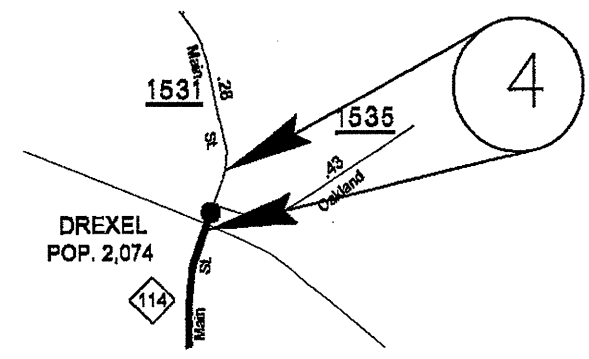
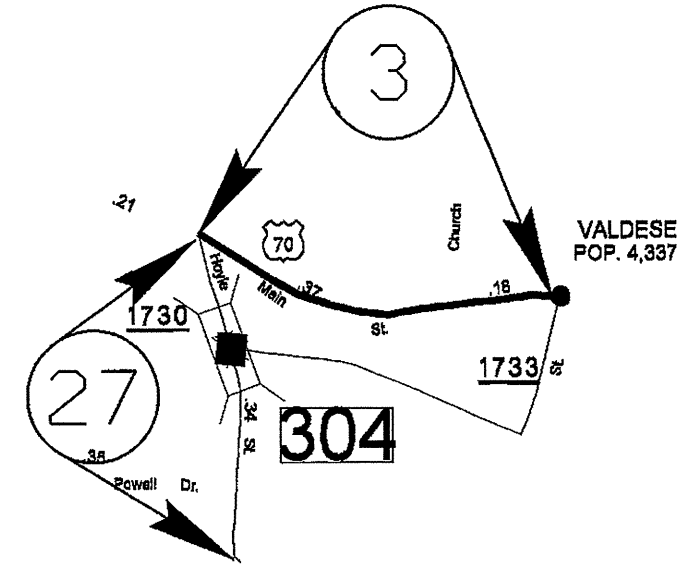
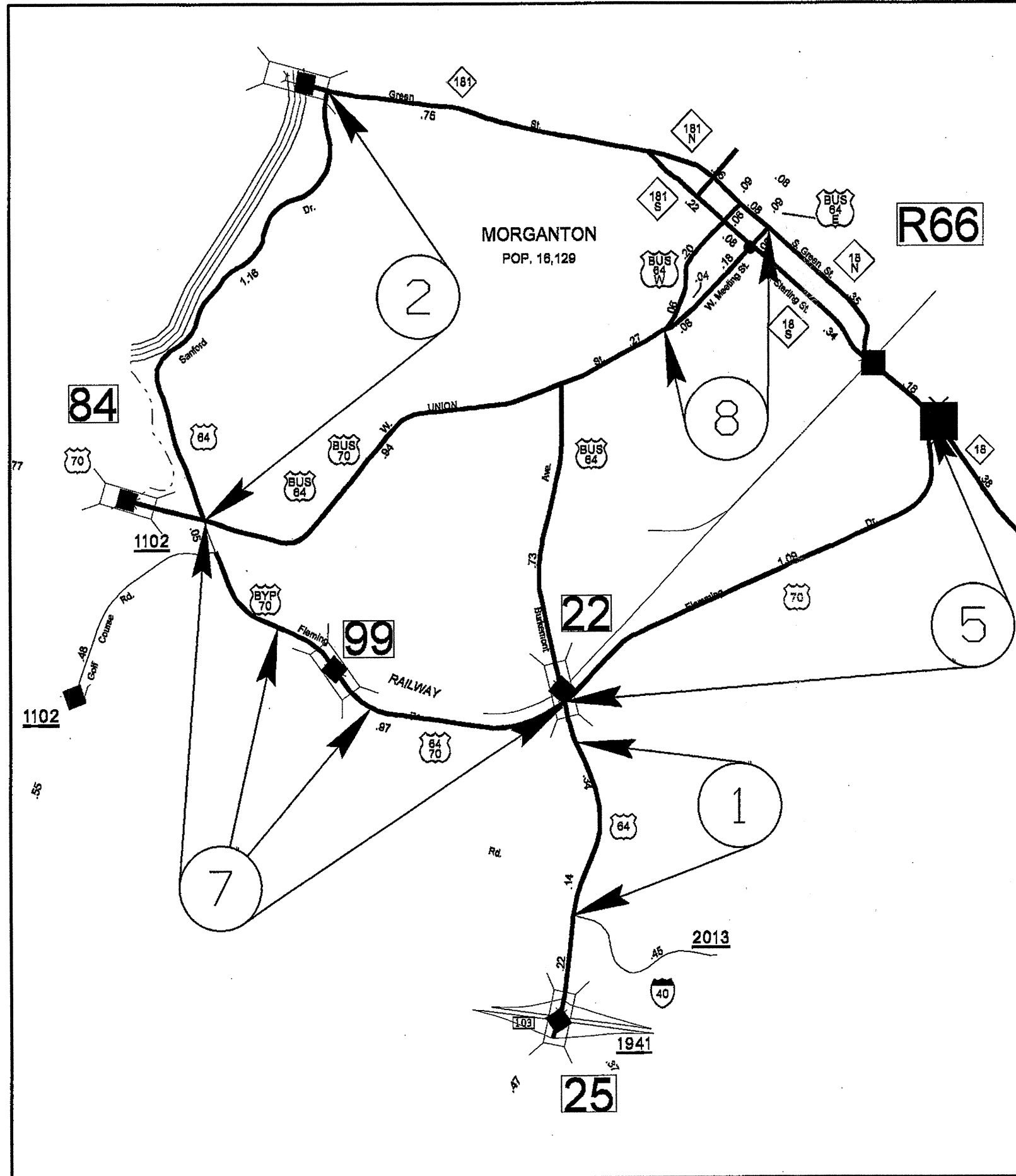


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12, 13CR.20121.12	1	

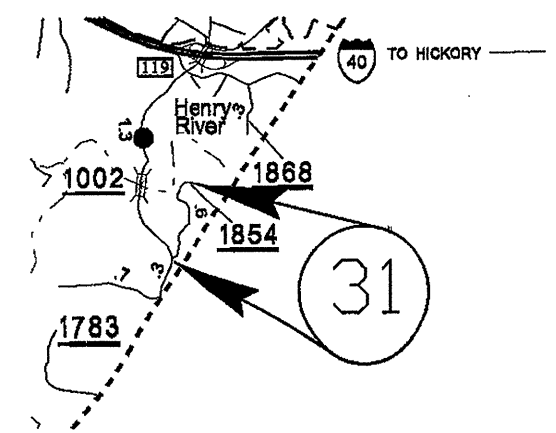
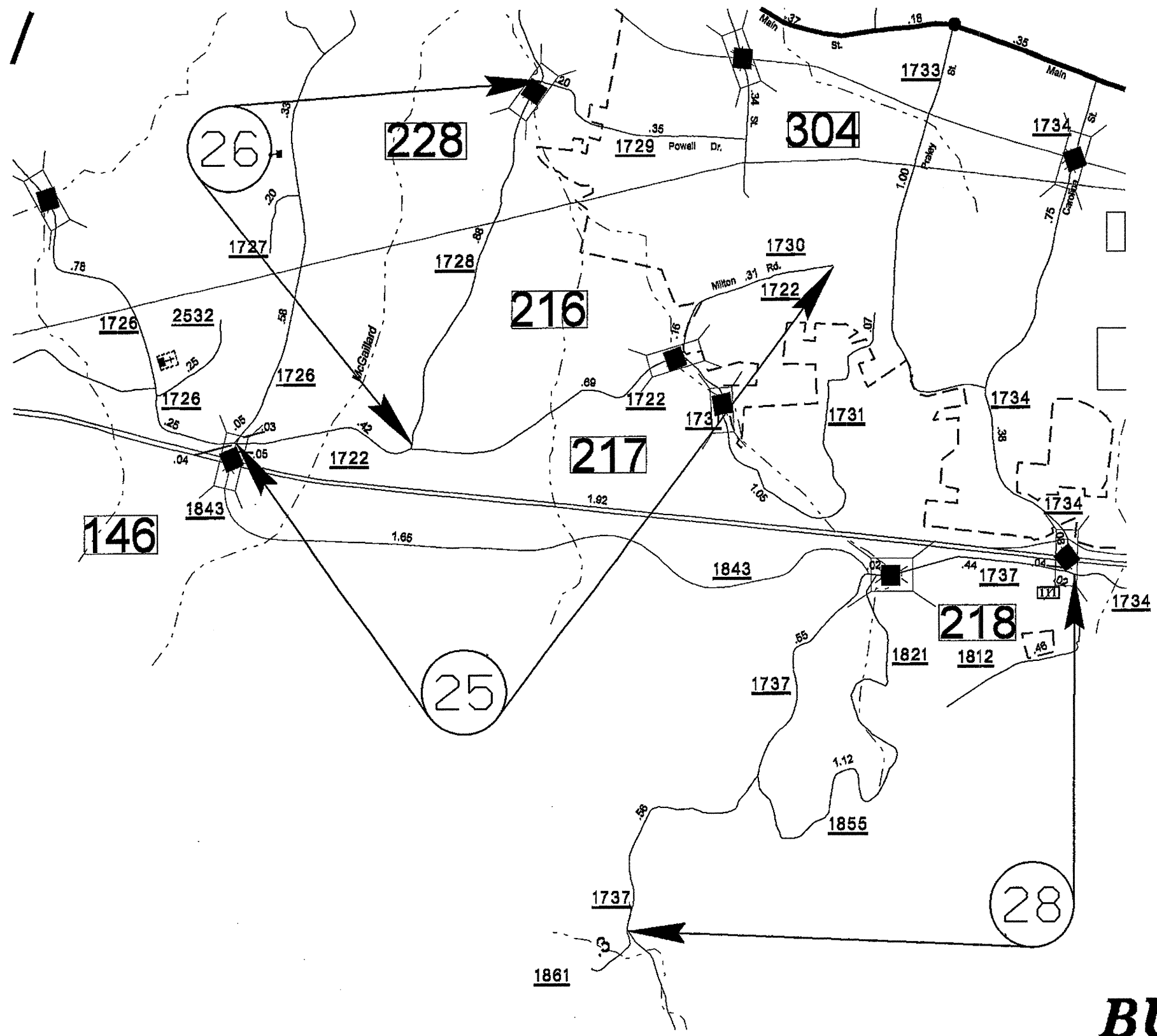


