM MOORE CO LINE TO US 1 (INCLUDE SLIP LANE FROM US 1)	3	3.475	32	6,340	1	1	399	90			400			510	1,280	5.10		7
·····	TOTAL		ROJ NO. 8CR.10531.20		1	8.689		20,670			1,302	790			400	26	30	1,020	2,560	10.20	19,000	
							······································															
R.20531.20	Lee	4	SR 1593 (DOGWOOD ST)	FROM EOP AT US 421 TO EOP AT NC 42	4	0.284	20			291	- 19	55				7	4	28	10	0.45		
		5	SR 1318 (STEEL BRIDGE ROAD)	FROM SR 1007 (PLANK RD) TO MOORE COUNTY LINE	4	2.5	20			2,830	190	215						250	40	3.65		
		5 6	SR 1318 (STEEL BRIDGE ROAD)  SR 1318 (STEEL BRIDGE ROAD)	FROM SR 1007 (PLANK RD) TO MOORE COUNTY LINE FROM CONSTRUCTION JOINT TO NC 42	4	2.5 1.006	20			2,830 1,077	190 72	215 80						250 100	20	3.65 1.46		

90

25

15

40

520

29,302 623 8,872 2,743 1,605 30,730 41,000 400 33 34 1,847 2,760 22.97 19,000

77

73

112

52

595

1,143

1,091

1,670

770

8,872

4 1.004

4 1.184

4 0.61

8.008

25.436

1.42

4

20

18

20 22

FROM US 421 TO SR 1325

FROM NC 78 TO SR 1157 (HICKORY HOUSE RD)

FROM SR 1144 (GREENWOOD RD) TO SR 1163 (HOLDER RD)

