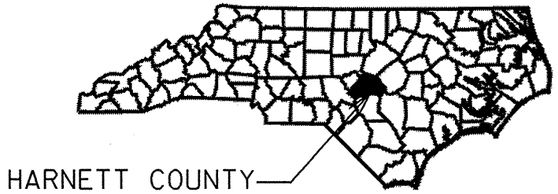
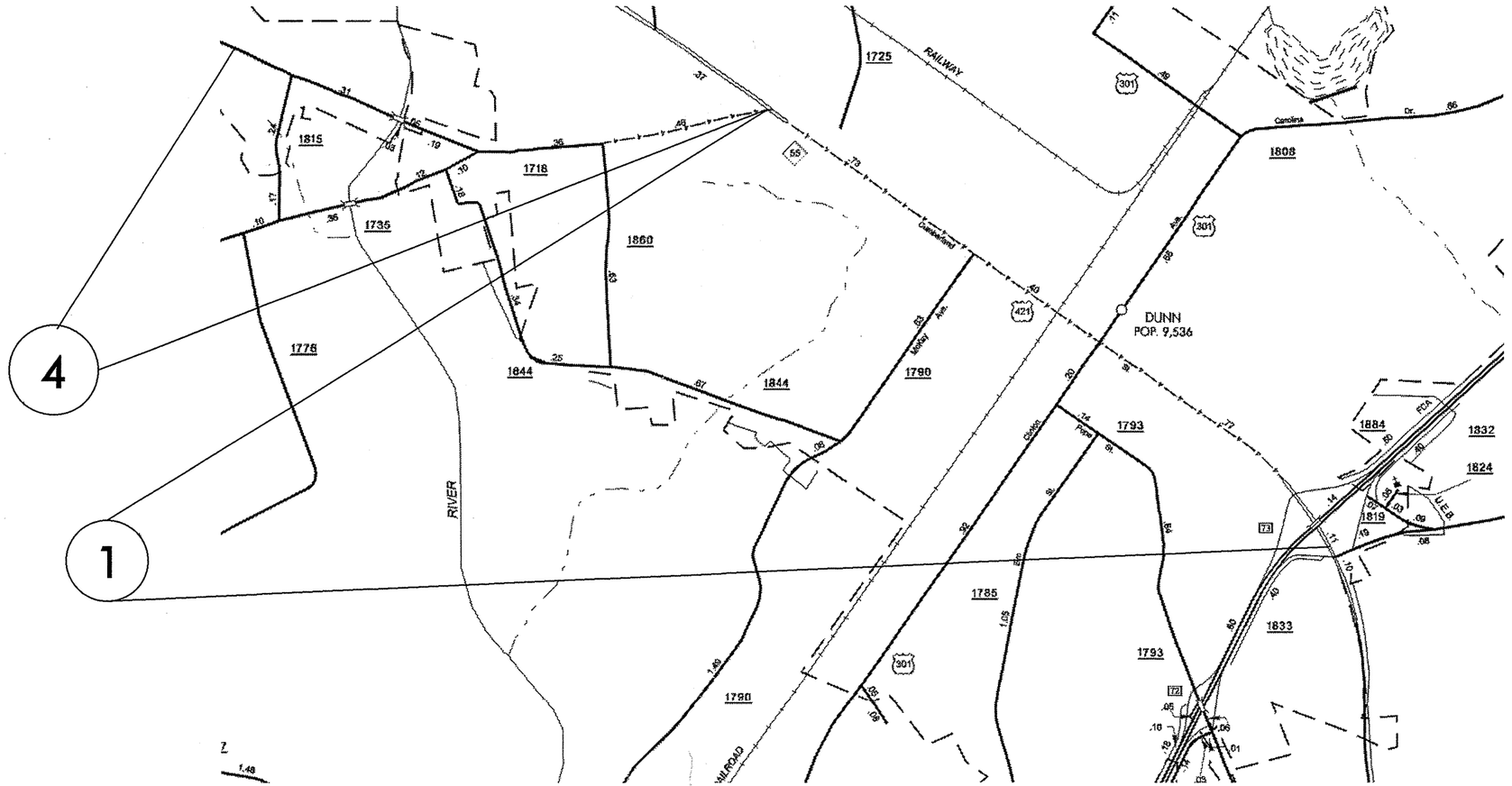
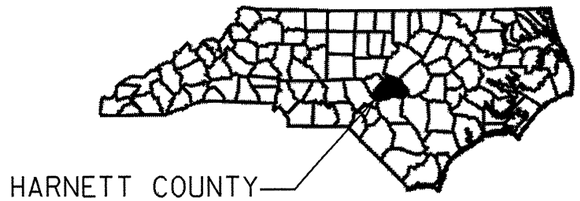
PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261.78,ETC.	1



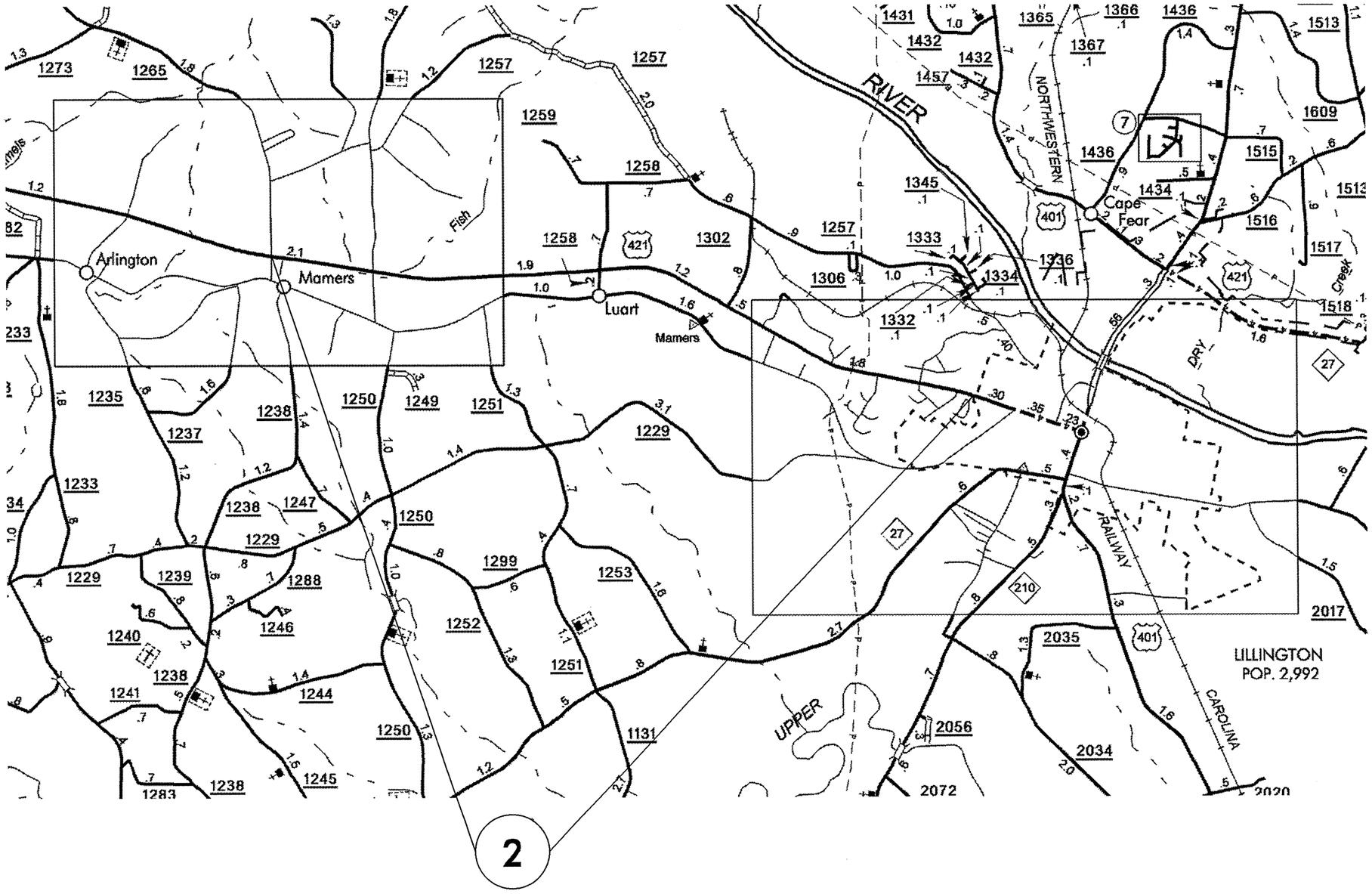
RESURFACING MAPS - HARNETT COUNTY



PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261.78,ETC.	2

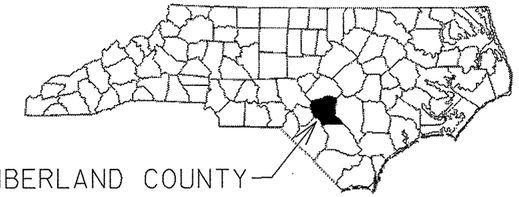


RESURFACING MAPS - HARNETT COUNTY



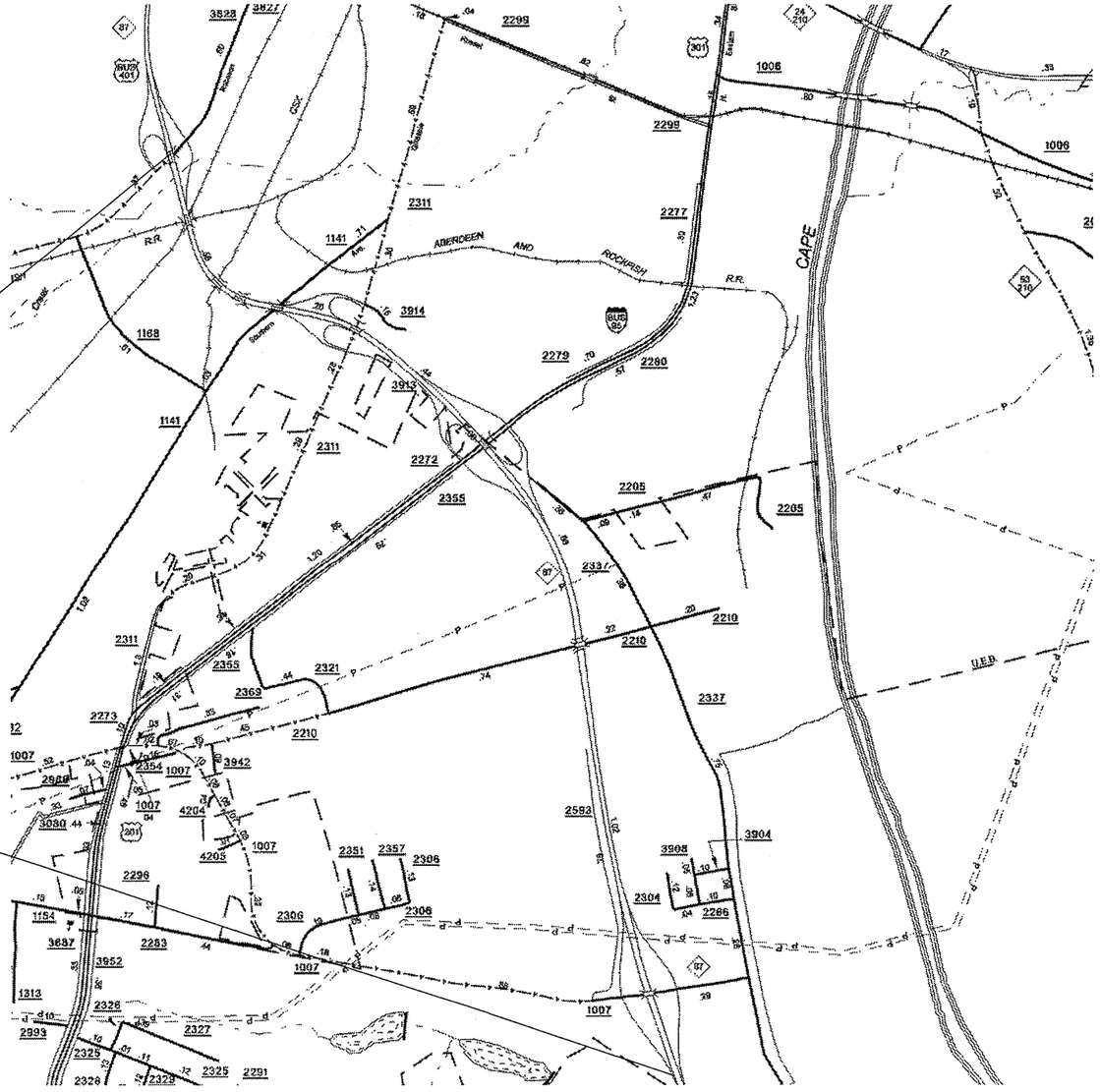
PROJECT REFERENCE NO.	SHEET NO.
6CRJ026178, ETC.	3