# BURKE COUNTY



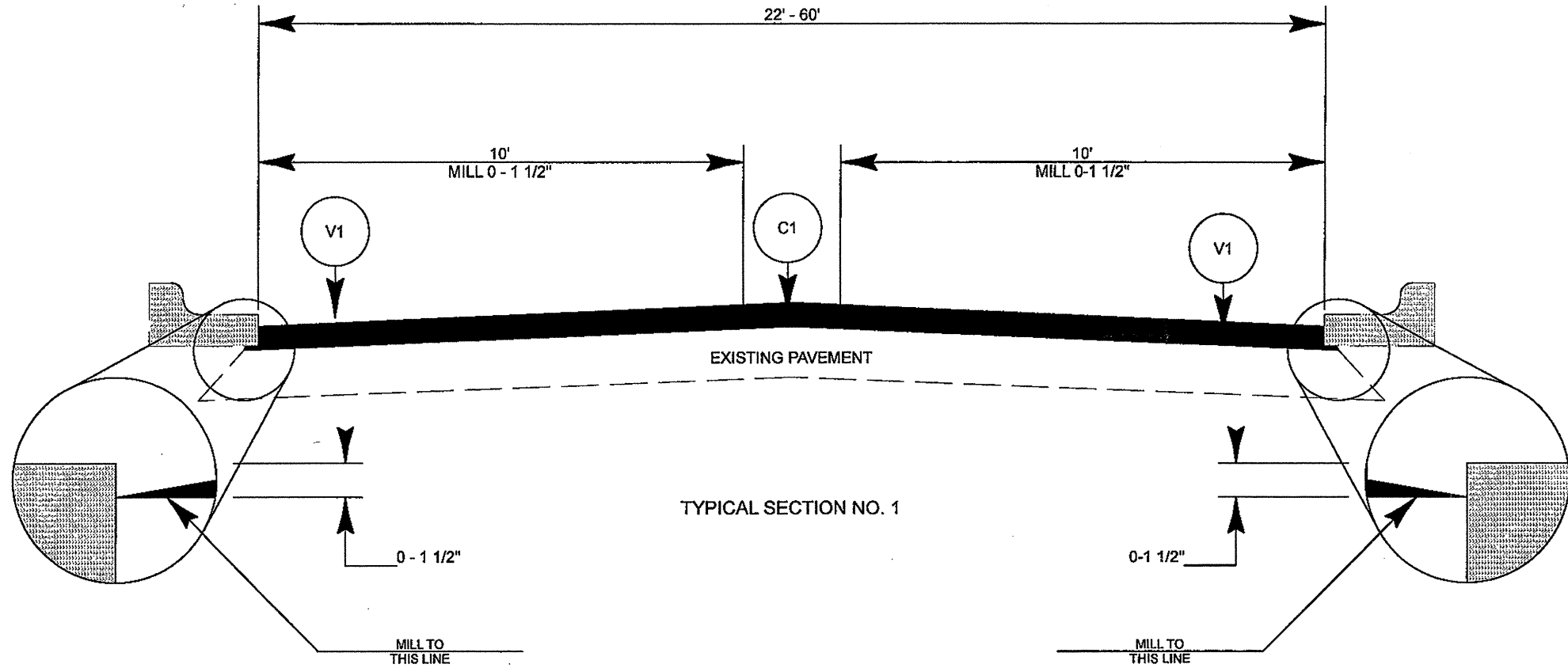


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12, 13CR.20121.12	4	

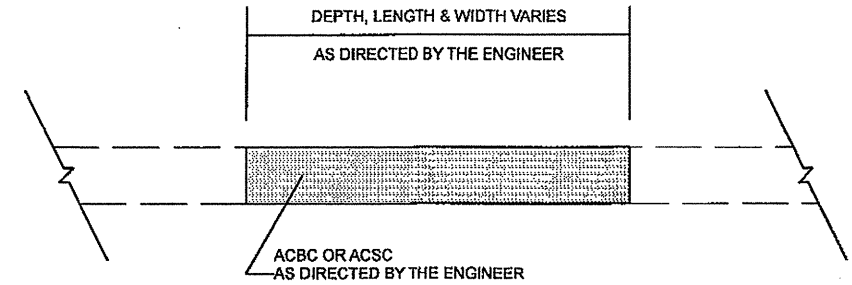


**BURKE COUNTY**

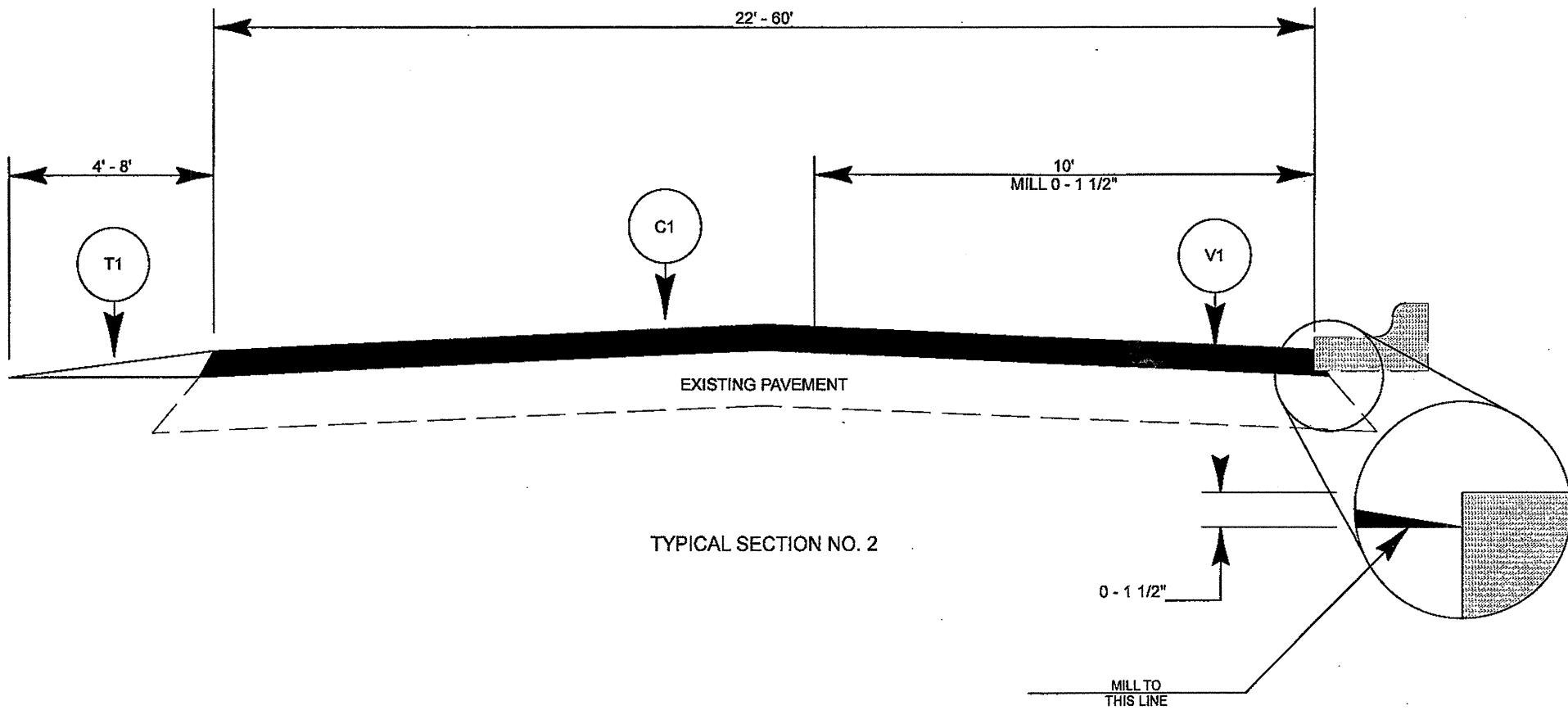
PROJECT NO. 13CR.10121.12, 13CR.20121.12	SHEET NO. 5	TOTAL SHEETS
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TYPICAL SECTION NO. 1



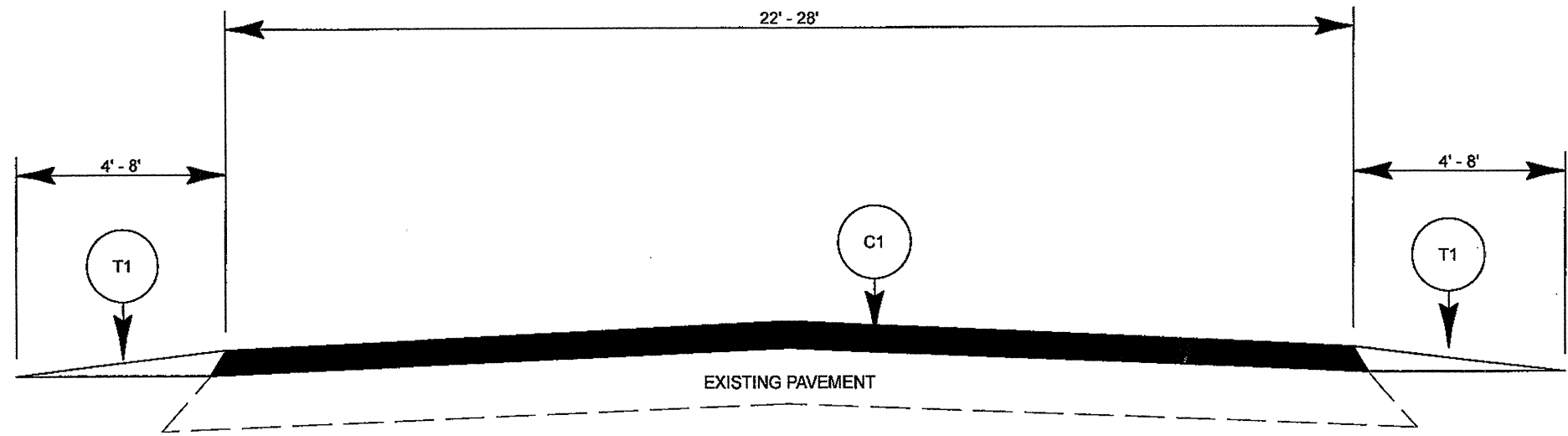
PATCHING EXISTING PAVEMENT



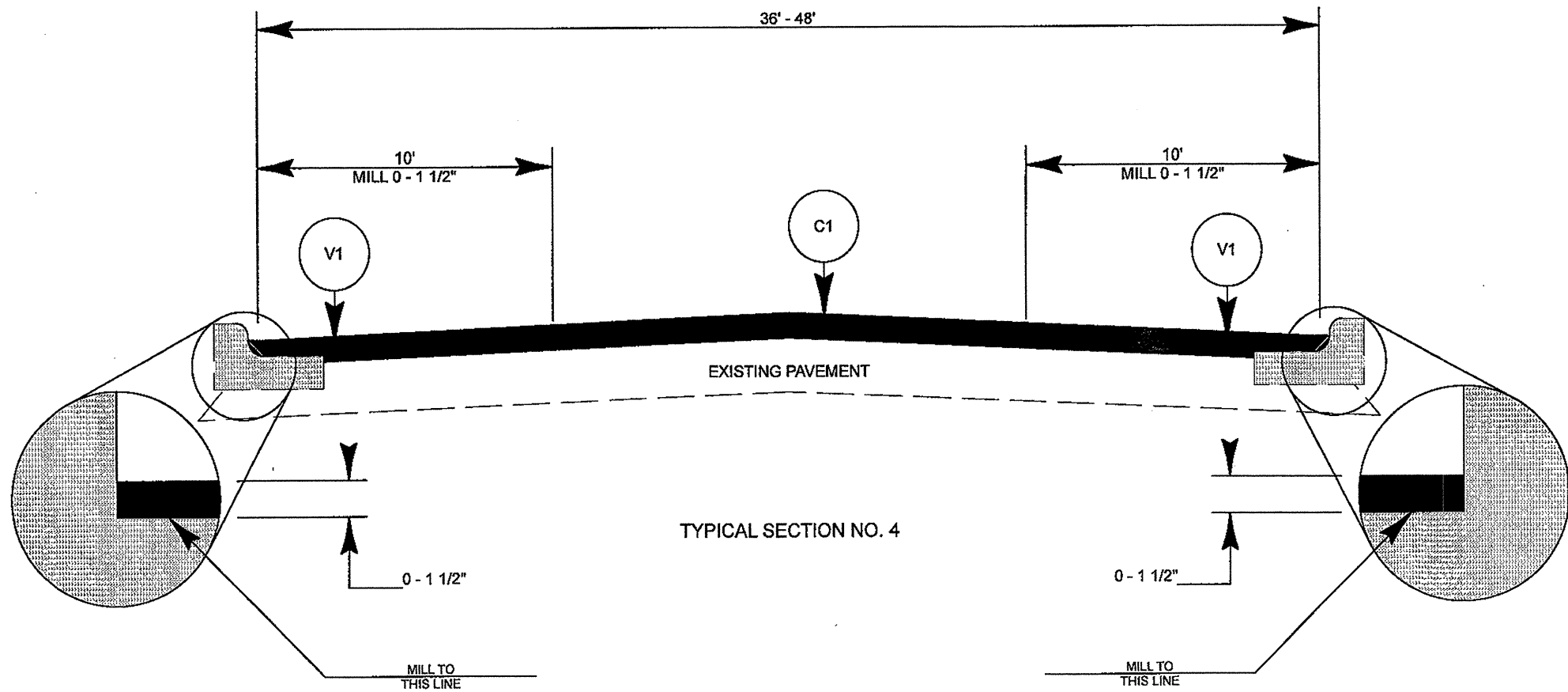
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
B1	PROP. APPROX. 5/8" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED, AT AN AVERAGE RATE OF 70 LBS. PER SQ. YD.
C1	PROP. APPROX. 1-1/2" ACSC, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1-1/2" ACSC, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ACSC, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
E1	PROP. APPROX. 6" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH
V2	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH
V3	MILLING ASPHALT PAVEMENT, 5/8" DEPTH

