

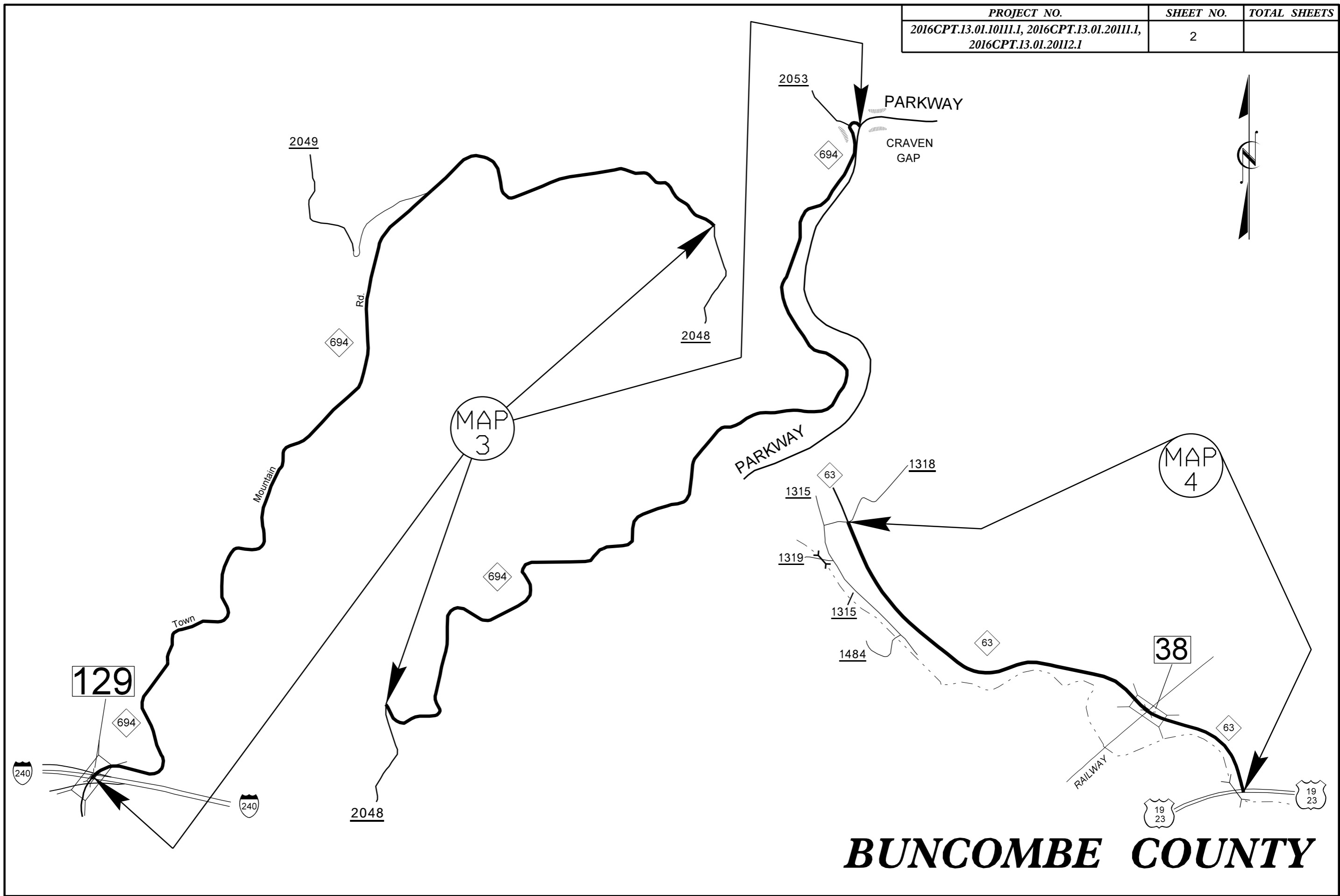
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numbers appear on each page, on the dates appearing  
with their signature on that page.**

**This file or an individual page  
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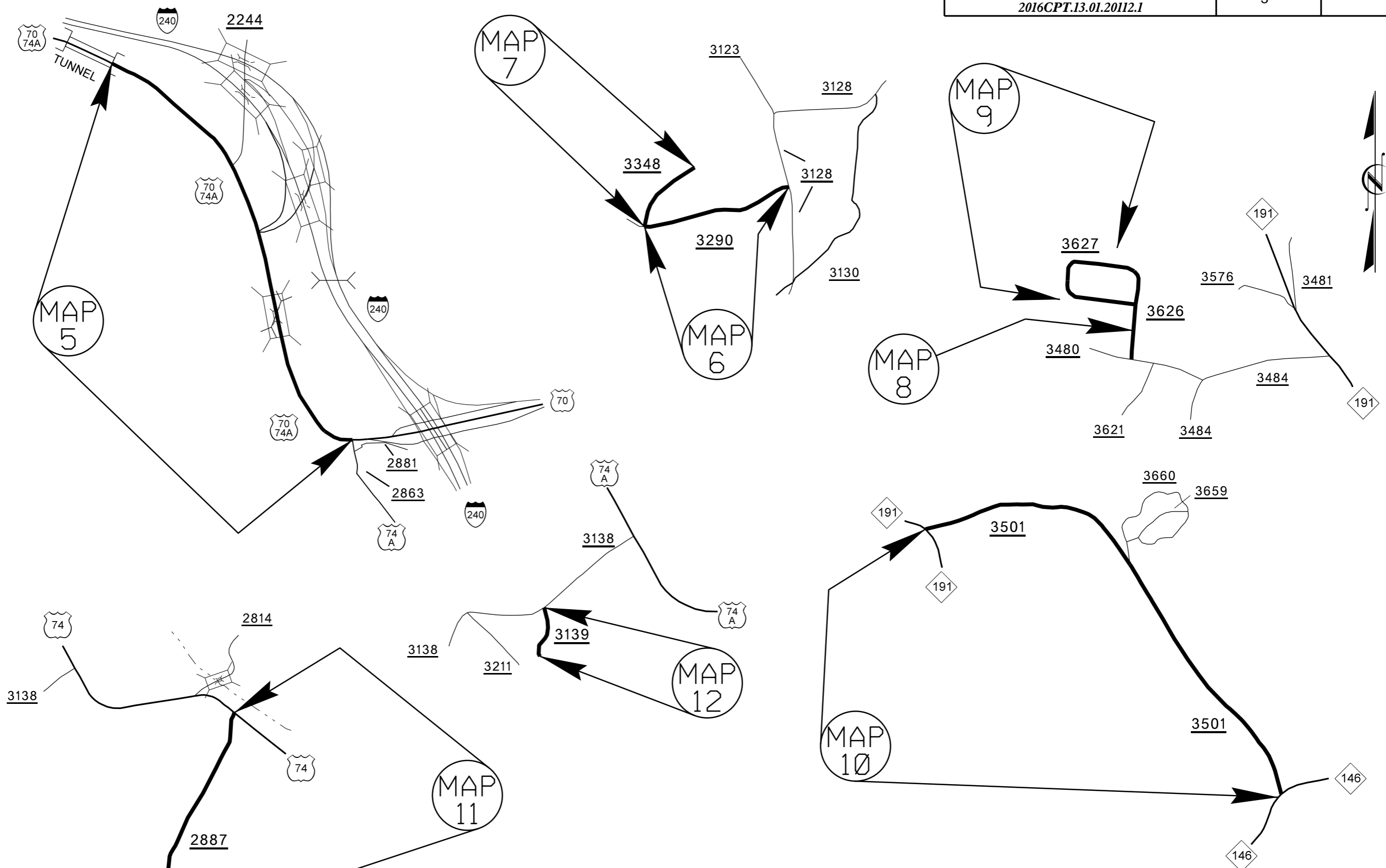


PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	2	



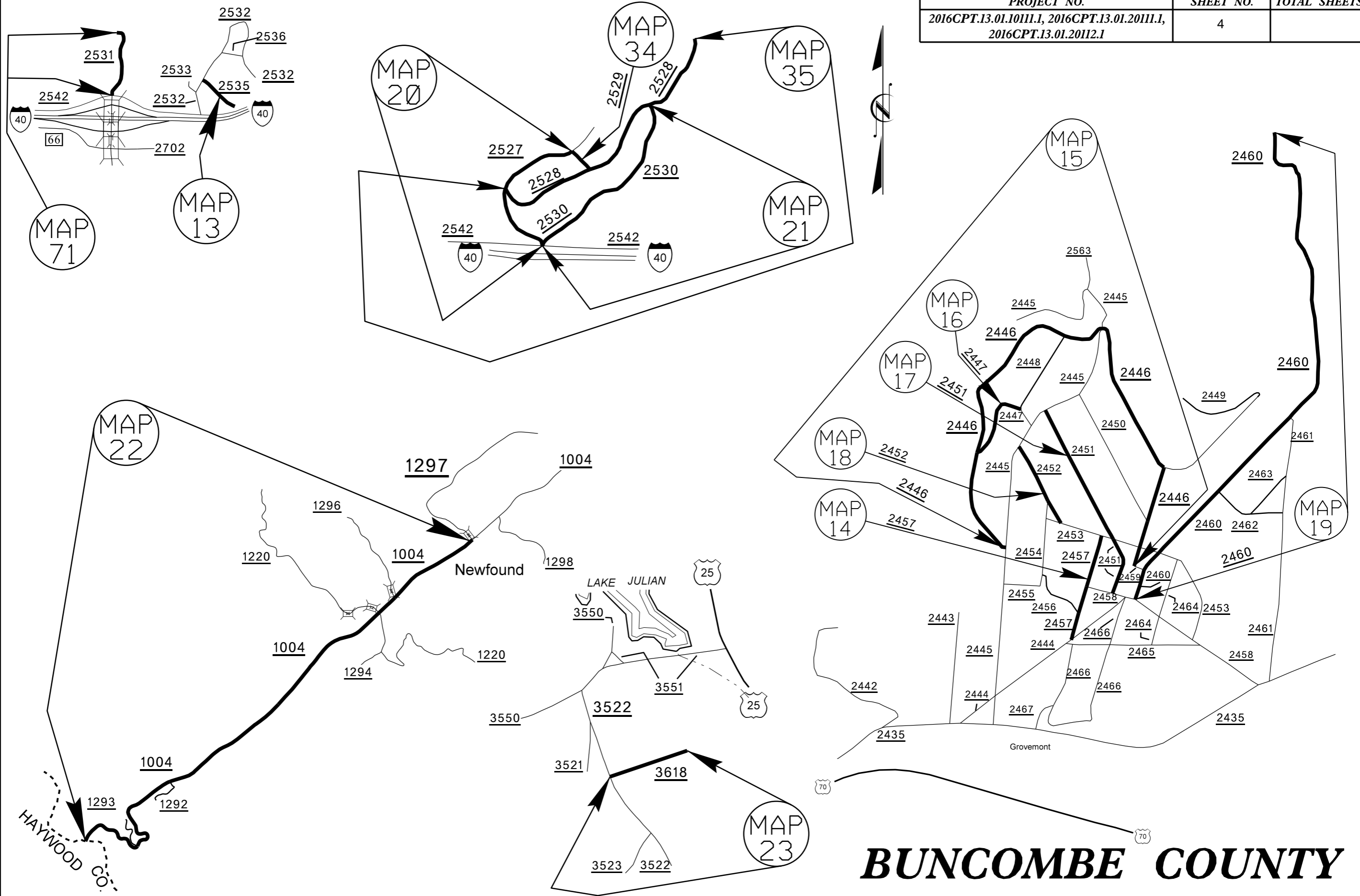
**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	3	