RESURFACING MAPS - CUMBERLAND COUNTY



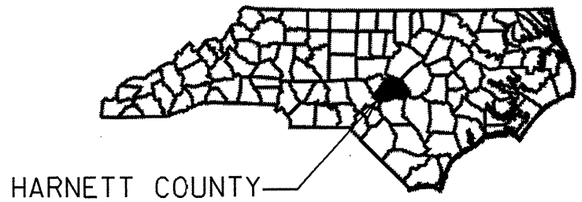
CUMBERLAND COUNTY

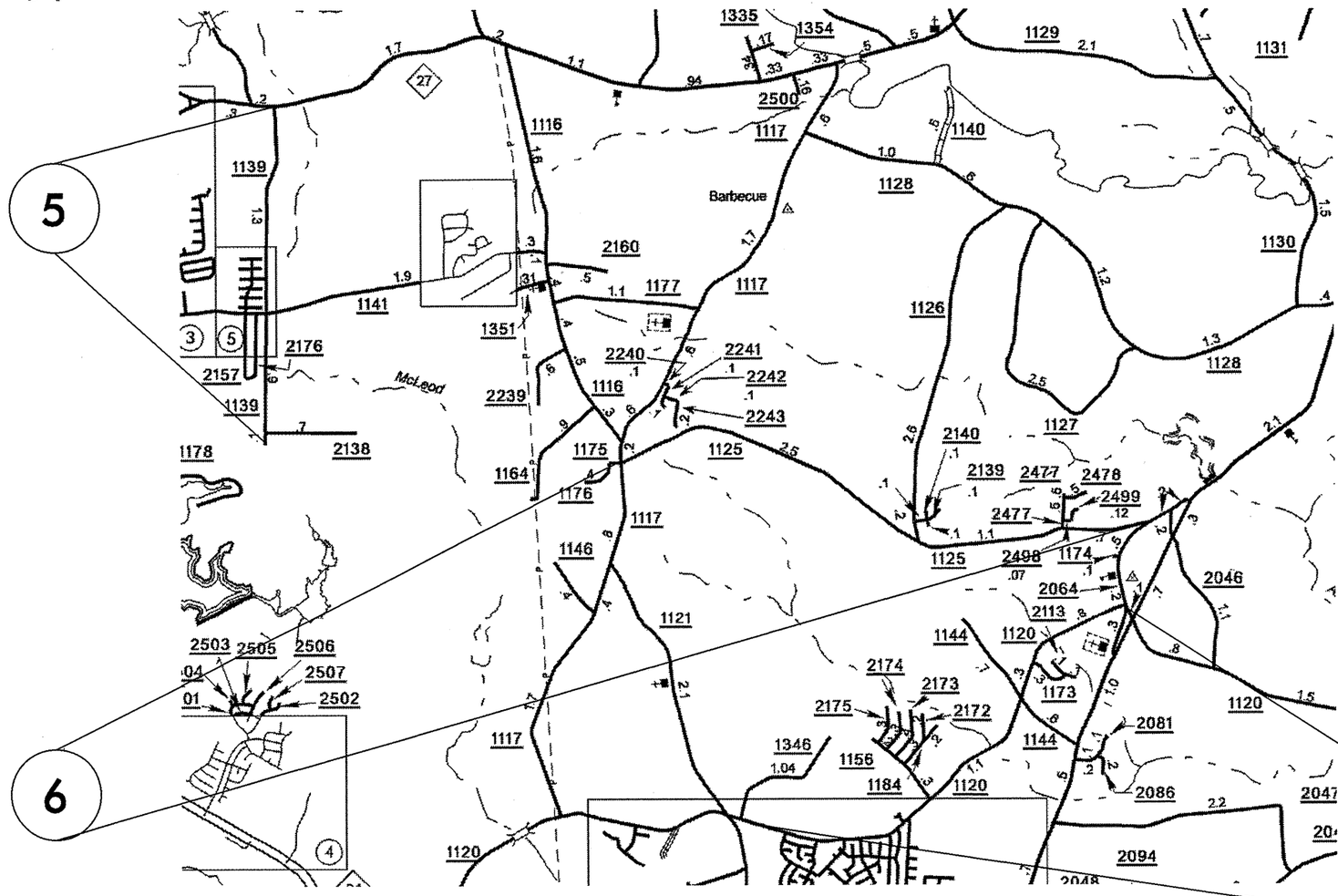
3



PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261.78,ETC.	4

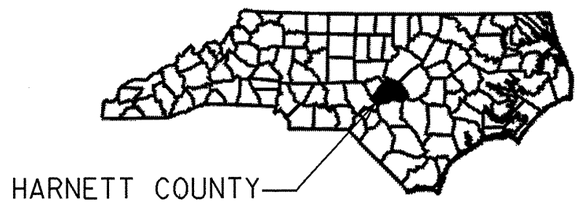
RESURFACING MAPS - HARNETT COUNTY

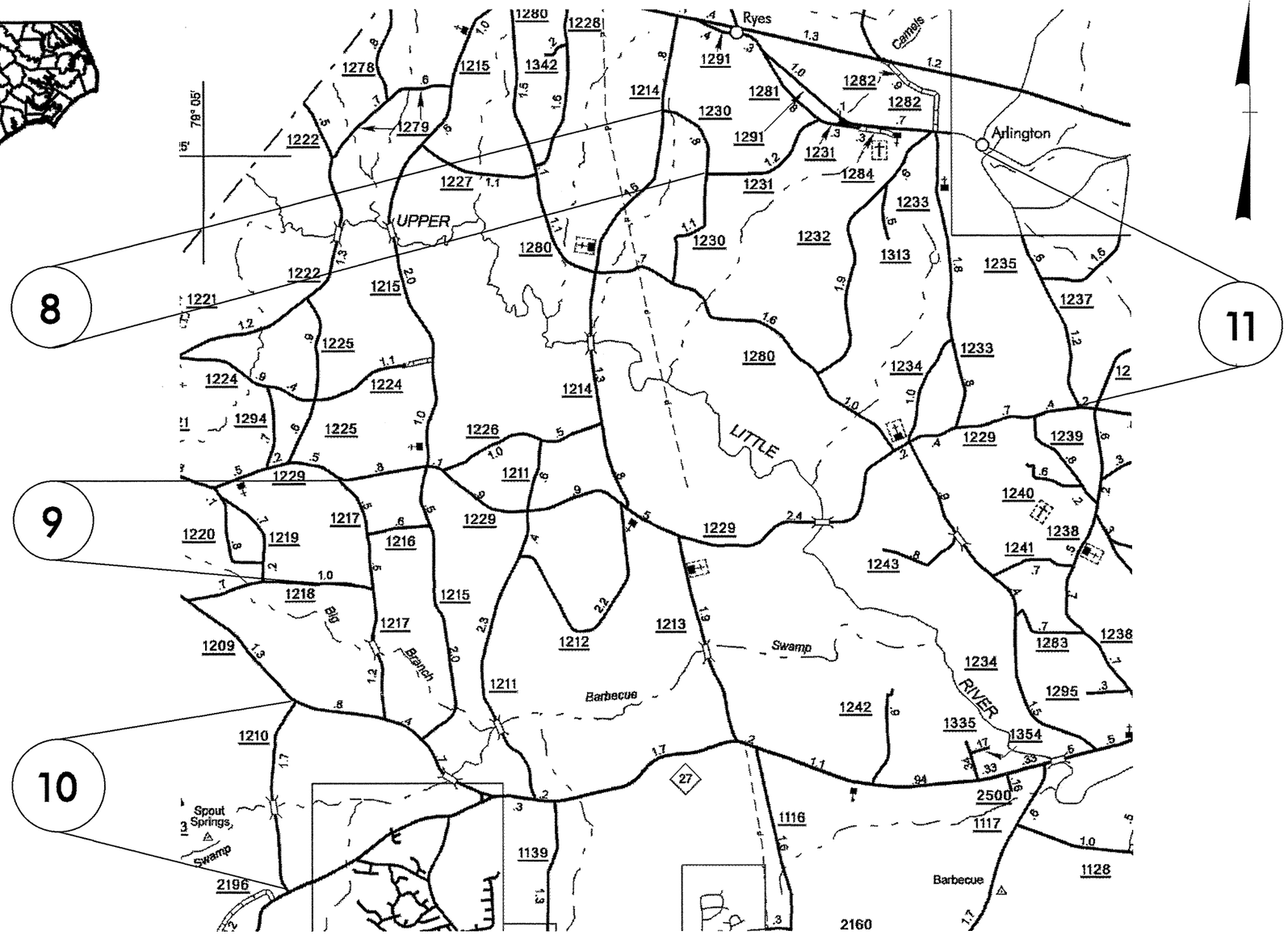




PROJECT REFERENCE NO.	SHEET NO.
6CRJ026178,ETC.	5

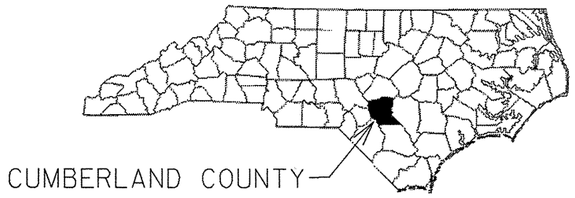
RESURFACING MAPS - HARNETT COUNTY

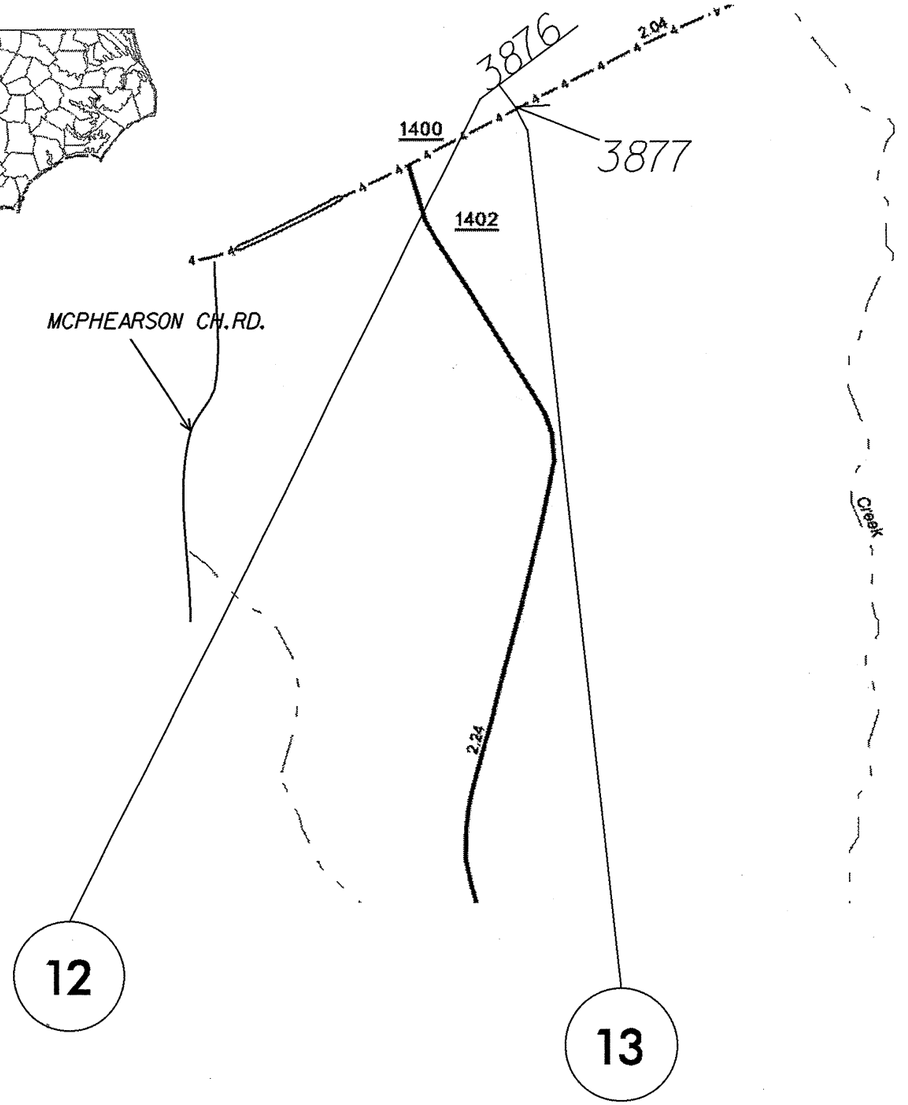


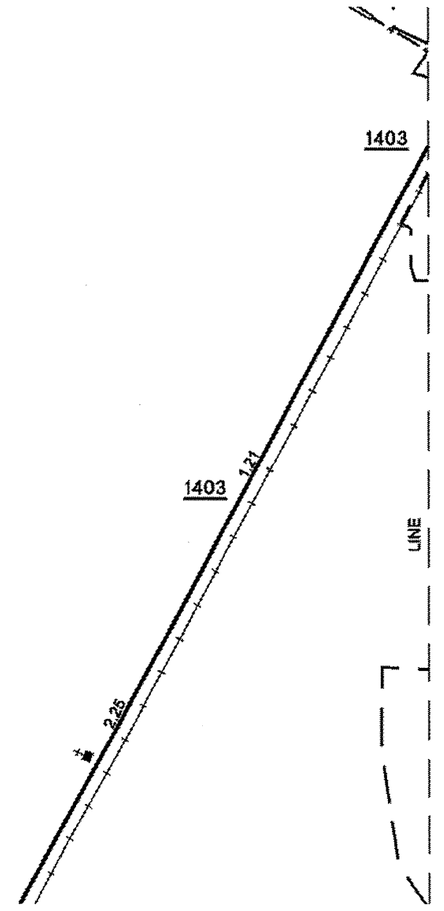


PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261.78,ETC.	6

RESURFACING MAPS - CUMBERLAND COUNTY

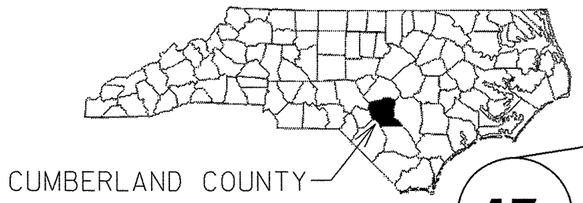






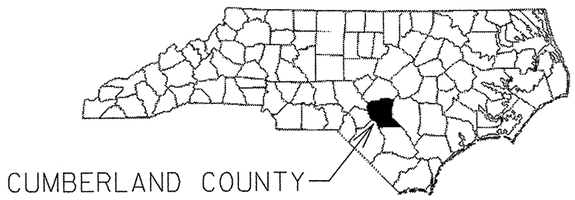
PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261.78, ETC.	7