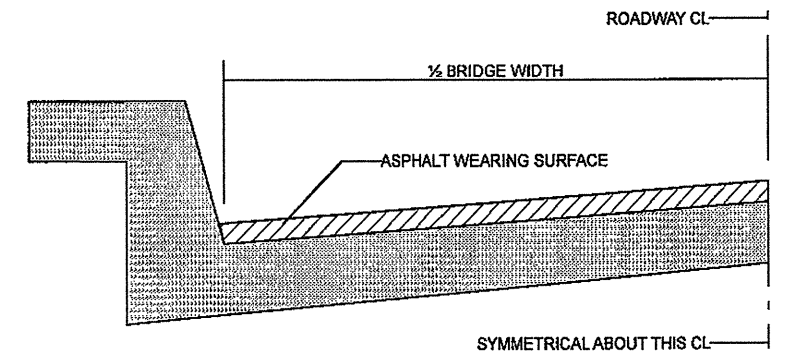
PROJECT NO. 13CR.10121.12, 13CR.20121.12	SHEET NO. 6	TOTAL SHEETS
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TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



BRIDGE HALF TYPICAL SECTION

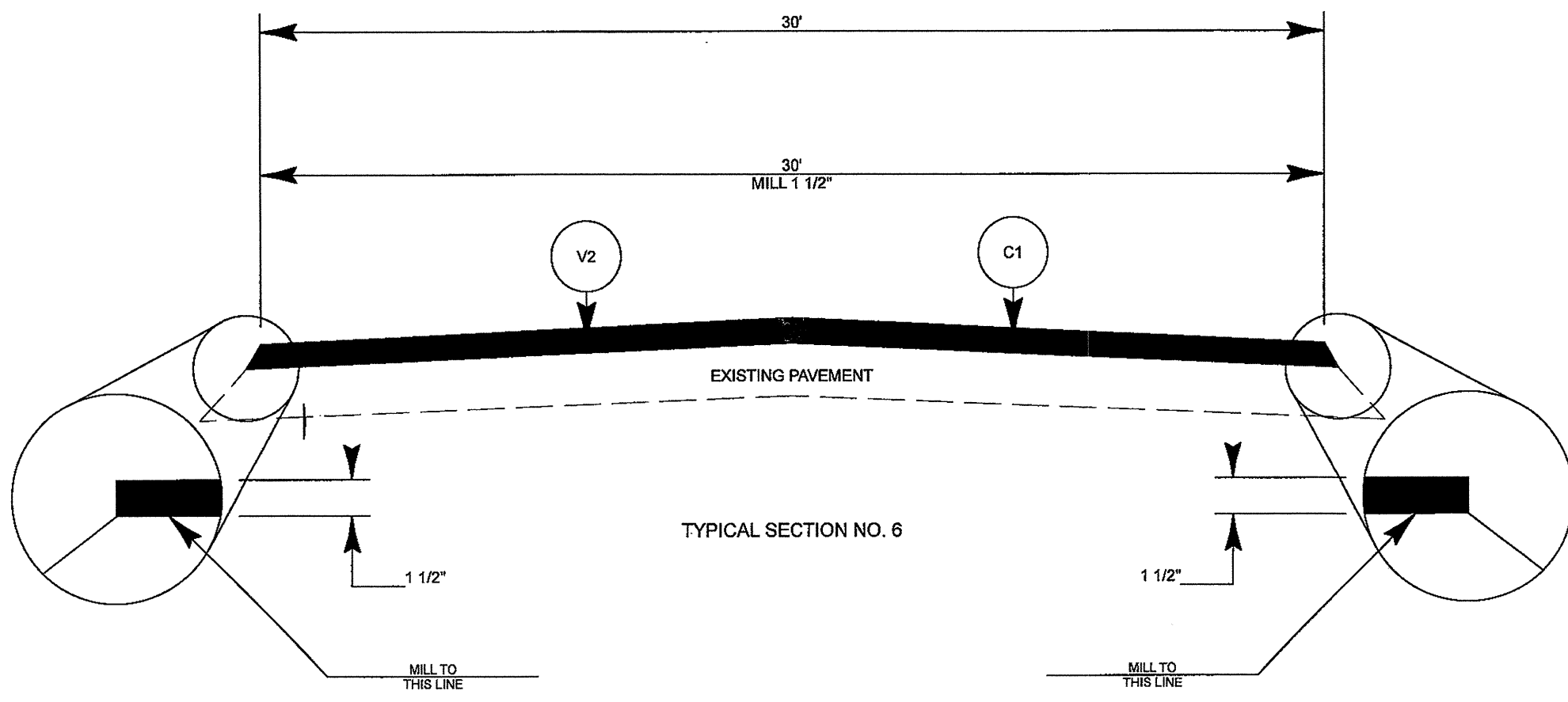
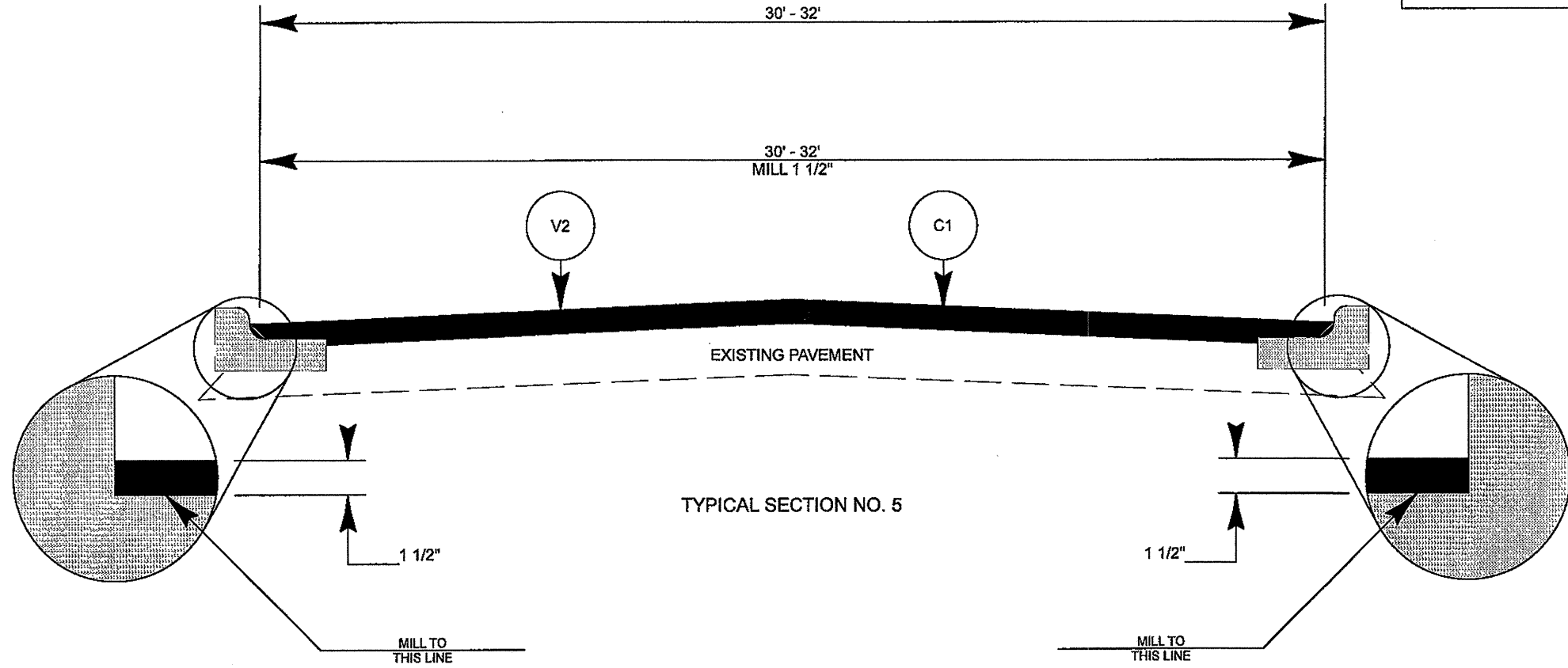
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

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".

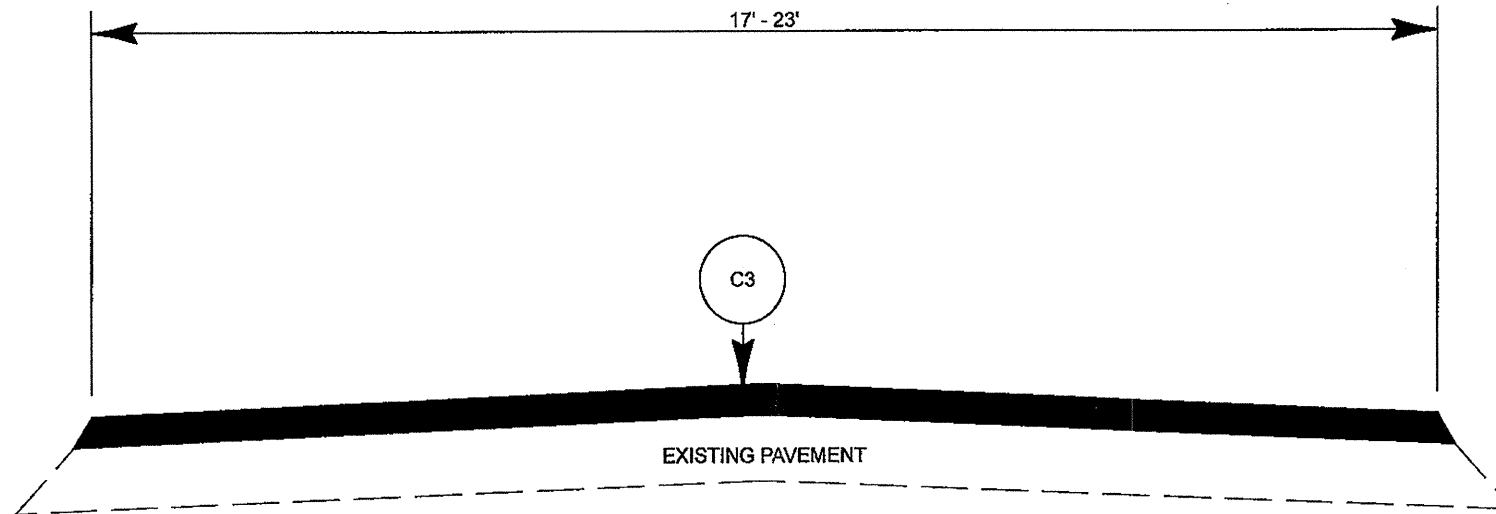
**NOTES**

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 DEPTHS AS DIRECTED BY THE ENGINEER.