FROM US 421 TO R/R TRACKS

7 SR 1326 (COOL SPRINGS ROAD)

8 SR 1294 (BRUCE COGGINS ROAD)

9 SR 1162 (SHERRIFF WATSON ROAD) 10 SR 1520 (ROSSER RD)

10

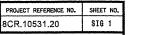
TOTAL FOR PROJ NO. 8CR.20531.20

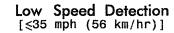
GRAND TOTAL

PROJECT NO.	SHEET NO.	TOTAL NO.				
8CR.10191.21, 8CR.20191.21, ETC	22					

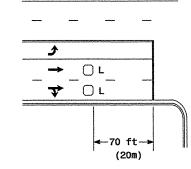
## THERMOPLASTIC AND PAINT QUANTITIES

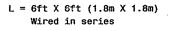
																		QUA		~										r			
					I					4366000000-E				468600		469500				4721000000-E		THERMO		000000-E THERMO	THERMO	THERMO	481000 4" WHITE	00000-E	4820000000-E 8" YELLOW		YELLOW &		SNOW
PROJECT	COUNT	TY MAP	ROUTE	DESCRIPTION	TYP LA	NES LAI		TH WIDT	H TEMPORARY TRAFFIC	WORK ZONE ADVANCE/	LAW ENFORCE	4" X 90 M WHITE	4" X 90 M YELLOW	4" X 120 M YELLOW	4" X 120 M WHITE		YELLOW	16" X 120 M WHITE	24" X 120 M WHITE	THERMO RXR 120 M	LT	RT	STR	STR & RT	1 1	STR & LT	PAINT	YELLOW	PAINT	RED	YELLOW &	PLOWABLE	1
						'''	[		CONTROL	GENERAL	MENT		THERMO		THERMO		THERMO	THERMO	THERMO		ARROW	ARROW	ARROW	ARROW	LINE	ARROW		PAINT				MARKERS Y	MARKERS
							1			WARNING											90 M	90 M	90 M	90 M	TRIANGLE,	90 M						& Y	& R
							-			SIGNING															90 M	l					İ	MARKERS	MARKERS
NO	1	NO			NO		-	1	LS	SF	HR	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA	EA	EA	EA
NO	<del> </del>	140		FROM BRIDGE #31 AT	-			_	+	<del>                                     </del>	<del>                                     </del>		<del></del>				-						1										
			1	LEE CO. LINE TO SR 1916				-	1																	1							
8CR.10191.21	Chatha	am 11	NC 42	(CORINTH RD.)	6	2 2W	/U 1.2	24		151	20	13,342		13,094								<b> </b>		<del> </del>			13,000	13,000		<del> </del>	82		
		-		FROM SR 1916 (CORINTH RD.) TO SR			ł															1											
	1	12	NC 42	1921 (BUCKHORN RD)	3	2 24	VU 0.71	7 24		151	20	7,715		5,736										<u> </u>			~~~				47		
				FROM SR 1921					*												1	1											
		13	NC 42	(BUCKHORN RD) TO SR 1918 (DICKENS RD)	5	2 24	VU 0.27	9 24		151	20	3,002		3,002																	18		· ·
	<del> </del>	13	NC 42	1918 (DICKENS KD)	3	2 2	VO 0.27	3   24	-	131	20	3,002		3,002	<u> </u>	t							1					İ					
				FROM SR 1918 (DICKENS		ł															1									İ			
				RD) TO 0.28 MI S. OF RR				ı															1								125		
	<u> </u>	14	NC 42	BRIDGE #44	7	2 2W	VU 1.9 4.13		<del>  1</del>	151 604	20 80	20,444 <b>44,503</b>		16,500 38,332		<u> </u>	-				<del> </del>	<del> </del>	<del> </del>	<del> </del>	<u> </u>		13.000	13,000			272		
TOTA	AL FOR P	ROJ NO. 8	8CR.10191.21		++	_	4,10	<del>`</del>	1 -		- 00		503	38,	332						<u> </u>							,000		2	72		
					·							Y		1	1	т	1			ı	T	т		T	T			1	1	т	T	T	Τ
		1	SP 1072 /PEA PINGE	FROM SR 1011 (OLD US																													
8CR.20191.21	Chatha	am   15	1	1) TO US 1	10	2 2	VU 1.2	3 24		151	20										3						27,035	21,360		13	103		
	1			FROM SR 1004 (SILER				1	*									***************************************													İ		
				CITY SNOW CAMP RD)																													1
,	1	16	SR 1332 (JESSIE BRIDGE RD)	TO SR 1346 (SILK HOPE LIBERTY RD)	8,9	2 2	VU 3.32	3 16		151	20	İ															71,511	56,145					
				LIDERTT RD)	0,5	2 20	4.60		1	302	40		<u> </u>			<u> </u>					3						98,546	77,505		13			I