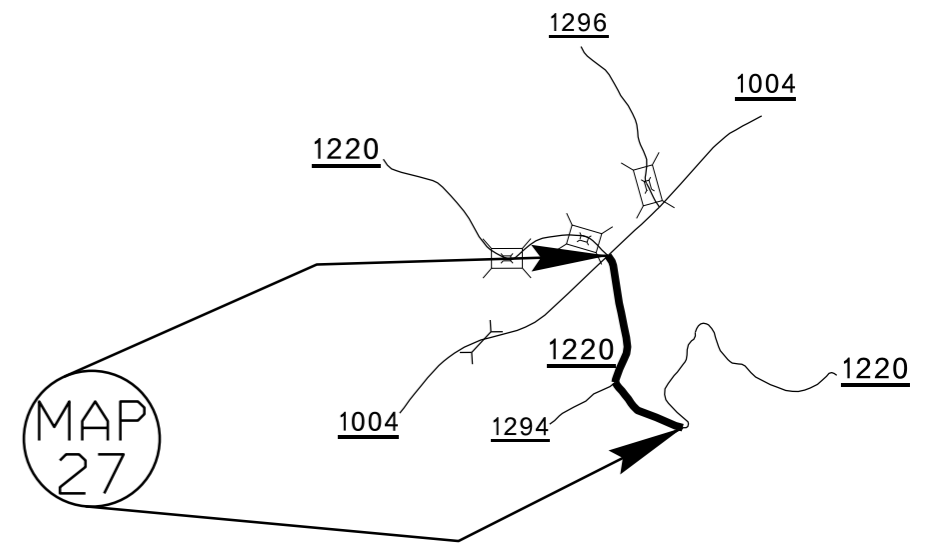
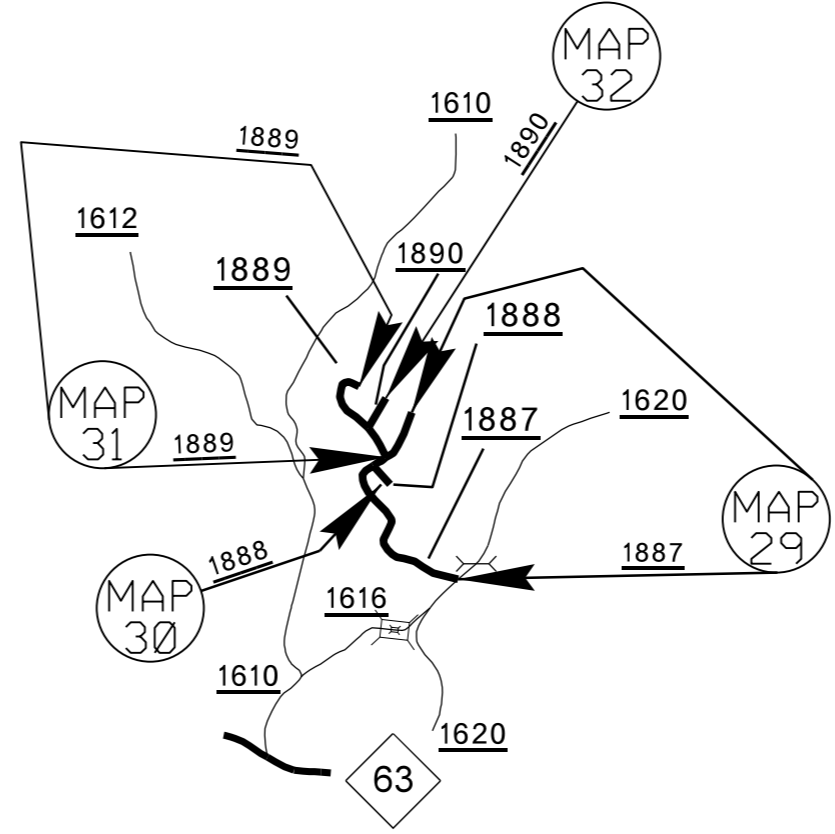
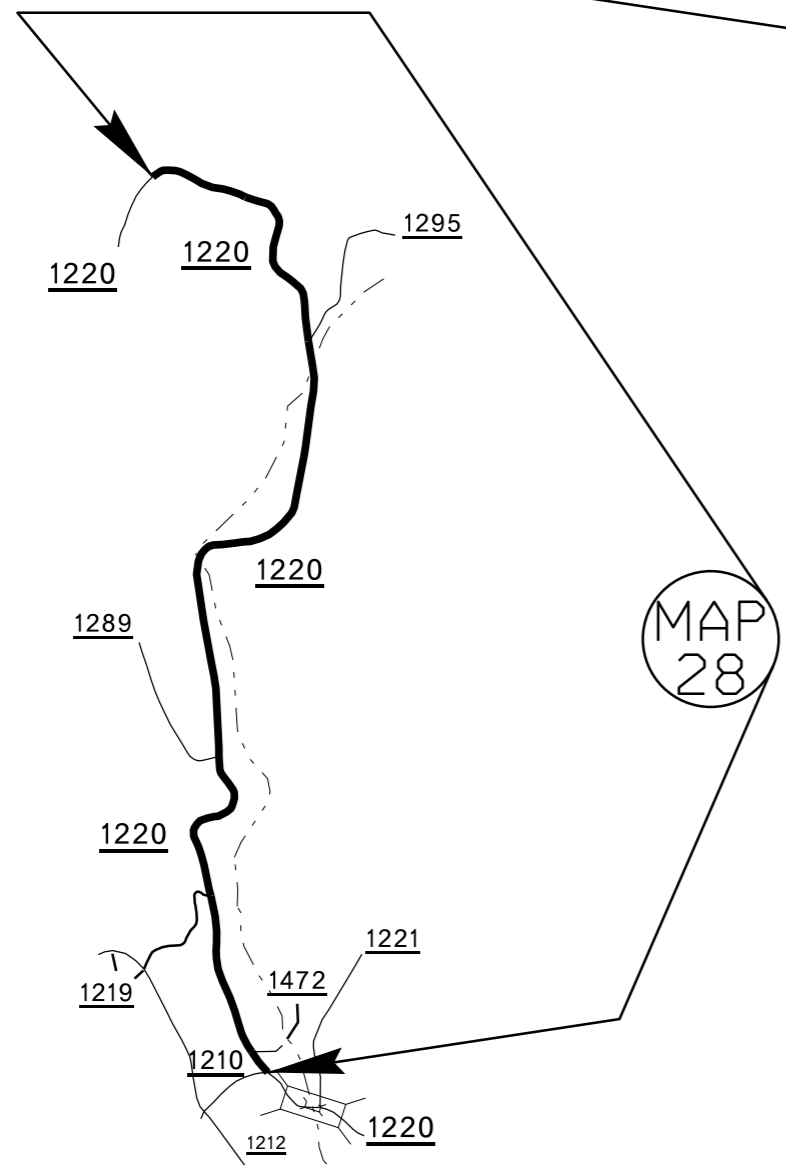
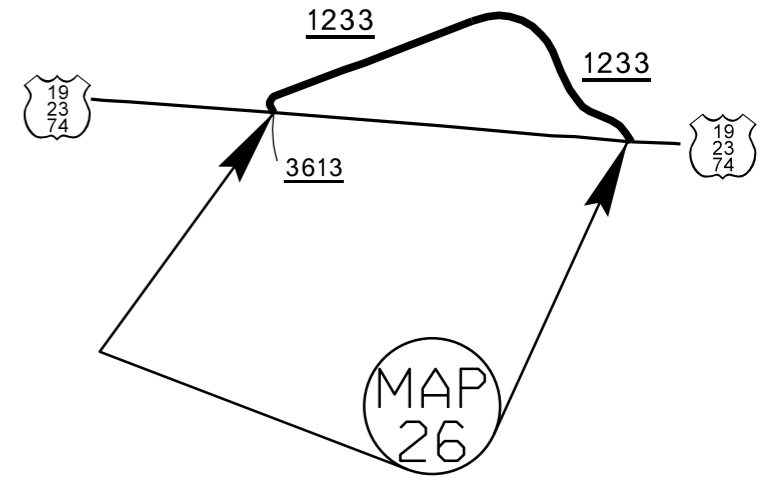
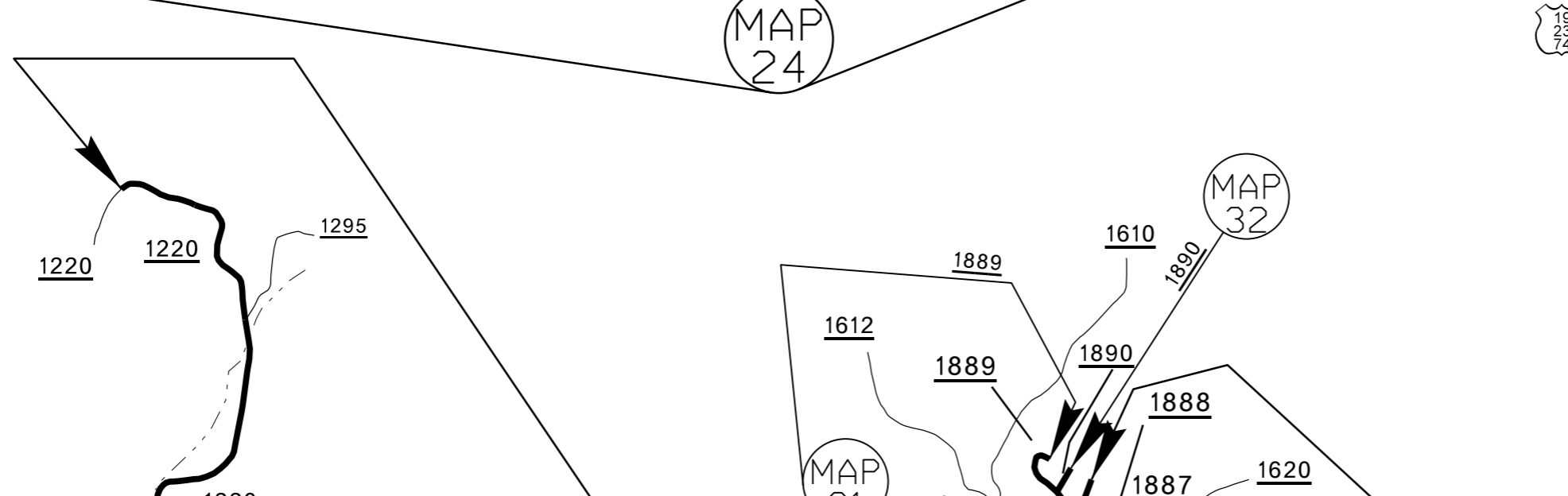
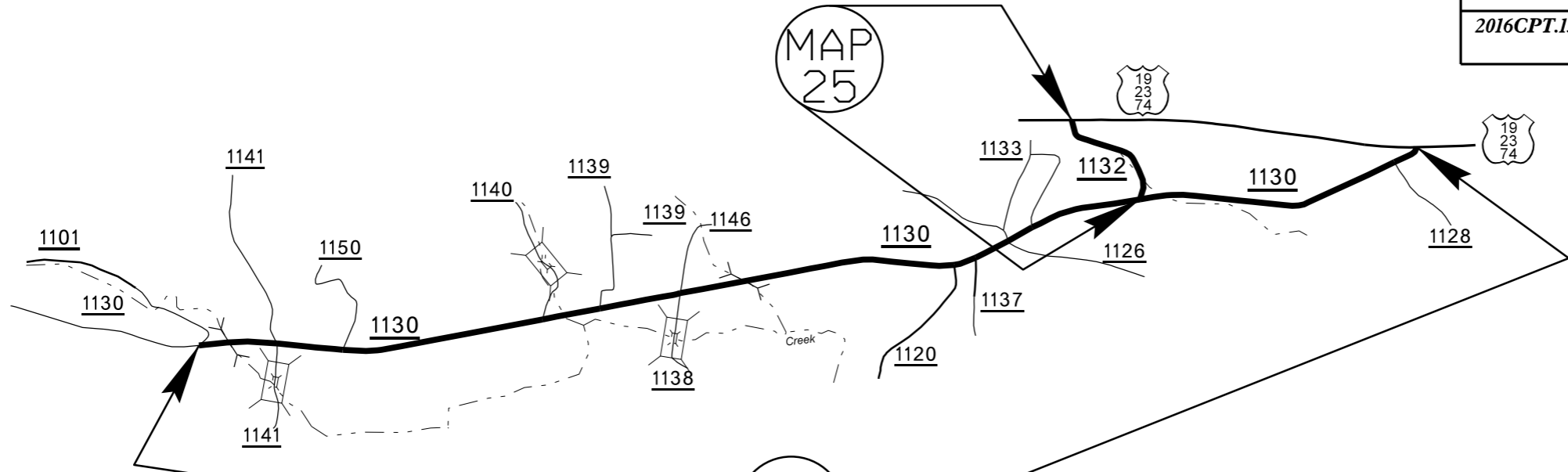
**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	4	



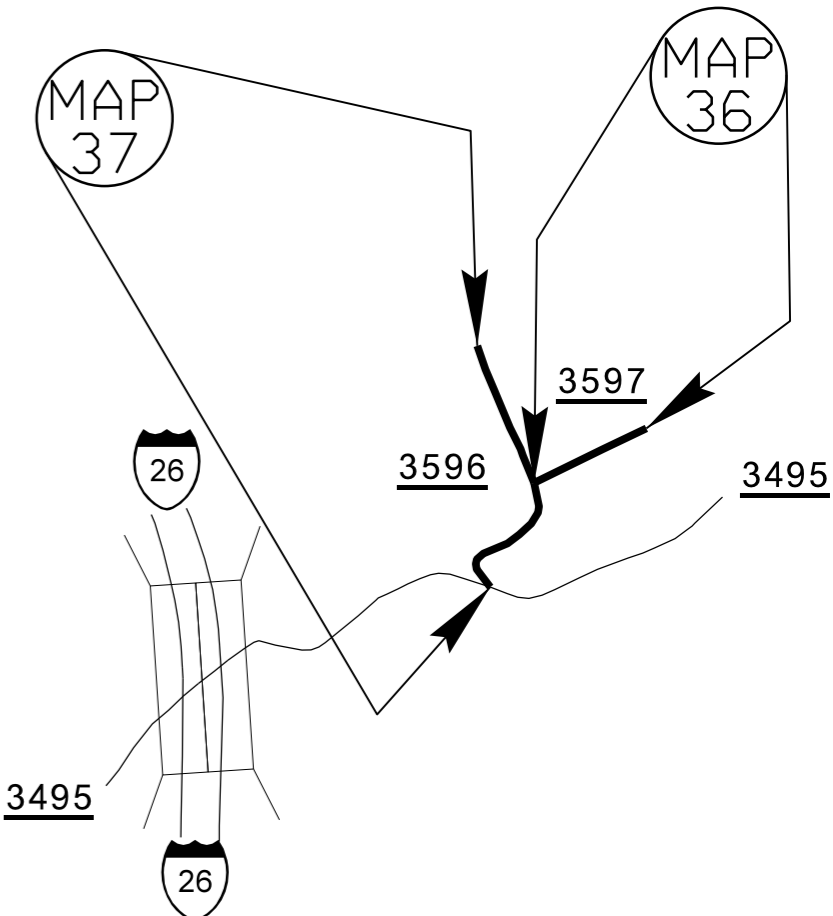
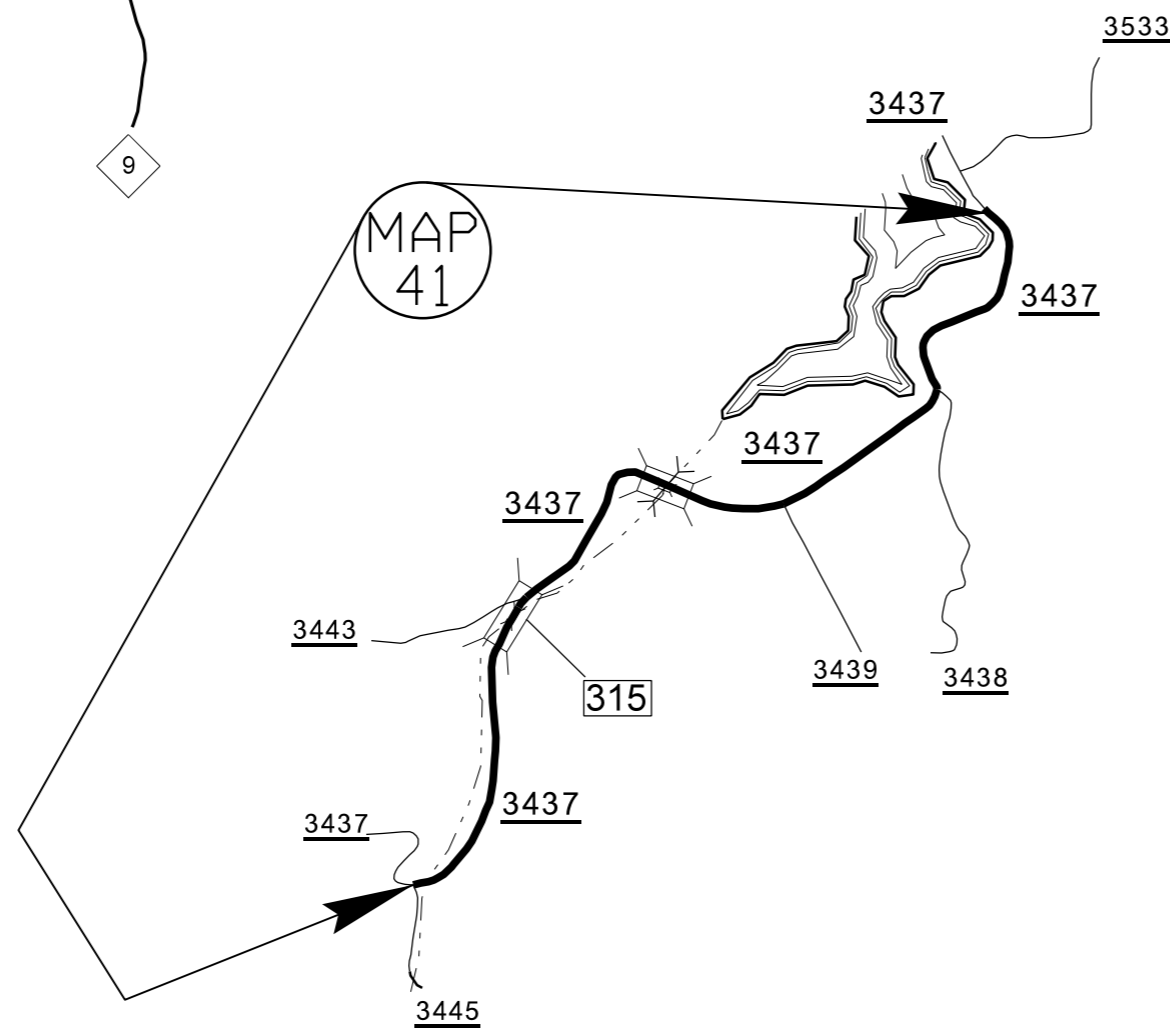
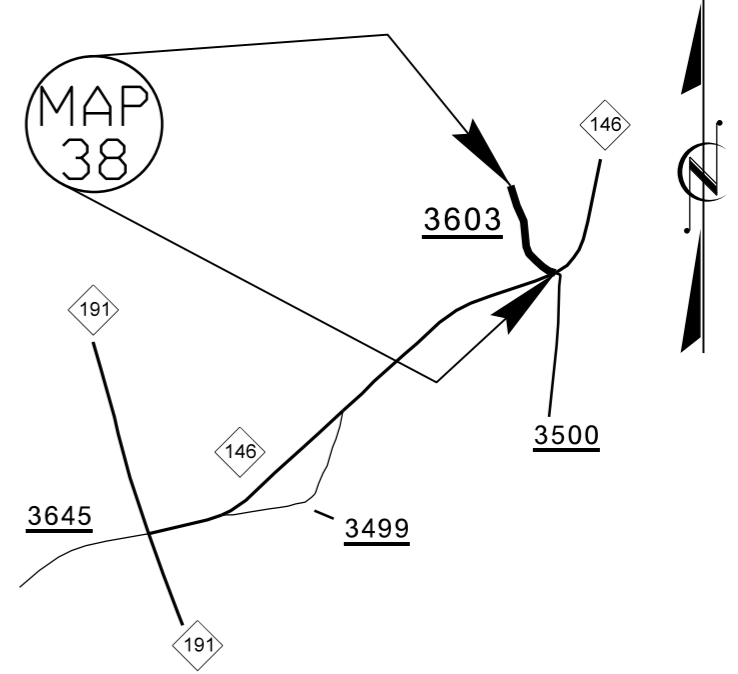
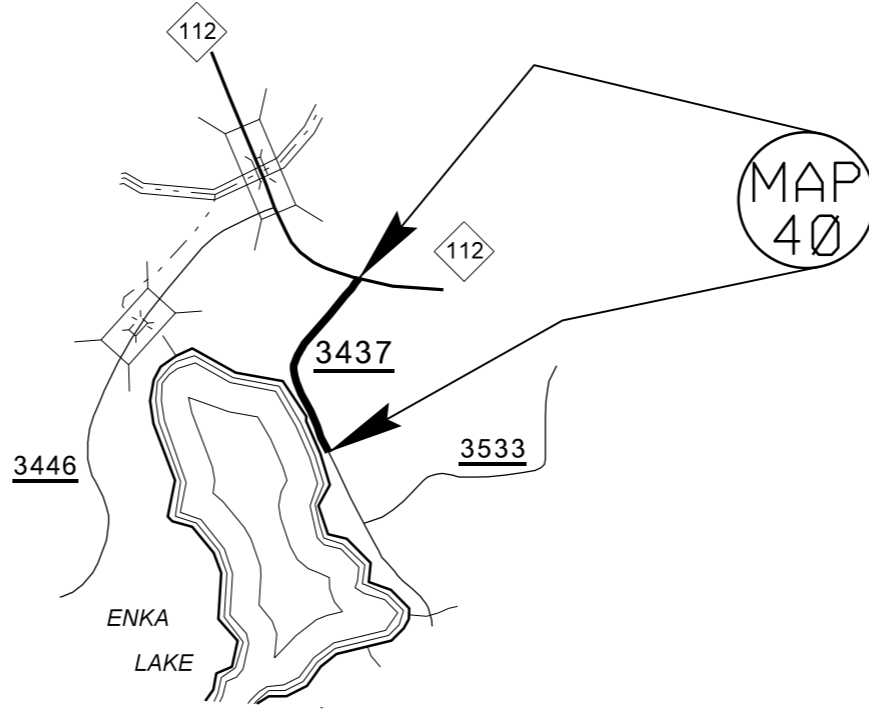
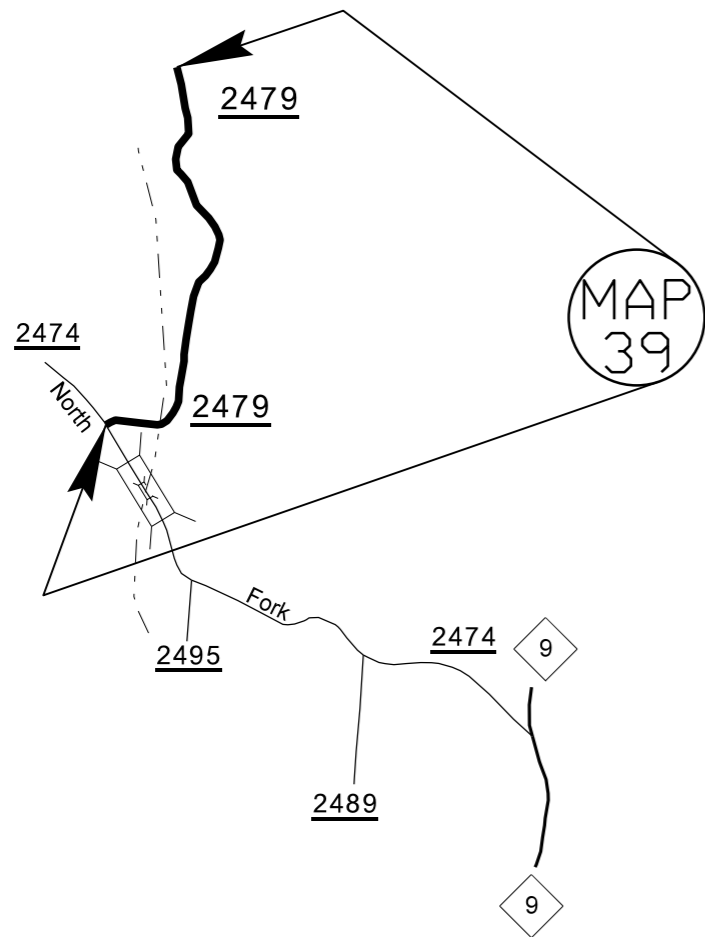
**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	5	