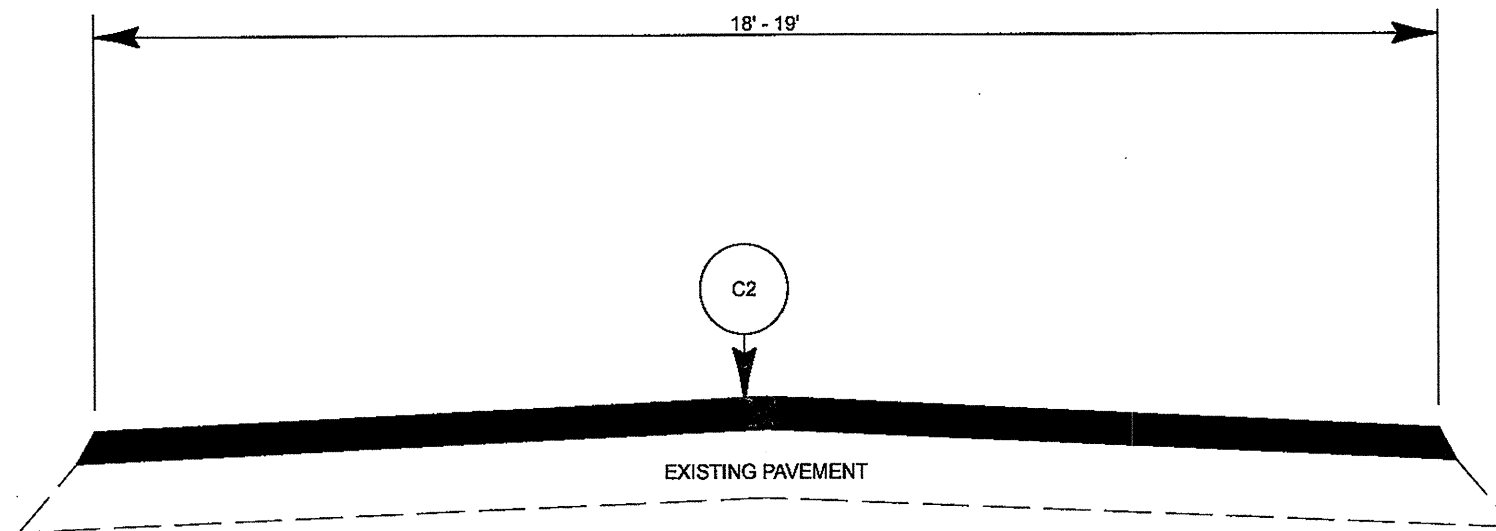
PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12, 13CR.20121.12	7	



PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12, 13CR.20121.12	8	



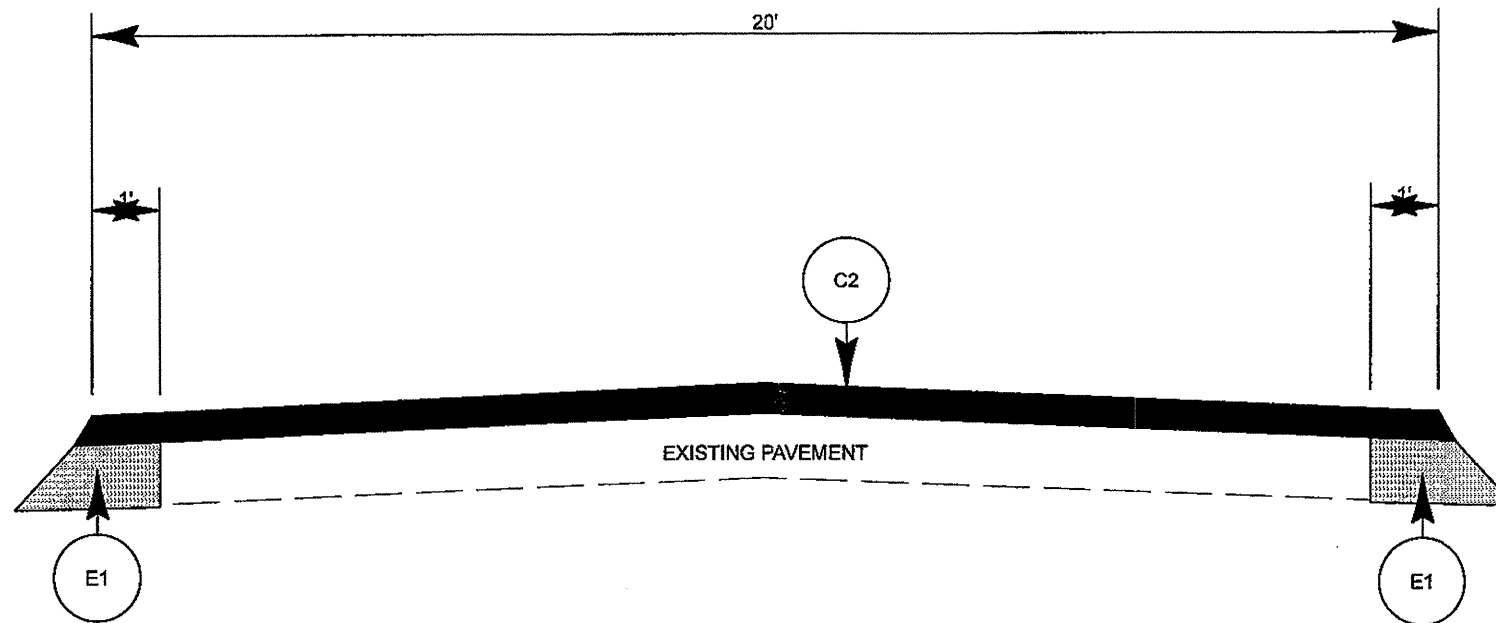
TYPICAL SECTION NO. 7



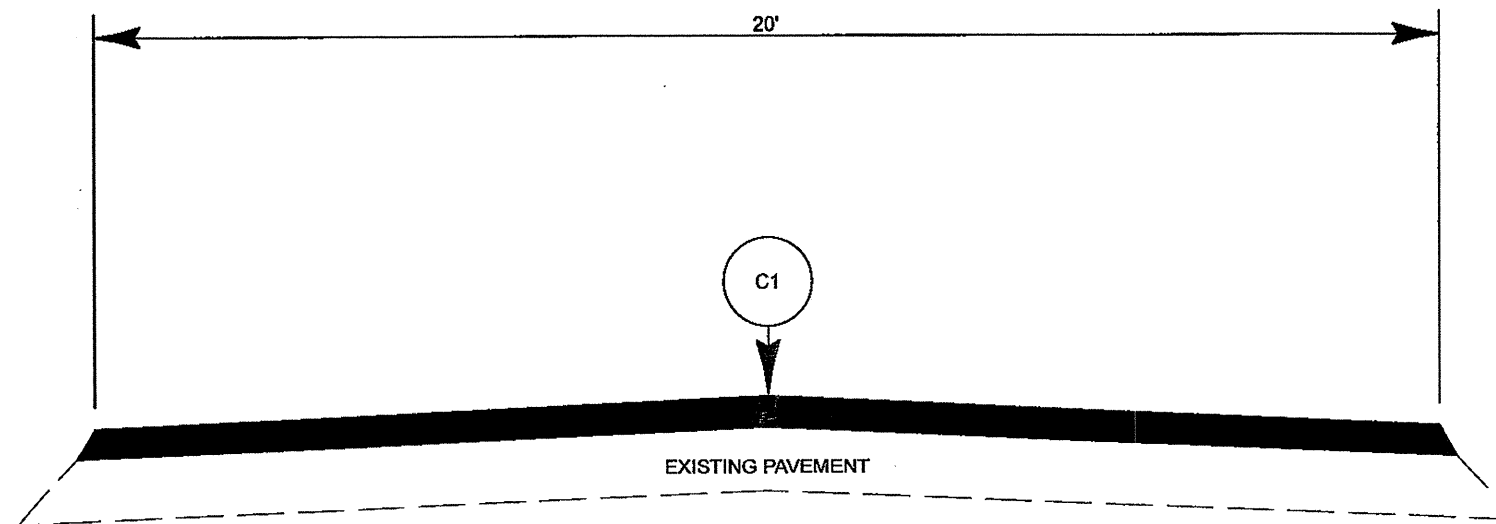
TYPICAL SECTION NO. 8



PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12, 13CR.20121.12	9	



TYPICAL SECTION NO. 9



TYPICAL SECTION NO. 10

# BURKE COUNTY

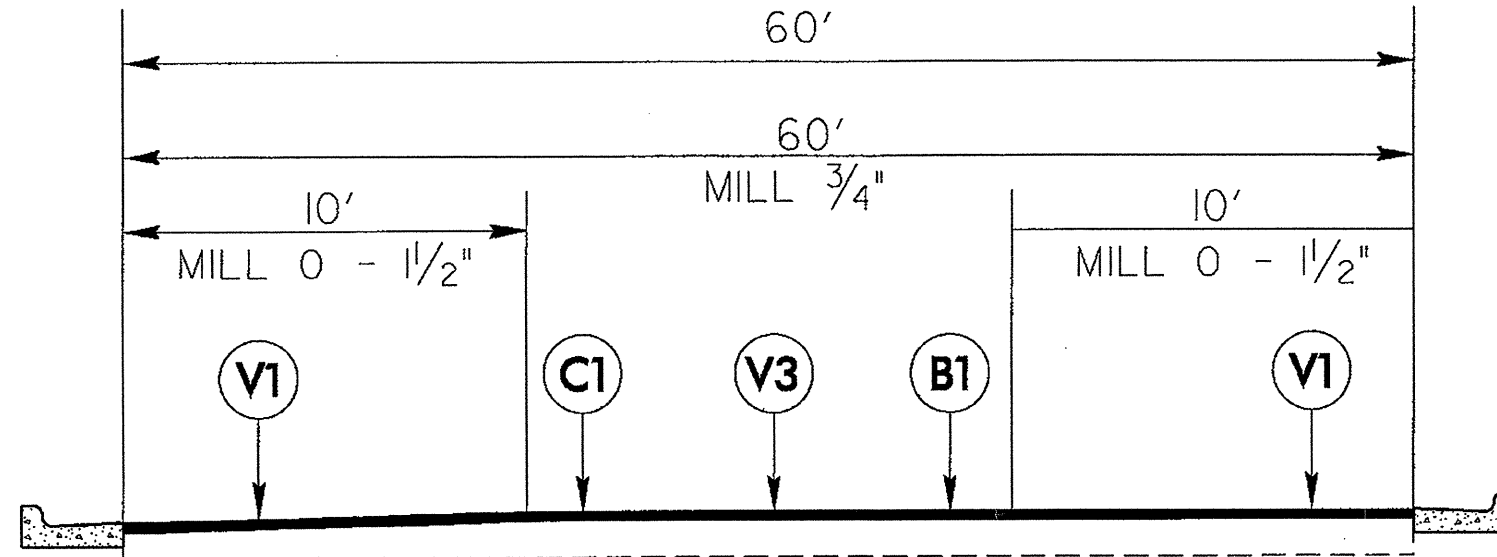
PROJECT NO.

13CR.10121.12  
13CR20121.12

SHEET NO.

10

TOTAL SHEETS

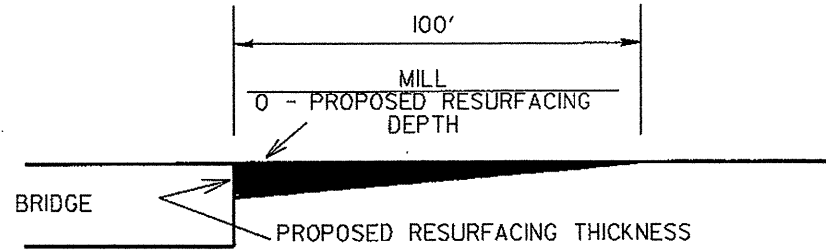


## TYPICAL SECTION NO. 11

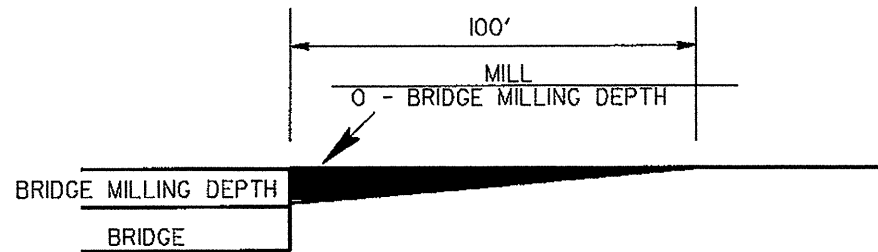
CONSTRUCTION STEPS AT OPEN-GRADED ASPHALT  
FRICTION COURSE LOCATION.  
MAP 5

- 1) MILL 5/8" (OGFC) OFF ENTRIE ROAD WIDTH AT LOCATION OF OPEN-GRADED ASPHALT FRICTION COURSE.
- 2) THEN MILL 0 - 1/2" 10' EACH SIDE OF ROAD.
- 3) THEN PAVE WITH S9.5B ENTRIE ROAD WIDTH.
- 4) THEN PAVE WITH OPEN-GRADE FRICTION COURSE, TYPE FC-1 MODIFIED ENTRIE ROAD WIDTH.