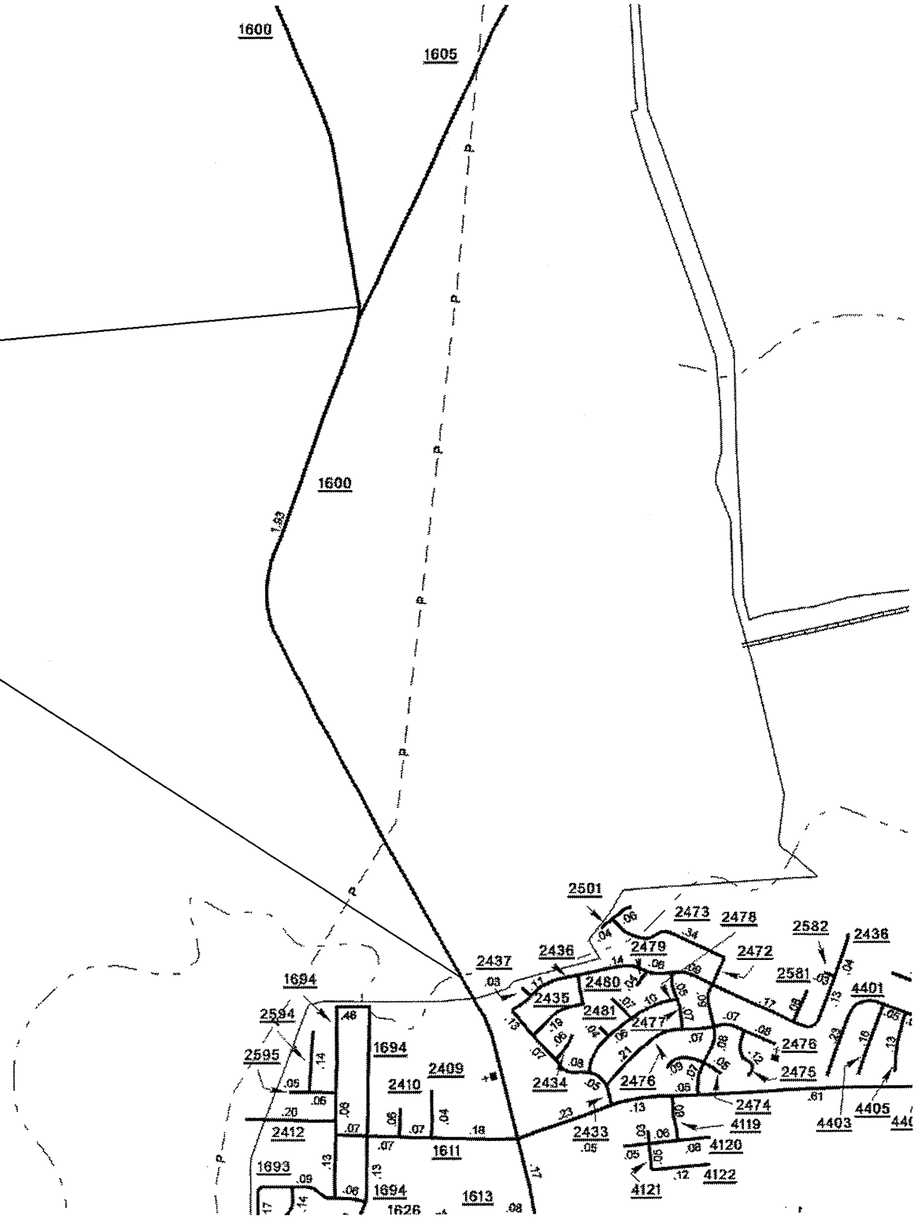
RESURFACING MAPS - CUMBERLAND COUNTY



PROJECT REFERENCE NO.	SHEET NO.
6CRJ026178, ETC.	8

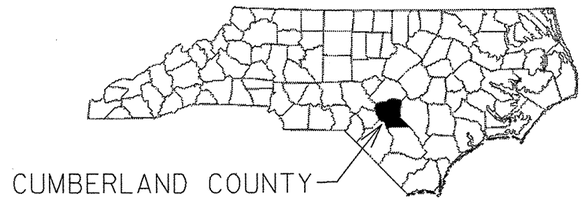
RESURFACING MAPS - CUMBERLAND COUNTY

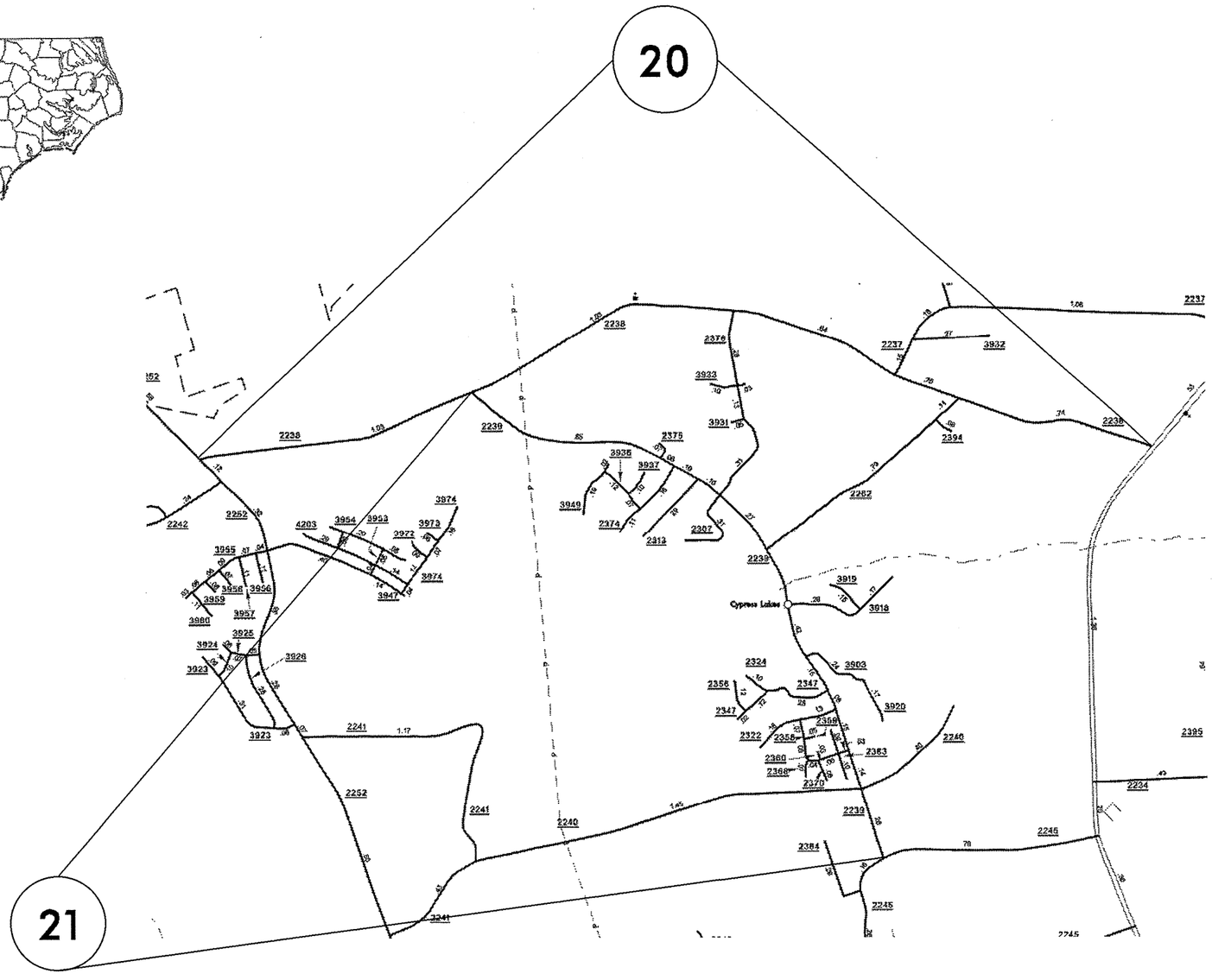




PROJECT REFERENCE NO.	SHEET NO.
6CRJ026178,ETC.	9

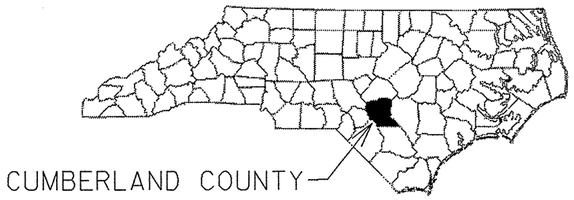
RESURFACING MAPS - CUMBERLAND COUNTY

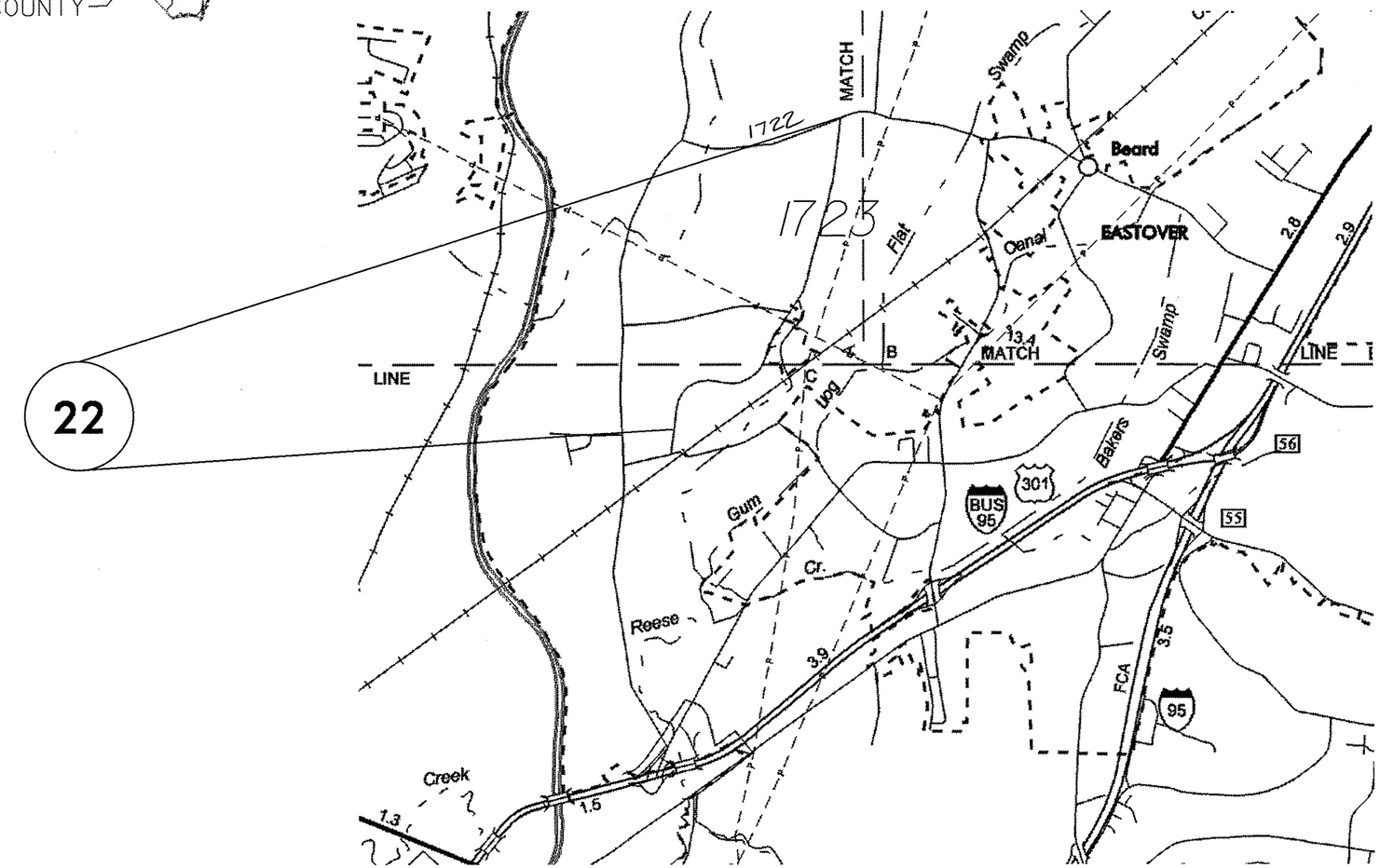




PROJECT REFERENCE NO.	SHEET NO.
6CRJ0261,78,ETC.	10

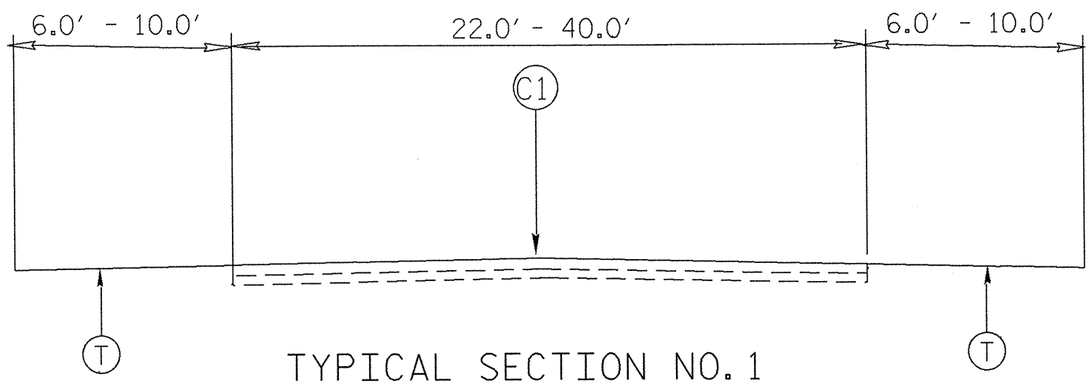
RESURFACING MAPS - CUMBERLAND COUNTY





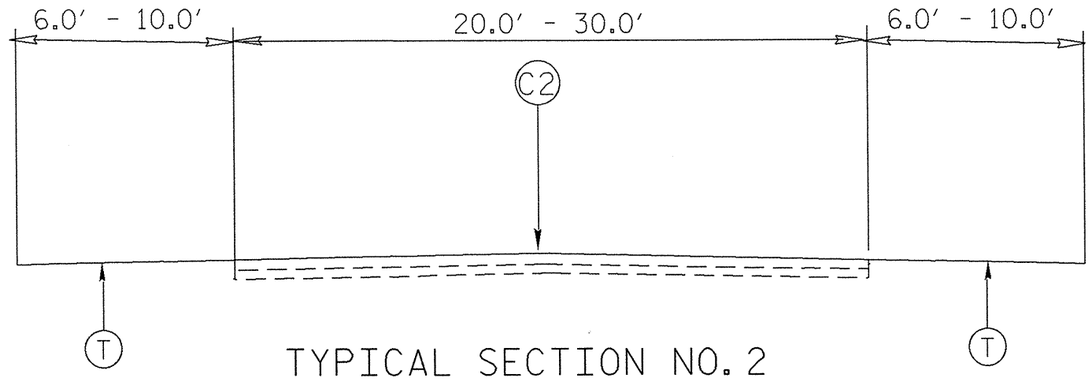