**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	6	



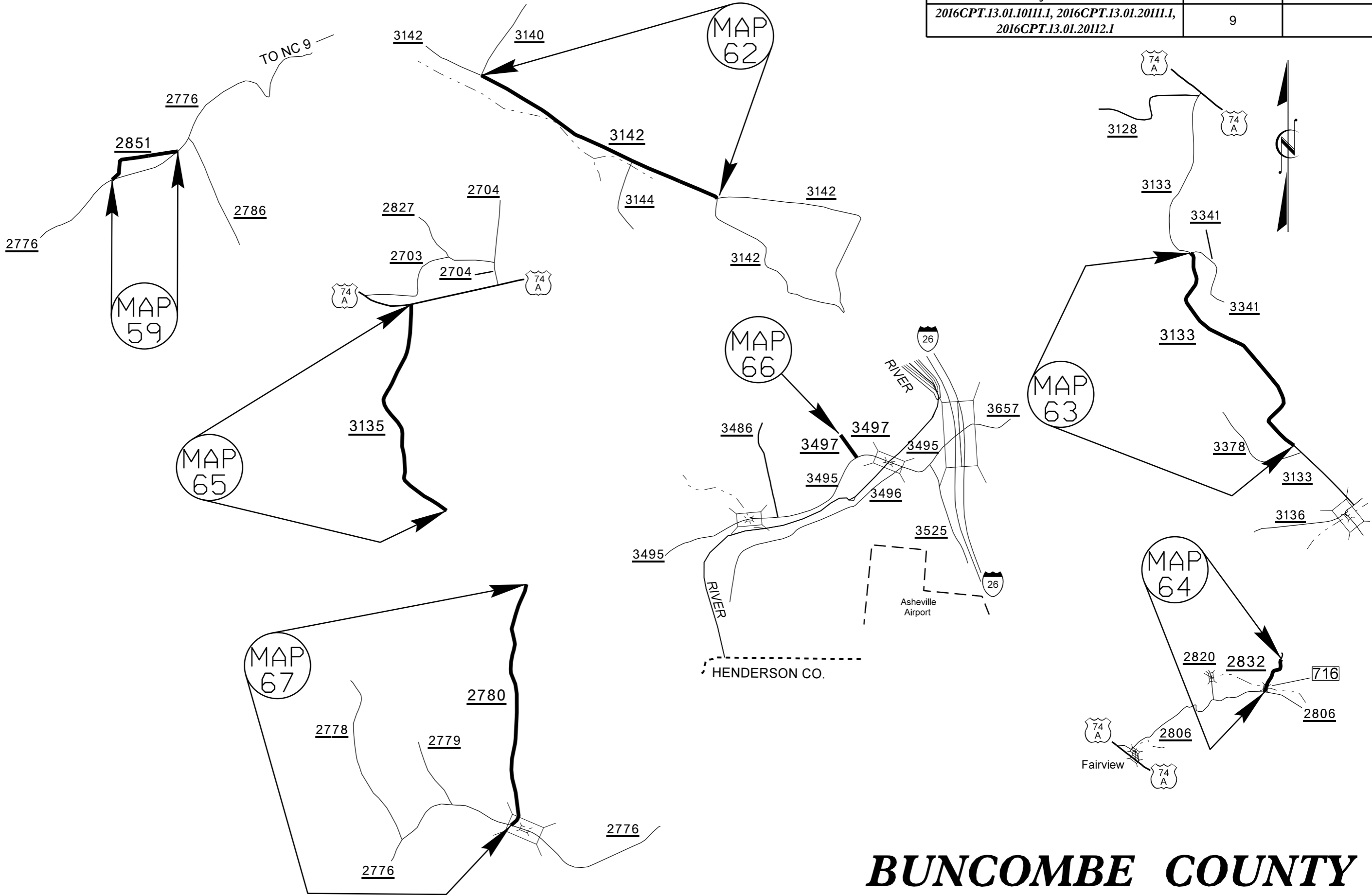
**BUNCOMBE COUNTY**





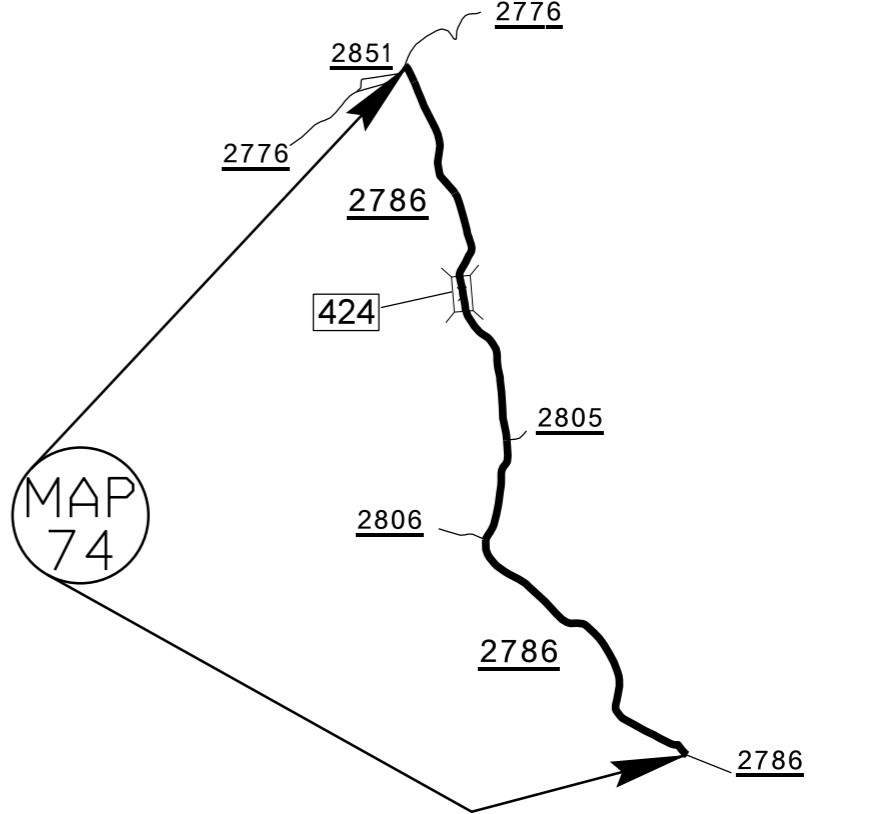
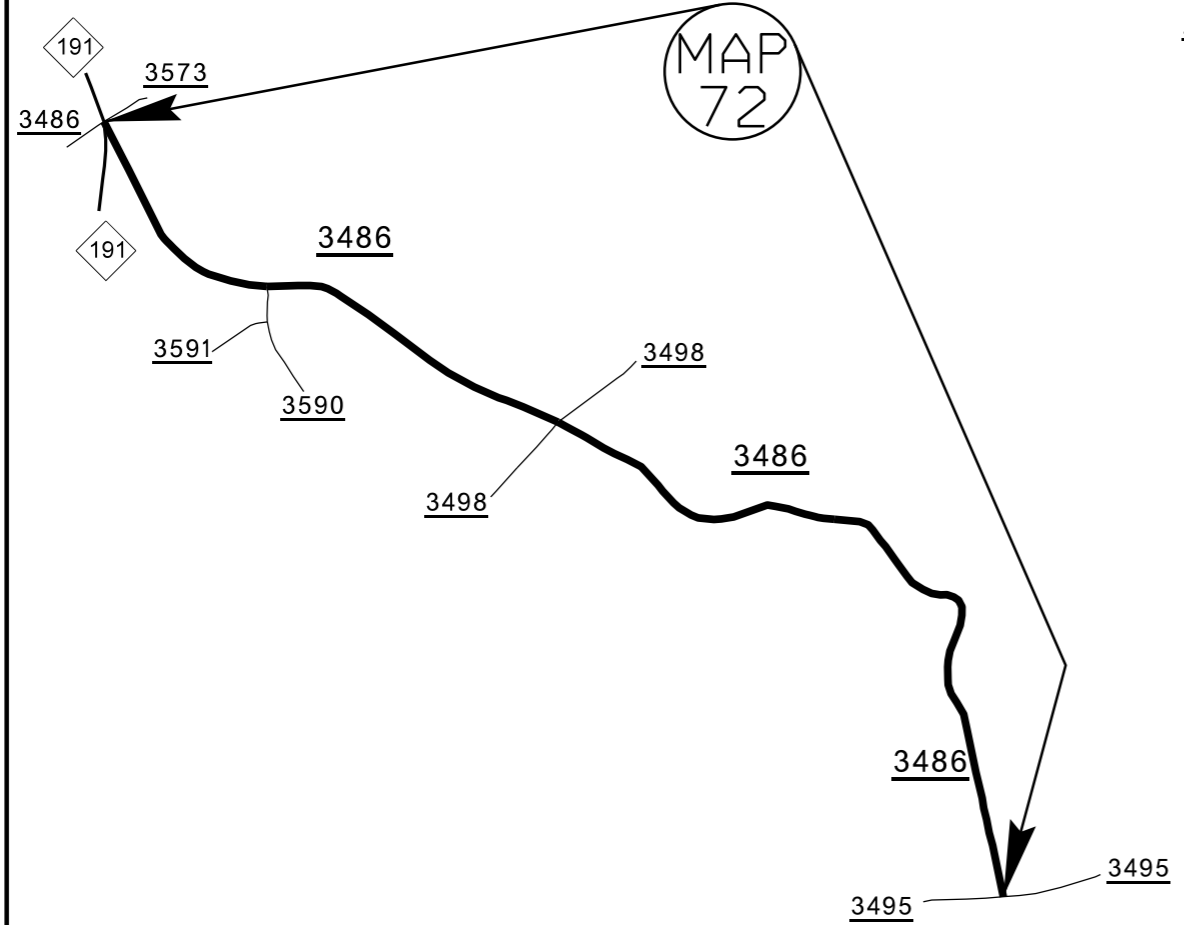
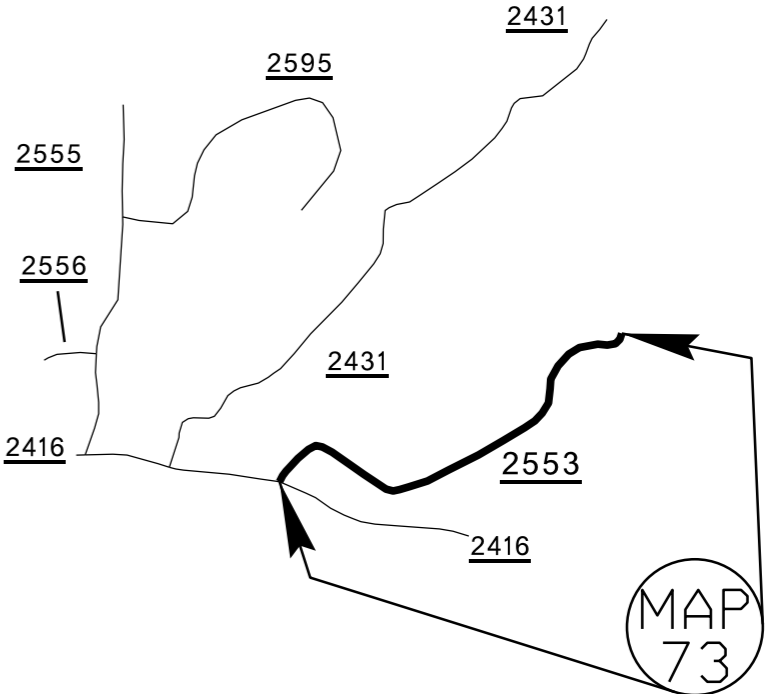
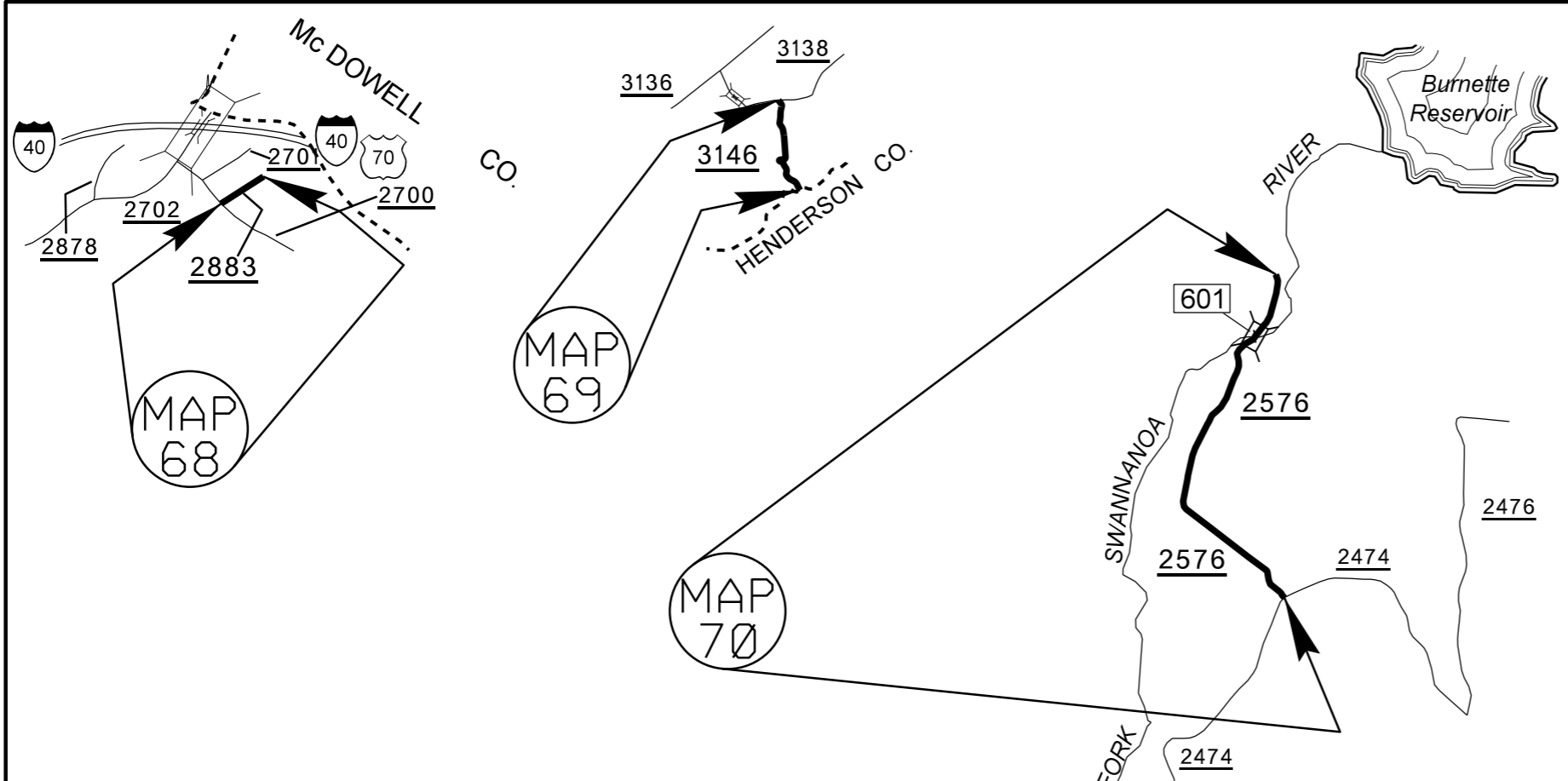


PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	9	



**BUNCOMBE COUNTY**

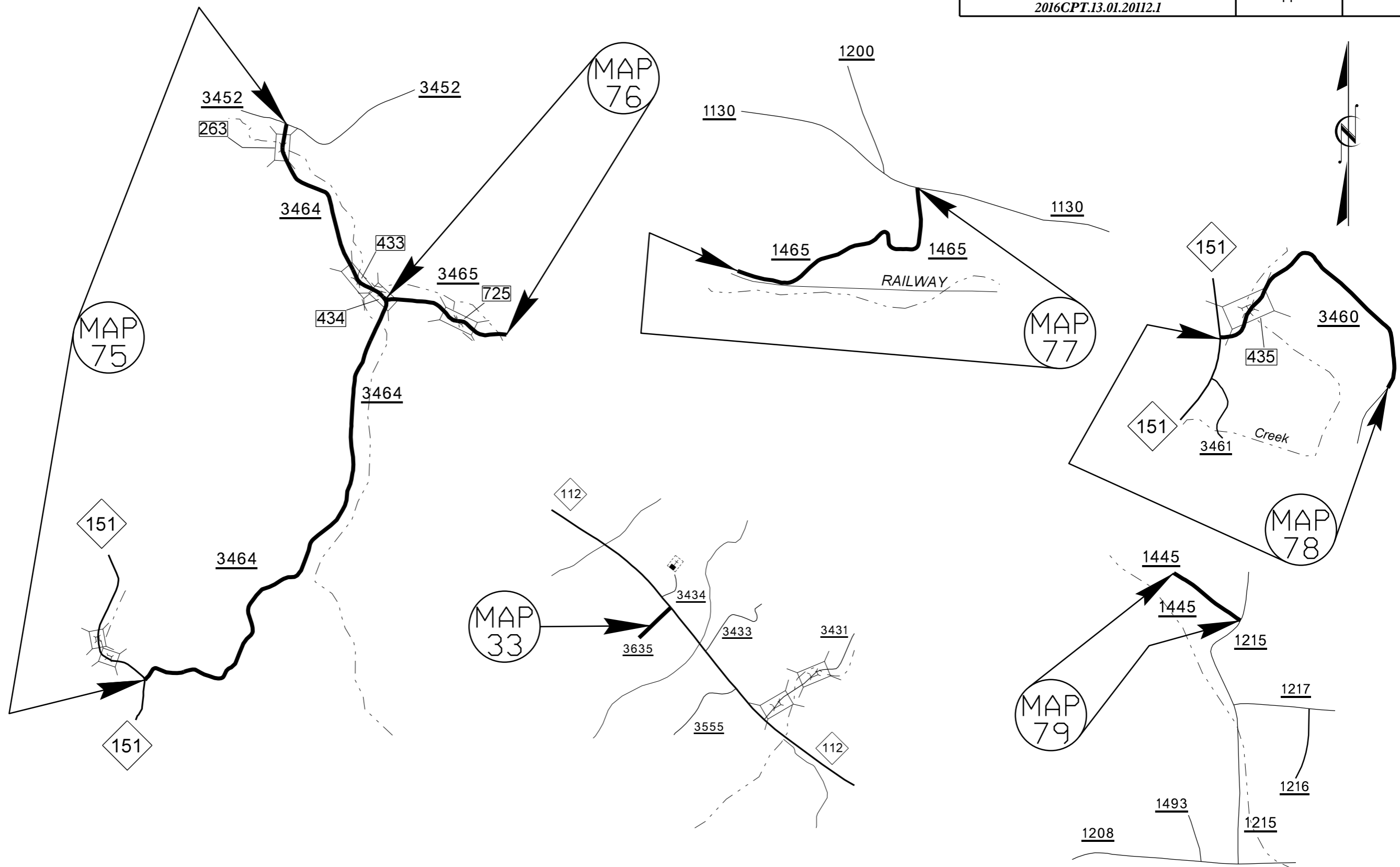
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	10	



**BUNCOMBE COUNTY**

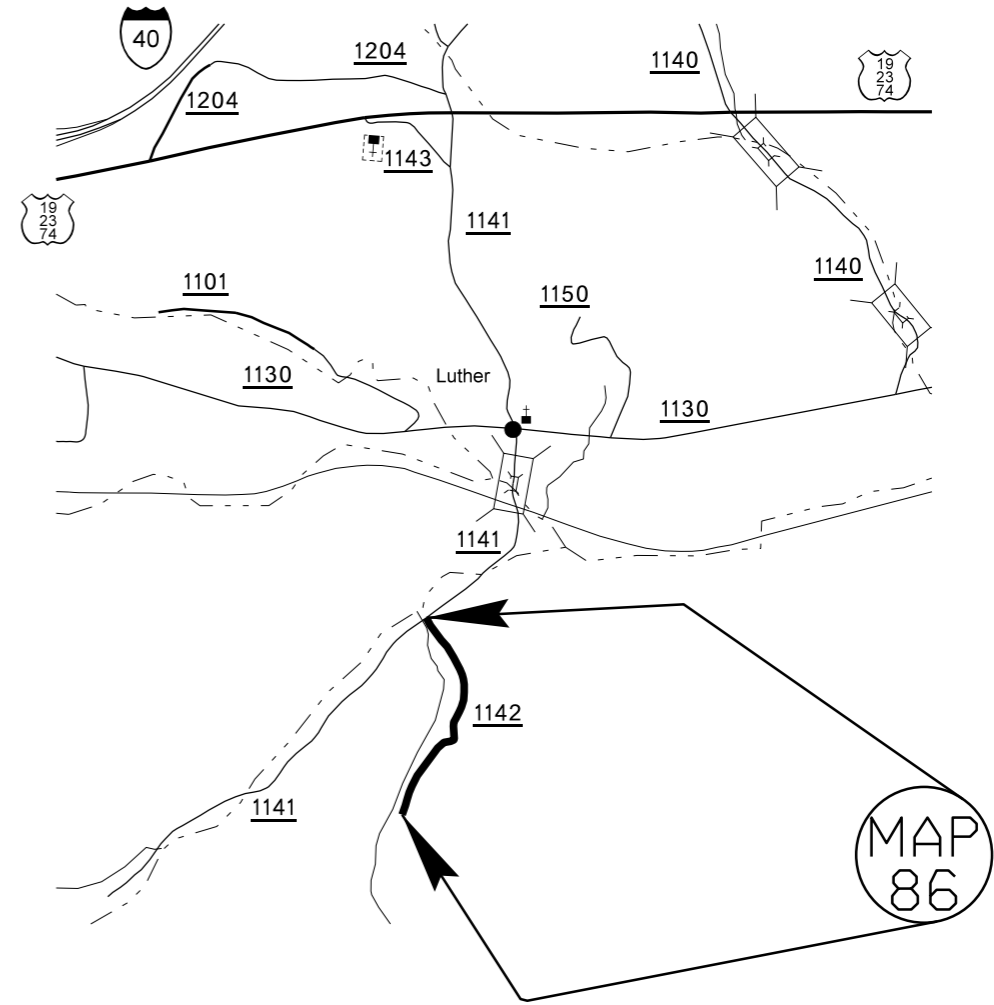
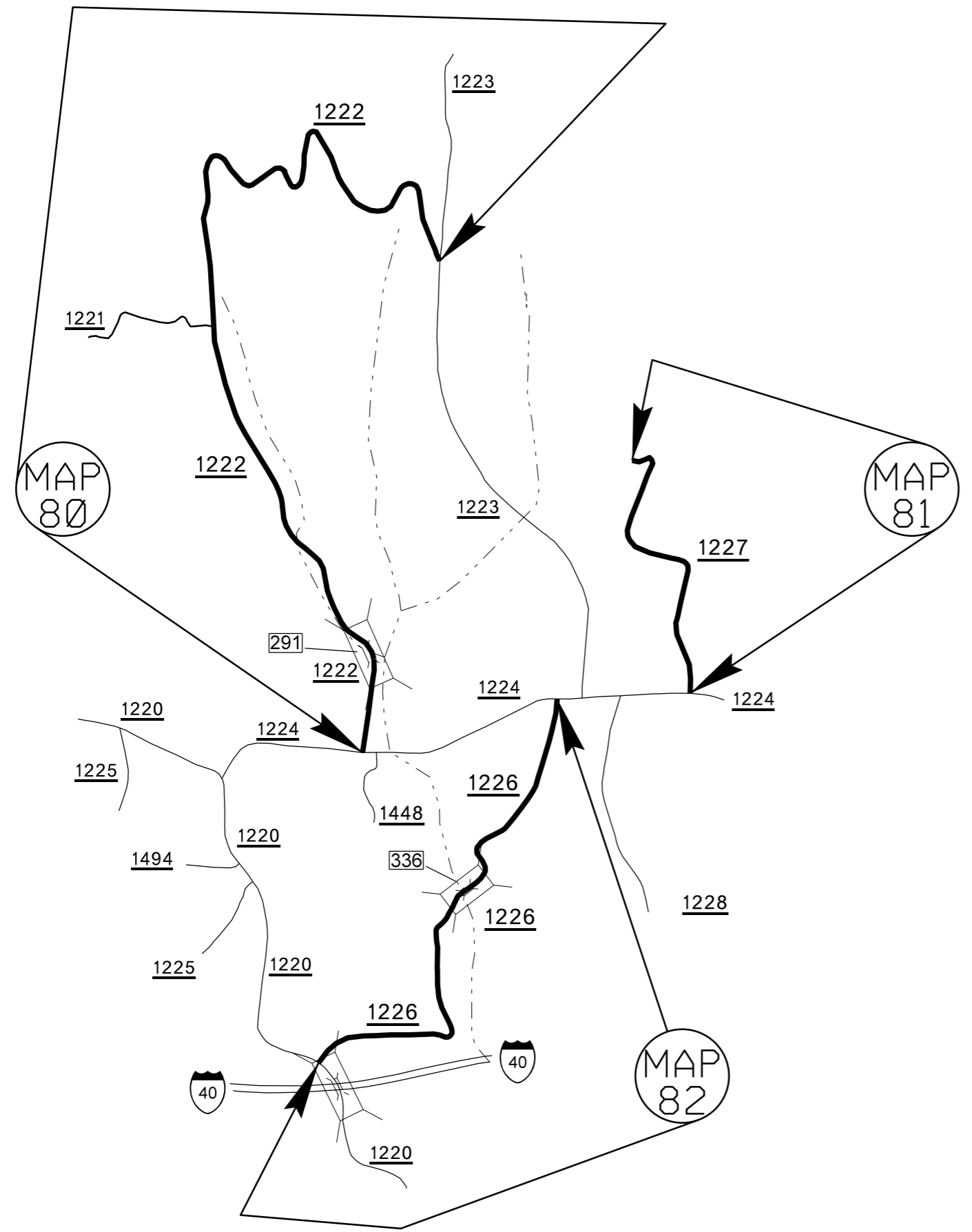


PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	11	



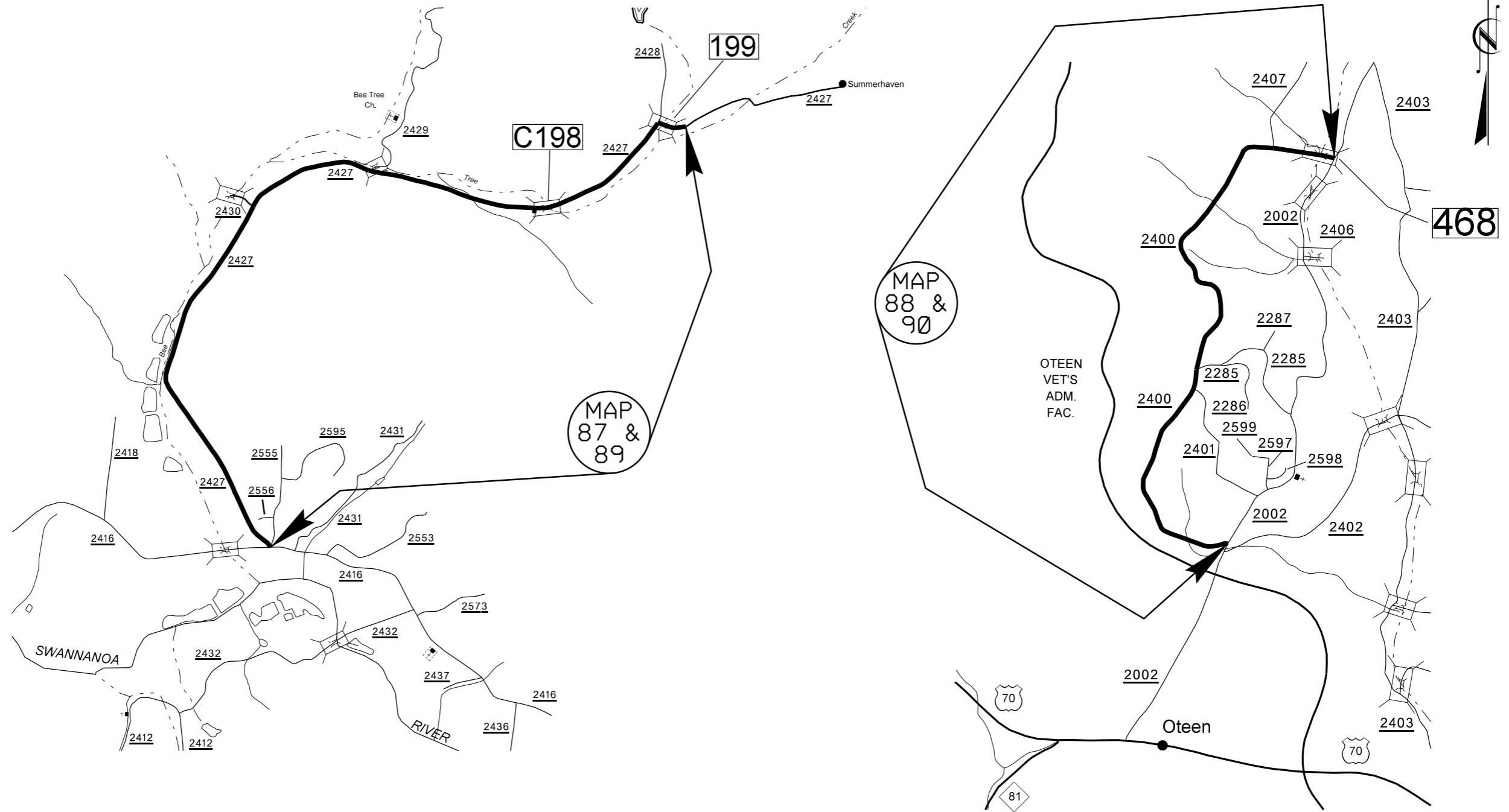
**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	12	



