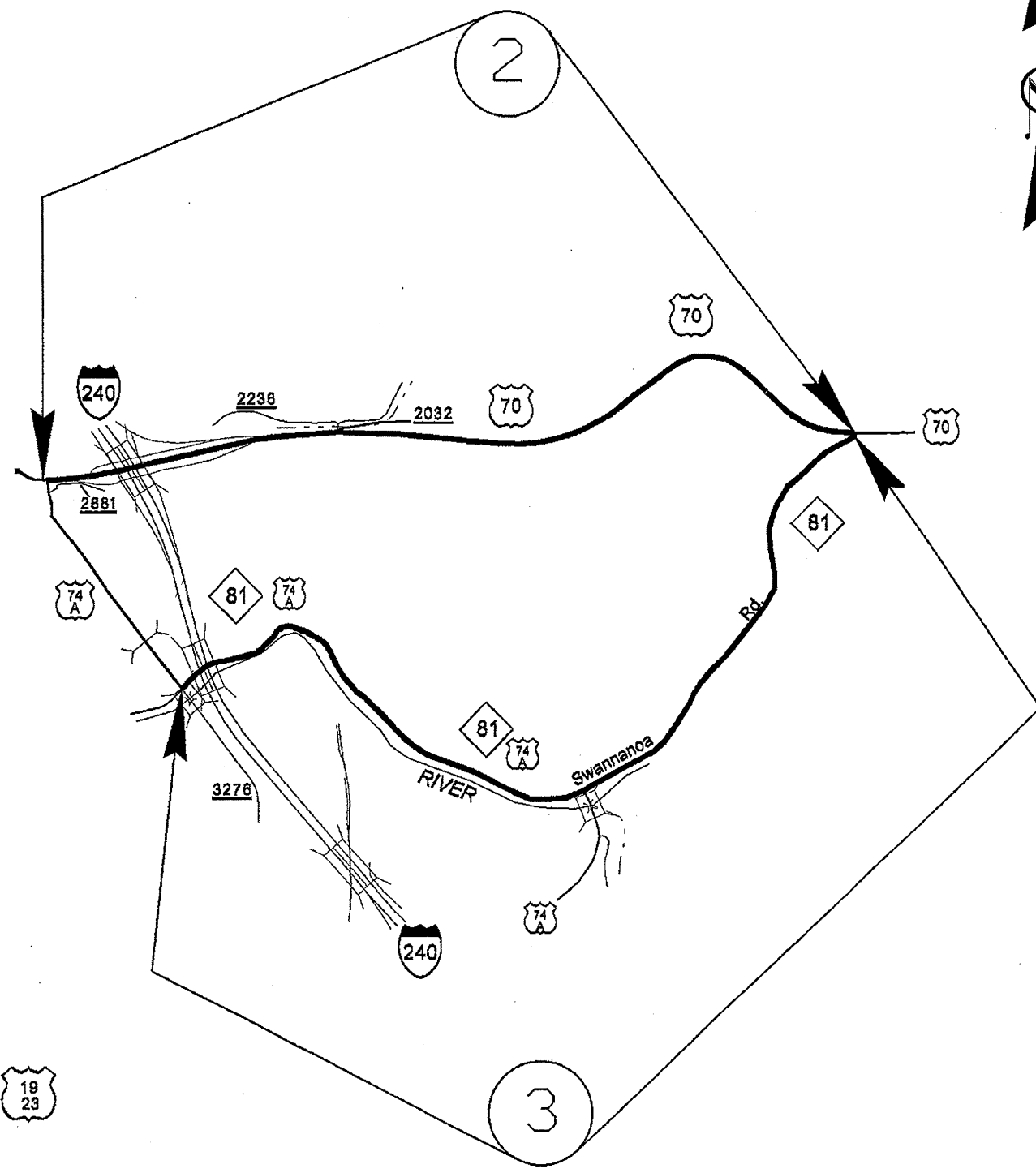
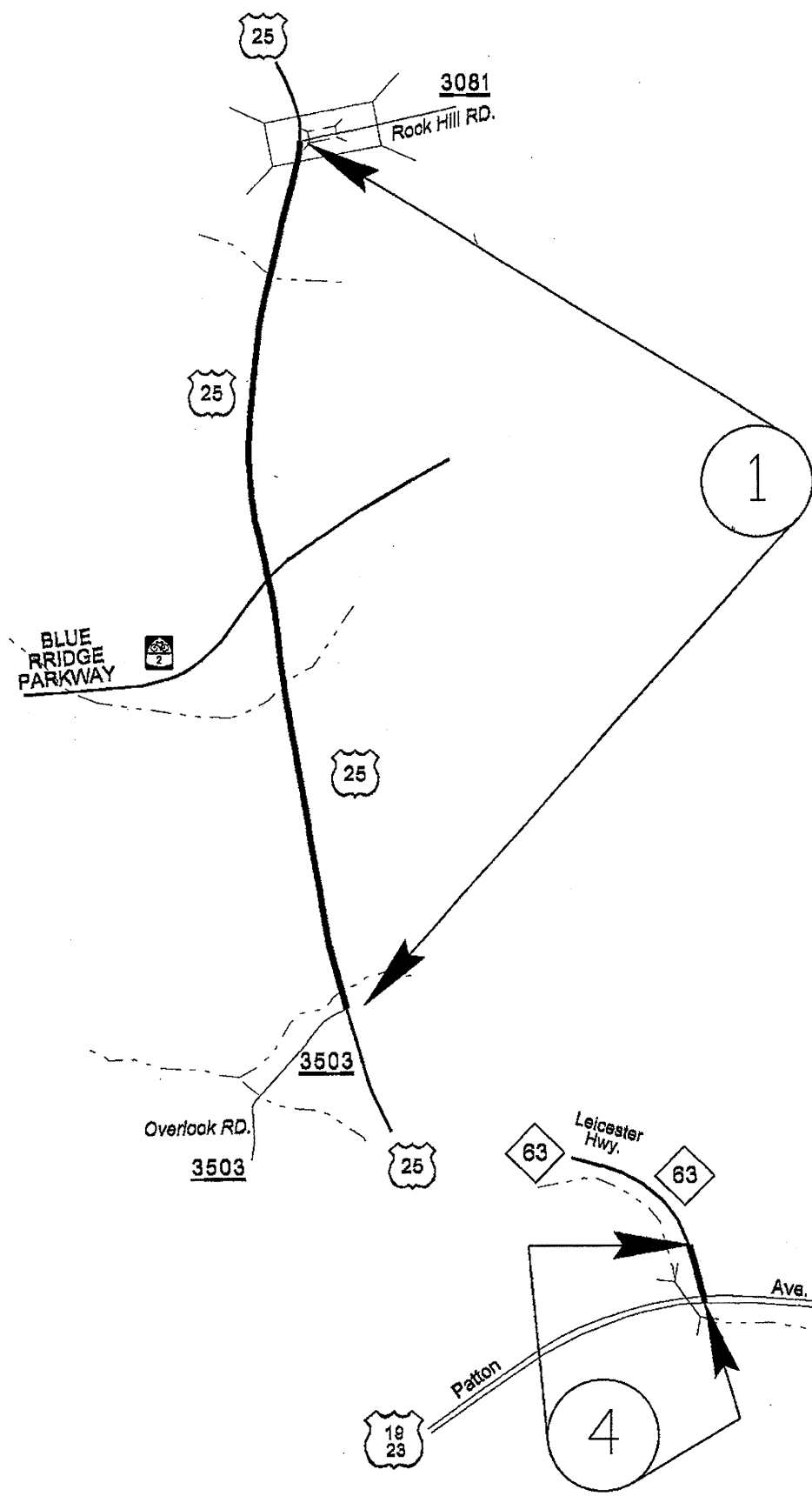
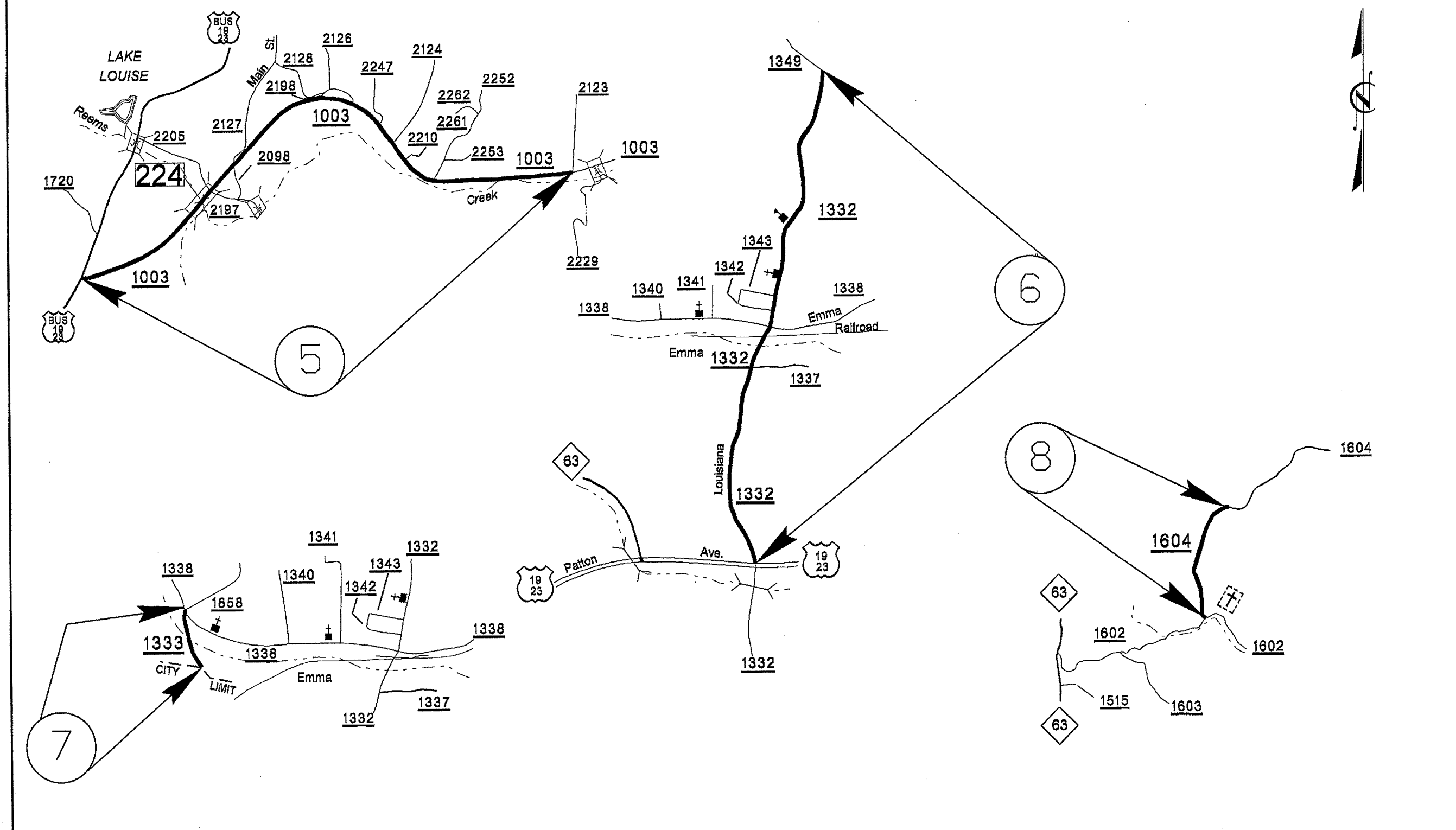