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	PROP. APPROX. 2.00" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.50" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.00" ASPHALT CONCRETE BASE COURSE, TYPE B25.0.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
V1	MILLING AT A DEPTH OF 0" TO 1.50" TO BE MILLED TO A DEPTH OF 1.50" BELOW THE GUTTER AT EP AS DIRECTED BY THE ENGINEER.
V2	MILLING AT A DEPTH OF 1.50" AS DIRECTED BY THE ENGINEER.
T	SHOULDER RECONSTRUCTION.

Project number	SHEET 12
6CR.10261.78, ETC.	



TYPICAL SECTION NO. 1

✳SEE NOTES TO THE CONTRACTOR FOR ADDITIONAL MILLING ON MAPS 1 AND 14



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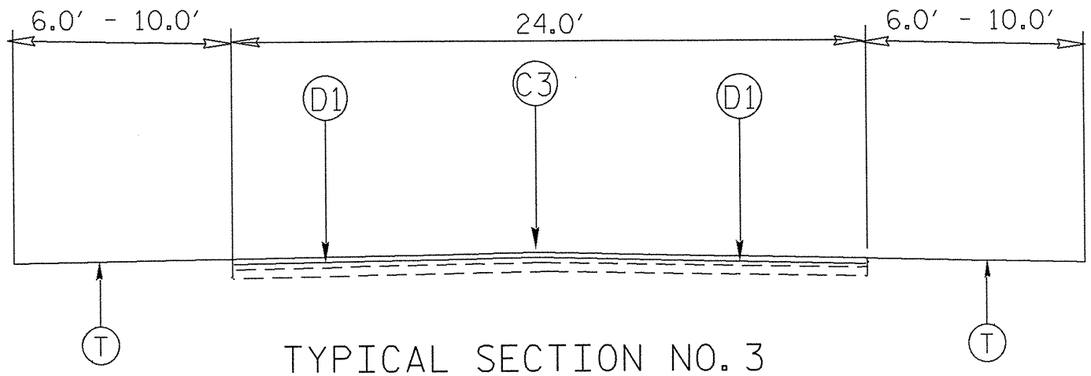
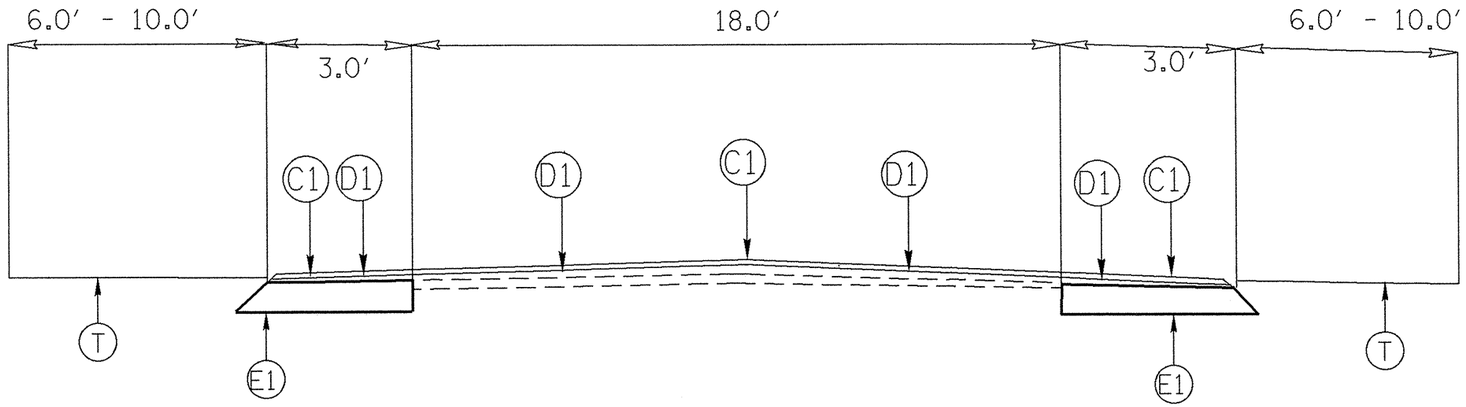
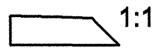