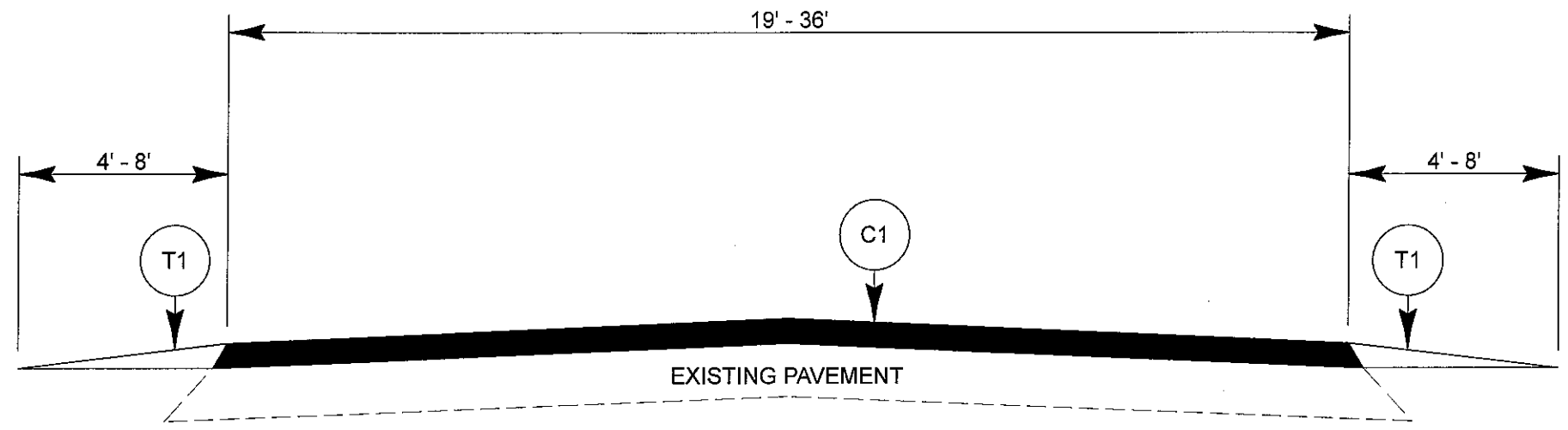
**BUNCOMBE COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	13	

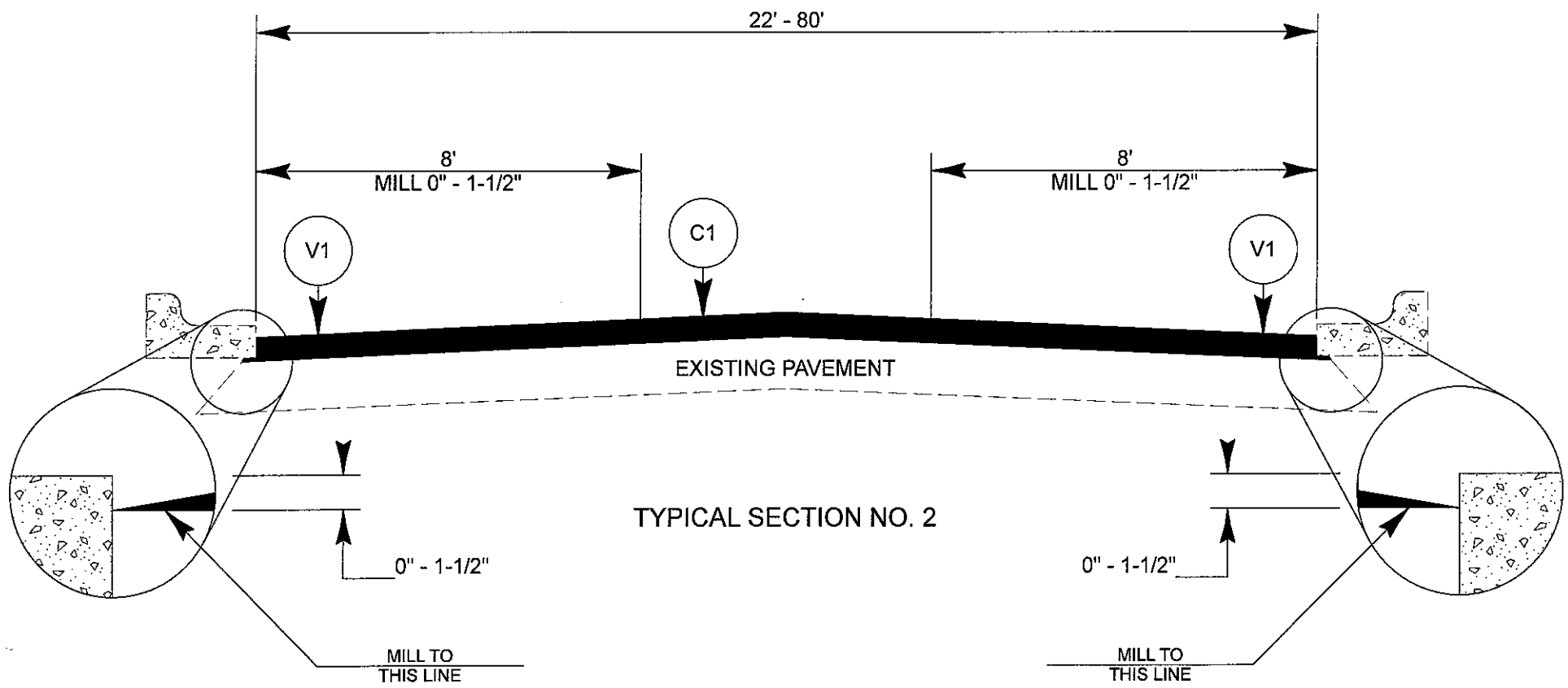
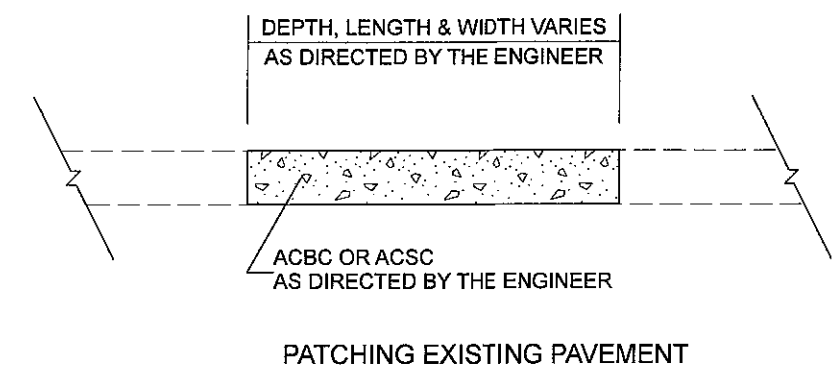


# BUNCOMBE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1,	14	



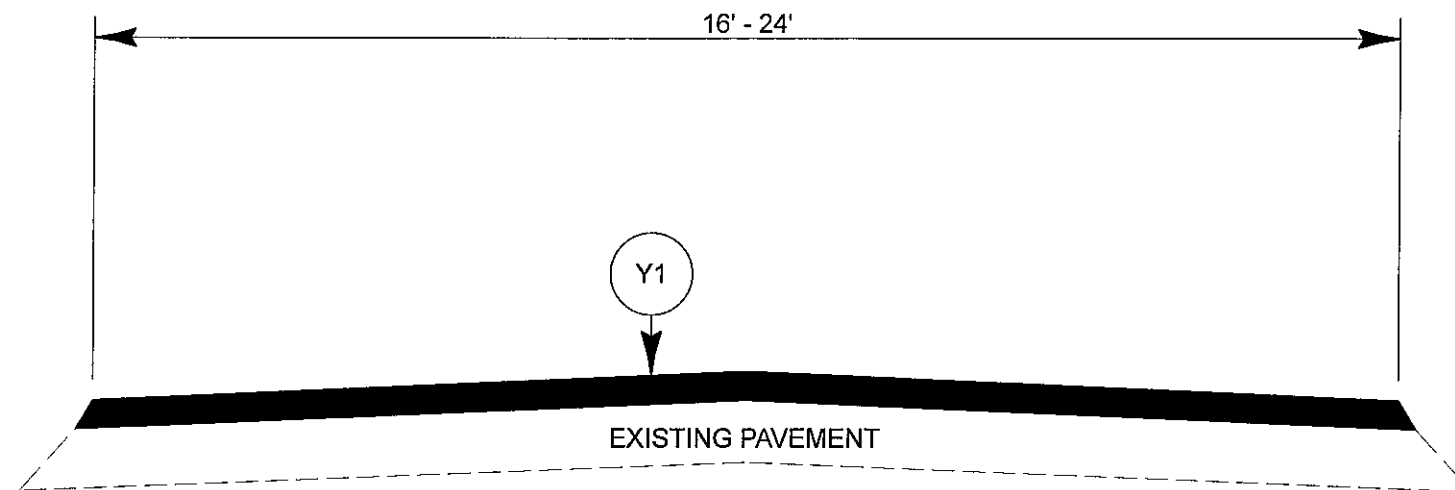
TYPICAL SECTION NO. 1



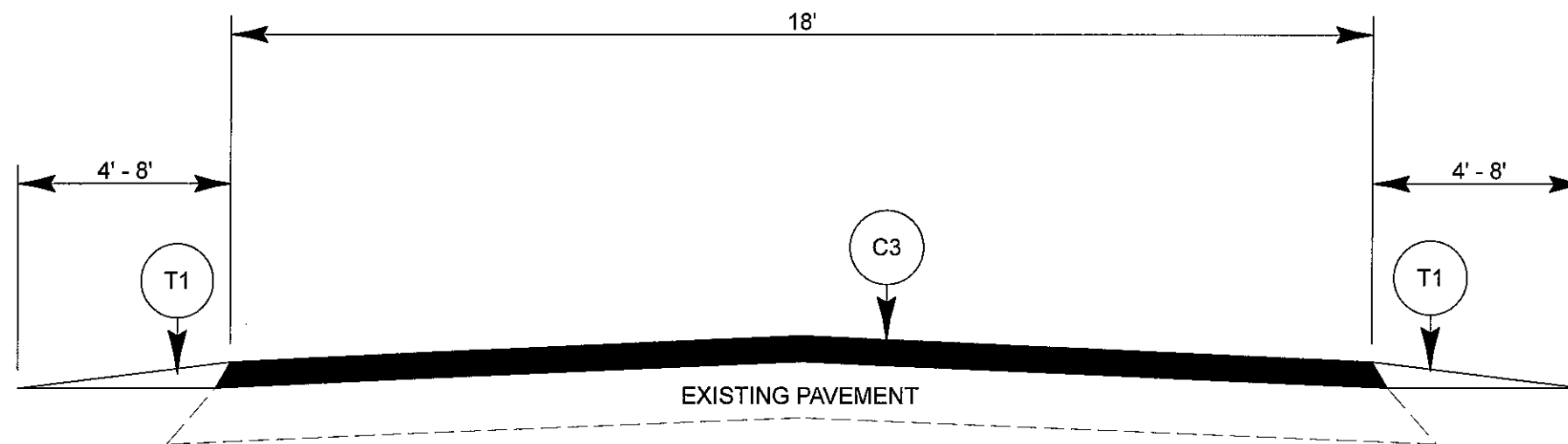
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YARD
C4	PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YARD
F1	ASPHALT SURFACE TREATMENT, DOUBLE SEAL
F2	ASPHALT SURFACE TREATMENT, FOG SEAL
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH
V2	INCIDENTAL MILLING
Y1	LATEX MODIFIED MICROSURFACING, TYPE III
Z1	MILLED RUMBLE STRIPS

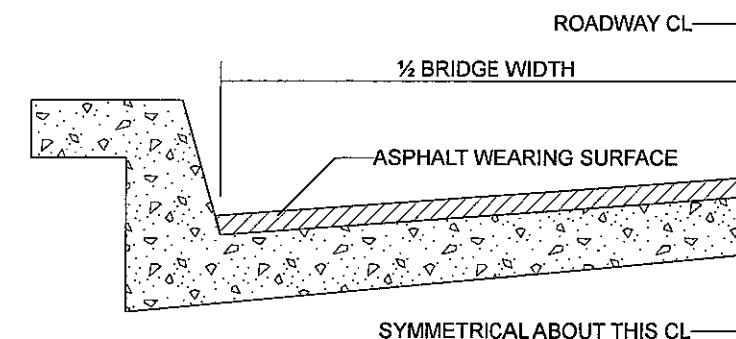
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1,	15	



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



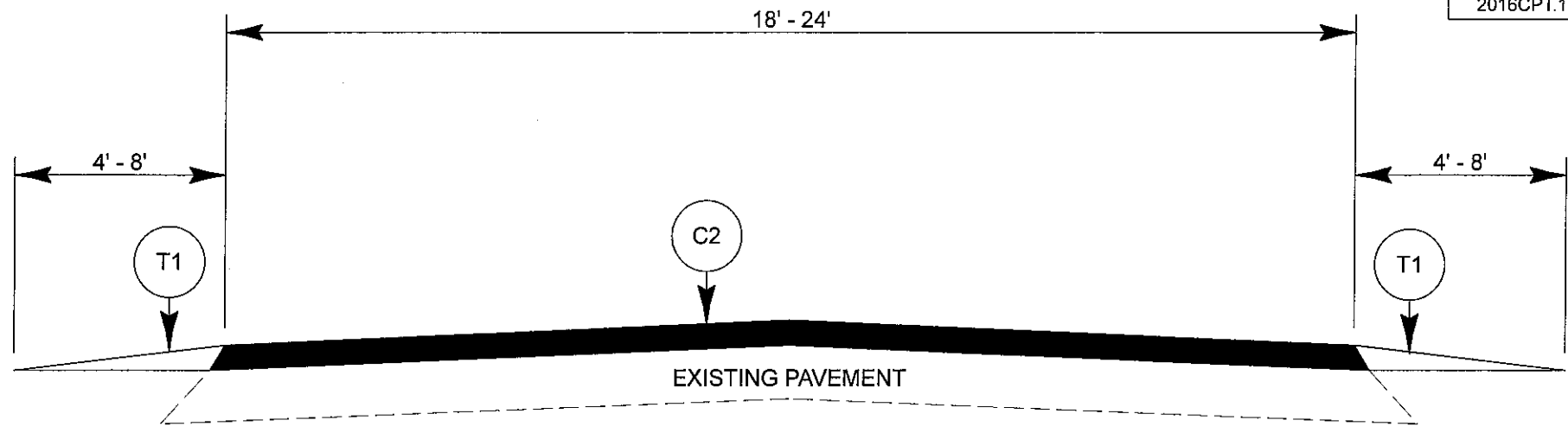
**BRIDGE HALF TYPICAL SECTION**  
 FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

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".