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13 13CR.20111.11	1	



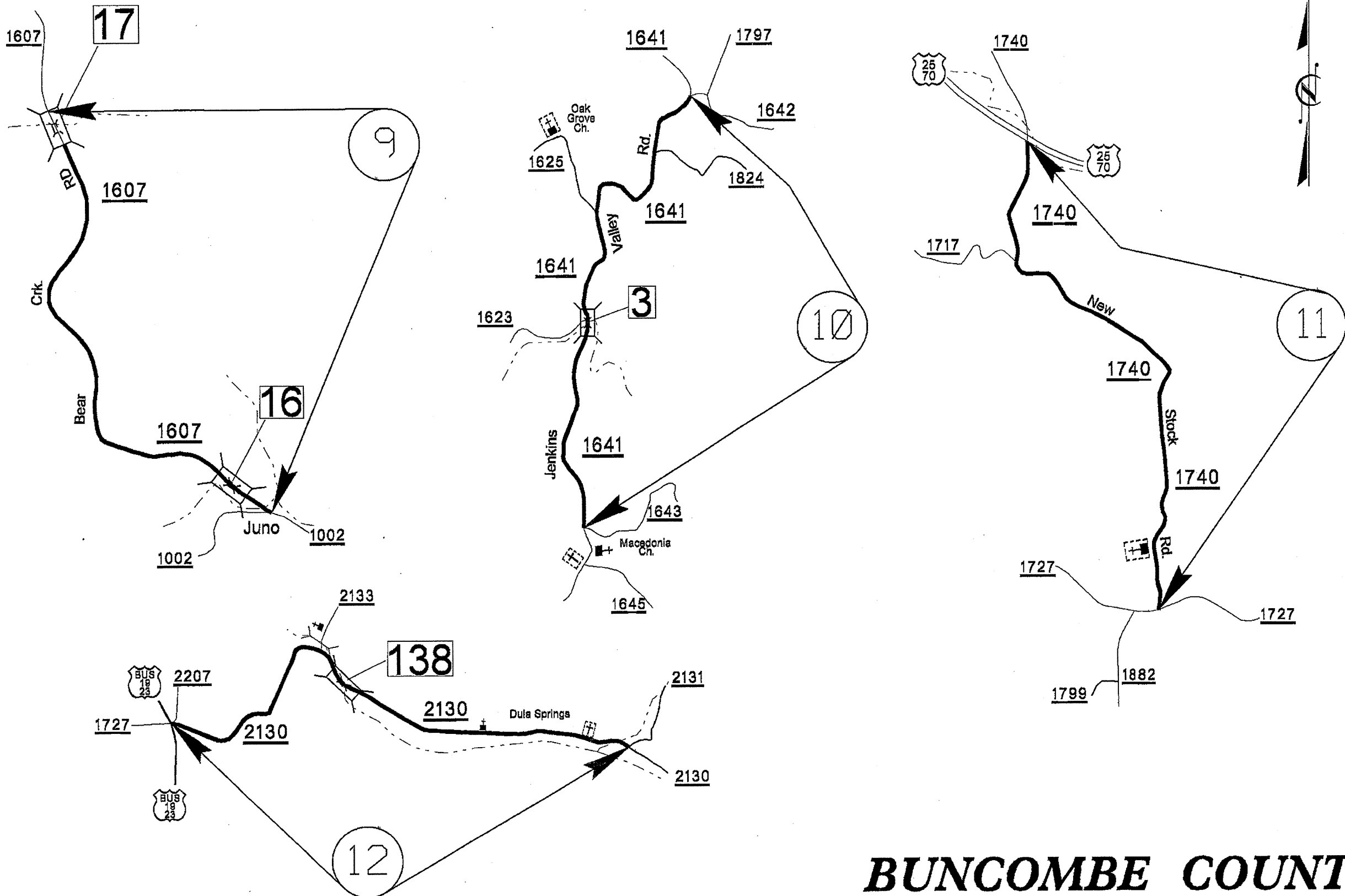
BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13 13CR.20111.11	2	