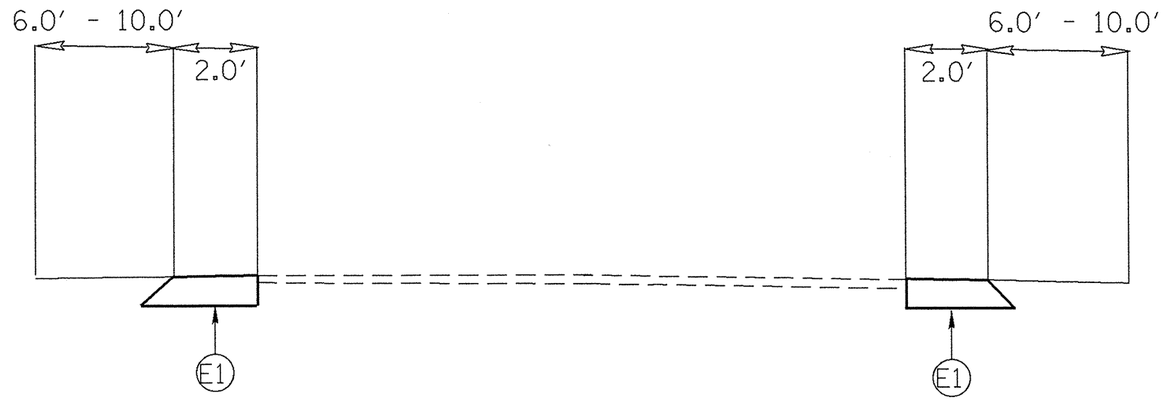
TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4

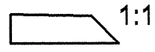
✳ PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

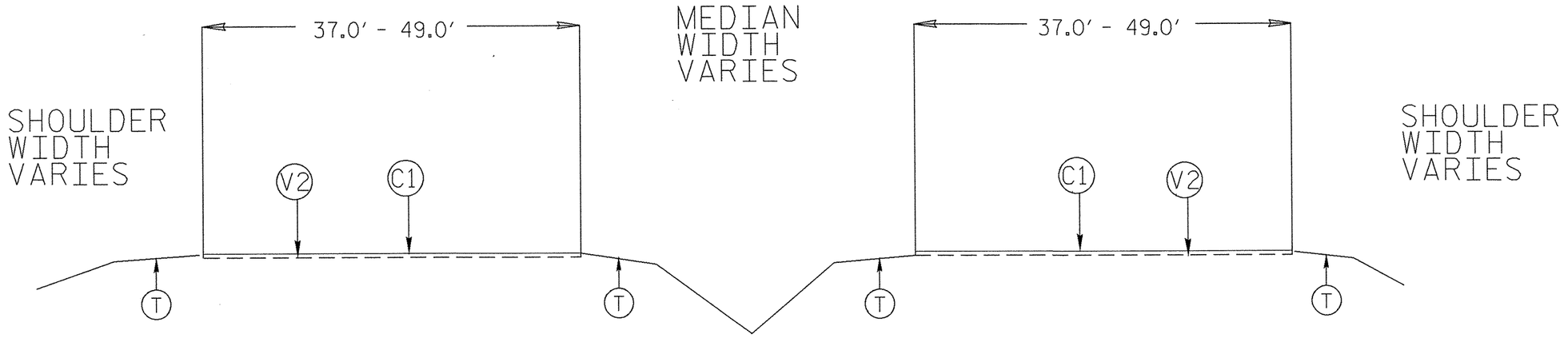




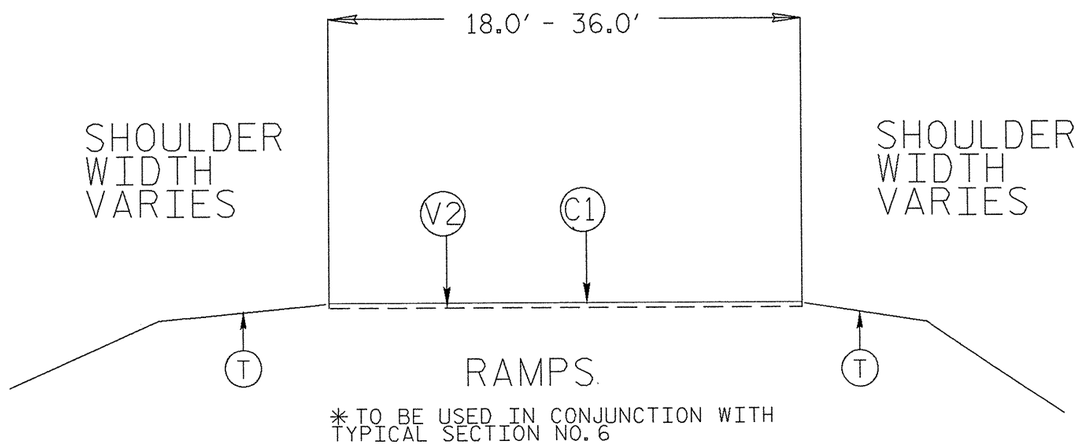
TYPICAL SECTION NO. 5

✳ PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



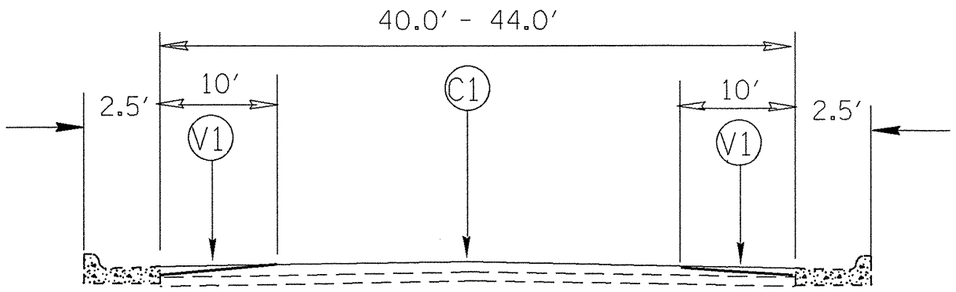


TYPICAL SECTION NO. 6

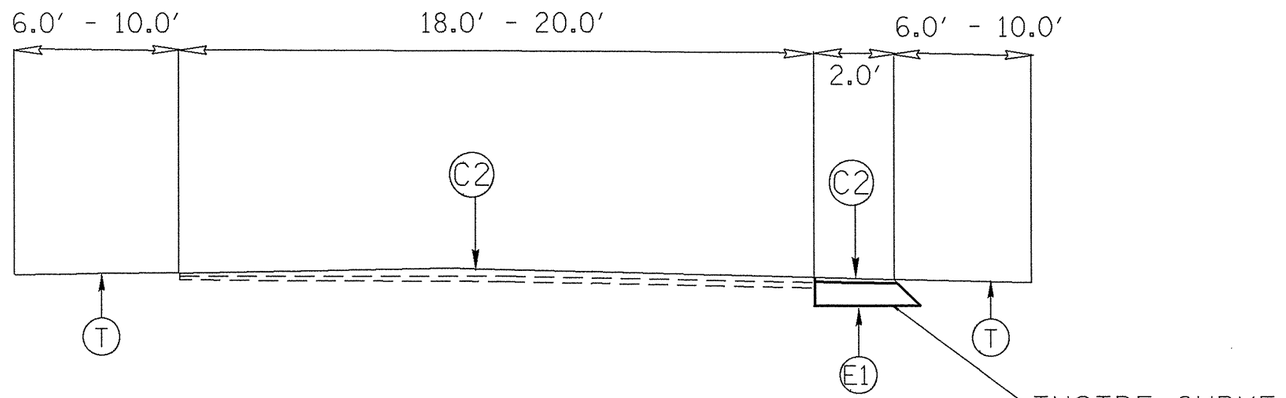


*TO BE USED IN CONJUNCTION WITH TYPICAL SECTION NO. 6

Project number	SHEET 15
6CR.10261.78, ETC.	



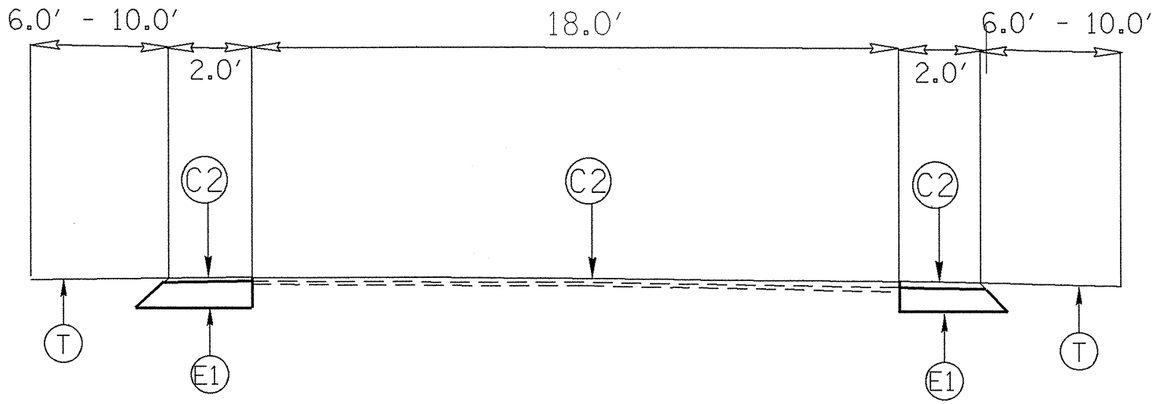
TYPICAL SECTION NO. 7



TYPICAL SECTION NO. 8

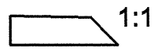
✳ PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

Project number	SHEET 16
6CR.10261.78, ETC.	



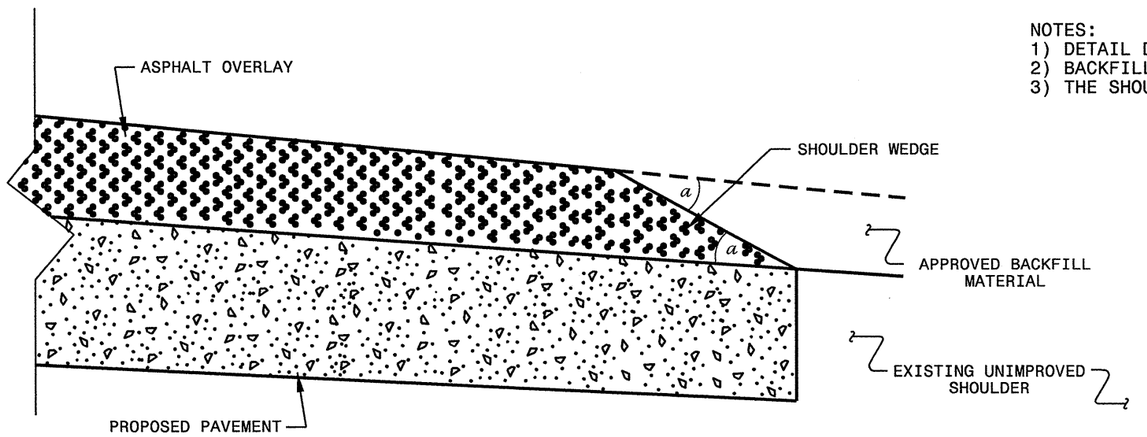
TYPICAL SECTION NO. 9

* PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



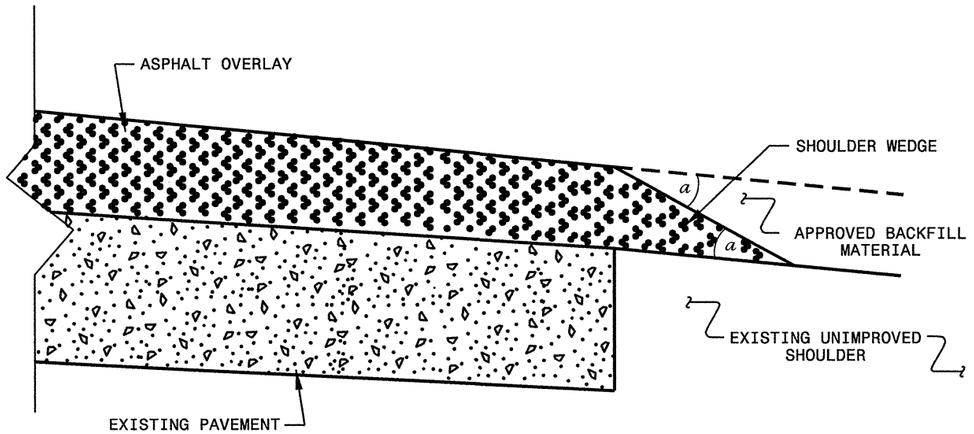
PROJECT REFERENCE NO.	SHEET NO.
6CR.10261.70, ETC	17

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.