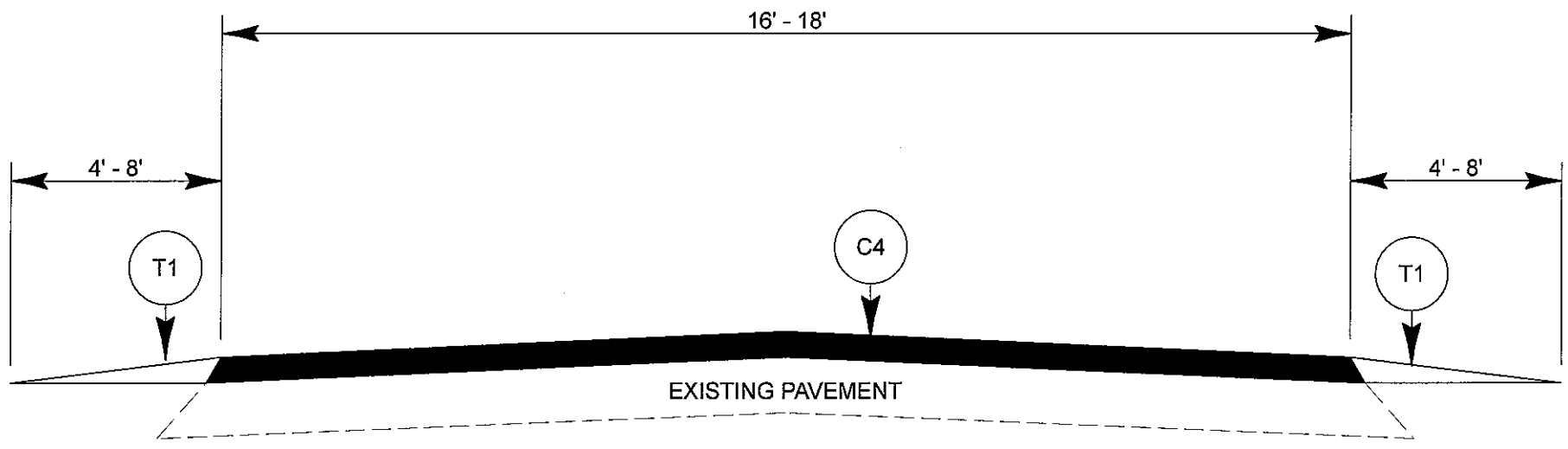
**NOTES**  
 ALL UNPAVED ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.  
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.  
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.  
 SHOULDERS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



PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1,	16	

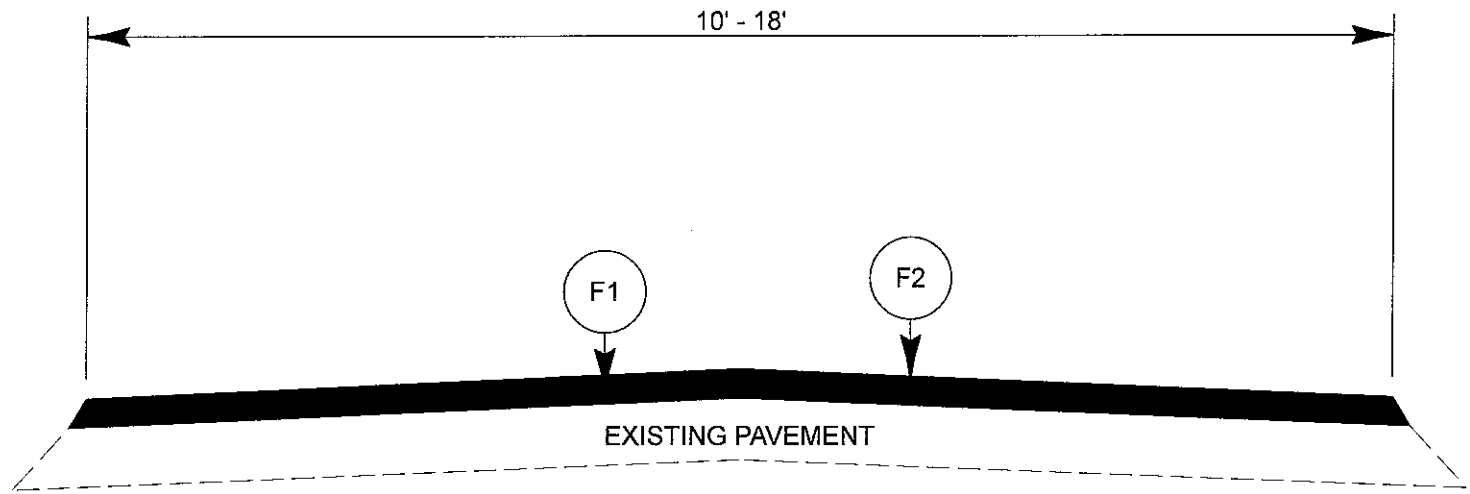


TYPICAL SECTION NO. 5



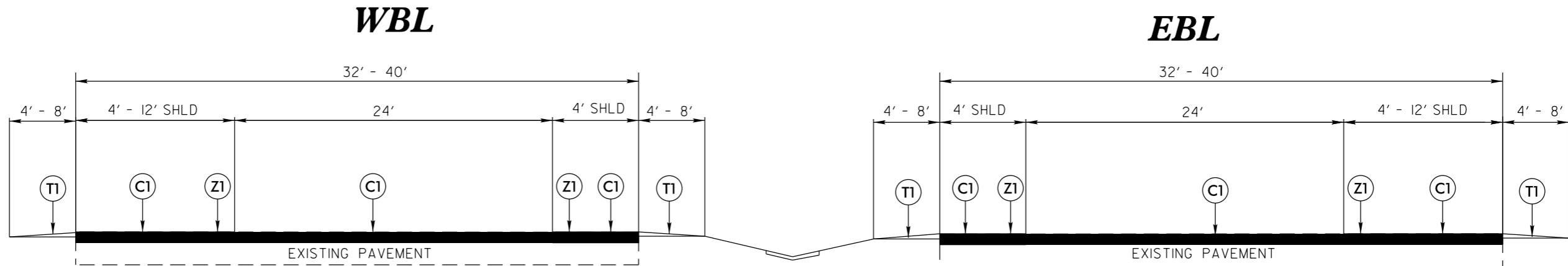
TYPICAL SECTION NO. 6

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1,	17	

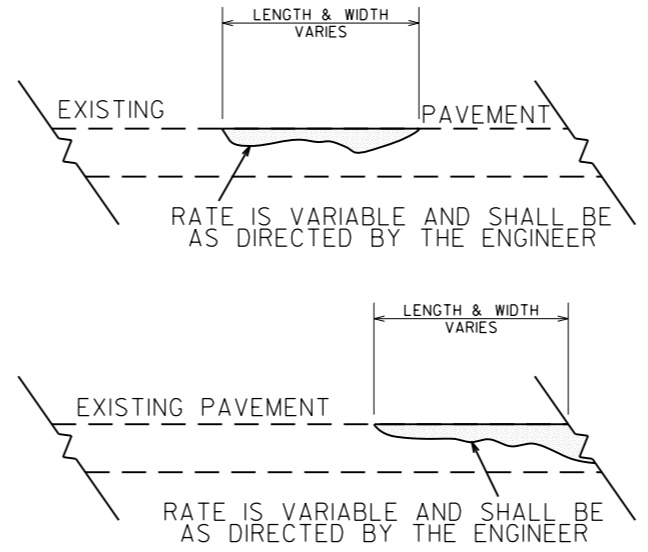


TYPICAL SECTION NO. 7

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	18	

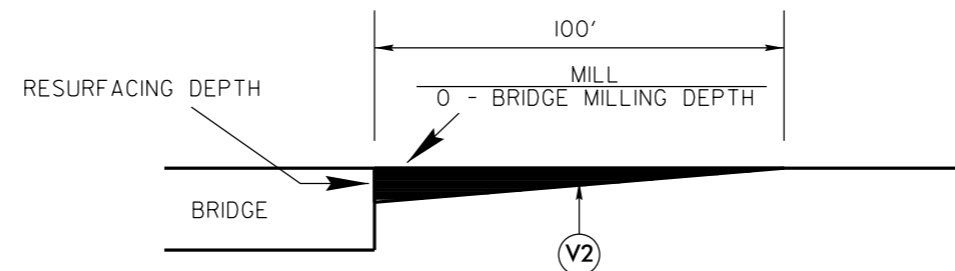


**TYPICAL SECTION NO. 8**



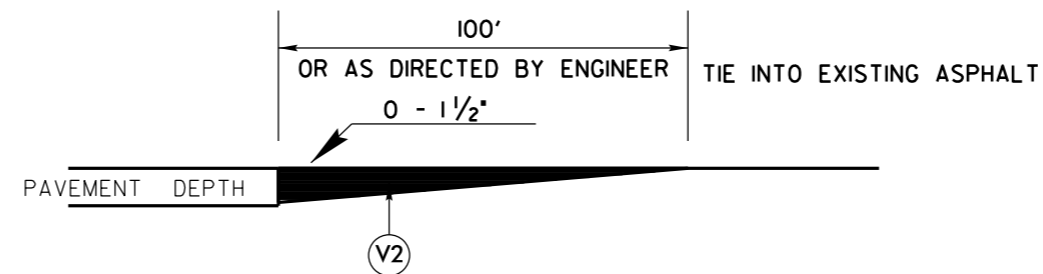
**DETAIL SHOWING METHOD OF WEDGING**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	19	



### **MILLING DETAIL AT BRIDGE APPROACHES**

**WHERE BRIDGES WILL NOT BE RESURFACED.  
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.  
USE AT BRIDGE NUMBERS 38 and 126.**

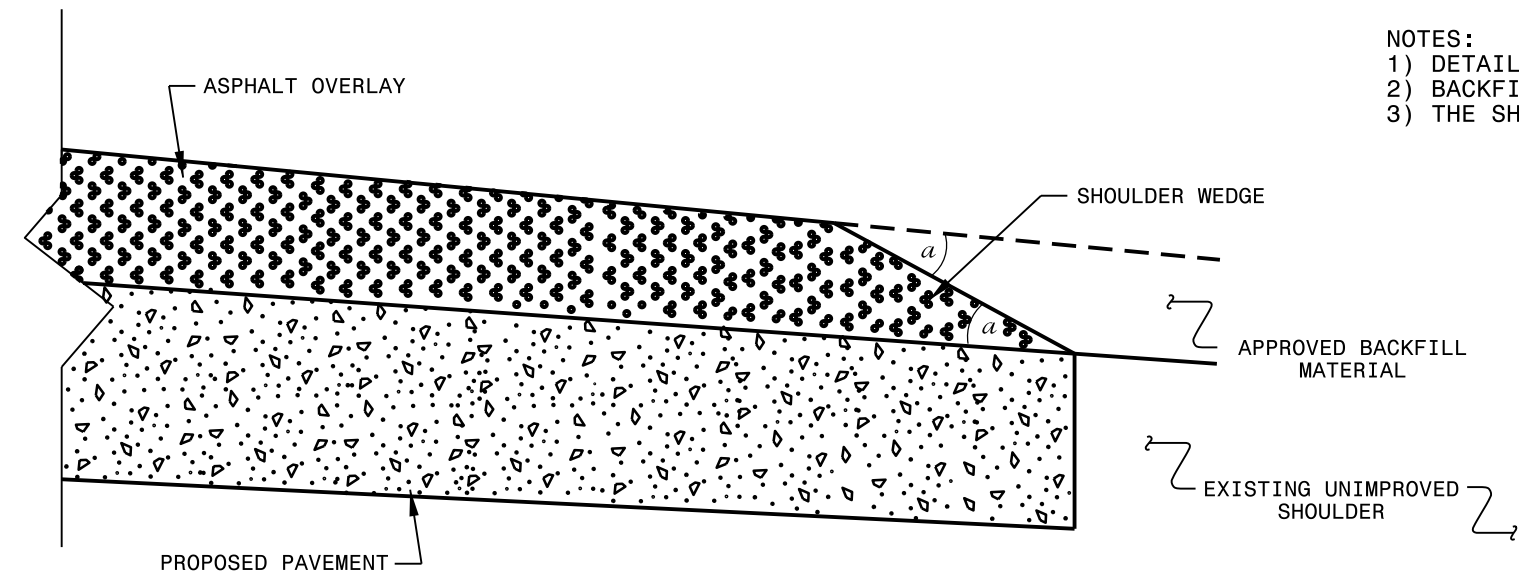


### **DETAIL TO TIE INTO EXIST PAVEMENT**

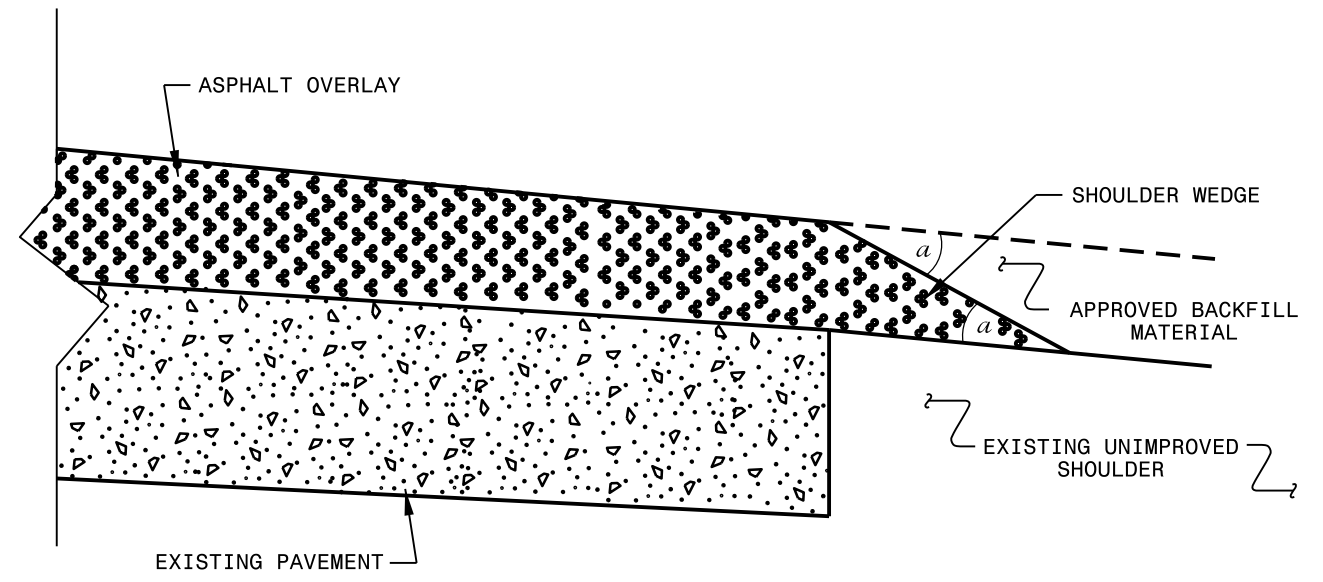
**THE CONTRACTOR'S ATTENTION IS DIRECTED TO  
THE FACT THAT HE WILL BE REQUIRED TO MILL  
THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER  
TIE-IN WITH THE EXISTING SURFACE AT THE BEGINNING, END  
AND Y LINES OF EACH MAP TO BE RESURFACED WITH  
ASPHALT CONC SURFACE COURSE, TYPE S9.5B.  
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.**

2016CPT.13.01.10111.1,ETC.

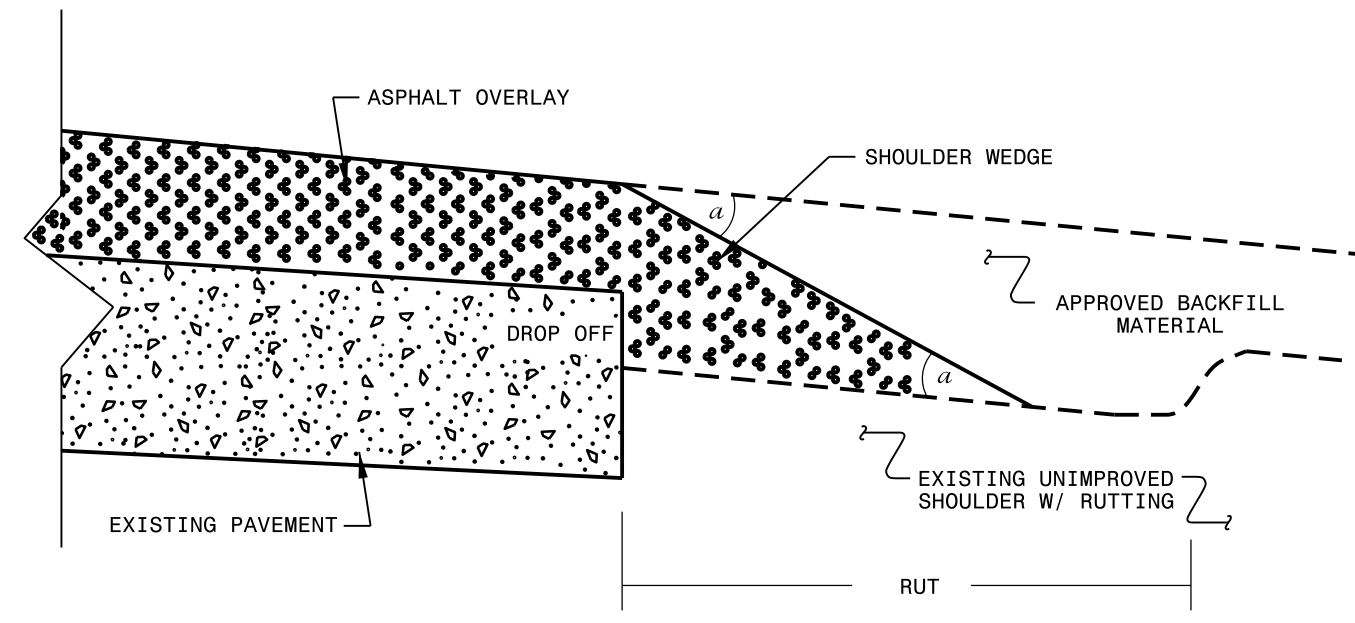
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