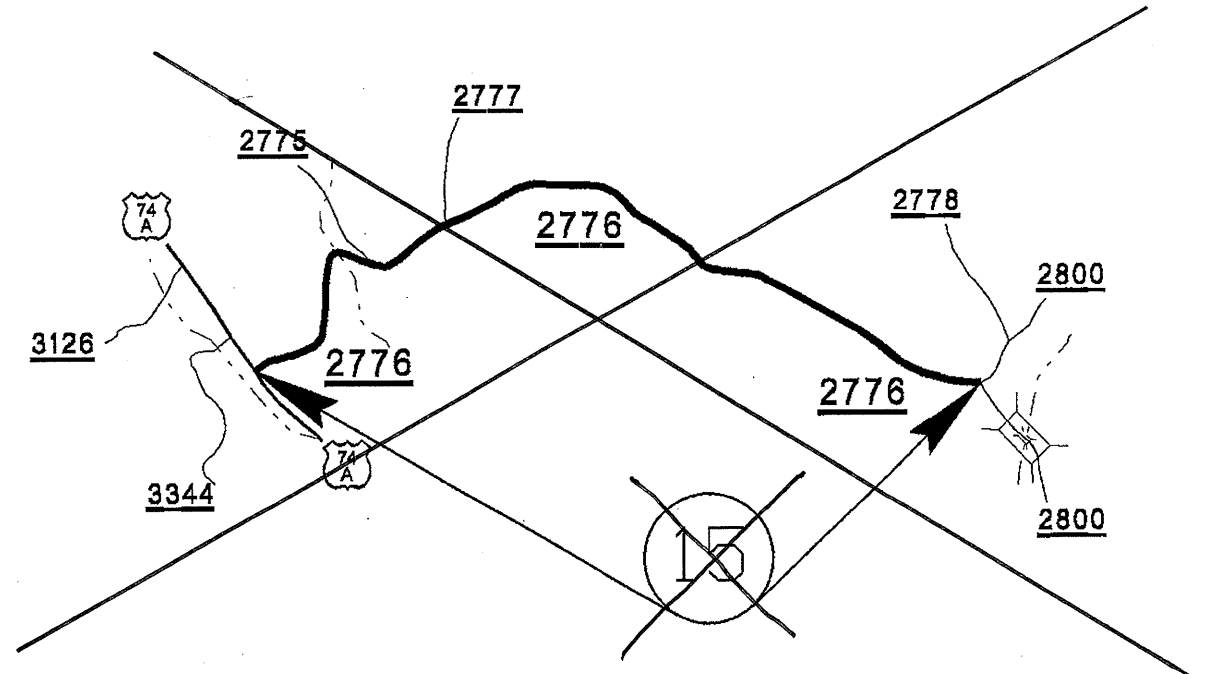
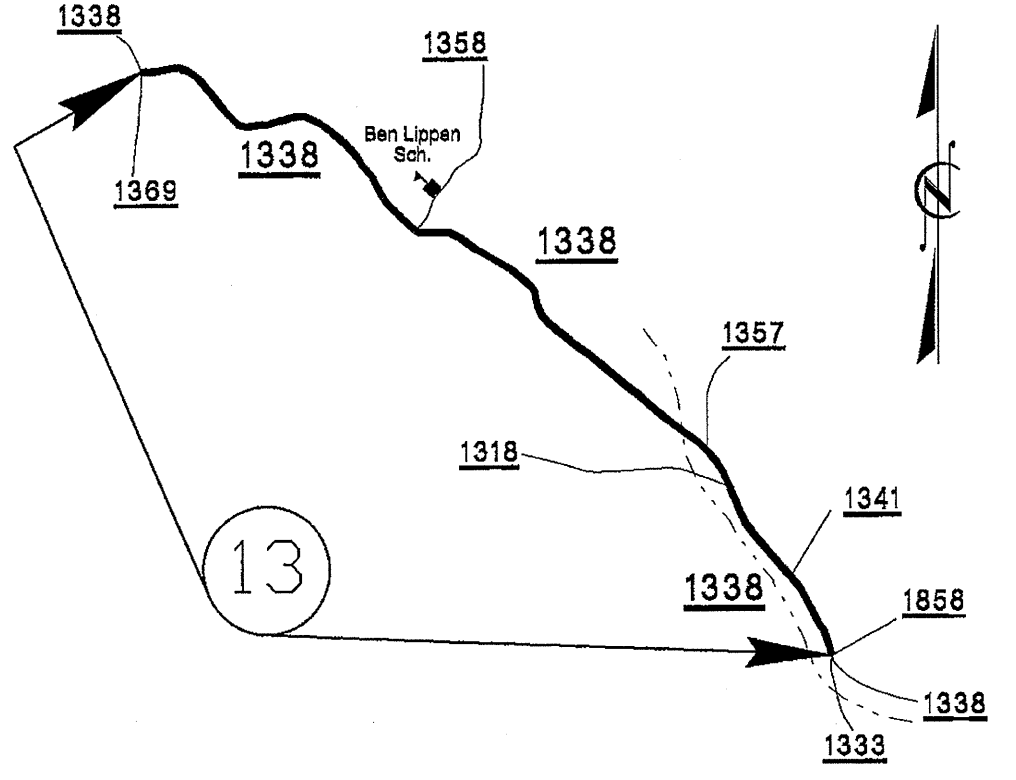
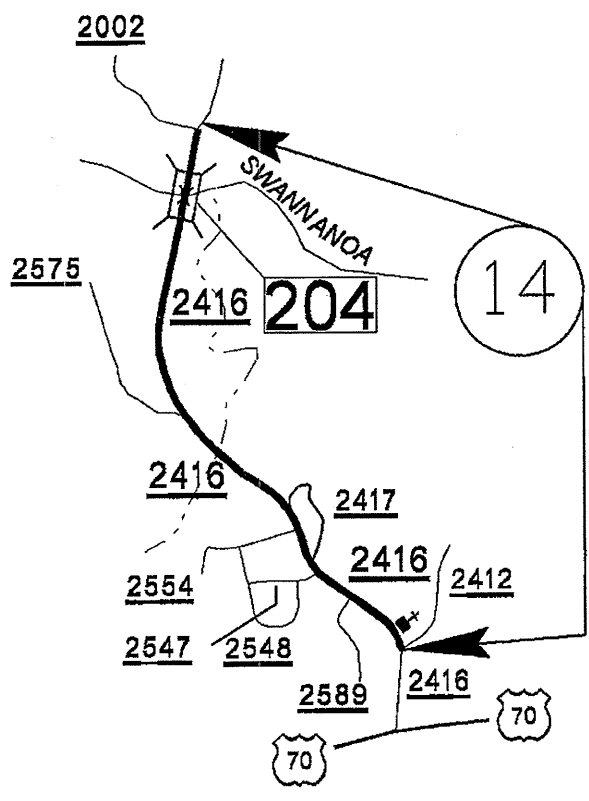
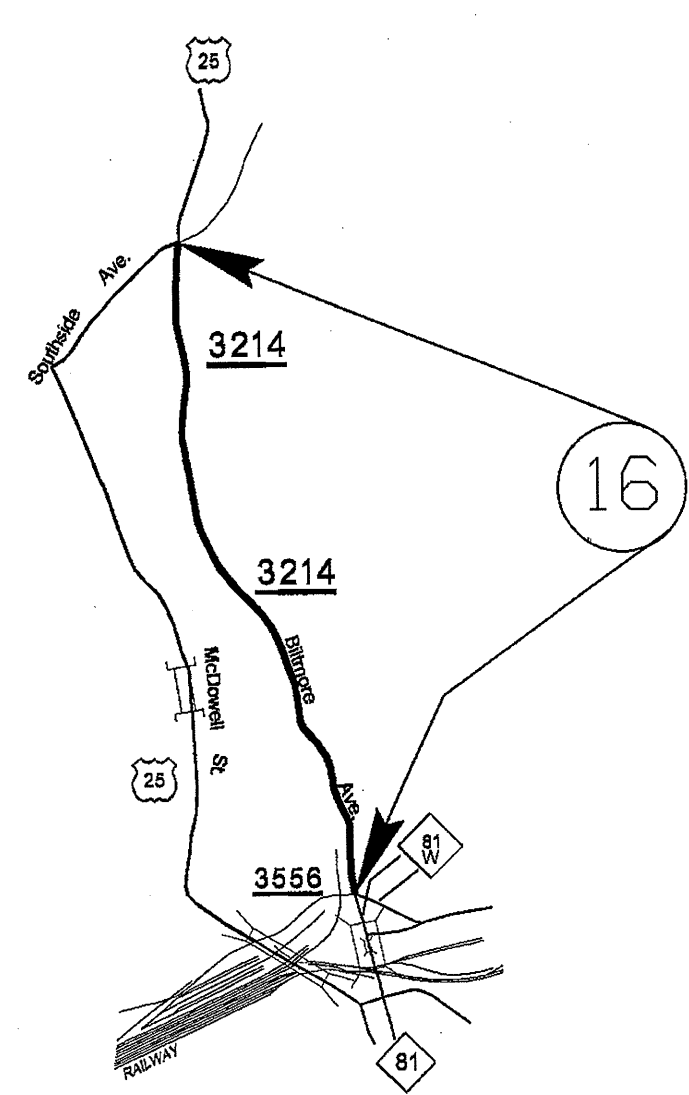
BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.1011.13 13CR.2011.11	3	



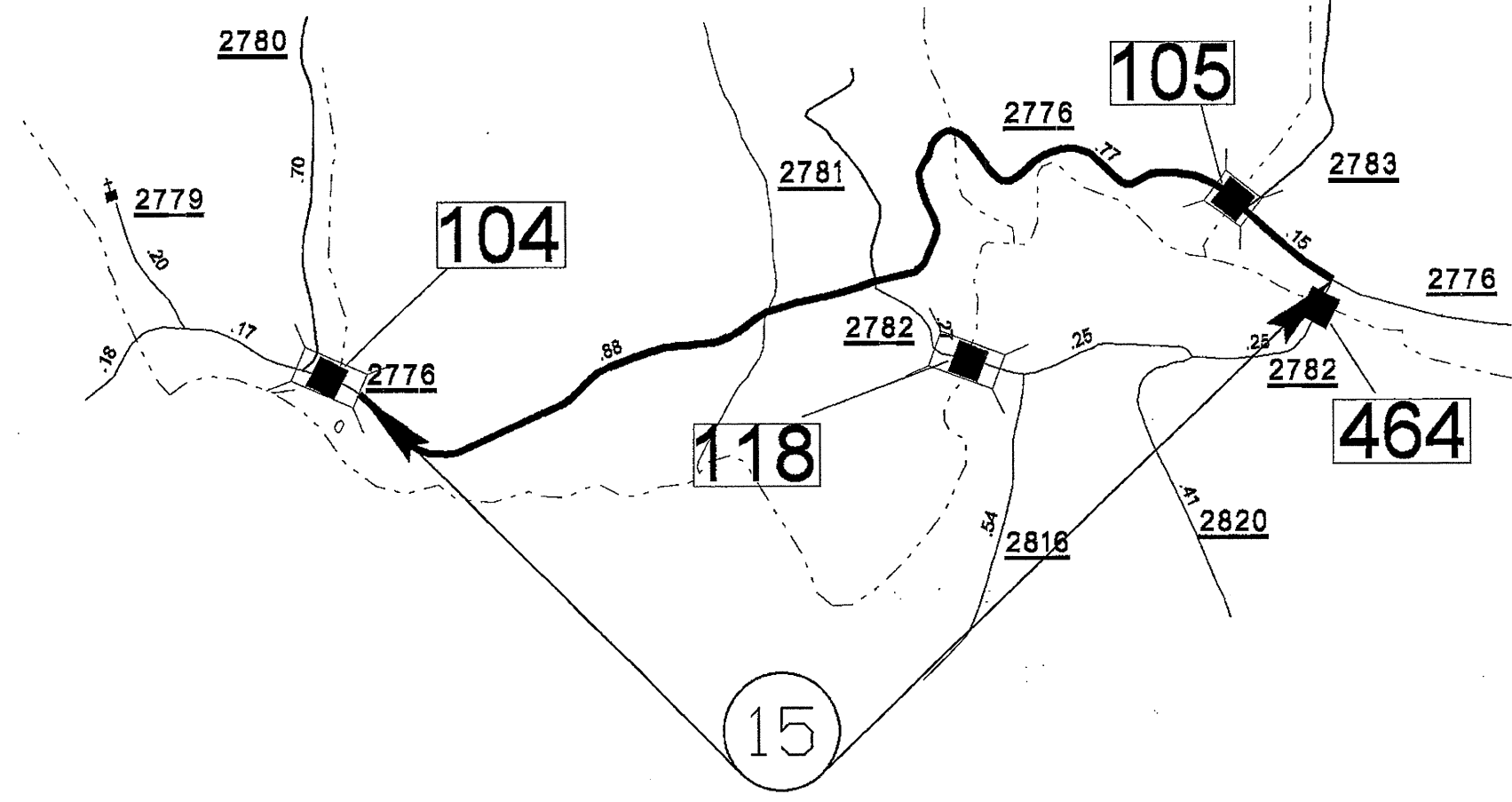
BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13 13CR.20111.11	4	