1017	AL FOR PI	ROJ NO. 8	8CR.20191.21																		L			3			176	5,051	J	1 1	.16	L	
	т		1	FROM CONST JT EAST	ТТ			I	-T	T	Τ	г —	Г	Ι	т	Τ	Τ	<u> </u>	1	T .	T	T	T	Т	Т	Γ Ι	Γ	T	T	T	T	1	T
				OF NC 78 TO CONST JT																													
8CR.10531.20	Lee	1	US 421	EAST OF FIELDS DR.	1	2 M	IU 1.7	1 28-5	8	126	20	19,000		22,600	4,520	2,600	1,000	400	1,040	16	61	17	46	6	8			ļ		ļ	<b>_</b>	300	560
			ŀ	FROM BEGIN DIVIDED			1																1										
	1			HIGHWAY TO CONST. LIMITS AT US 421				ĺ	*						1		1													1			
		2	US 421 NBL	BYPASS	1,2	2 2V	VD 3.50	4 32		151	20	20,000	18,500		4,650				120		14	6	4			1					ļ		235
		-																				İ											
	1			FROM MOORE CO LINE TO US 1 (INCLUDE SLIP						1 .	I		l		1								İ										
		3	US 15/501	LANE FROM US 1)	3	2 2	VU 3.47	5 32	1 .	151	20	37,700		31,600	985		920		50		14	1								36	300		
TOT	AL COD D	POLNO S	8CR.10531.20				8.68		1	428	60	76,700	18,500	54,200				400	1,210	16	89	24	50		8	1		1		36			795
101	AL FOR F	- NOI NO.				L_	L				<u> </u>	95,	,200	64,	355	4,	520	<u> </u>	<u> </u>	<u> </u>	1			178			<u></u>		<u> </u>		336	11	,095
	Т		1		ТТ			T-		1	T	ſ	T	T	T	T	T		T	T	1	T	T	T	1	T	T	I	T	1			
			SR 1593 (DOGWOOD	FROM EOP AT US 421				-	-	1																							
8CR.20531.20	) Lee	4	ST)	TO EOP AT NC 42	4	2 2V	VU 0.28	4 20	_	151	20	ļ	<b></b>	<b> </b>	<b> </b>	-	-		ļ	<b>-</b>	+	<del></del>		-	<del> </del>		6,000	6,000	-		<del> </del>	<del></del>	+
			SR 1318 (STEEL	FROM SR 1007 (PLANK RD) TO MOORE COUNTY	,		1		•	l																							1
		5	BRIDGE ROAD)	LINE	4	2 2V	VU 2.	20		151	20														<u> </u>		52,800	46,520	ļ		ļ	<u> </u>	
					ПТ																												1
		ء ا	SR 1318 (STEEL BRIDGE ROAD)	FROM CONSTRUCTION JOINT TO NC 42		2 2	VU 1.00	6 20		151	20				1												21,240	15,620					
	<del></del>		BRIDGE ROAD)	JOINT 10 NC 42	+++	2   2	1.00	20		131	1 20	<b>i</b>		<u> </u>	<b>-</b>	<u> </u>	1						1		<b>†</b>								
			SR 1326 (COOL	FROM US 421 TO SR				.	*												3	1					21,200	25,200	450				
	<b>-</b>	7	SPRINGS ROAD)	1325 FROM NC 78 TO SR	4	2 2	VU 1.00	4 20		151	20	<b></b>		<b> </b>	-	<del> </del>	<del> </del>				1 3	+		-	<del> </del>	l	21,200	23,200	430	1	<del>                                     </del>	1	<del></del>
			SR 1294 (BRUCE	1157 (HICKORY HOUSE																													
		8	COGGINS ROAD)	RD)		2 2	VU 1.18	18		151	20	<b> </b>	<b></b>	<b> </b>	<b></b>	<b></b>	ļ					<del> </del>		<del></del>	<del> </del>	ļ	25,000	21,820	<u> </u>	-		<del> </del>	<del> </del>
			SR 1162 (SHERRIFF	FROM SR 1144 (GREENWOOD RD) TO		l							1	1																			
		9	WATSON ROAD)			2 2	VU 1.4	2 20		151	20																30,000	28,500				<b></b>	
		10	SR 1520 (ROSSER RD)	FROM US 421 TO R/R TRACKS	4	2 2	NU 0.6	1 22		151	20	6,450		9,250	290			50	61	2	4			1						8	60		
***	AL FOR T			INACKS	+	2   ZV	8.0		1	1,057	140	6,450	<u> </u>	9,250	290			50	61	2	7	1		1	1			143,660	450	8	60		
10Т	AL FOR P	-KUJ NO.	8CR.20531.20								1	6,	450	9,	540					1				9			] 29	9,900	<u> </u>		68		
				T			25.4	36	1 1	2,391	320	127.653	18.500	101,782	10.445	2.600	1.920	450	1,271	18	99	25	50	7	8	1 1	267,786	234,165	450	57	735		795
ı	GF	RAND TO	TAL		+				<del></del>	<del></del>	<del> </del>		5,153		2,227		520	1	T	1	T			190			50	1,951			792		1,095