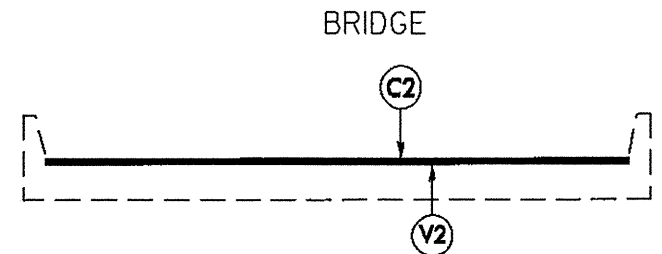
PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10121.12 13CR20121.12	11	



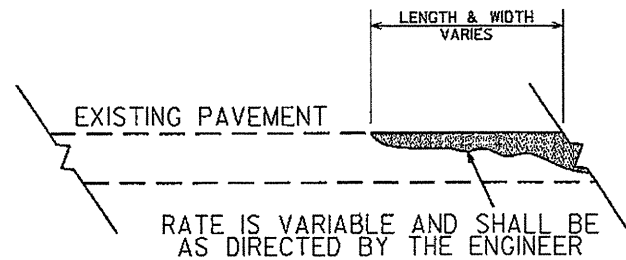
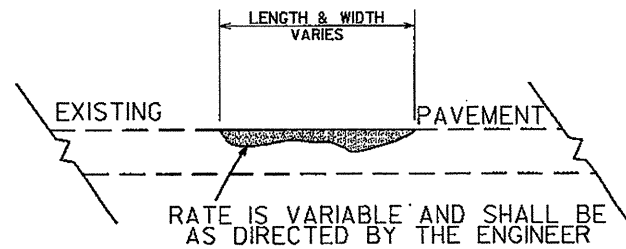
**INCIDENTAL MILLING DETAIL AT BRIDGE APPROACHES**  
**WHERE BRIDGES WILL NOT BE RESURFACED**  
**COST OF BRIDGE APPROACH MILLING IS INCIDENTAL TO OTHER ITEMS**



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

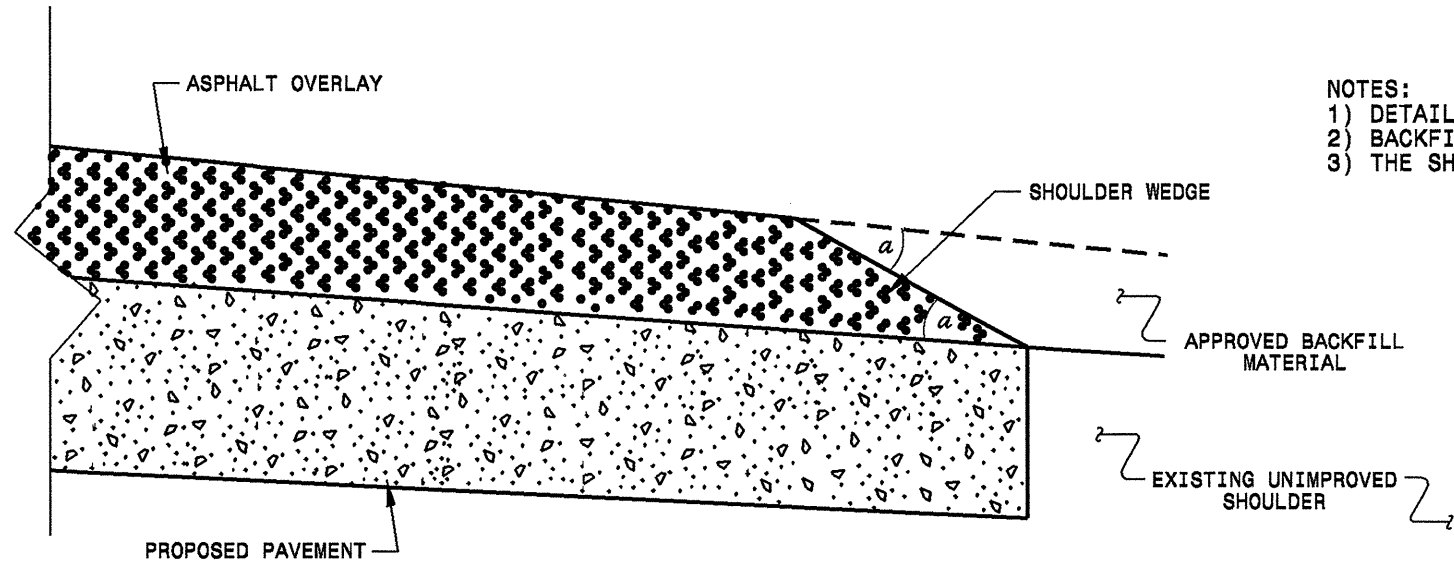


**BRIDGE DETAIL**  
**BRIDGE 48 MAP 10**  
**BRIDGE # 228 MAP 26 AND**  
**BRIDGE #218 MAP 28**  
**MILL 1/2" OFF EXISTING PAVEMENT**  
**SEE MAPS FOR BRIDGE LOCATION**

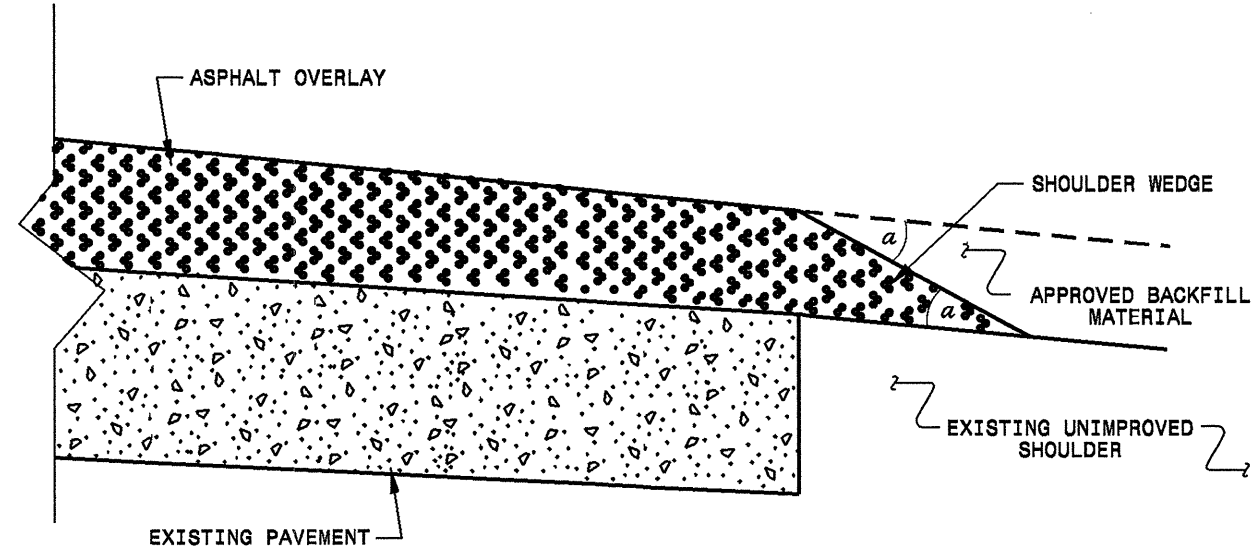


**DETAIL SHOWING**  
**METHOD OF WEDGING**

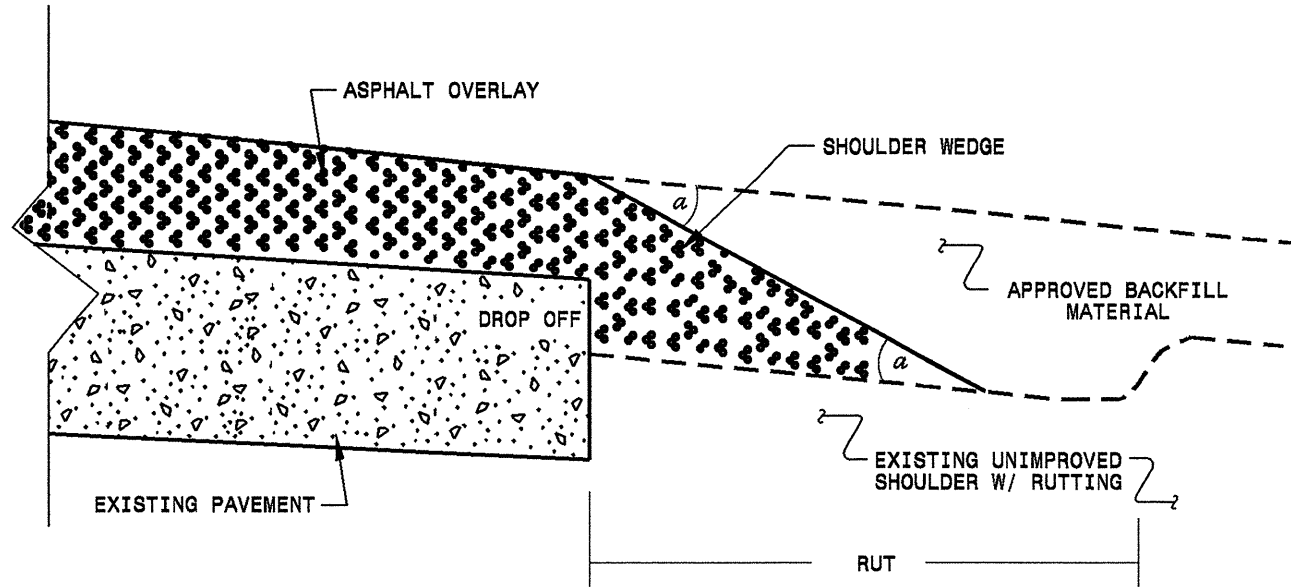
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFCC AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or  
 with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)