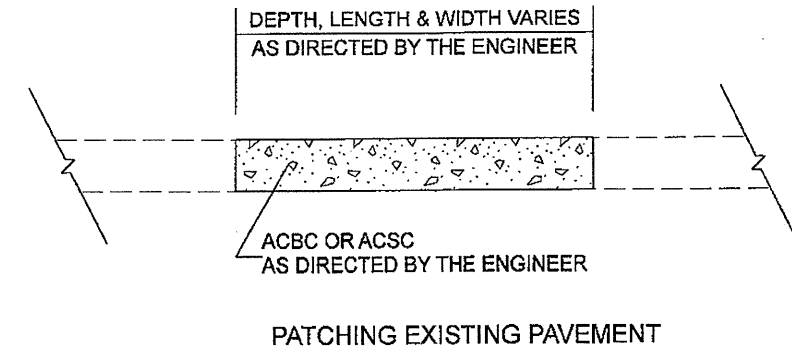
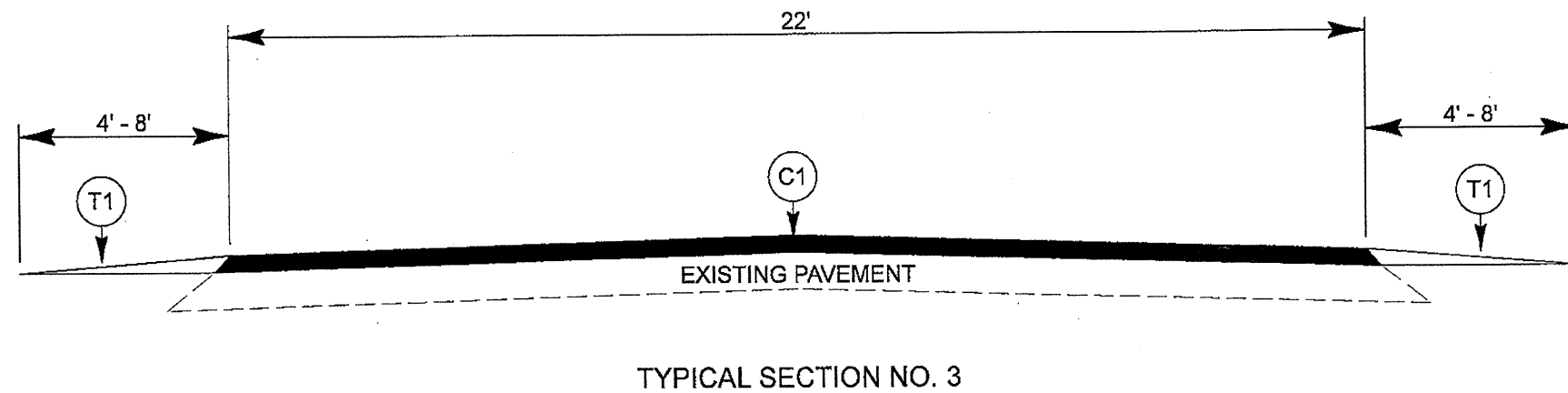
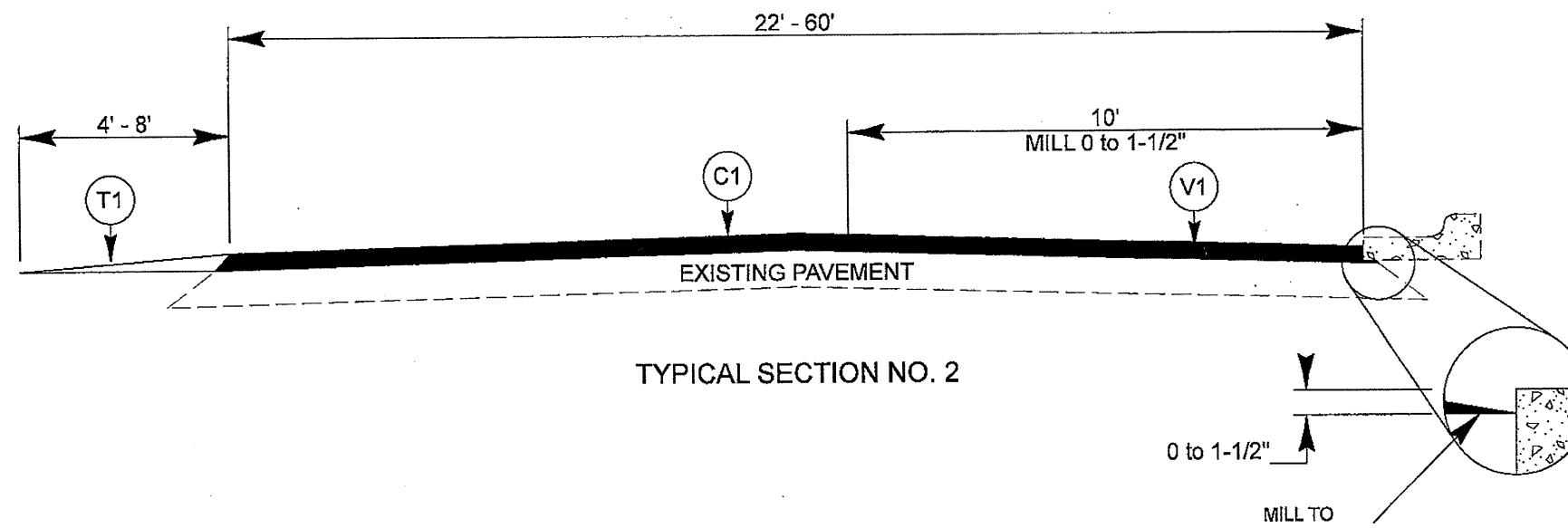
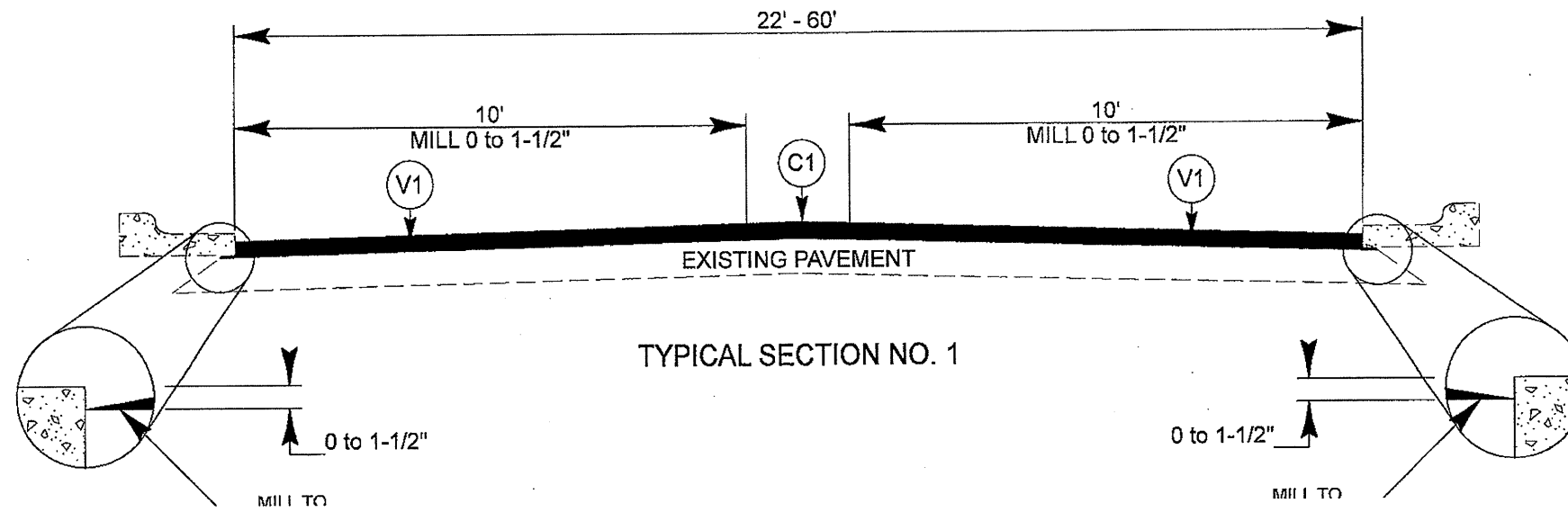
BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13	4-A	
13CR.20111.11		