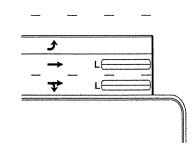




OR



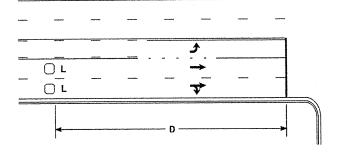




 $L = 6ft \times 40ft (1.8m \times 12.0m)$ Quadrupole loop, wired separately

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

OR



 $L = 6ft \times 6ft (1.8m \times 1.8m)$ Wired in series for TS1 Controllers Wired separately for TS2, 170, and 2070L Controllers

Speed Limit D1 D2 mph (km/hr) ft (m) ft (m) 40 (64) 250 (75) 80 (25) 45 (72) 300 (90) 90 (27) 50 (80) 355 (110) 100 (30) 55 (88) 420 (130) 110 (35)

∩L1

 $L2 = 6ft \times 6ft$ (1.8m X 1.8m) Wired in series

(1.8m X 1.8m)

Wired in series

L1 = 6ft X 6ft

Volume Density Operation

D

ft (m)

250 (75)

300 (90)

Speed Limit

mph (km/hr)

40 (64)

45 (72)

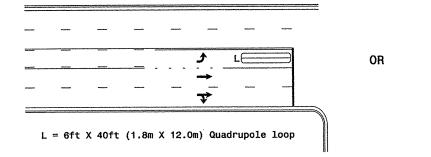
19-0EC-2006 14:29 s:\*its signois\*iib 1 palexander

50 (80) 355 (110)

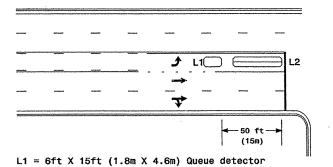
55 (88) 420 (130)

"Stretch" Operation

## Left Turn Lane Detection



Presence Loop Detection



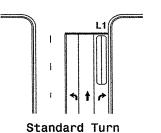
**→** □L2

**→** □ L2

-- D2 -

Queue Loop Detection

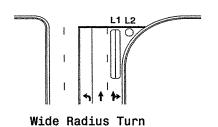
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

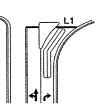


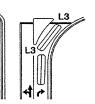
# Right Turn Lane Detection

 $L1 = 6ft \times 40ft (1.8m \times 12.0m)$  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

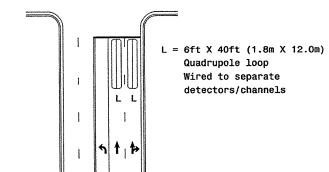




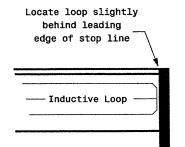


Channelized Turn

## Side Street Detection



## Presence Loop Placement at Stop Lines



Note: 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

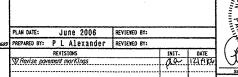
## Recommended Number of Turns

Quadrupole loops: Use 2-4-2 turns 6' X 15' (1.8m X 4.6m) Loops:

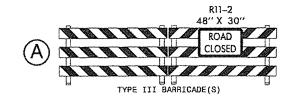
Lead-in < 150' (45 m), use 2 turns Lead-in > 150' (45 m), use 3 turns

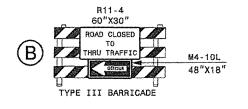


SCALE N/A Typical Loop Locations



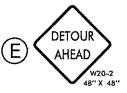
SEAL









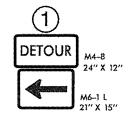


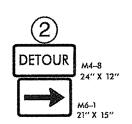


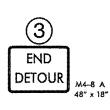












## PHASING

(H)

1313

(3)

1365

1326

1332

## OFFSITE DETOUR:

2229

VICINITY MAP: CHATHAM

Bridge No. 254

WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEPS 1 THRU 3 ON ONE WEEKEND FROM FRIDAY AT 8:00 P.M. TO MONDAY AT 7:00 A.M. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

1373

USING RSD 1101.03, SHEET 1 OF 9, AND SHEET TMP-1, INSTALL ROAD CLOSURE AND DETOUR SIGNS, PLACE TYPE III BARRICADES TO CLOSE SR 1332 (JESSIE BRIDGES RD.) TO THROUGH TRAFFIC, AND DETOUR TRAFFIC OFFSITE.