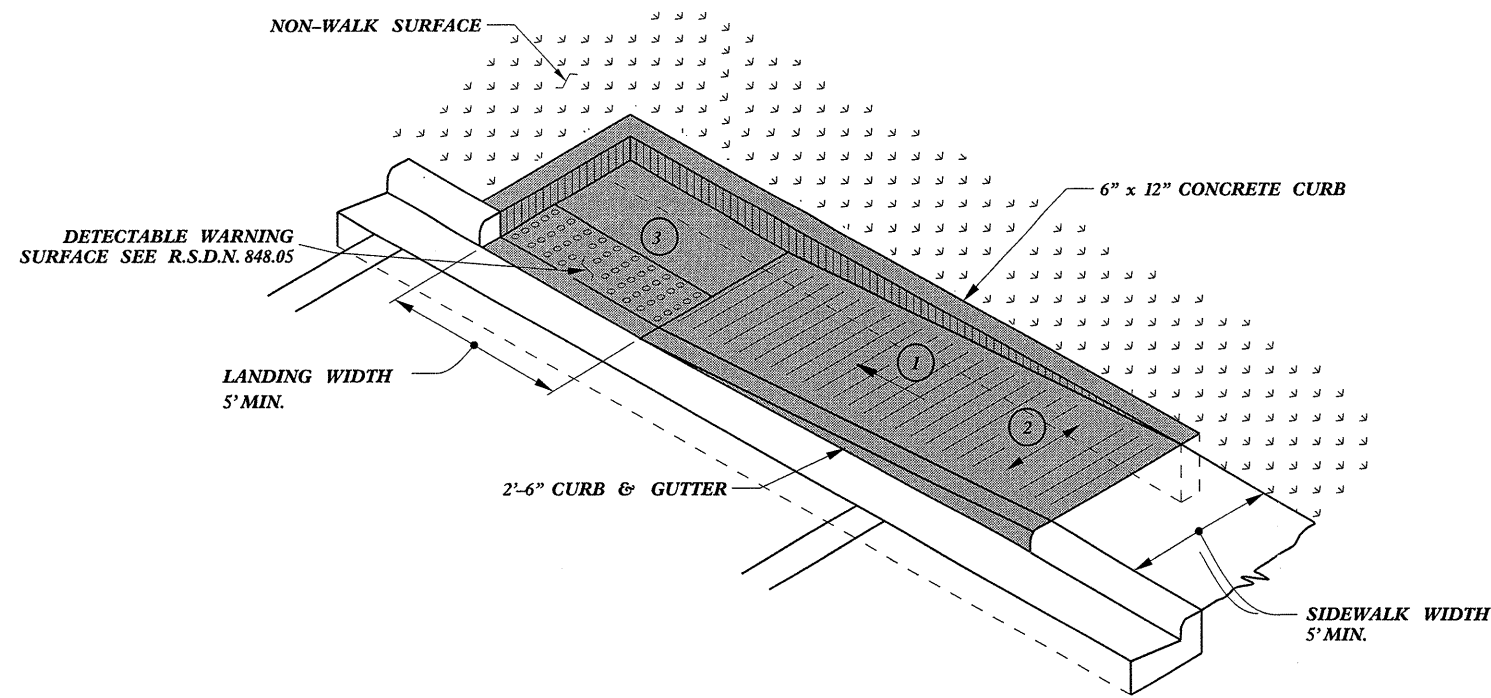


**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

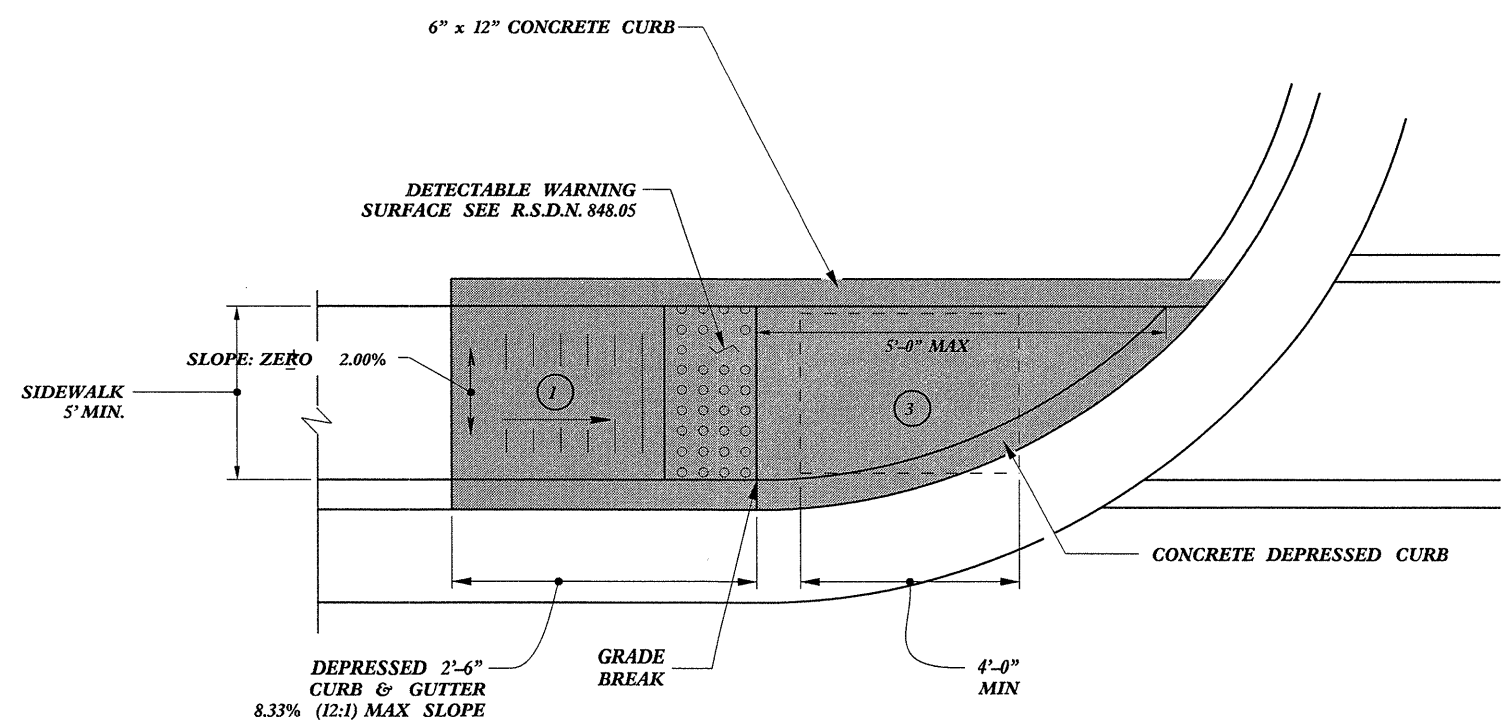
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6960		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 10/19/12		
CHECKED BY:	DATE:		
FILE SPEC.: s:\usr\detail\stand\shoulderwedge\detail.dgn			

I:\N\2013 13.35  
 E:\Users\TSpell\Documents\misc\erosion control\REVISED Shoulder Wedge Detail.dgn  
 TSpell  
 10/19/12



**TYPE 1A**

 PAY LIMITS FOR CURB RAMP



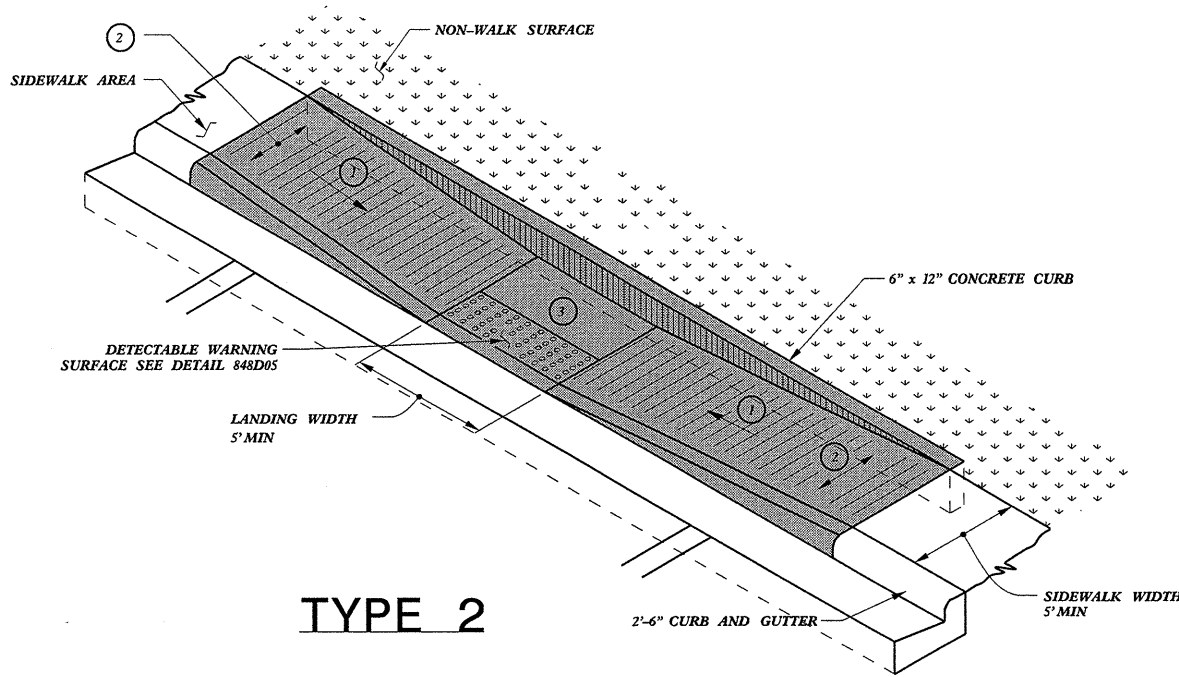
**TYPE 1**

- 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

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

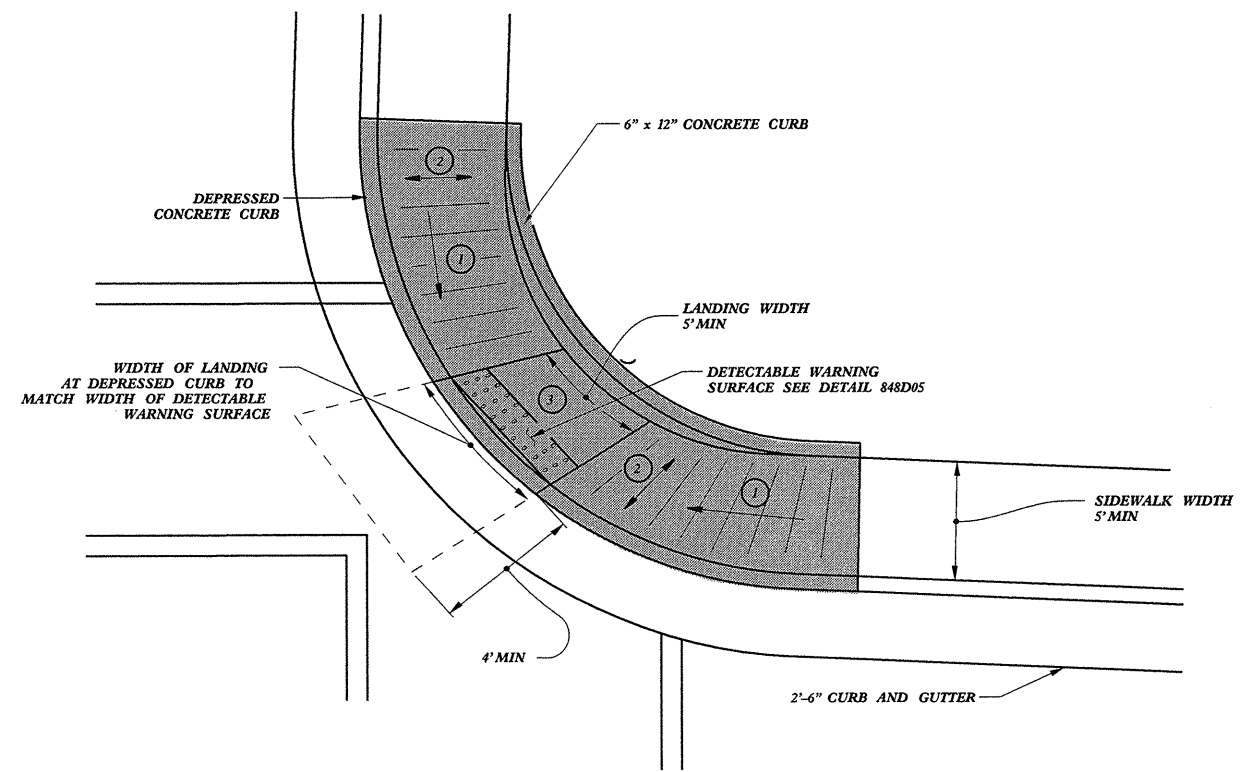
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 J:\Howerton