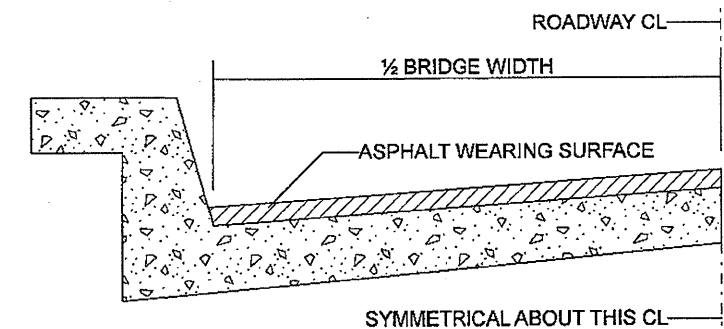
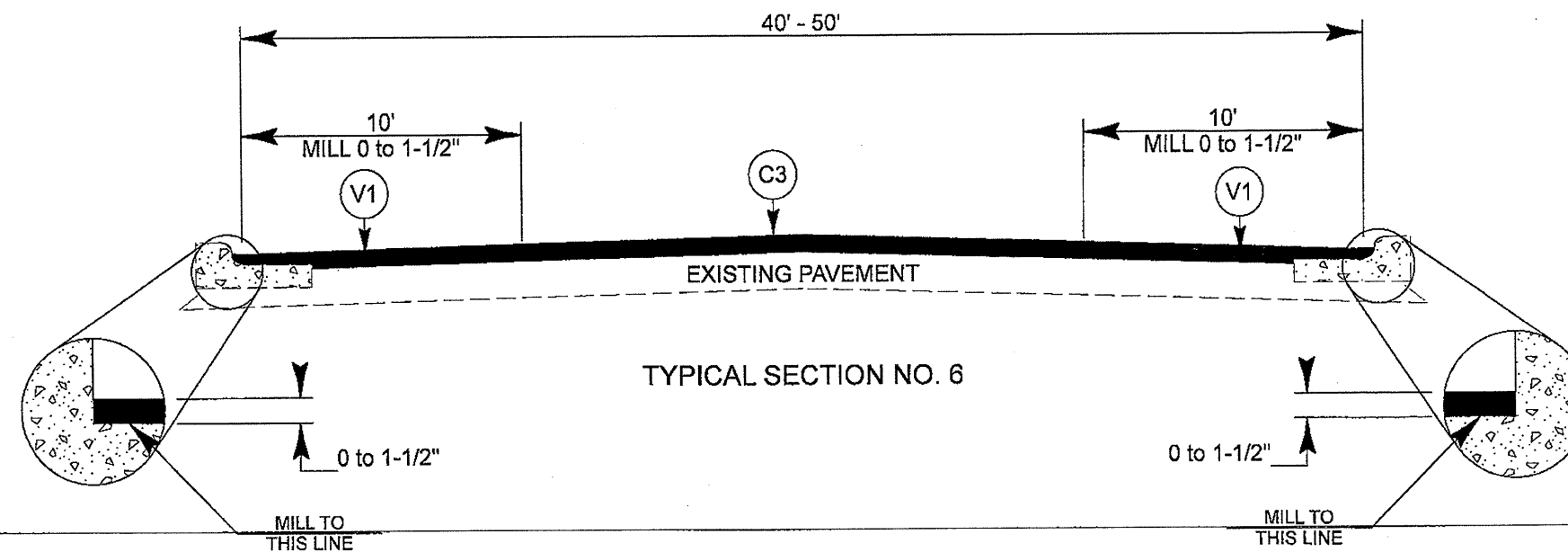
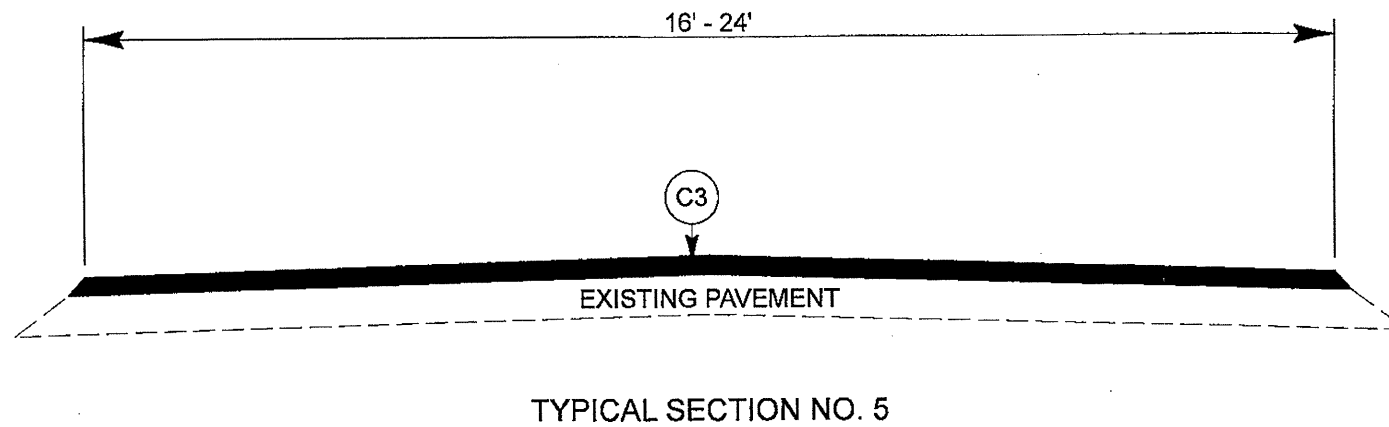
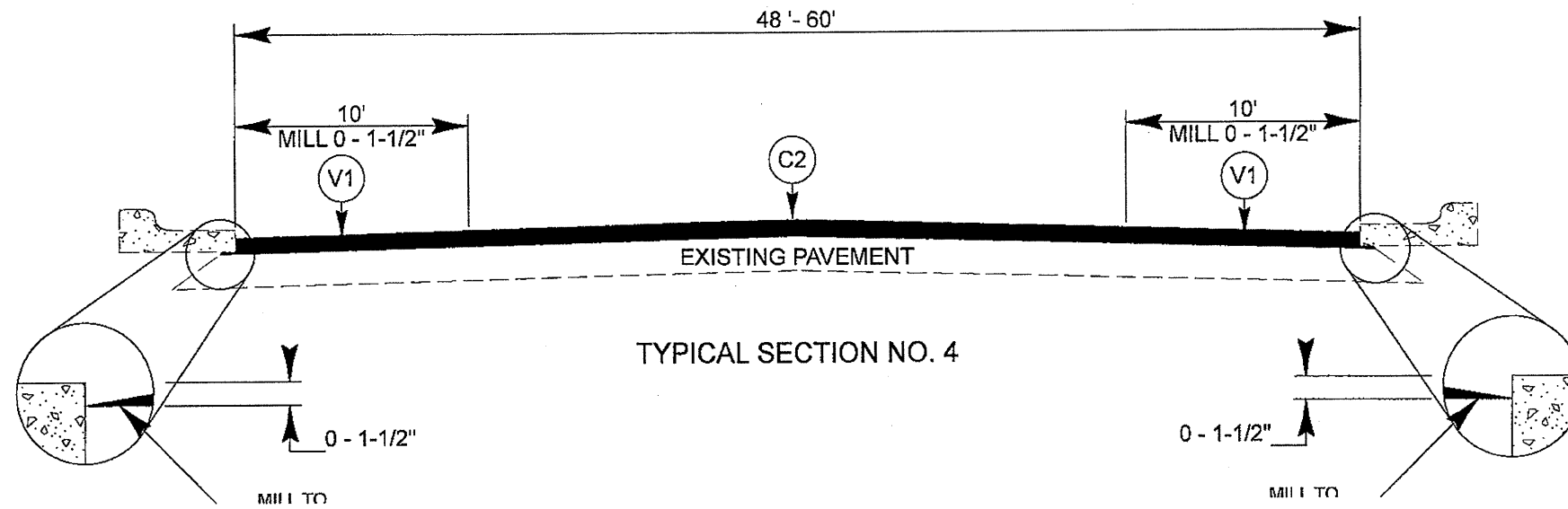
BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13, 13CR.20111.11	5	



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13, 13CR.20111.11	6	



BRIDGE HALF TYPICAL SECTION

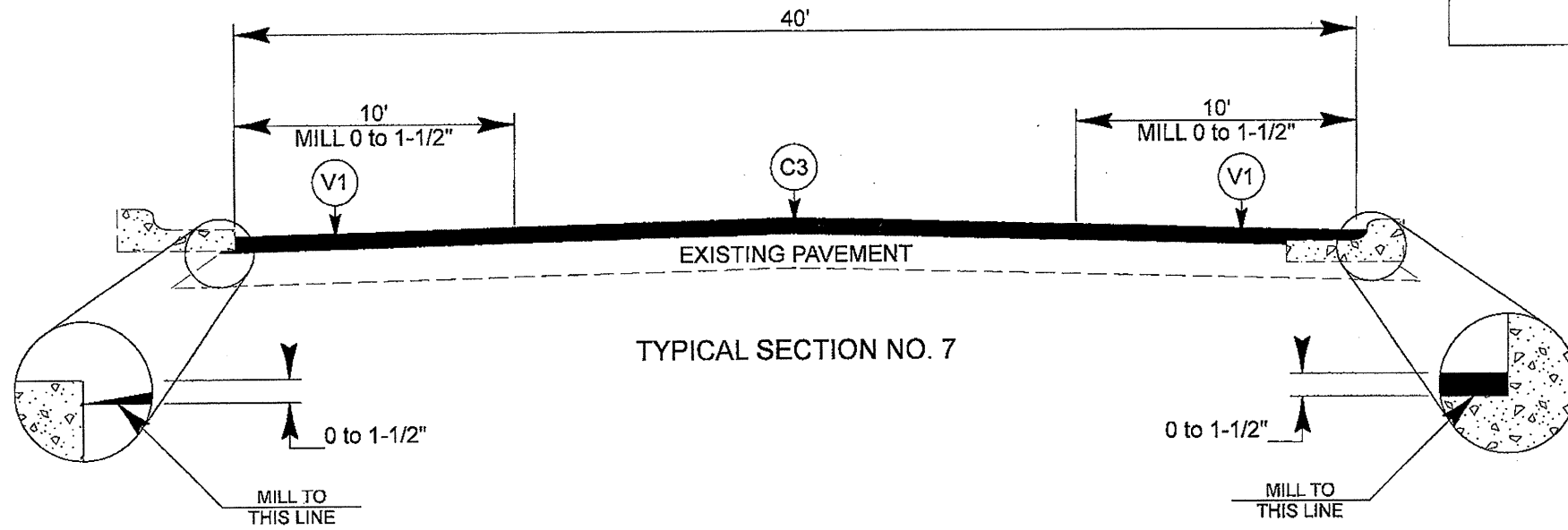
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", SF9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1.0", SF9.5A 1.5", S9.5X 2.0", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2".

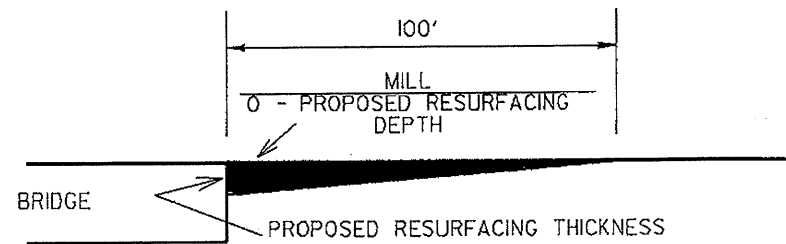
NOTES

ALL UNPAVED ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
 SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.
 BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13, 13CR.20111.11	7	

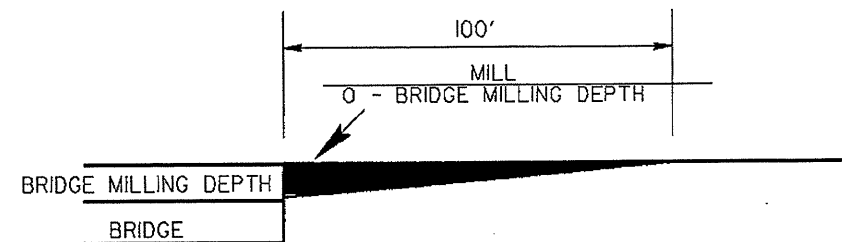


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10111.13 , 13CR.20111.11	8	



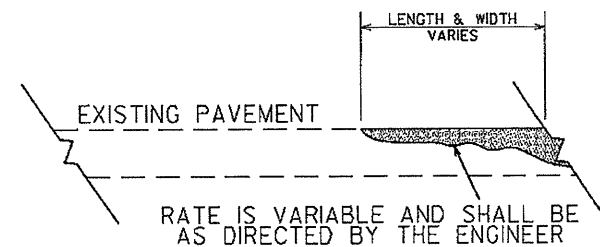
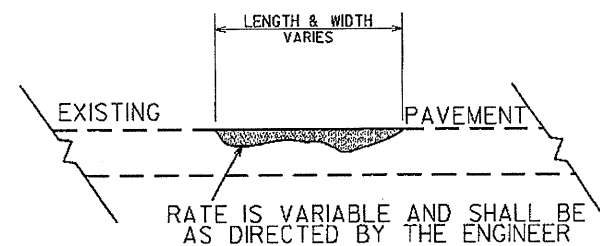
MILLING DETAIL AT BRIDGE APPROACHES
WHERE BRIDGES WILL NOT BE RESURFACED