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING: PERFORM 11" MILL AND REPLACE OPERATIONS FOR SO' EITHER SIDE OF BRIDGE NO. 254 ACCORDING TO THE PLANS AND AS DIRECTED BY THE ENGINEER.

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND DETOUR SIGNING. OPEN SR 1332 (JESSIE BRIDGES RD.) TO PROPOSED TRAFFIC PATTERN.

## INSET "A"

COUNTY

1330

Romine Pike Rd 1612

CO Thomas Rd

Chatham Memorial Park

1375

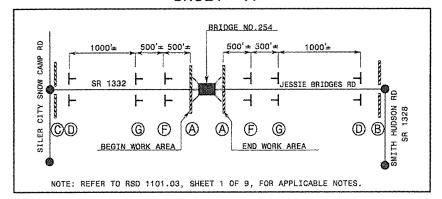
1003 Ħ

2234

George Hudson Rd 1501

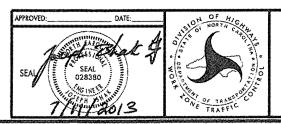
(64)

2234



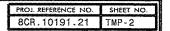
1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. INSTALL AS DIRECTED BY ENGINEER.

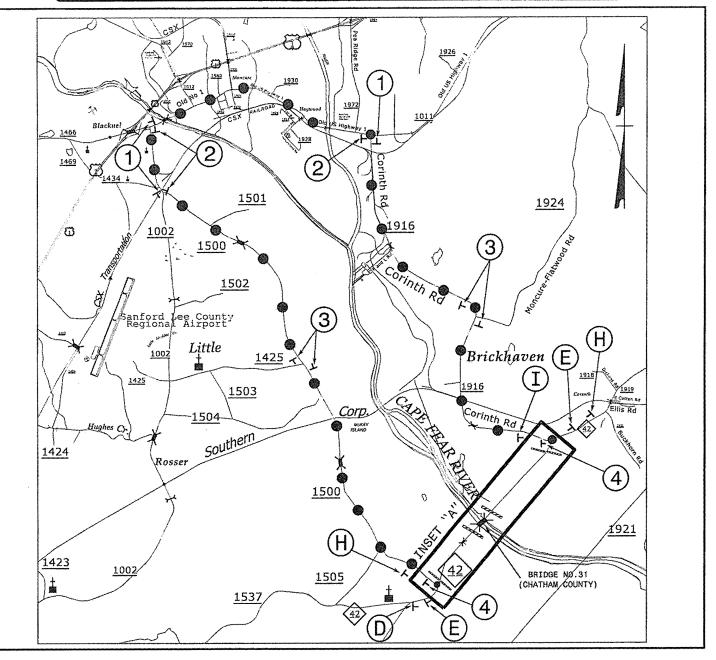
2. INSTALL ROAD CLOSURE SIGNS ACCORDING TO RSD 1101.03, SHEET 1 OF 9. INSTALL BARRICADES "AS DIRECTED BY THE ENGINEER".

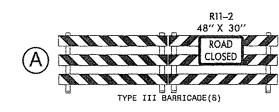


OFF-SITE DETOUR ROUTE AND BARRICADE PLACEMENT FOR ROAD CLOSURE OF SR 1332 IN CHATHAM COUNTY

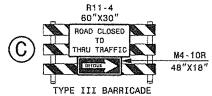
## VICINITY MAP: CHATHAM & LEE COUNTIES

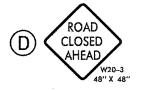










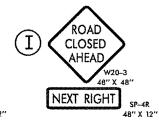


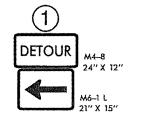


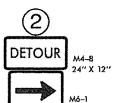


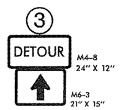


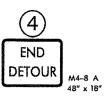












## PHASING

## OFFSITE DETOUR:

WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEPS 1
THRU 3 ON ONE WEEKEND FROM FRIDAY AT 8:00 P.M. TO MONDAY AT
7:00 A.M. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

## STEP 1

USING RSD 1101.03, SHEET 1 OF 9, AND SHEET TMP-2, INSTALL ROAD CLOSURE AND DETOUR SIGNS, PLACE TYPE III BARRICADES TO CLOSE NC 42 (AVENTS FERRY RD.) TO THROUGH TRAFFIC, AND DETOUR TRAFFIC OFFSITE.