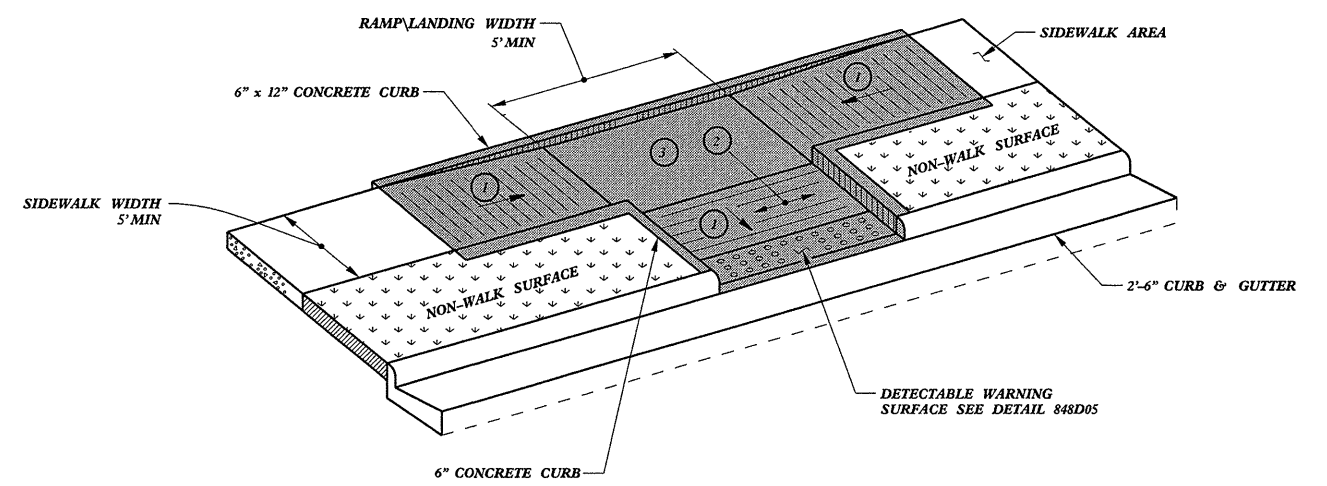
**TYPE 2**

 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**



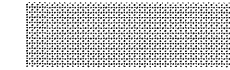
**TYPE 3**

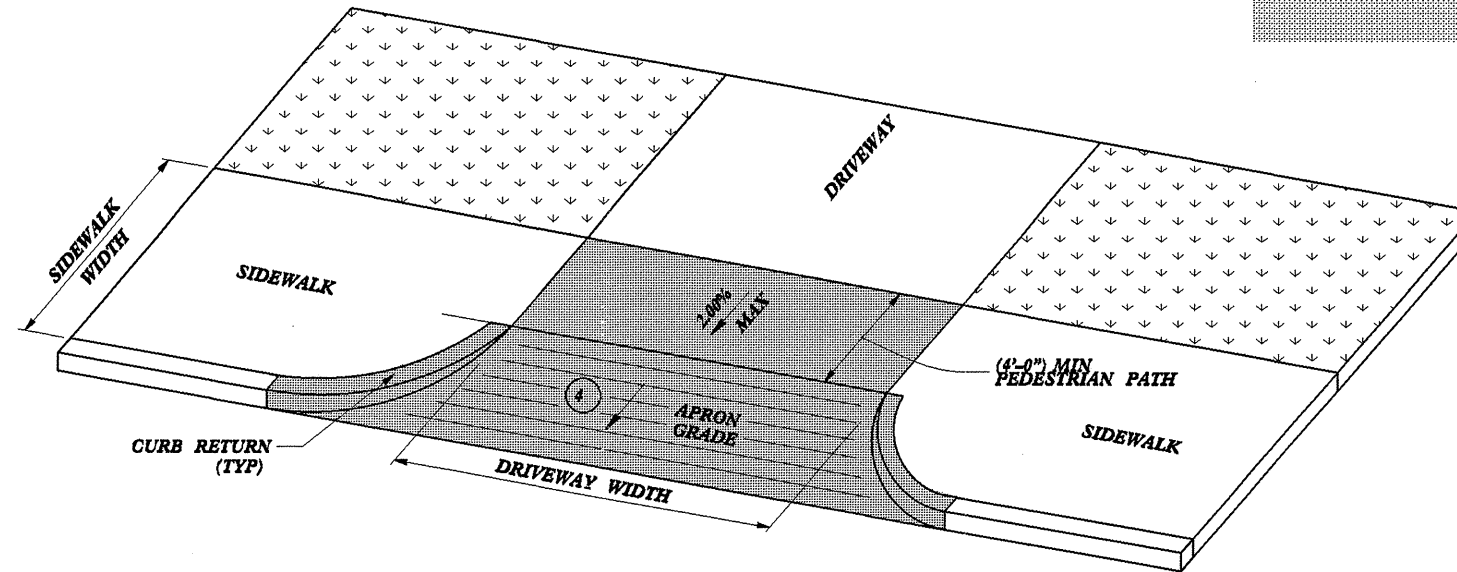
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950 FAX 919-250-4119	
<b>CURB RAMPS</b>	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

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

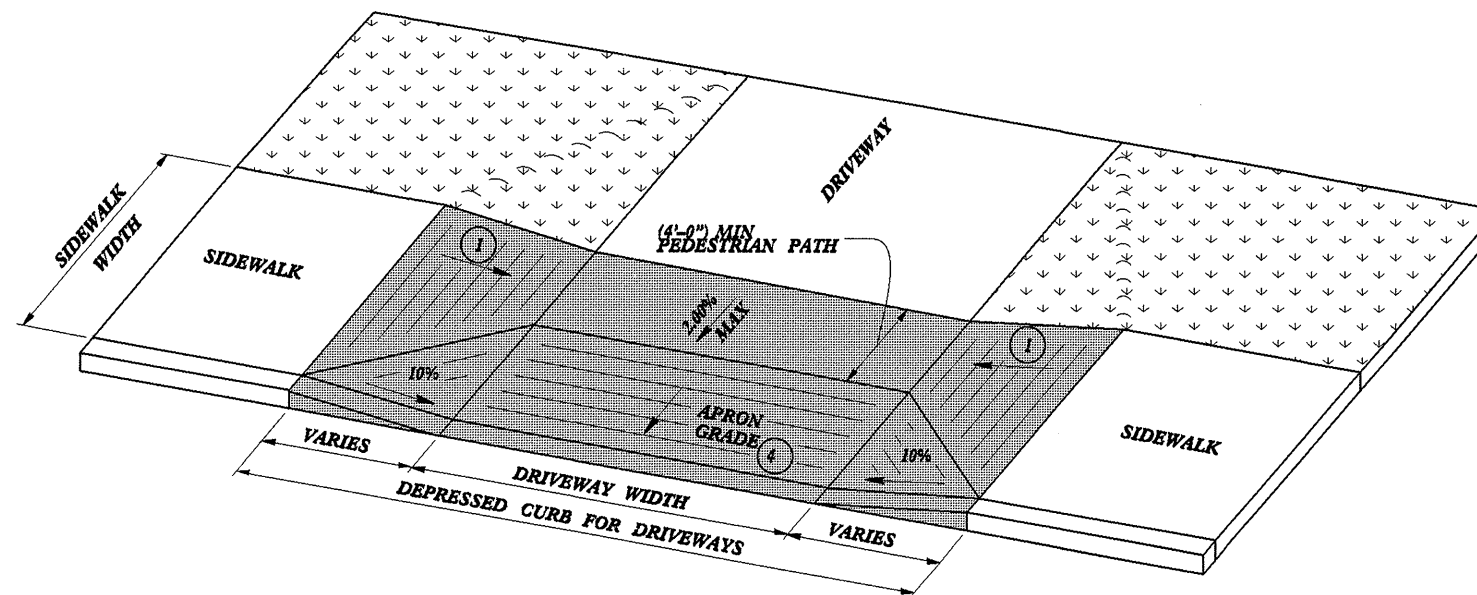
5/14/09  
M:\SEP-2011\08-04\Projects\Special Details\Howerton\Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn  
15 SEP 2011 08:04  
J.S. Howerton

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 4 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY

 PAY LIMITS FOR 1 CURB RAMP



**DRIVEWAY APRON  
OPTION 1**



**DRIVEWAY APRON  
OPTION 2**

-SEE ROADWAY DETAIL DRAWING 848.05 FOR DETECTABLE WARNING SURFACE AND FOR RAMP NOTES.

-SEE ROADWAY STANDARD DRAWING 848.02 FOR CONCRETE DRIVEWAYS.

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

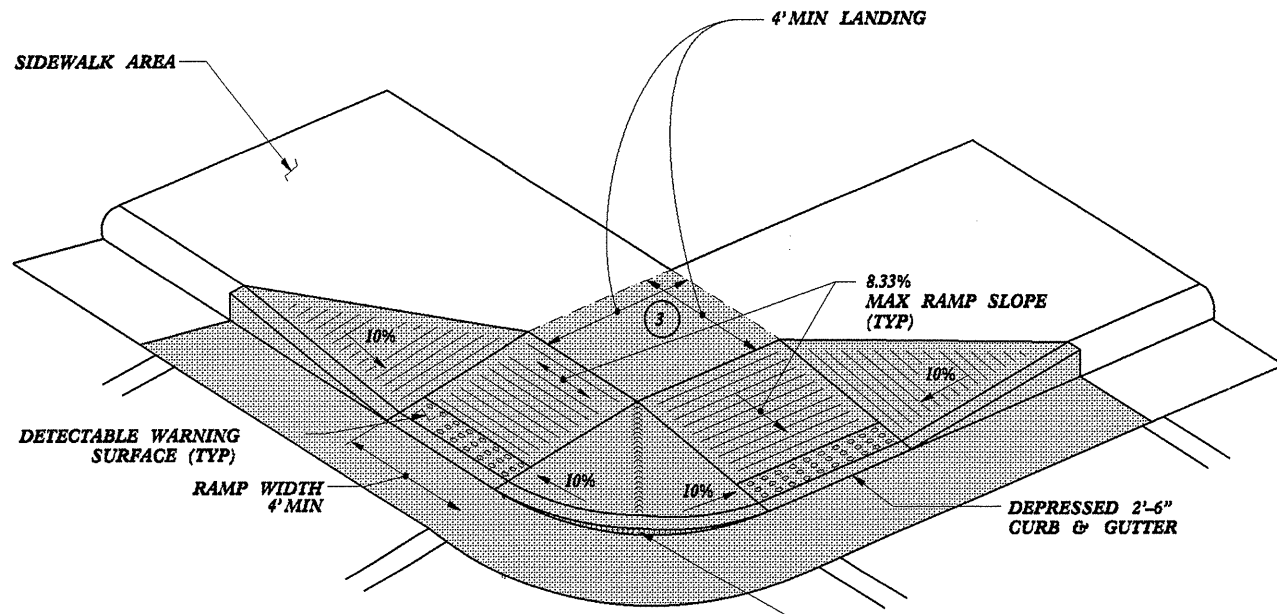
**CURB RAMPS  
@ DRIVEWAY OPENINGS**

ORIGINAL BY: J. B. HOWERTON DATE: 7/7/11  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC: sids/2012CurbRamp/CurbRampDetails.dwg