COST OF BRIDGE APPROACH MILLING IS INCIDENTAL TO OTHER ITEMS

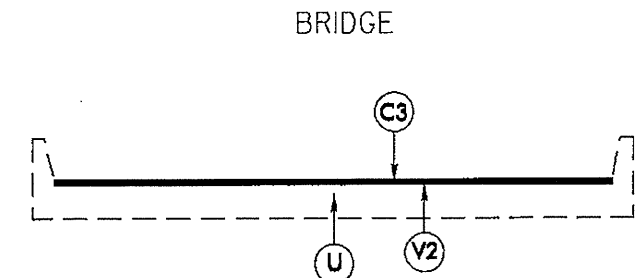


MILLING DETAIL AT BRIDGE APPROACHES

WHERE BRIDGES WILL BE MILLED THEN RESURFACED
COST OF BRIDGE APPROACH MILLING IS INCIDENTAL TO OTHER ITEMS



**DETAIL SHOWING
METHOD OF WEDGING**



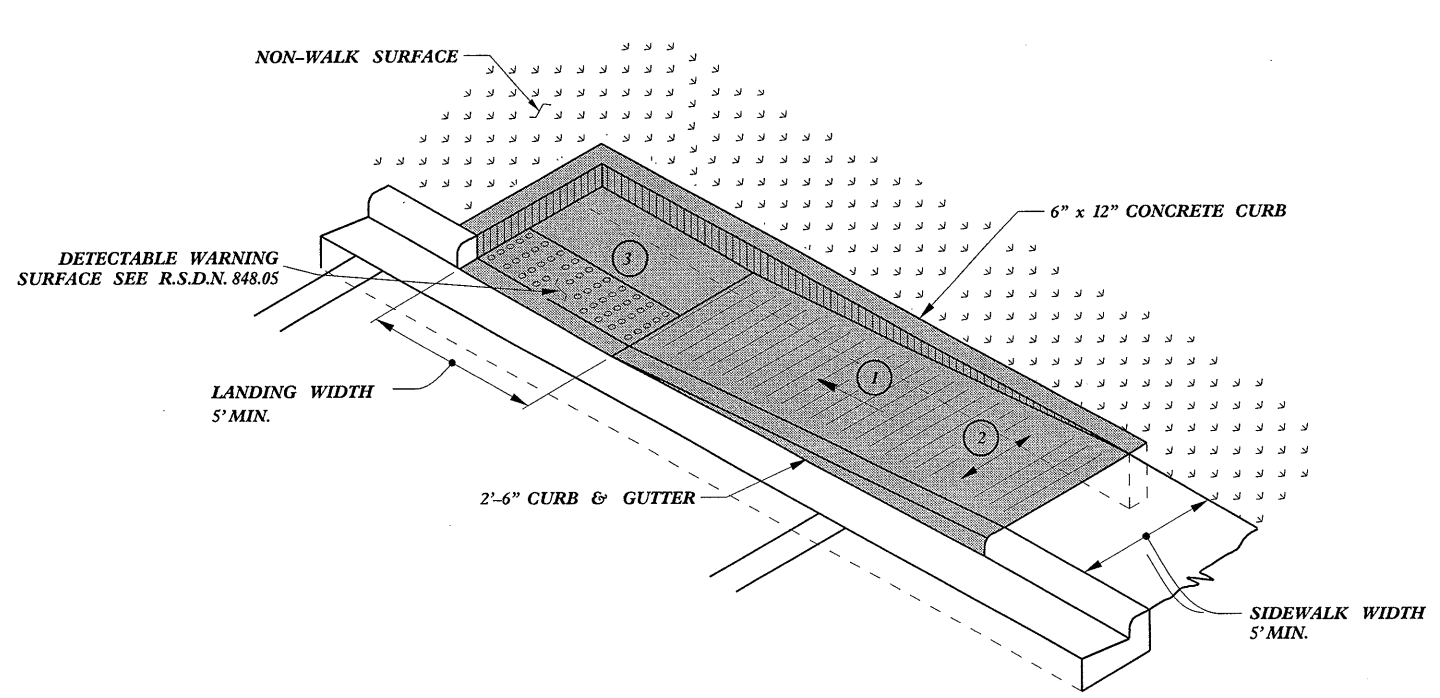
BRIDGE DETAIL

**BRIDGE # 224 MAP 5,
BRIDGE # 16 AND 17 MAP 9,
BRIDGE # 138 MAP 12 AND
BRIDGE # 204 MAP 14,**

**MILL 1½" OFF EXISTING PAVEMENT
SEE MAPS FOR BRIDGE LOCATION**

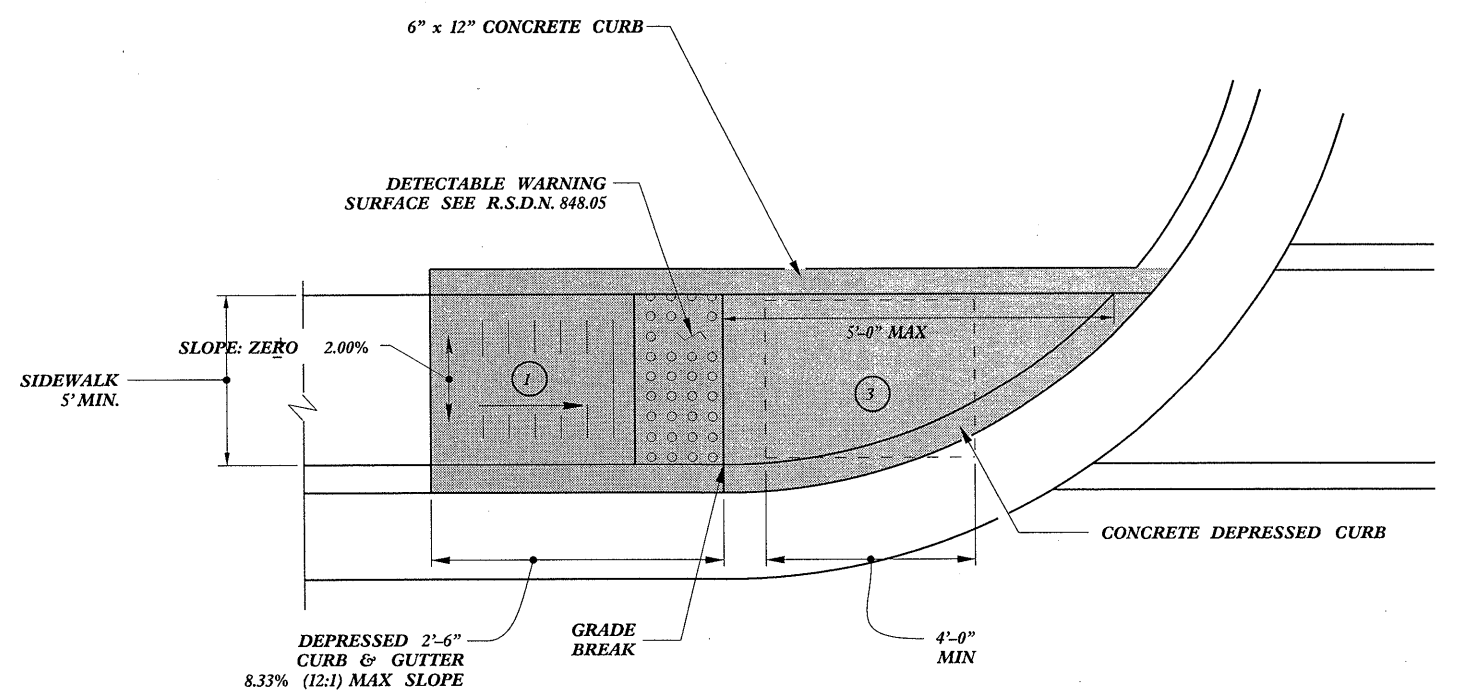
PAVEMENT SCHEDULE	
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.6A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V2	MILLING ASPHALT PAVEMENT, 1½" DEPTH

5/14/09
 I4-SEP-2011 08:03
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 Jhowerton AT 0505750