## STEP :

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING: PERFORM 12" MILL AND REPLACE OPERATIONS FOR 50' EITHER SIDE OF BRIDGE NO. 31 ACCORDING TO THE PLANS AND AS DIRECTED BY THE ENGINEER.

## STEP 3:

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND DETOUR SIGNING, OPEN NC 42 (AVENTS FERRY RD.) TO PROPOSED TRAFFIC PATTERN.

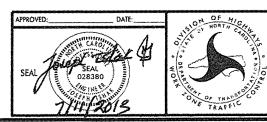
# BRIDGE NO.31 2000'± 500'± 500'± 1/2mi± HALLE SOO'± 500'± 1/2mi± HAL

INSET "A"

NOTE: REFER TO RSD 1101.03, SHEET 1 OF 9, FOR APPLICABLE NOTES.

## NOTES:

- 1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.
  INSTALL AS DIRECTED BY ENGINEER.
- 2. INSTALL ROAD CLOSURE SIGNS ACCORDING TO RSD 1101.03, SHEET 1 OF 9.
  INSTALL BARRICADES "AS DIRECTED BY THE ENGINEER".



OFF-SITE DETOUR ROUTE AND BARRICADE PLACEMENT FOR ROAD CLOSURE OF NC 42(AVENTS FERRY RD) IN CHATHAM AND LEE COUNTIES

## VICINITY MAP: CHATHAM COUNTY TYPE III BARRICADE INSET /B" **CLOSED CLOSED** 1000 F1 AHEAD -BRIDGE NO.63 AHEAD INSET "A" OFFSITE DETOUR PEA RIDGE RD SOUTH: • INSET "C" M5~2 R OFFSITE DETOUR PEA RIDGE RD NORTH: END US 1 [[] US 1 [1] us 1 🛅 **DETOUR** 500'± PHASING 2 1 INSET "B" WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEPS 1 1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. THRU 3 ON ONE WEEKEND FROM FRIDAY AT 8:00 P.M. TO MONDAY AT INSTALL AS DIRECTED BY ENGINEER. 2. INSTALL ROAD CLOSURE SIGNS ACCORDING TO RSD 1101.03, SHEET 2 OF 9. INSTALL BARRICADES "AS DIRECTED BY THE ENGINEER".

7:00 A.M. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

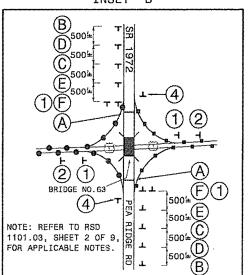
USING RSD 1101.03, SHEET 2 OF 9, AND SHEET TMP-3, INSTALL ROAD CLOSURE AND DETOUR SIGNS, PLACE TYPE III BARRICADES TO CLOSE SR 1972 (PEA RIDGE RD.) TO THROUGH TRAFFIC, AND DETOUR TRAFFIC OFFSITE.

## STEP 2:

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING: PERFORM 12" MILL AND REPLACE OPERATIONS FOR 50' EITHER SIDE OF BRIDGE NO. 63 ACCORDING TO THE PLANS AND AS DIRECTED BY THE ENGINEER.