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

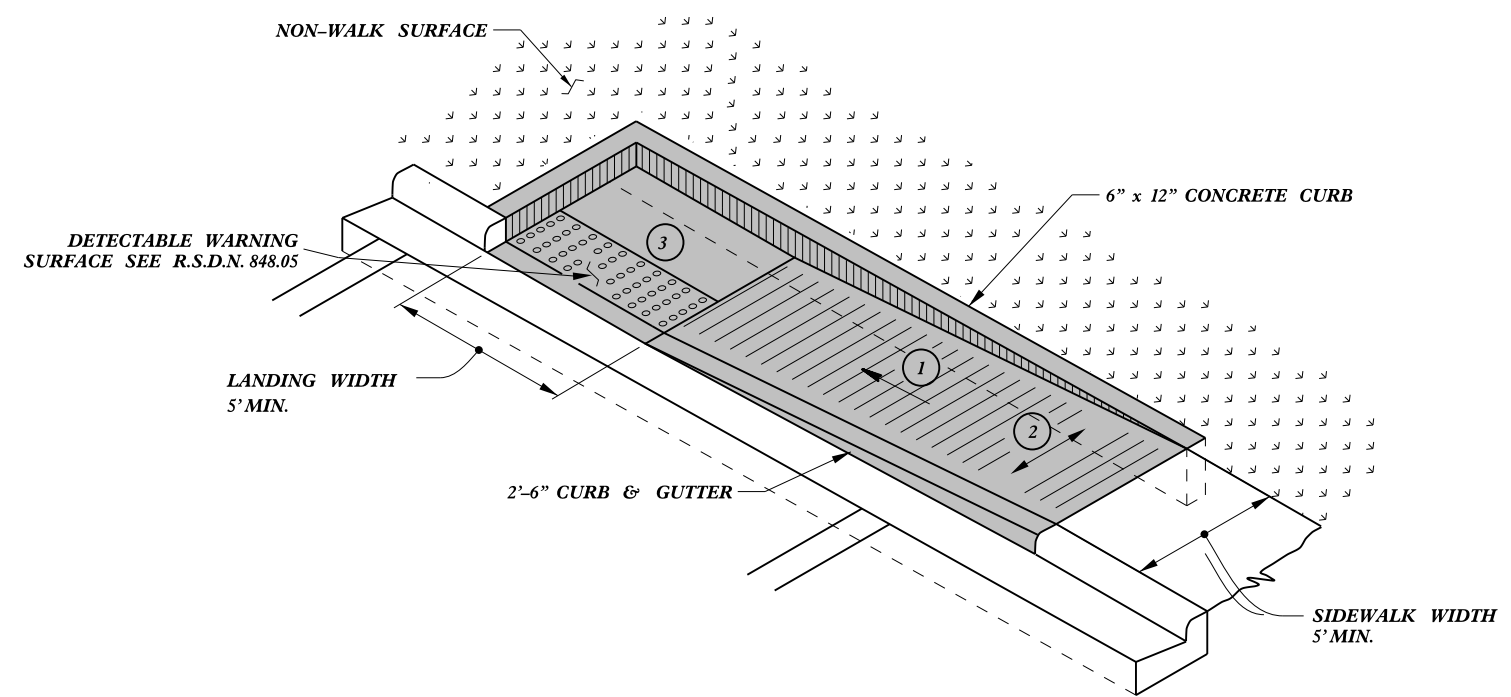



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

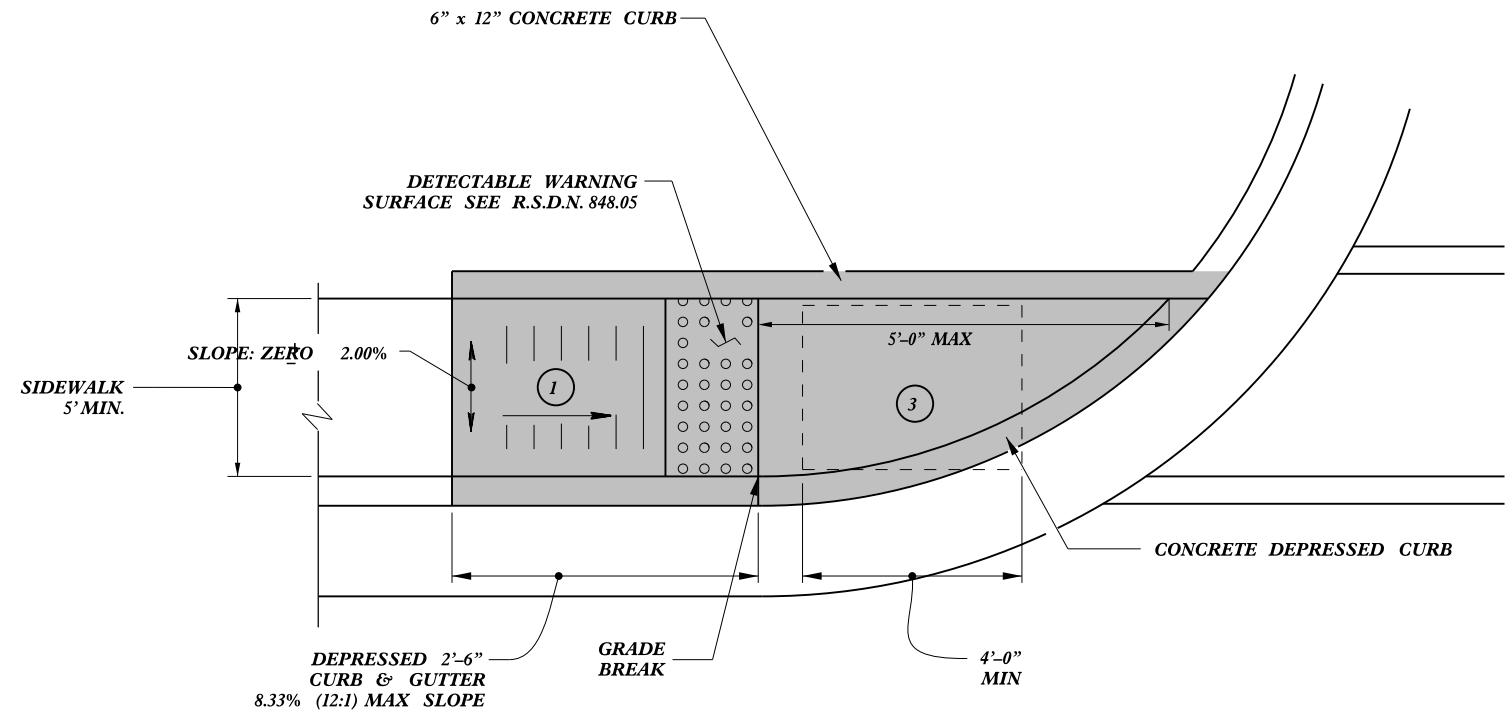
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 10/16/12		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEM: 11/11/11  
 USER: T.SPELL  
 FILE: susr/details/stand/shoulderwedgedetail.dgn



 PAY LIMITS FOR CURB RAMP

**TYPE 1A**



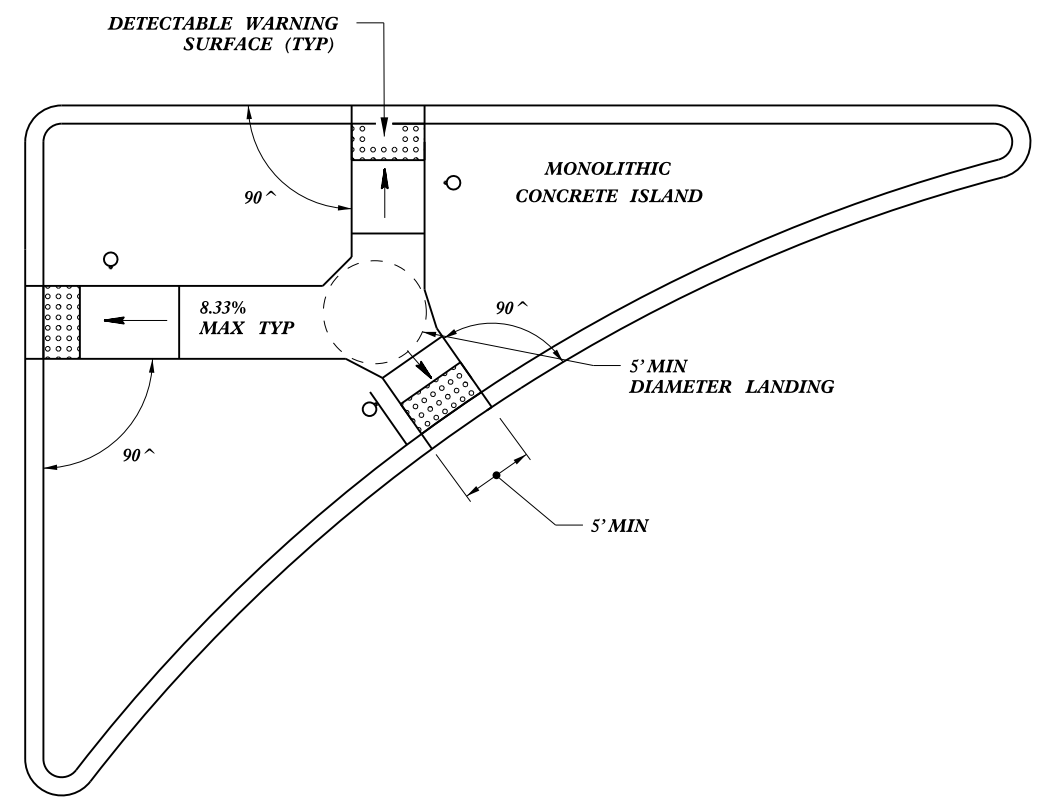
**TYPE 1**

- 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.

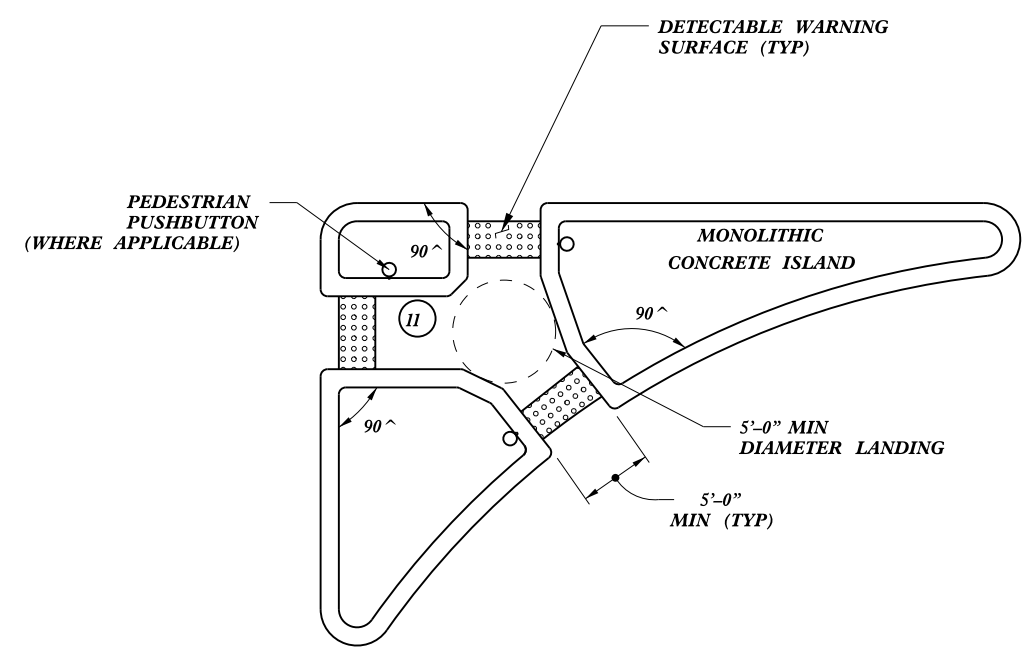
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

<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	

I:\SEP-2011\08\03\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn  
5/14/99  
J.Howerton AT CS0237501



**LARGE ISLAND  
CURB RAMPS**

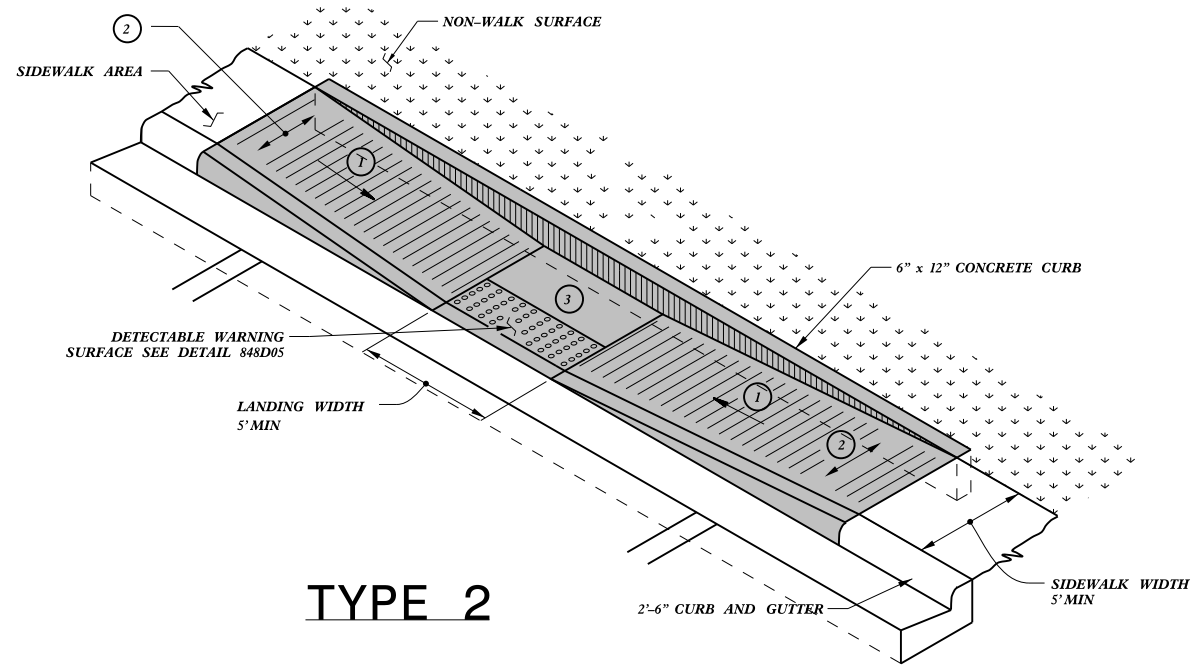


**SMALL ISLAND  
WITH CUT THROUGH**

-SEE ROADWAY DETAIL DRAWING 848D05 FOR DETECTABLE WARNING SURFACE AND FOR RAMP NOTES.  
 -SEE ROADWAY STANDARD DRAWING 852.01 FOR CONCRETE ISLAND DIMENSIONS.