TYPE 1A

PAY LIMITS FOR CURB RAMP

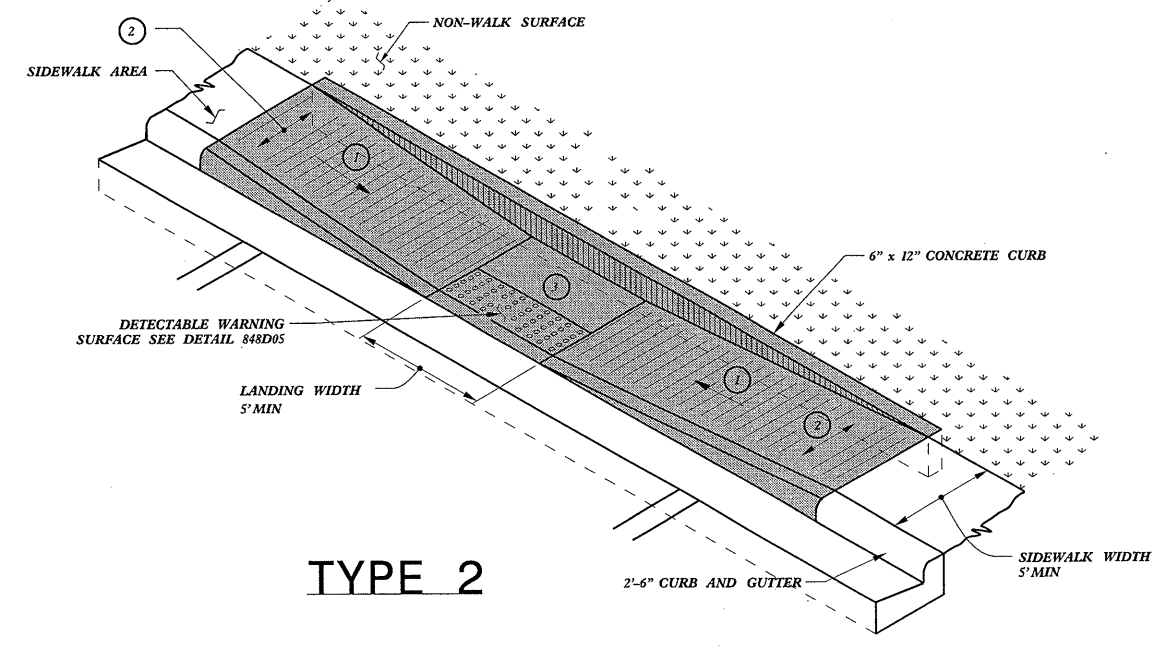


TYPE 1


- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

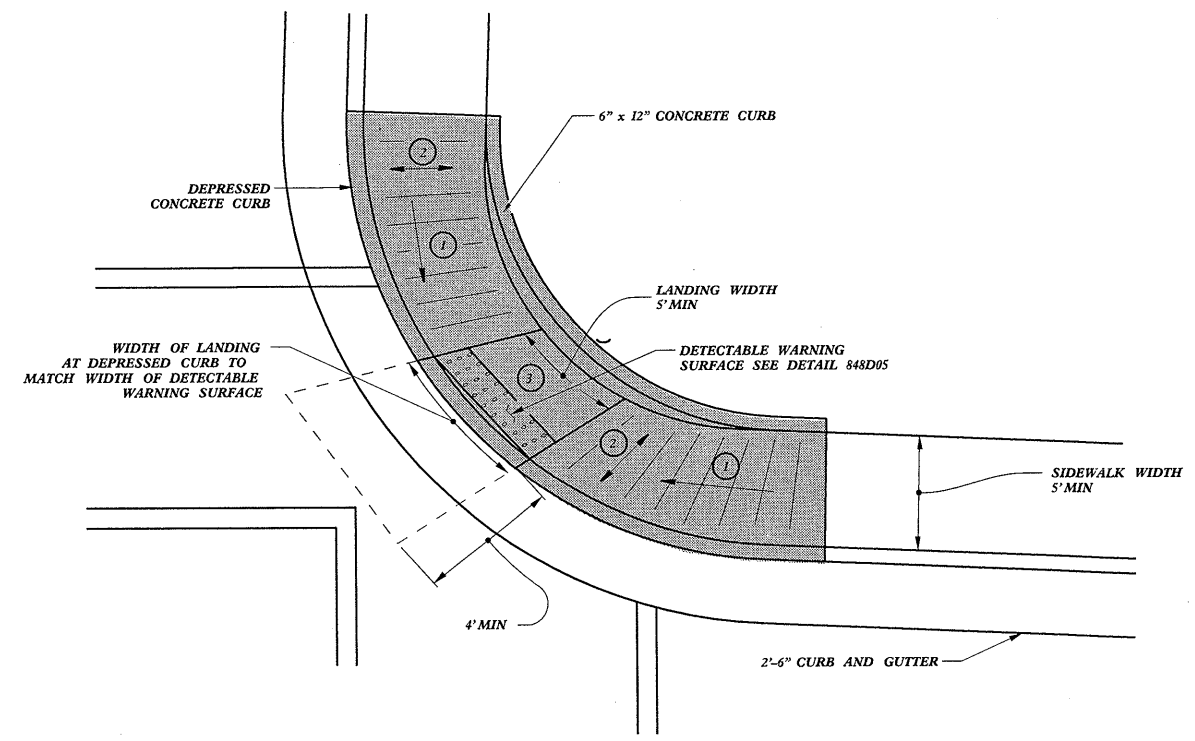
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	



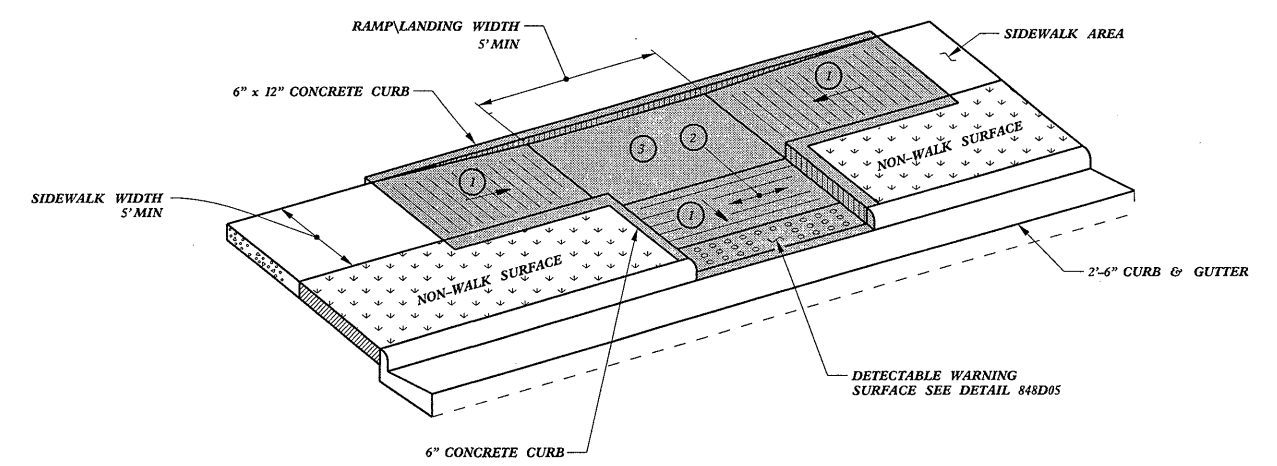
TYPE 2

 PAY LIMITS FOR CURB RAMP

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A

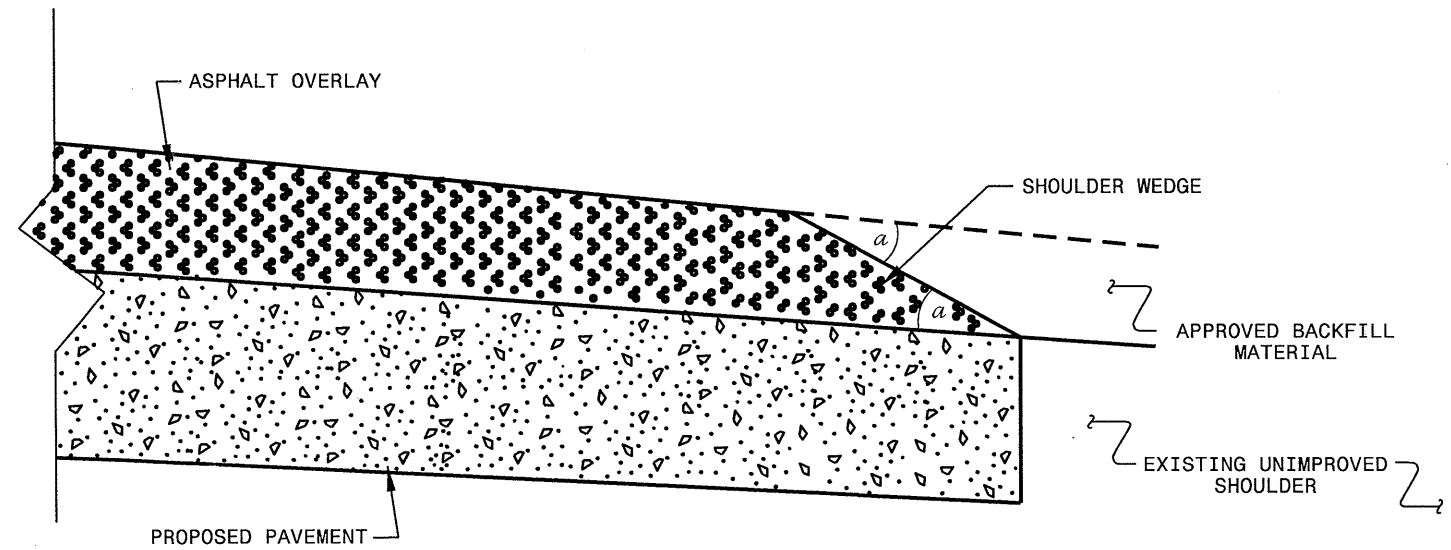


TYPE 3

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

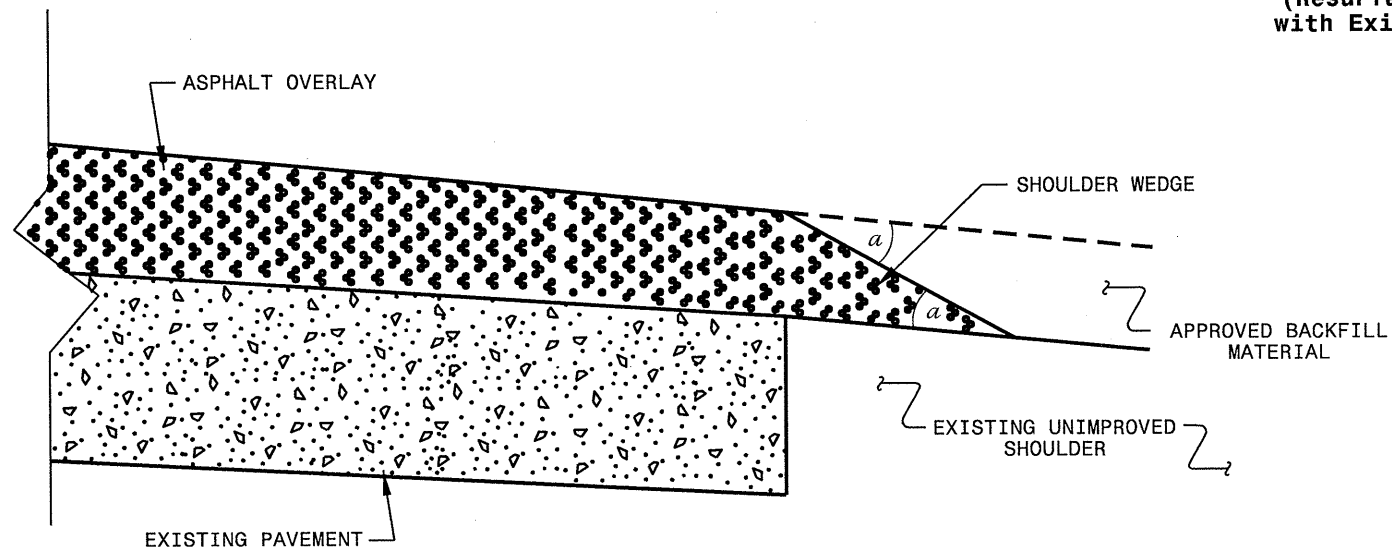
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