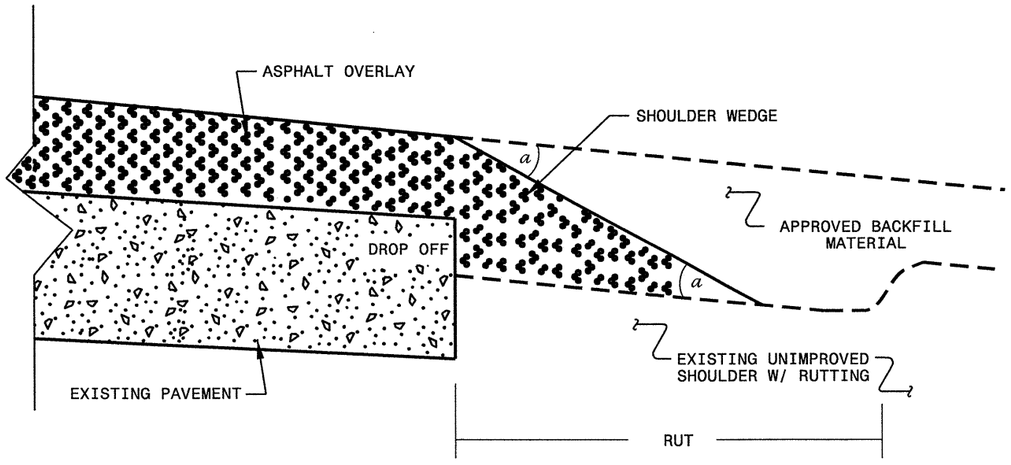
SHOULDER WEDGE DETAIL

(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)

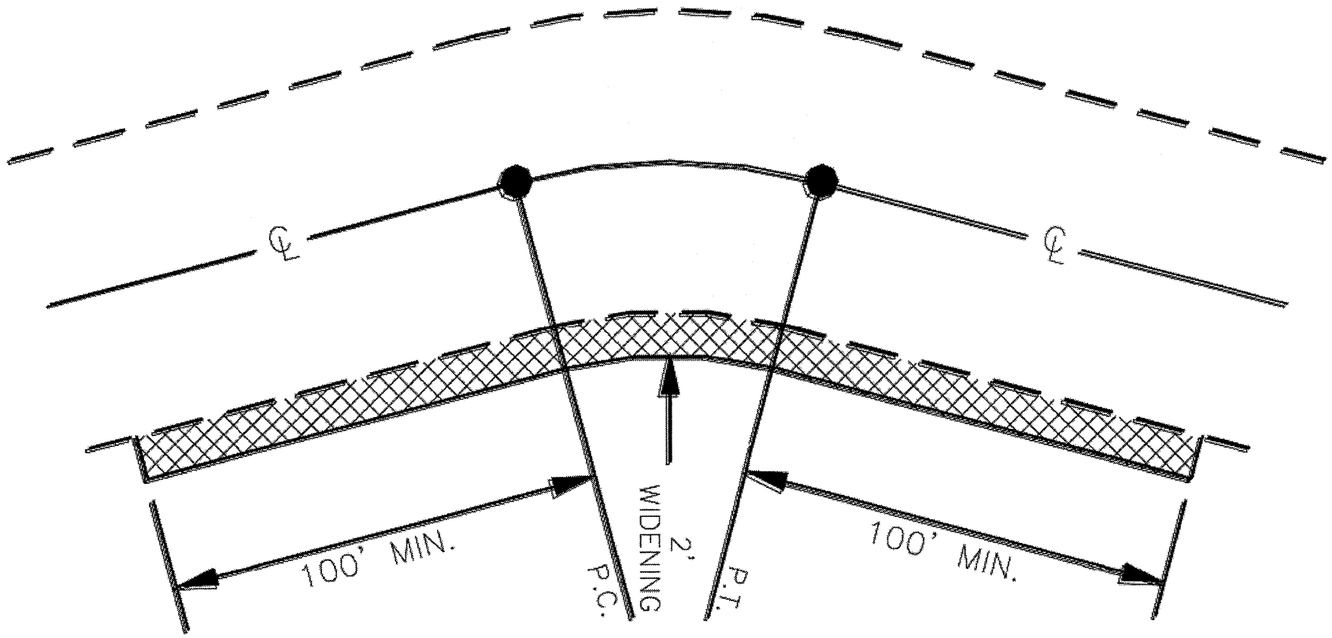
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SHOULDER WEDGE DETAILS

ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		

$$$$USERNAME$$$$
$$$$SYSTIME$$$$



2 FT. WIDENING OF INSIDE RADIUS FOR CURVES

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10261.78, ETC.	19	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	AGGREGATE SHOULDER BORROW TON	INCIDENTAL STONE BASE TONS	1½" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTER-MEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PAVED TRENCHING (1 CONDUIT-2") LF	UNPAVED TRENCHING (1 CONDUIT-2") LF	JUNCTION BOX (STANDARD SIZE) EA	JUNCTION BOX (OVERSIZED, HEAVY DUTY) EA	2" RISER WITH WEATHER-HEAD EA	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE (14-2) LF
6CR.10261.78	Cumberland	3	NC 87	FRON SR 3828-US 401 BUS (MP 14.5) TO PVMT JT (MP 17.71)	6	NO	NO	3.21	74	900		154,704		2,000			12,995		780	1,575			30	300	3	3	3	800	300
		"	"		6	NO	NO	3.1	18			32,736					2,750		165										
TOTAL FOR MAP NO. 3								**6.31**		**900**		**187,440**		**2,000**			**15,745**		**945**	**1,575**			**30**	**300**	**3**	**3**	**3**	**800**	**300**
TOTAL FOR PROJ NO. 6cr.10261.78								**6.31**		**900**		**187,440**		**2,000**			**15,745**		**945**	**1,575**			**30**	**300**	**3**	**3**	**3**	**800**	**300**
6CR.10431.78	Harnett	1	US 421 B	FROM PVMT JT @ I-95 (MP 1.92) TO SR 1718 (MP 3.88)	7	NO	NO	1.78	40	17			20,885	208			4,020		241	438	35	10	80	800	8	8	8	5,750	800
		"	"		1	NO	NO	0.18	40		4	1,056					355		21										
TOTAL FOR MAP NO. 1								**1.96**		**17**	**4**	**1,056**	**20,885**	**208**			**4,375**		**262**	**438**	**35**	**10**	**80**	**800**	**8**	**8**	**8**	**5,750**	**800**
6CR.10431.78	Harnett	2	US 421	FROM SR 1265 (MP 25.51) TO PVMT JT @ LILLINGTON CITY LIMITS (MP 19.31)	1	NO	NO	6.2	30	586	149			1,181			9,380		563	938	3	3							
TOTAL FOR MAP NO. 2								**6.2**		**586**	**149**			**1,181**			**9,380**		**563**	**938**	**3**	**3**							
TOTAL FOR PROJ NO. 6CR.10431.78								**8.16**		**603**	**153**	**1,056**	**20,885**	**1,389**			**13,755**		**825**	**1,376**	**38**	**13**	**80**	**800**	**8**	**8**	**8**	**5,750**	**800**
6CR.20261.78	Cumberland	12	SR 3876	FROM DE (MP 0.00) TO DE (MP 0.23)	2	NO	NO	0.23	27	22	6							301	20	30									
TOTAL FOR MAP NO. 12								**0.23**		**22**	**6**							**301**	**20**	**30**									
6CR.20261.78	Cumberland	13	SR 3877	FROM SR 1400 (MP 0.00) TO SR 3876 (MP 0.01)	2	NO	NO	0.01	30	1								15	1	2									
TOTAL FOR MAP NO. 13								**0.01**		**1**								**15**	**1**	**2**									
6CR.20261.78	Cumberland	14	SR 1714	FROM SOUTHERN PVMT JT @ I-295 (MP 5.95) TO PVT JT IN WADE (MP 12.27)	1	NO	NO	6.32	22	597	152		6,395	486			7,413		445	741			10	100	1	1	1	200	100
TOTAL FOR MAP NO. 14								**6.32**		**597**	**152**		**6,395**	**486**			**7,413**		**445**	**741**			**10**	**100**	**1**	**1**	**1**	**200**	**100**
6CR.20261.78	Cumberland	15	SR 1707	FROM SR 1700 (MP 2.4) TO (MP 1.20)	5	NO	NO	1.2	4		29				803				35										
TOTAL FOR MAP NO. 15								**1.2**			**29**				**803**				**35**										
6CR.20261.78	Cumberland	16	SR 1700	FROM SR 1707 (MP 4.30) TO SR 1702 (MP 5.14)	4	NO	NO	0.84	24	183	20			139	843	1,348	1,019		163	237									
TOTAL FOR MAP NO. 16								**0.84**		**183**	**20**			**139**	**843**	**1,348**	**1,019**		**163**	**237**									
6CR.20261.78	Cumberland	17	SR 1700 B	FROM SR 1702 (MP 5.14) TO LINDEN TOWN LIMIT (MP 7.15)	5	NO	NO	2.01	4		48				1,344				59										
TOTAL FOR MAP NO. 17								**2.01**			**48**				**1,344**				**59**										
6CR.20261.78	Cumberland	18	SR 1700 C	FROMSR 1710 (MP 0.00) TO SR 1707 (MP 4.30)	5	NO	NO	4.32	4		104				2,889				127										
TOTAL FOR MAP NO. 18								**4.32**			**104**				**2,889**				**127**										
6CR.20261.78	Cumberland	19	SR 1600	FROM PVMT JT @ FT. BRAGG GATE (MP 3.62) TOO SR 1605 (MP 5.20)	3	NO	NO	1.58	24	397	38			69		2,536	2,508		272	504										
TOTAL FOR MAP NO. 19								**1.58**		**397**	**38**			**69**		**2,536**	**2,508**		**272**	**504**										
6CR.20261.78	Cumberland	20	SR 2238	FROM SR 2252 (MP 0.00) TO NC 87 (MP 3.68)	2	NO	NO	3.68	24.5	348	88			417				5,054	339	505		3	10	100	1	1	1	150	100
TOTAL FOR MAP NO. 20								**3.68**		**348**	**88**			**417**				**5,054**	**339**	**505**		**3**	**10**	**100**	**1**	**1**	**1**	**150**	**100**
6CR.20261.78	Cumberland	21	SR 2239	FROM SR 2245 (MP 0.00) TO SR 2238 (MP 2.47)	2	NO	NO	2.47	20	233	59							2,539	170	254	1	1							
TOTAL FOR MAP NO. 21								**2.47**		**233**	**59**							**2,539**	**170**	**254**	**1**	**1**							
6CR.20261.78	Cumberland	22	SR 1723	FROM SR 1722 (MP 0.00) TO PVMT JT @ SR 1700 (MP 2.43)	1	NO	NO	2.43	22	230	58			208			2,672		160	267									
TOTAL FOR MAP NO. 22								**2.43**		**230**	**58**			**208**			**2,672**		**160**	**267**									
TOTAL FOR PROJ NO. 6CR.20261.78								**25.09**		**2,011**	**602**		**6,395**	**1,319**	**5,879**	**3,884**	**13,612**	**7,909**	**1,791**	**2,540**	**1**	**4**	**20**	**200**	**2**	**2**	**2**	**350**	**200**
6CR.20431.78	Harnett	4	SR 1718	FROM US 421 (MP 0.00) TO 0.57 MILES WEST OF US 421(MP 0.57)	7	NO	NO	0.48	44	9			5,632	139			1,113		67	126	2	3	20	200	2	2	2	1,200	200
		"	"		1	NO	NO	0.09	34		2						151		9										
TOTAL FOR MAP NO. 4								**0.57**		**9**	**2**		**5,632**	**139**			**1,264**		**76**	**126**	**2**	**3**	**20**	**200**	**2**	**2**	**2**	**1,200**	**200**
6CR.20431.78	Harnett	5	SR 1139	FROM NC 27 (MP 0.00) TO DEAD END (MP 2.59)	5	NO	NO	2.59	4		62				1,732				76										
TOTAL FOR MAP NO. 5								**2.59**			**62**				**1,732**				**76**										
6CR.20431.78	Harnett	6	SR 1125	FROM SR 2064 (MP 0.00) TO SR 1117 (MP 4.34)	2	NO	NO	4.34	23	410	104			278				4,898	328	490									
TOTAL FOR MAP NO. 6								**4.34**		**410**	**104**			**278**				**4,898**	**328**	**490**									
6CR.20431.78	Harnett	7	SR 1120	FROM3.65 MILES WEST OF SR 2064 (MP 4.02) TO SR 2064 (MP 7.67)	2	NO	NO	2.52	24	345	60			903				3,268	219	439	5	1							
		"	"			NO	NO	1.13	20.5									1,121	75										
TOTAL FOR MAP NO. 7								**3.65**		**345**	**60**			**903**				**4,389**	**294**	**439**	**5**	**1**							
6CR.20431.78	Harnett	8	SR 1230	FROM SR 1231 (MP 1.13) TO SR 1214 (MP 1.91)	8	NO	NO	0.78	19	74	19			139	100			742	54	84									
TOTAL FOR MAP NO. 8								**0.78**		**74**	**19**			**139**	**100**			**742**	**54**	**84**									
6CR.20431.78		9	SR 1217	FROM SR 1218 (MP 1.06) TO SR 1229 (MP 0.00)	8	NO	NO	1.05	18	112	25			139	150			940	70	109									
TOTAL FOR MAP NO. 9								**1.05**		**112**	**25**			**139**	**150**			**940**	**70**	**109**									
6CR.20431.78	Harnett	10	SR 1210	FROM NC 27 (MP 0.00) TO SR 1209 (MP 1.74)	8	NO	NO	1.74	20	164	42			139	137			1,709	121	185		1							
TOTAL FOR MAP NO. 10								**1.74**		**164**	**42**			**139**	**137**			**1,709**	**121**	**185**		**1**							
6CR.20431.78	Harnett	11	SR 1235	FROM SR 1291 (MP 0.00) TO SR 1229 (MP 2.49)	9	NO	NO	2.49	22	235	60			278	1,565			2,701	250	270	1	1							
TOTAL FOR MAP NO. 11								**2.49**		**235**	**60**			**278**	**1,565**			**2,701**	**250**	**270**	**1**	**1**							
TOTAL FOR PROJ NO. 6CR.20431.78								**17.21**		**1,349**	**374**		**5,632**	**2,015**	**3,684**		**1,264**	**15,379**	**1,269**	**1,703**	**8**	**6**	**20**	**200**	**2**	**2**	**2**	**1,200**	**200**
GRAND TOTAL								**56.77**		**4,863**	**1,129**	**188,496**	**32,912**	**6,723**	**9,563**	**3,884**	**44,376**	**23,288**	**4,830**	**7,194**	**47**	**23**	**150**	**1,500**	**15**	**15**	**15**	**8,100**	**1,500**