## STEP 3:

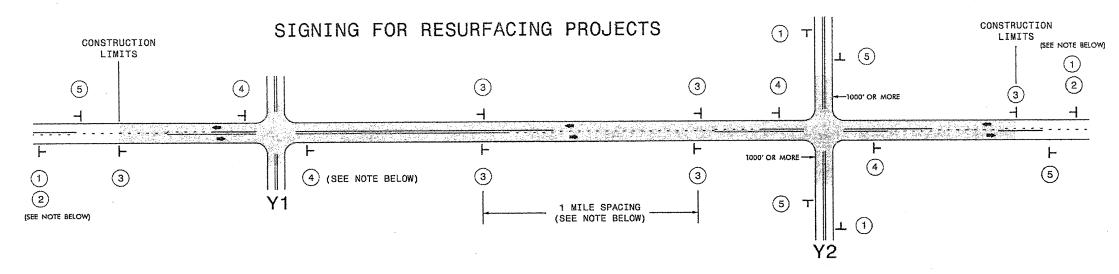
REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND DETOUR SIGNING. OPEN SR 1972 (PEA RIDGE RD.) TO PROPOSED TRAFFIC PATTERN.



OFF-SITE DETOUR ROUTE AND BARRICADE PLACEMENT FOR ROAD CLOSURE OF SR 1972 IN CHATHAM COUNTY

PROJ. REFERENCE NO. SHEET NO.

C203420A-RW 1



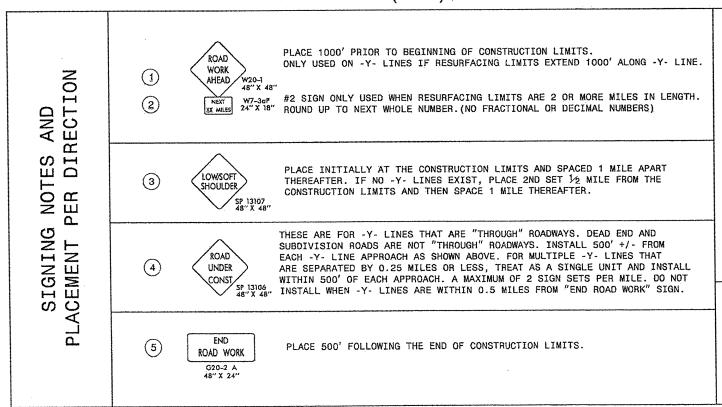
LEGEND

├ STATIONARY SIGN

→ DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING



## 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.



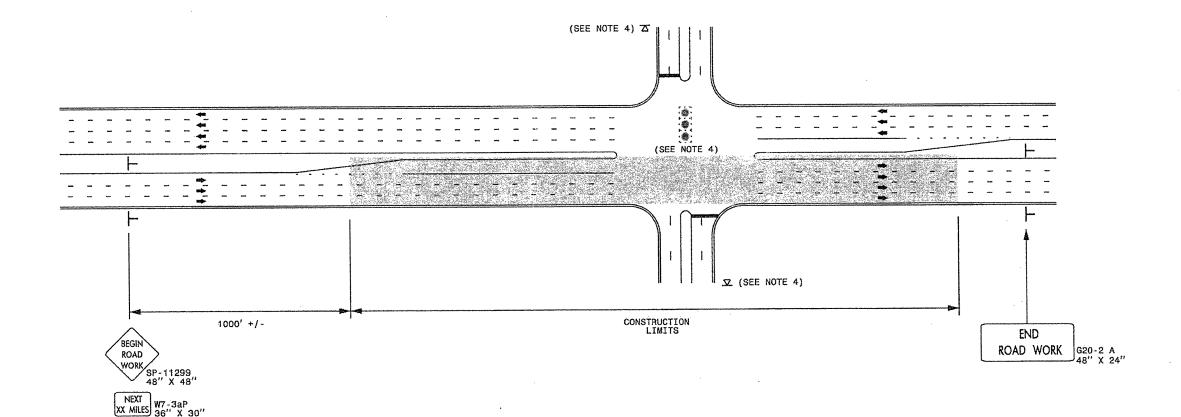
RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

2013Resurfocing\2013Documents\New\_Procedures.05.09.2013\Resurfocing\_AdvWarn\_2\Ln.dgn

1967967

C203420A-RW

## 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
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
  4) USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AND 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.



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

LEGEND

DIRECTION OF TRAFFIC FLOW

- STATIONARY SIGN