14-SEP-2011 08:04 S:\Contracts\Special Details\Howerton\Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder > 2 ft.)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)

- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB 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.

a - 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	

 13CR.1011.13, etc.
 11

PROJECT NO.	SHEET NO.	TOTAL NO.
13CR.10111.13, 13CR.20111.11	12	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	1½" MILLING SY	0" TO 1½" MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5D TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	CONCRETE CURB RAMP (Std. 848.06 and/or detail in plans) EA	RETROFIT EXISTING CURB RAMP (Std. 848.06) EA	ADJUSTMENT OF DROP INLETS EA	ADJUSTMENT OF MANHOLES EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES EA	PORTABLE LIGHTING LS		
13CR.10111.13	Buncombe	1	US 25	FROM SR 3503 (OVERLOOK RD) TO SR 3081(ROCK HILL RD) MP 4.50-6.48	1,2	NO	NO	1.98	60	34.50	0.69		19,184	6,453			387		594	52	10		9	11	1		
		2	US 70	FROM S. TUNNEL TO NC 81 MP 16.685 - 18.785	1,2	NO	NO	2.10	60	20.00	0.20		24,640	6,844			411		630	1			18				
		3	NC 81/US 74A, NC 81	FROM US 74A (S. TUNNEL RD.) TO US 70 MP 8.747-9.937 (NC81/US 74A), MP 3.08-4.23 (NC 81)	1,2,3	NO	NO	2.34	22	117.00	4.32		1,750	2,806			168		702				11	1			
		4	NC 63	FROM US 19/23 (PATTON AVE) TO 200 FEET NORTH MP 0.013-0.051	4	NO	NO	0.04	48 - 60				470		124			7	11								
TOTAL FOR PROJ NO. 13CR.10111.13								6.46		171.50	5.21		46,044	16,103	124		966	7	1,937	53	10		38	12	1		
13CR.20111.11	Buncombe	5	SR1003 REEMS CREEK	FROM US 19 TO SR2123 (MP 0.0 - MP 2.156)	5	NO	NO	2.16	18	107.80		440				2,080	139		647								
		6	SR1332 N. LOUISIANA	FROM US 19 TO SR1349 (MP0.61 - MP1.96)	5	NO	NO	1.35	24	67.50						1,734	116		405				15	6			
		7	SR1333 HAZEL MILL RD	FROM CITY LIMITS TO SR1338 (MP0.0 - MP0.16)	5	NO	NO	0.16	16	8.00						137	9		48								
		8	SR1604 PINEY KNOB RD	FROM SR1602 TO PVMT CHG (MP0.0 - MP 1.0)	5	NO	NO	1.00	20	50.00						1,071	72		300								
		9	SR1607 BEAR CREEK RD	FROM SR1002 TO BRIDGE NO. 17 (MP0.0 - MP1.38)	5	NO	NO	1.38	20	69.00		555				1,479	99		414								
		10	SR1641 JENKINS VALLEY RD	FROM SR 1642 HAROLD SLUDER RD TO SR 1643 OLD MACEDONIA MP 1.72-3.60	5	NO	NO	1.88	20	94.00						2,014	135		564								
		11	SR1740 NEW STOCK RD	FROM SR1727 TO US25 (MP0.0 - MP1.47)	5	NO	NO	1.47	20	73.50						1,575	106		441								
		12	SR 2130 DULA SPRING RD	FROM US19 BUS TO SR2131 (MP0.0 - MP1.95)	5	NO	NO	1.95	18	97.50		60				1,882	126		585								
		13	SR1338 EMMA RD	FROM SR 1333 TO SR 1369 (MP1.58 - MP3.5)	5	NO	NO	1.92	18	96.00						1,853	124		576			2		9			
		14	SR2416 WARREN WILSON COLLEGE RD	FROM SR2412 TO SR2002 (MP0.0 - MP1.23)	5	NO	NO	1.23	18	61.50		410				1,187	80		369					1			
		15	SR2776 OLD FORT RD	FROM BRIDGE 104 TO SR 2782 (MP2.25 - MP4.01)	5	NO	NO	1.76	18	88.00						1,698	114		528								
		16	SR3214 BILTMORE AVE	FROM US25 TO NC81 (MP0.0 - MP1.364)	6,7	NO	NO	1.36	40 - 50				16,004			2,914	195		409				26	28			
TOTAL FOR PROJ NO. 13CR.20111.11								17.62		812.80		1,465	16,004		19,624	1,315		5,286		2	41	44					
GRAND TOTAL								24.08		984.30	5.21	1,465	62,048	16,103	124	19,624	2,281	7	7,223	53	10	2	79	56	1		

PROJECT NO.	SHEET NO.	TOTAL NO.
13CR.10111.13, 13CR.20111.11	13	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4810000000-E		4820000000-E	4830000000-E	4835000000-E	4840000000-N		4845000000-N			4905000000-N				
							PAINT PAVEMENT MARKING LINES (4") WHITE LF	PAINT PAVEMENT MARKING LINES (4") YELLOW LF	PAINT PAVEMENT MARKING LINES (8") WHITE LF	PAINT PAVEMENT MARKING LINES (16") WHITE LF	PAINT PAVEMENT MARKING LINES (24") WHITE LF	PAINT PAVEMENT MARKING CHARACTER (SCHOOL) EA	PAINT PAVEMENT MARKING CHARACTER (RXR) EA	PAINT PAVEMENT MARKING SYMBOL (LT ARROW) EA	PAINT PAVEMENT MARKING SYMBOL (RT ARROW) EA	PAINT PAVEMENT MARKING SYMBOL (STR ARROW) EA	PAINT PAVEMENT MARKING SYMBOL (STR & RT ARROW) EA	PAINT PAVEMENT MARKING SYMBOL (STR & LT ARROW) EA	SNOWPLOWABLE PAVEMENT MARKERS EA		
13CR.10111.13	Buncombe	1	US 25	FROM SR 3503 (OVERLOOK RD) TO SR 3081(ROCK HILL RD) MP 4.50-6.48	1.98	60	8,870	26,136	240		970	12		97	12	3	9	523			
		2	US 70	FROM S. TUNNEL TO NC 81 MP 16.685 - 18.785	2.10	60	5,744	27,720			360			66		10	4	554			
		3	NC 81/US 74A, N C 81	FROM US 74A (S. TUNNEL RD.) TO US 70 MP 8.747-9.937 (N C81/US 74A), MP 3.08-4.23 (N C 81)	2.34	22	23,310	24,710	100			172			8	8			1	187	
		4	NC 63	FROM US 19/23 (PATTON AVE) TO 200 FEET NORTH MP 0.013-0.051	0.04	48 - 60	451	401			36				2	2			2	10	
TOTAL FOR PROJ NO. 13CR.10111.13							6.46		38,375	78,967	340		1,538	12		173	22	13	13	3	1,274
									117,342				12		224						
13CR.20111.11	Buncombe	5	SR1003 REEMS CREEK	FROM US 19 TO SR2123 (MP 0.0 - MP 2.156)	2.16	18	45,535	45,535			20								143		
		6	SR1332 N. LOUISIANA	FROM US 19 TO SR1349 (MP0.61 - MP1.96)	1.35	24	28,512	28,512	48	100	300	12	4	3	5				2		
		7	SR1333 HAZEL MILL RD	FROM CITY LIMITS TO SR1338 (MP0.0 - MP0.16)	0.16	16	3,379	3,379			24										
		8	SR1604 PINEY KNOB RD	FROM SR1602 TO PVMT CHG (MP0.0 - MP 1.0)	1.00	20	21,120	21,120													
		9	SR1607 BEAR CREEK RD	FROM SR1002 TO BRIDGE N O. 17 (MP0.0 - MP1.38)	1.38	20	29,146	29,146			24										
		10	SR1641 JEN KINS VALLEY RD	FROM SR 1642 HAROLD SLUDER RD TO SR 1643 OLD MACEDON IA MP 1.72-3.60	1.88	20	39,706	39,706													
		11	SR1740 NEW STOCK RD	FROM SR1727 TO US25 (MP0.0 - MP1.47)	1.47	20	31,046	31,046			30										
		12	SR 2130 DULA SPRING RD	FROM US19 BUS TO SR2131 (MP0.0 - MP1.95)	1.95	18	41,184	41,184													
		13	SR1338 EMMA RD	FROM SR 1333 TO SR 1369 (MP1.58 - MP3.5)	1.92	18	40,550	40,550													
		14	SR2416 WARREN WILSON COLLEGE RD	FROM SR2412 TO SR2002 (MP0.0 - MP1.23)	1.23	18	25,978	25,978	96		72										
		15	SR2776 OLD FORT RD	FROM BRIDGE 104 TO SR 2782 (MP2.25 - MP4.01)	1.76	18	37,171	37,171			20										
		16	SR3214 BILTMORE AVE	FROM US25 TO NC81 (MP0.0 - MP1.364)	1.36	40 - 50	3,961	28,808	720		360				13				2	143	
		TOTAL FOR PROJ NO. 13CR.20111.11							17.62		347,288	372,135	864	100	850	12	4	16	5	23	143
											719,423				16		23				
		GRAND TOTAL					24.08		385,663	451,102	1,204	100	2,388	24	4	189	27	13	13	5	1,417
											836,765				28		247				