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10261.78, ETC.	20	

THERMOPLASTIC AND PAINT QUANTITIES

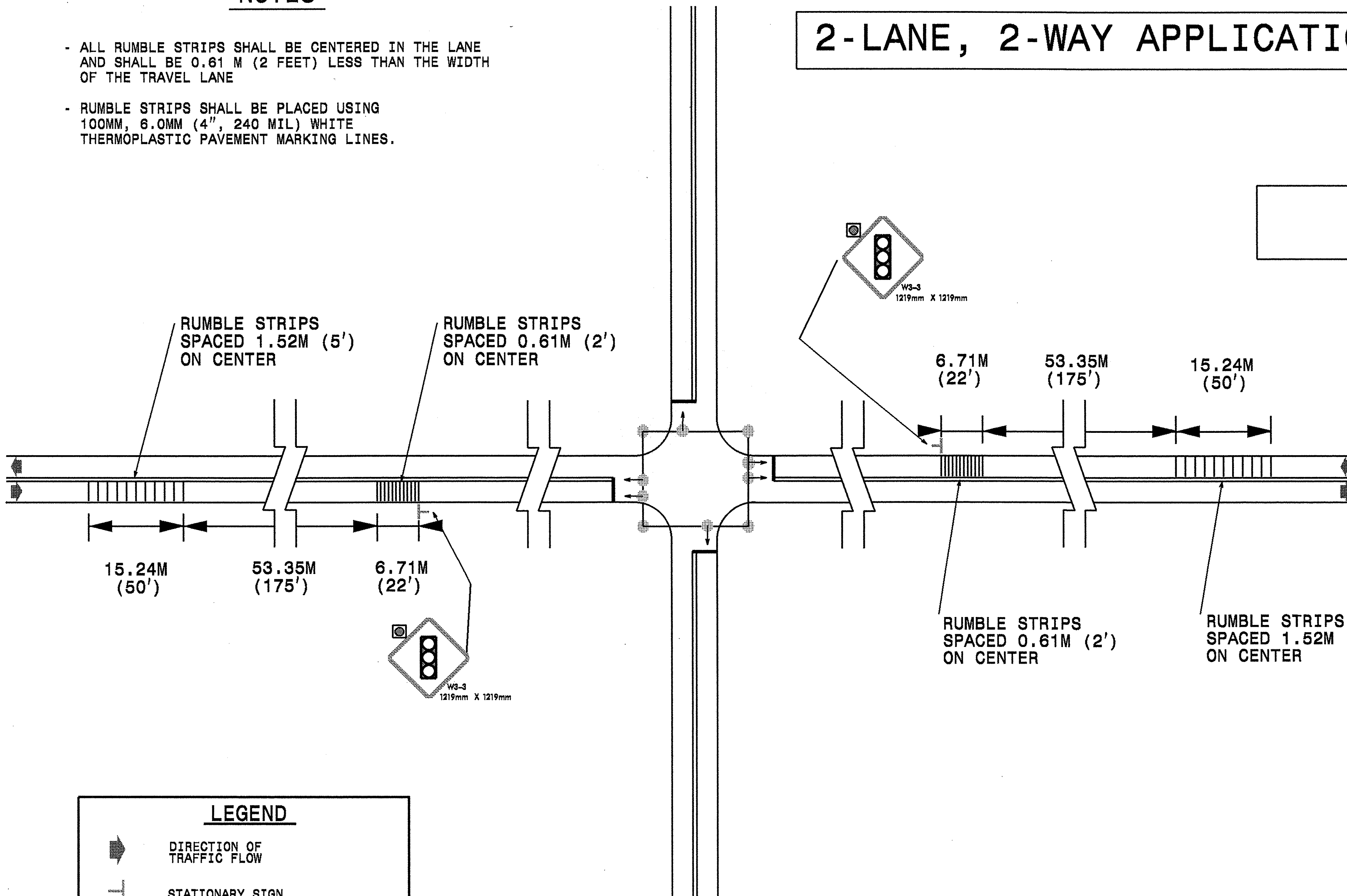
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	4399000000-N TEMPORARY TRAFFIC CONTROL LS	4685000000-E 4" X 90 M WHITE THERMO LF	4685000000-E 4" X 90 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4687000000-E THERMOPLASTIC PAVEMENT MARKING LINES RUMBLE STRIPS (4", 240 MILS) LF	4695000000-E 8" X 90 M WHITE THERMO LF	4695000000-E 8" X 90 M YELLOW THERMO LF	4697000000-E 8" X 120 M WHITE THERMO LF	4705000000-E 16" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO RXR 120 M EA	4721000000-E THERMO MSG ONLY 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO STR & LT ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4820000000-E 8" WHITE PAINT LF	4900000000-N CRYSTAL & RED MARKERS EA	4900000000-N YELLOW & YELLOW MARKERS EA
6CR.10261.78	Cumberland	3	NC 87	FRON SR 3828-US 401 BUS (MP 14.5) TO PVMT JT (MP 17.71)	6	3.21	74	*	36,000	36,000	12,245			8,550								15					48,245	36,000	8,550	1,100	
		"	"		6	3.1	18																									
TOTAL FOR MAP NO. 3						6.31		*	36,000	36,000	12,245			8,550								15					48,245	36,000	8,550	1,100	
TOTAL FOR PROJ NO. 6cr.10261.78						6.31		*	36,000	36,000	12,245			8,550								15					48,245	36,000	8,550	1,100	
									72,000		12,245			8,550								15					84,245			1,100	
6CR.10431.78	Harnett	1	US 421 B	FROM PVMT JT @ I-95 (MP 1.92) TO SR 1718 (MP 3.88)	7	1.78	40	*	800		7,850	23,550		75	765	1,200	200	725	8	8		16	10	10	25	25				400	200
		"	"		1	0.18	40																								
TOTAL FOR MAP NO. 1						1.96		*	800		7,850			75	765	1,200	200	725	8	8		16	10	10	25	25				400	200
6CR.10431.78	Harnett	2	US 421	FROM SR 1265 (MP 25.51) TO PVMT JT @ LILLINGTON CITY LIMITS (MP 19.31)	1	6.2	30	*	64,000			54,440																		425
TOTAL FOR MAP NO. 2						6.2		*	64,000			54,440																		425
TOTAL FOR PROJ NO. 6CR.10431.78						8.16		*	64,800		7,850	77,990		75	765	1,200	200	725	8	8		16	10	10	25	25				400	625
									64,800		85,840			840						16			86							1,025	
6CR.20261.78	Cumberland	12	SR 3876	FROM DE (MP 0.00) TO DE (MP 0.23)	2	0.23	27																								
TOTAL FOR MAP NO. 12						0.23																									
6CR.20261.78	Cumberland	13	SR 3877	FROM SR 1400 (MP 0.00) TO SR 3876 (MP 0.01)	2	0.01	30																								
TOTAL FOR MAP NO. 13						0.01																									
6CR.20261.78	Cumberland	14	SR 1714	FROM SOUTHERN PVMT JT @ I-295 (MP 5.95) TO PVT JT IN WADE (MP 12.27)	1	6.32	22	*	67,000		1,190	58,150			1,195			30		12		7	12	3		1				60	510
TOTAL FOR MAP NO. 14						6.32		*	67,000		1,190	58,150			1,195			30		12		7	12	3		1				60	510
6CR.20261.78	Cumberland	15	SR 1707	FROM SR 1700 (MP 2.4) TO (MP 1.20)	5	1.2	2	*									100	80	4							26,000				
TOTAL FOR MAP NO. 15						1.2		*									100	80	4							26,000				
6CR.20261.78	Cumberland	16	SR 1700	FROM SR 1707 (MP 4.30) TO SR 1702 (MP 5.14)	4	0.84	24	*																		18,000	15,300			
TOTAL FOR MAP NO. 16						0.84		*																		18,000	15,300			
6CR.20261.78	Cumberland	17	SR 1700 B	FROM SR 1702 (MP 5.14) TO LINDEN TOWN LIMIT (MP 7.15)	5	2.01	2	*																		44,000				
TOTAL FOR MAP NO. 17						2.01		*																		44,000				
6CR.20261.78	Cumberland	18	SR 1700 C	FROMSR 1710 (MP 0.00) TO SR 1707 (MP 4.30)	5	4.32	2	*																		92,000				
TOTAL FOR MAP NO. 18						4.32		*																		92,000				
6CR.20261.78	Cumberland	19	SR 1600	FROM PVMT JT @ FT. BRAGG GATE (MP 3.62) TOO SR 1605 (MP 5.20)	3	1.58	24		17,000			14,450																		225
TOTAL FOR MAP NO. 19						1.58			17,000			14,450																		225
6CR.20261.78	Cumberland	20	SR 2238	FROM SR 2252 (MP 0.00) TO NC 87 (MP 3.68)	2	3.68	24.5	*	39,000	250	1,285	38,950	250	100	1,610			80					21	5						104	355
TOTAL FOR MAP NO. 20						3.68		*	39,000	250	1,285	38,950	250	100	1,610			80					21	5						104	355
6CR.20261.78	Cumberland	21	SR 2239	FROM SR 2245 (MP 0.00) TO SR 2238 (MP 2.47)	2	2.47	20																				54,000	45,900			
TOTAL FOR MAP NO. 21						2.47																				54,000	45,900			
6CR.20261.78	Cumberland	22	SR 1723	FROM SR 1722 (MP 0.00) TO PVMT JT @ SR 1700 (MP 2.43)	1	2.43	22																				52,000	44,200			
TOTAL FOR MAP NO. 22						2.43																				52,000	44,200			
TOTAL FOR PROJ NO. 6cr.20261.78						25.09		*	123,000	250	2,475	111,550	250	100	2,805		100	190	4	12		7	33	8		1	286,000	105,400		164	1,090
									123,250		114,025			2,905						16			49				391,400			1,254	
6CR.20431.78	Harnett	4	SR 1718	FROM US 421 (MP 0.00) TO 0.57 MILES WEST OF US 421(MP 0.57)	7	0.48	44	*	1,600		900	7,000		3,000	415			275		20		6	10	6		6				150	125
		"	"		1	0.09	34																								
TOTAL FOR MAP NO. 4						0.57		*	1,600		900	7,000		3,000	415			275		20		6	10	6		6				150	125
6CR.20431.78	Harnett	5	SR 1139	FROM NC 27 (MP 0.00) TO DEAD END (MP 2.59)	5	2.59	2	*																		56,000				
TOTAL FOR MAP NO. 5						2.59		*																		56,000				
6CR.20431.78	Harnett	6	SR 1125	FROM SR 2064 (MP 0.00) TO SR 1117 (MP 4.34)	2	4.34	23	*										80					1			92,100	78,200			
TOTAL FOR MAP NO. 6						4.34		*										80					1			92,100	78,200			
6CR.20431.78	Harnett	7	SR 1120	FROM3.65 MILES WEST OF SR 2064 (MP 4.02) TO SR 2064 (MP 7.67)	2	2.52	24	*	37,000		225	33,000			530			50			12		1	1					12	275
		"	"			1.13	20.5																								
TOTAL FOR MAP NO. 7						3.65		*	37,000		225	33,000			530			50			12		1	1					12	275
6CR.20431.78	Harnett	8	SR 1230	FROM SR 1231 (MP 1.13) TO SR 1214 (MP 1.91)	8	0.78	19	*																		23,200	20,880			
TOTAL FOR MAP NO. 8						0.78		*																		23,200	20,880			
6CR.20431.78		9	SR 1217	FROM SR 1218 (MP 1.06) TO SR 1229 (MP 0.00)	8	1.05	18	*																		22,900	19,500			
TOTAL FOR MAP NO. 9						1.05		*																		22,900	19,500			
6CR.20431.78	Harnett	10	SR 1210	FROM NC 27 (MP 0.00) TO SR 1209 (MP 1.18)	8	1.74	20	*																		36,400	30,940			
TOTAL FOR MAP NO. 10						1.74		*																		36,400	30,940			
6CR.20431.78	Harnett	11	SR 1235	FROM SR 1291 (MP 0.00) TO SR 1229 (MP 2.36)	9	2.49	22	*							625			100			12		2			52,300	45,600		160	145
TOTAL FOR MAP NO. 11						2.49		*							625			100			12		2			52,300	45,600		160	145
TOTAL FOR PROJ NO. 6CR.20431.78						17.21		*	38,600		1,125	40,000		3,000	1,570			505		20	24	6	14	7		6	282,900	195,120		322	545
									38,600		41,125			4,570						44			33				478,020			867	
GRAND TOTAL						56.77		1	262,400	36,250	23,695	229,540	250	11,725	5,140	1,200	300	1,420	12	40	24	44	57	25	25	32	617,145	336,520	8,550	1,986	2,260
									298,650		253,235			16,865						76			183				953,665			4,246	