5/14/99  
 \*\*\*\*\*  
 CUSTOMER'S NAME  
 \*\*\*\*\*



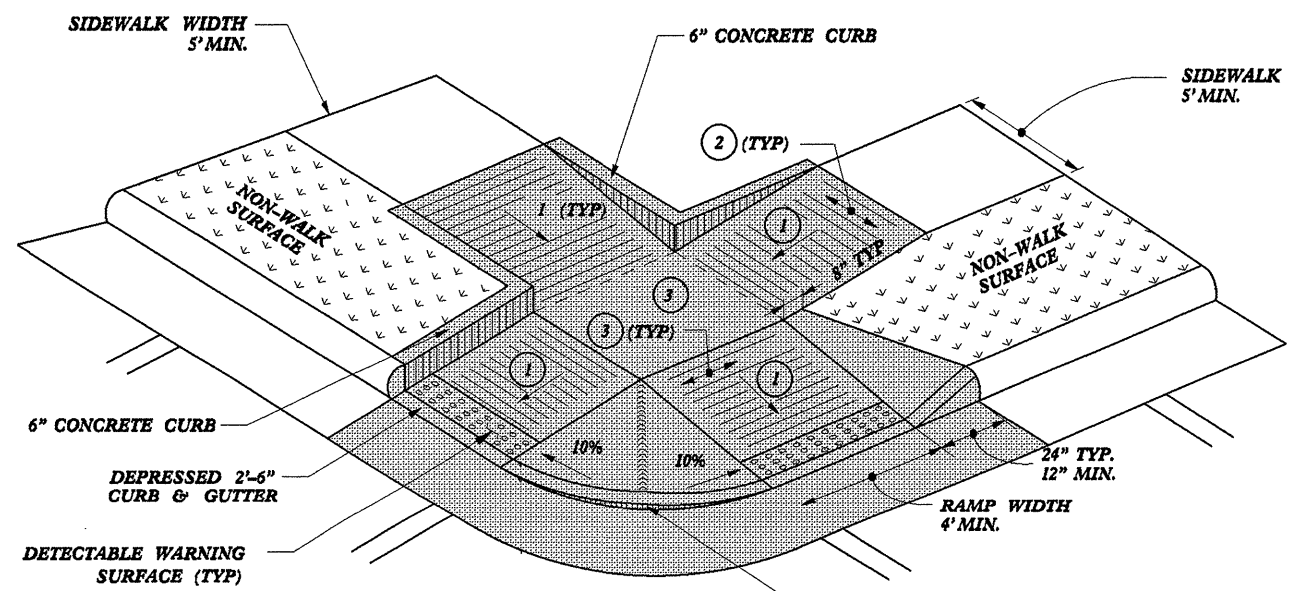




**TYPE 4**

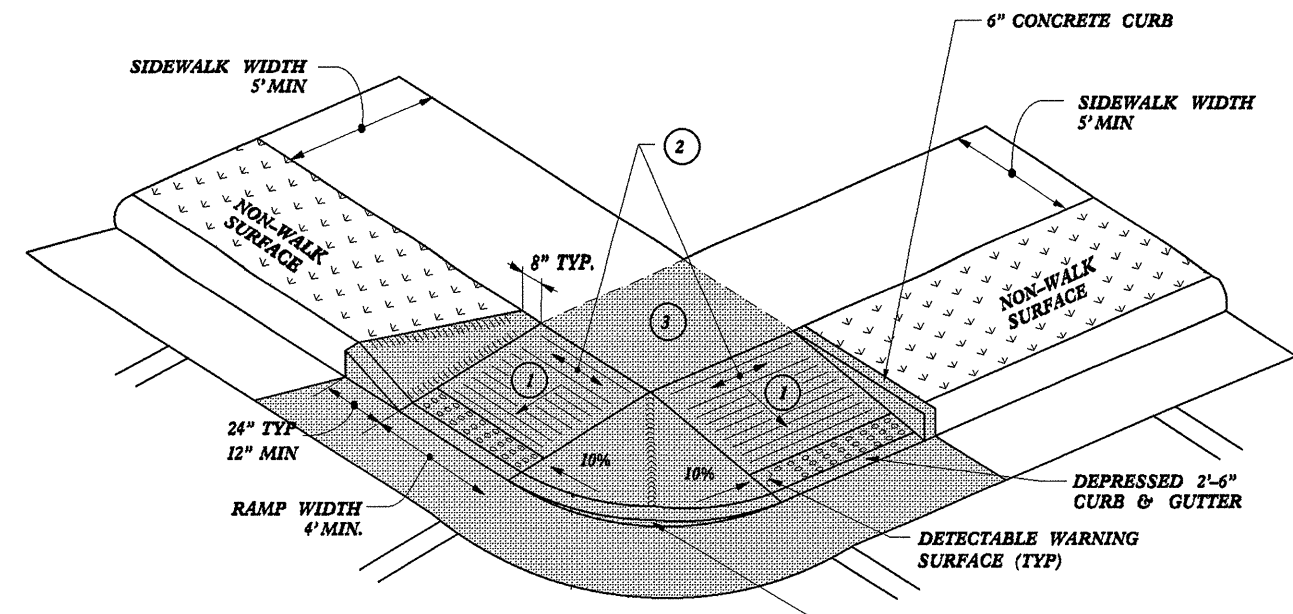
DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES CURB REVEAL DETERMINED BY FLARE SLOPE)

PAY LIMITS FOR CURB RAMP



**TYPE 5**

DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES CURB REVEAL DETERMINED BY FLARE SLOPE)



**TYPE 4A**

DEPRESSED 2'-6" CURB & GUTTER (HEIGHT VARIES CURB REVEAL DETERMINED BY FLARE SLOPE)

- 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.

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-8950 FAX 919-250-4119	
<b>CURB RAMPS</b>	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stda/2012CurbRamp/CurbRampDetails.dgn	

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

22-MAR-2012 15:08 S:\Contracts\2012\Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn J.Howerton AT 050237501

5/14/99

PROJECT NO.	SHEET NO.	TOTAL NO.
13CR.10121.12, 13CR.20121.12	18	

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH SY	MILLING ASPHALT PAVEMENT, 5/8" DEPTH SY	MILLING ASPHALT PAVEMENT, 0" TO 1 1/2" DEPTH SY	ASPHALT CONC BASE COURSE, TYPE B25.0B TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX TON	OGAFC, TYPE FC-1 MOD TONS	PATCHING EXISTING PAVEMENT TON	CONCRETE CURB RAMP (std. 848.05/ etc) EA	ADJUSTMENT OF MANHOLES EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES EA	PORTABLE LIGHTING LS
13CR.10121.12	Burke	1	US 64	FROM SR 2013 TO NEW PAVEMENT (MP 12.279 - MP 12.673)	1	NO	NO	0.39	60					6,082		1,271		76			50	2	2	4	*
13CR.10121.12	Burke	2	US 64	FROM US 70 TO NC 181 (MP 13.849 - MP 15.019)	1,2,3	NO	NO	1.17	28 - 60	59	2.34			1,222		1,800		108			400		10	2	*
13CR.10121.12	Burke	3	US 70	FROM SR 1730 TO SR 1733 (MP 19.001 - MP 19.551)	1,4	NO	NO	0.55	36 - 48					8,010		1,256		75			400	25	12	12	
13CR.10121.12	Burke	4	NC 114	FROM R/R TO SR 1531 (MP 2.560 - MP 2.650)	5,6	NO	NO	0.09	30			1,854				147		9			25	2	3	3	
13CR.10121.12	Burke	5	US 70	FROM US 64 TO NC 18 (MP 11.197 - MP 12.357)	1,11	NO	NO	1.16	60				5,333	16,474		3,781		227	13	205	100	8	17	18	
13CR.10121.12	Burke	6	US 64	FROM SR 2122 TO NEW PAVEMENT (MP 9.95 - MP 11.259)	1,2,3	NO	YES	1.31	22	66	2.62			3,333		1,571		94			250			2	
13CR.10121.12	Burke	7	US 64/70	FROM US 70 TO BEG. NEW PVT. THEN END NEW PVT TO US 64 (MP 12.789 - MP13.279 AND MP 13.569 - MP13.849)	1	NO	NO	0.77	60					10,933		2,510		151			200	1	4	6	
13CR.10121.12	Burke	8	US 64/US 70 BUS	FROM END NEW PAVEMENT TO NC 18 N (MP 1.00 - MP 1.33)	5	NO	NO	0.33	32			5,820				575		34			50	10	4		*
<b>TOTAL FOR PROJ NO. 13CR.10121.12</b>								<b>5.77</b>		<b>125</b>	<b>4.96</b>	<b>7,674</b>	<b>5,333</b>	<b>46,054</b>		<b>12,911</b>		<b>774</b>	<b>13</b>	<b>205</b>	<b>1,475</b>	<b>48</b>	<b>52</b>	<b>47</b>	<b>1</b>
13CR.20121.12	Burke	9	SR 1232	FROM SR 1233 TO END PAVEMENT (MP 0.00 - MP 0.70)	7	NO	NO	0.7	17								424	28			100				
13CR.20121.12	Burke	10	SR 1233	FROM US 70 TO SR 1234 (MP 0.00 - MP 1.308)	8	NO	NO	1.3	19	65		1,171					1,324	89			170				
13CR.20121.12	Burke	11	SR 1234	FROM SR 1233 TO NC 126 (MP 0.00 - MP 2.21)	9	NO	NO	2.21	20	111					1,109		2,368	207			1,150			1	
13CR.20121.12	Burke	12	SR 1237	FROM SR 1236 TO END PAVEMENT (MP 0.00 - MP 0.23)	7	NO	NO	0.23	18								148	10			70				
13CR.20121.12	Burke	13	SR 1320	FROM SR 1233 TO CUL-DE-SAC (MP 0.00 - MP 0.29)	7	NO	YES	0.29	22								227	15			100				
13CR.20121.12	Burke	14	SR 1321	FROM SR 1320 TO CUL-DE-SAC (MP 0.00 - MP 0.22)	7	NO	YES	0.22	22								172	12			20				
13CR.20121.12	Burke	15	SR 1322	FROM SR 1233 TO CUL-DE-SAC (MP 0.00 - MP 0.20)	7	NO	YES	0.2	20								143	10			20				
13CR.20121.12	Burke	16	SR 1331	FROM SR 1322 TO SR 1339. (MP 0.00 -MP 0.21)	7	NO	YES	0.21	23								172	12			60				
13CR.20121.12	Burke	17	SR 1332	FROM SR 1331 TO CUL-DE-SAC (MP 0.00 - MP 0.09)	7	NO	YES	0.09	23								74	5			10				
13CR.20121.12	Burke	18	SR 1333	FROM SR 1320 TO CUL-DE-SAC (MP 0.00 - MP 0.11)	7	NO	YES	0.11	20								78	5			20				
13CR.20121.12	Burke	19	SR 1339	FROM SR 1233 TO CUL-DE-SAC (MP 0.00 - MP 0.35)	7	NO	YES	0.35	20								249	17			5				
13CR.20121.12	Burke	20	SR 1340	FROM SR 1339 TO CUL-DE-SAC (MP 0.00 - MP 0.05)	7	NO	YES	0.05	20								36	2							
13CR.20121.12	Burke	21	SR 1341	FROM SR 1339 TO CUL-DE-SAC (MP 0.00 -MP 0.09)	7	NO	YES	0.09	20								64	4			5				
13CR.20121.12	Burke	22	SR 1346	FROM SR 1233 TO CUL-DE-SAC (MP 0.00 - MP 0.20)	7	NO	YES	0.2	22								157	11			80				
13CR.20121.12	Burke	23	SR 1347	FROM SR 1346 TO CUL-DE-SAC (MP 0.00 - MP 0.21)	7	NO	YES	0.21	22								165	11			10				
13CR.20121.12	Burke	24	SR 1635	FROM US 70 TO CATAWBA COUNTY (MP 0.57 - MP 0.80)	8	NO	NO	0.23	18	12							222	15			90				
13CR.20121.12	Burke	25	SR 1722	FROM SR 1726 TO E.O.M. (MP 0.00 -MP 1.57)	8	NO	NO	1.57	18	79							1,515	102			445		2	2	
13CR.20121.12	Burke	26	SR 1728	FROM SR 1722 TO SR 1729 (MP 0.00 - MP 0.89)	8	NO	NO	0.89	18	45		55					859	58			345				
13CR.20121.12	Burke	27	SR 1730	FROM US 70 TO E.O.M. (MP 0.00 - MP 0.48)	10	NO	NO	0.48	20	24						572		34			200		4	4	
13CR.20121.12	Burke	28	SR 1737	FROM SR 1734 TO SR 1861 (MP 0.00 - MP 1.59)	8	NO	NO	1.59	18	80		41					1,534	103			400				
13CR.20121.12	Burke	29	SR 1755	FROM SR 2332 TO END PAVEMENT (MP 0.00 - MP 0.92)	8	NO	NO	0.92	18	46							888	59			270			2	
13CR.20121.12	Burke	30	SR 1774	FROM SR 1773 TO E.O.M. (MP 0.00 - MP 0.118)	7	NO	NO	0.12	18								77	5			10				
13CR.20121.12	Burke	31	SR 1854	FROM SR 1002 TO E.O.P. (MP 0.00 - MP 0.40)	8	NO	NO	0.4	18	20							386	26			130				
13CR.20121.12	Burke	32	SR 2535	FROM SR 1785 TO CUL-DE-SAC (MP 0.00 - MP 0.61)	8	NO	NO	0.61	18	31							589	39			250				
<b>TOTAL FOR PROJ NO. 13CR.20121.12</b>								<b>13.27</b>		<b>513</b>		<b>1,267</b>			<b>1,109</b>	<b>572</b>	<b>11,871</b>	<b>879</b>			<b>3,960</b>		<b>6</b>	<b>9</b>	
<b>GRAND TOTAL</b>								<b>19.04</b>		<b>638</b>	<b>4.96</b>	<b>8,941</b>	<b>5,333</b>	<b>46,054</b>	<b>1,109</b>	<b>13,483</b>	<b>11,871</b>	<b>1,653</b>	<b>13</b>	<b>205</b>	<b>5,435</b>	<b>48</b>	<b>58</b>	<b>56</b>	<b>1</b>

\* Note: Portable Lighting is for night work on Maps 1, 2 and 8