PROJ. REFERENCE NO.	SHEET NO.
6CR.10261.78 ETC.	PM-1

2-LANE, 2-WAY APPLICATION

NOTES

- ALL RUMBLE STRIPS SHALL BE CENTERED IN THE LANE AND SHALL BE 0.61 M (2 FEET) LESS THAN THE WIDTH OF THE TRAVEL LANE
- RUMBLE STRIPS SHALL BE PLACED USING 100MM, 6.0MM (4", 240 MIL) WHITE THERMOPLASTIC PAVEMENT MARKING LINES.



LEGEND

- DIRECTION OF TRAFFIC FLOW
- STATIONARY SIGN
- WHITE RUMBLE STRIPS 100MM,6.0MM (4"WIDE, 240MILS) THERMOPLASTIC
- SIGNAL POLE
- SIGNAL HEAD

SHEET OF

APPROVED: ______ DATE: ______

SEAL

THERMOPLASTIC RUMBLE STRIP PLACEMENT

SCALE	NONE
DATE:	04-23-98
DWG. BY:	MMM
DESIGN BY:	MMM
REVIEWED BY:	GLG

REVISIONS

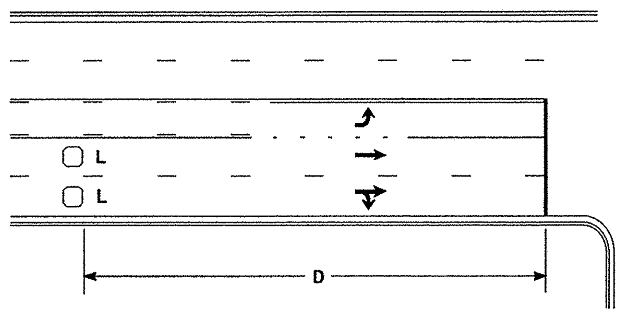
CADD FILE: cp/meredith/2305dhc410rumble.dgn

PROJECT REFERENCE NO.	SHEET NO.
6CR.10261.78	SIG 1

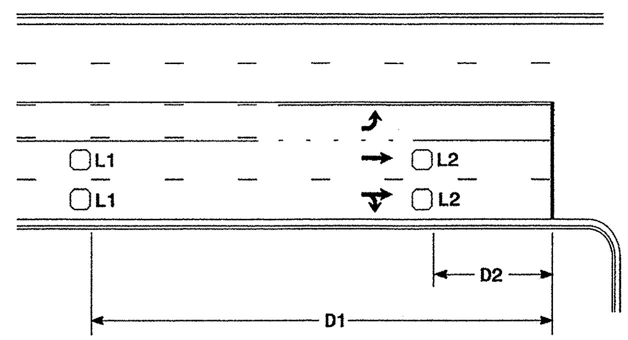
6CR.20261.78
6CR.10431.78
6CR.20431.78

High Speed Detection

[≥40 mph (64 km/hr)]



OR



Speed Limit mph (km/hr)		D 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 Controllers
Wired separately for TS2, 170, and 2070L Controllers

Volume Density Operation

Speed Limit mph (km/hr)		D1 ft	(m)	D2 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)

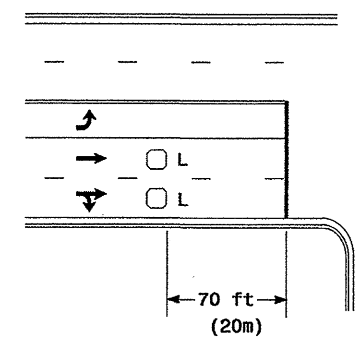
L1 = 6ft X 6ft (1.8m X 1.8m)
Wired in series

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

"Stretch" Operation

Low Speed Detection

[≤35 mph (56 km/hr)]



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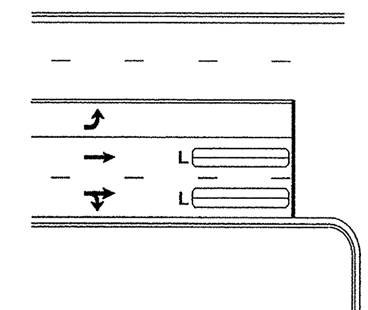
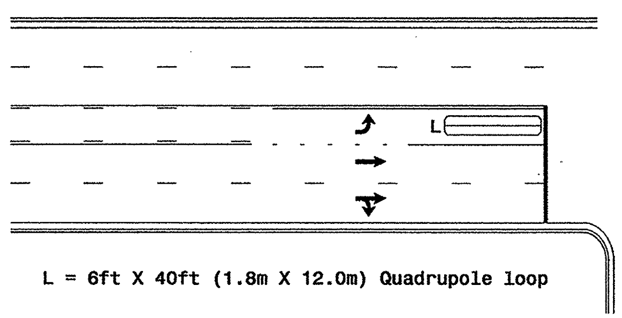


L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop, wired separately

Left Turn Lane Detection



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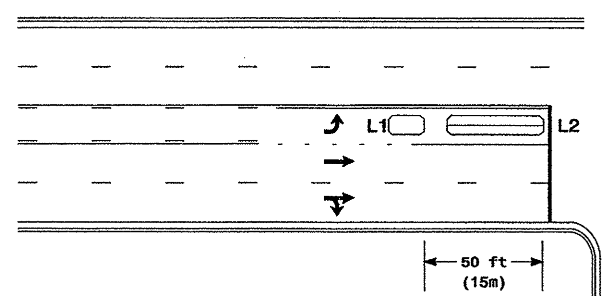


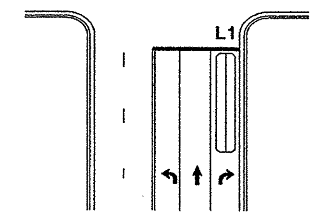
L = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

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

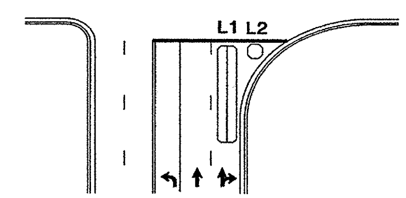
Queue Loop Detection

Right Turn Lane Detection

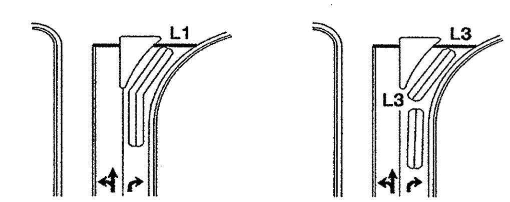


Standard Turn

L1 = 6ft X 40ft (1.8m X 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

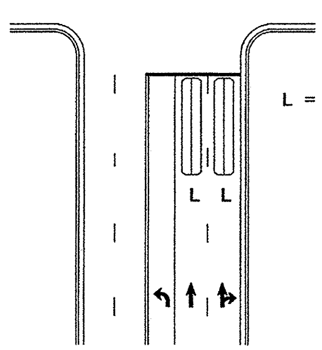


Wide Radius Turn



Channelized Turn

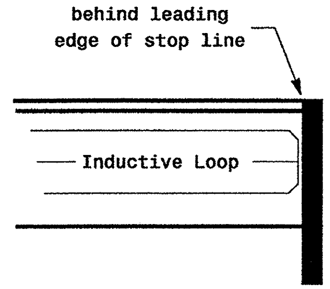
Side Street Detection



L = 6ft X 40ft (1.8m X 12.0m)
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 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.

Recommended Number of Turns

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

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

Prepared in the Offices of:
Traffic Engineering and Safety Systems Branch
State of North Carolina Department of Transportation
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

SCALE
N/A

Typical Loop Locations

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

REVISIONS	INIT.	DATE
∇ Revise pavement marKings	aa	12/19/06

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23488 PAMELA ALEXANDER
SIGNATURE | DATE 6/6/06
SIG. INVENTORY NO.

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