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

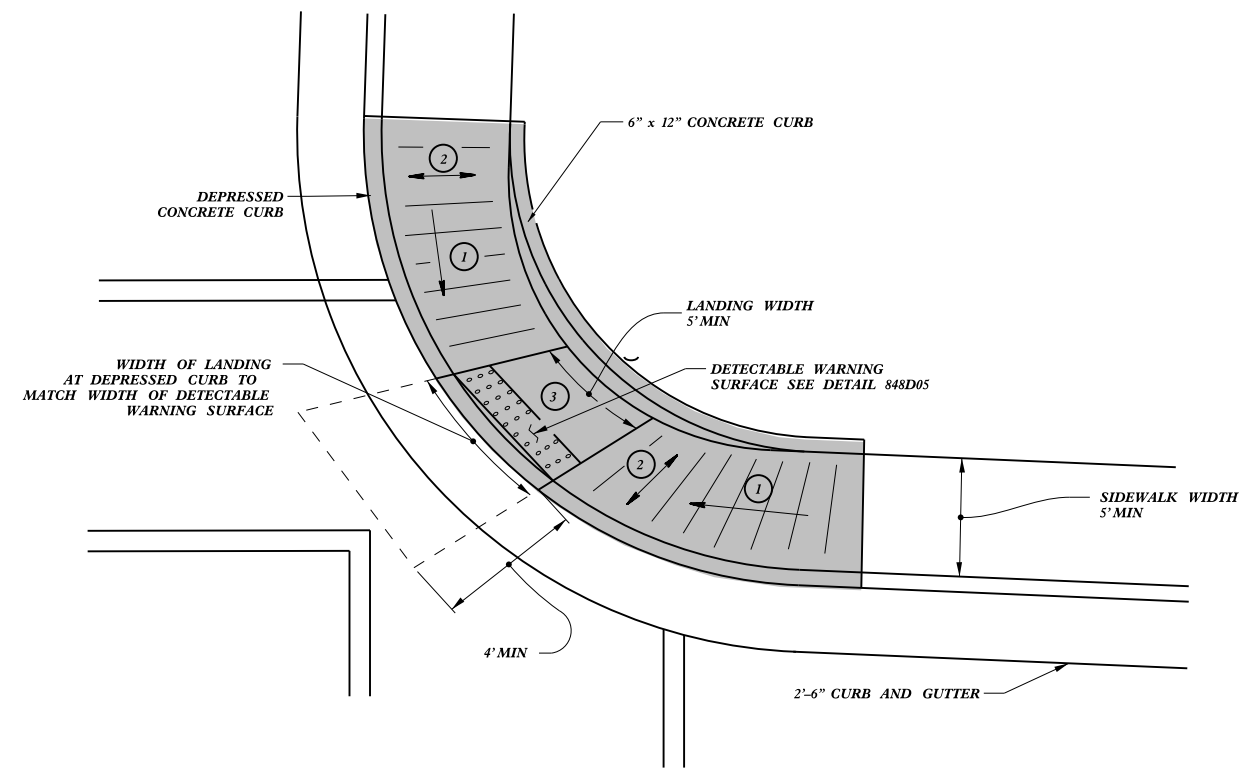
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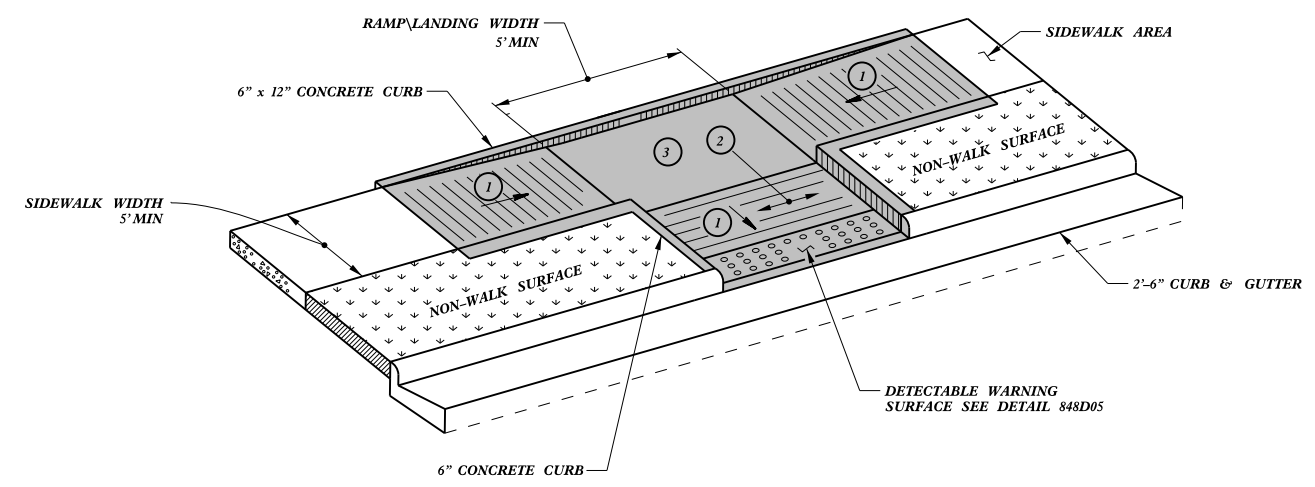
**TYPE 2**

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**



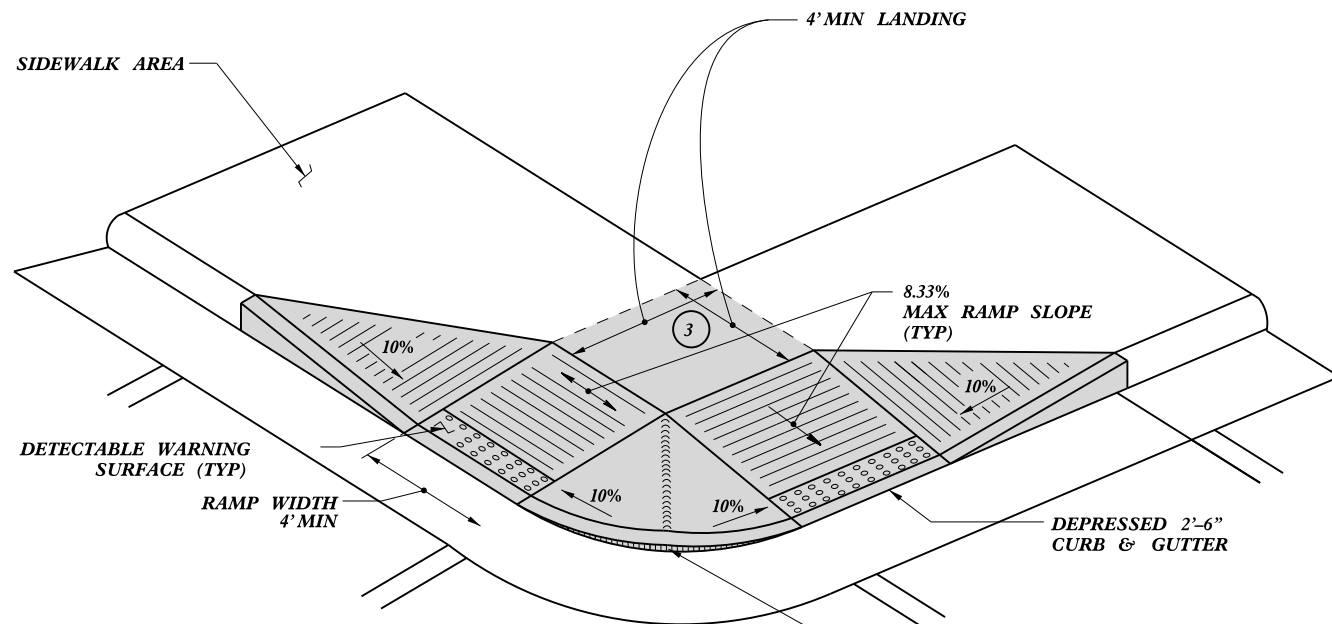
**TYPE 3**

14-SEP-2010 08:04  
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 Howerton AT CS0237501

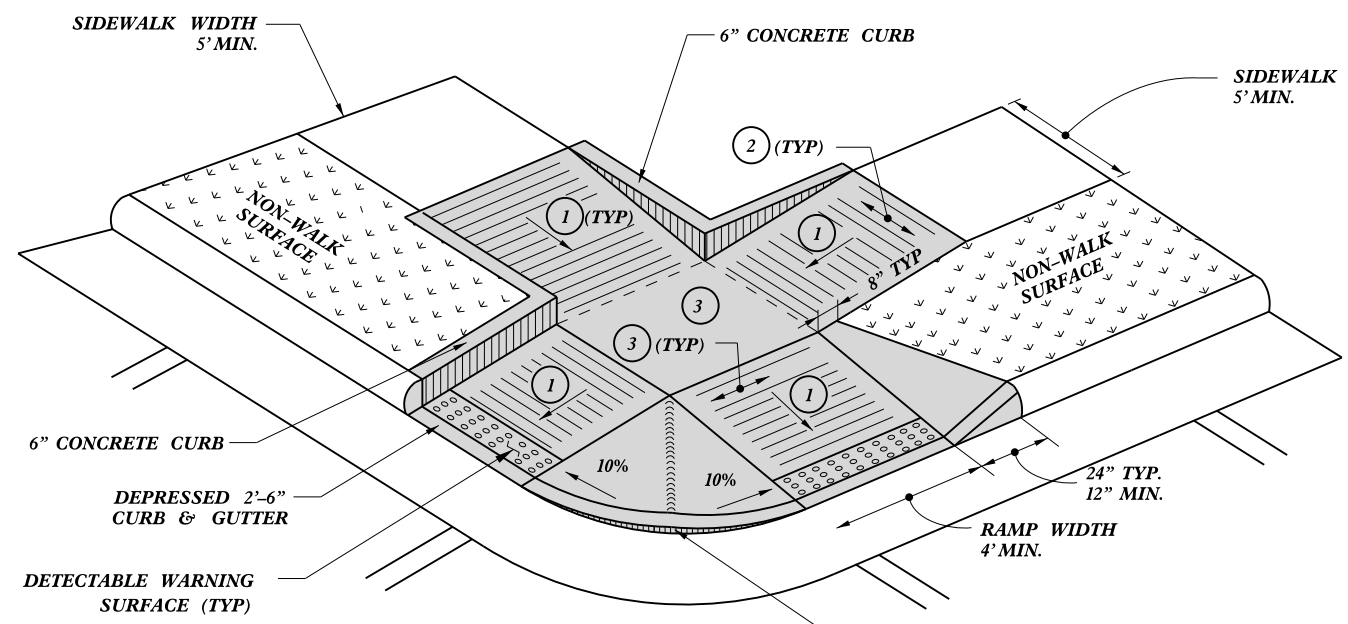
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

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

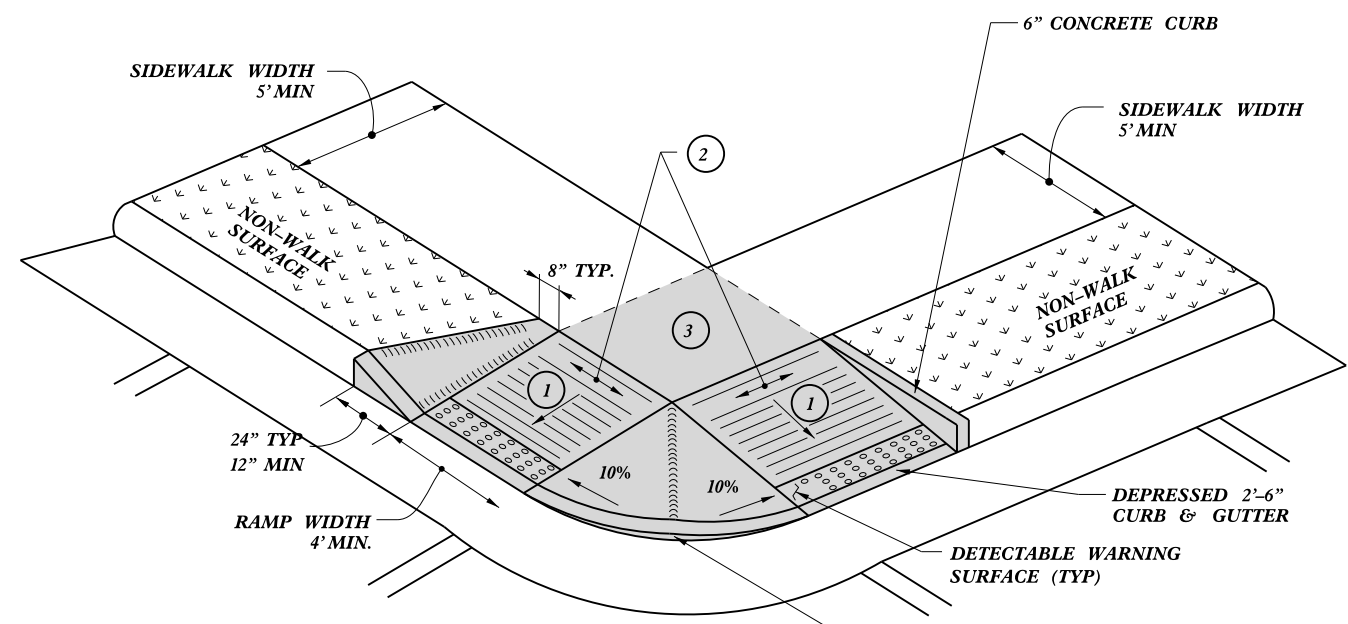




**TYPE 4**



**TYPE 5**



**TYPE 4A**

**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.

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>	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

I6-SEP-2011/5:06 S:\Contracts\2012 Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn jhowerton AT CS0237501

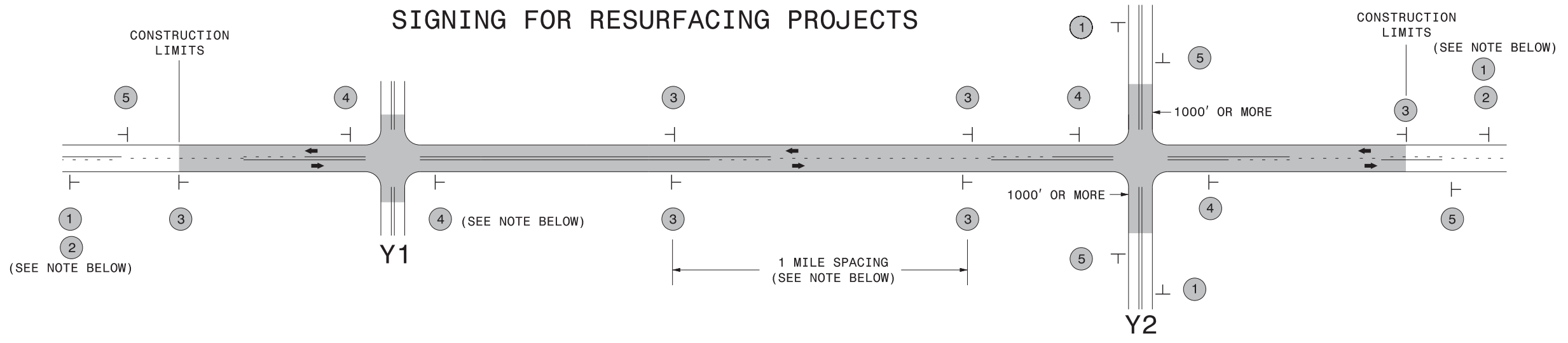
PROJECT NO. 2016CPT.13.01.10111.1, 2016CPT.13.01.20111.1, 2016CPT.13.01.20112.1	SHEET NO. 25	TOTAL NO.
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### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 0" TO 1 1/2" DEPTH SY	INCIDENTAL MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE 59.5B TON	ASPHALT CONC SURFACE COURSE, TYPE 59.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	ASPHALT SURFACE TREATMENT, FOG SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	LATEX MODIFIED MICRO-SURFACING, TYPE III SY	MILLED RUMBLE STRIPS (ASPHALT CONCRETE) LF	RETROFIT EXISTING CURB RAMP Std. 848.06 EA	CONCRETE CURB RAMP Std. 848.05 EA	ADJUSTMENT OF CATCH BASINS EA	ADJUSTMENT OF DROP INLET EA	ADJUSTMENT OF MANHOLES EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES EA	PORTABLE LIGHTING LS							
2016CPT.13.01.10111.1	Buncombe	1	US 25/70	FROM 0.35 SOUTH OF SR 1741 TO SR 1756 (MP 22.98 - MP 24.60)	8	4	MD	NO	NO	1.62	64-80	81	6.48		1,500	7,036		422	500																			
		2	US 19 BUS	FROM US 25 TO SR 2127 (MP 7.09 - MP 11.24)	1,2	2	ZWU	NO	NO	4.15	22-36	208	8.30		1,420	2,533	5,674		340	500																		
		3	NC 694	FROM BLUE RIDGE PARKWAY TO BRIDGE NO. 129 (MP 0.00 - MP 6.08)	3	2	ZWU	NO	NO	6.08	20-24										250																	
		4	NC 63	FROM US 19 TO SR 1318 (MP 0.00 - MP 1.83)	2	5	MU	NO	NO	1.83	60					17,500	3,034	5,964		358	475														0.5			
		5	US 70	FROM TUNNEL TO PAVEMENT CHANGE (MP 15.51 - MP 16.65)	2	4	MU	NO	NO	1.14	50-80					13,376	3,840	3,839		230	810															0.5		
<b>TOTAL FOR PROJ NO. 2016CPT.13.01.10111.1</b>										<b>14.82</b>		<b>289</b>	<b>14.78</b>	<b>32,296</b>	<b>10,907</b>	<b>22,513</b>		<b>1,350</b>	<b>2,535</b>					<b>78,473</b>	<b>34,214</b>	<b>3</b>	<b>37</b>	<b>95</b>	<b>1</b>	<b>38</b>	<b>24</b>	<b>1</b>						
2016CPT.13.01.20111.1	Buncombe	6	SR 3290	FROM SR 3128 TO CUL-DE-SAC (MP 0.00 - MP 0.35)	3	2	ZWU	NO	NO	0.35	18																											
		7	SR 3348	FROM SR 3290 TO CUL-DE-SAC (MP 0.00 - MP 0.17)	3	2	ZWU	NO	NO	0.17	18																											
		8	SR 3626	FROM SR 3480 TO SR 3627 (MP 0.00 - MP 0.18)	4	2	ZWU	NO	NO	0.18	18	9		0.36				116	8																			
		9	SR 3627	FROM SR 3626 TO SR 3626 (MP 0.00 - MP 0.34)	4	2	ZWU	NO	NO	0.34	18	17		0.68				218	15																			
		10	SR 3501	FROM NC 146 TO NC 191 (MP 0.00 - MP 1.30)	5	2	ZWU	NO	NO	1.3	24	65		2.60				2,330	156																			
		11	SR 2887	FROM US 74 TO EOM (MP 0.00 - MP 1.01)	3	2	ZWU	NO	NO	1.01	18																											
		12	SR 3139	FROM SR 3138 TO EOM (MP 0.00 - MP 0.11)	3	2	ZWU	NO	NO	0.11	18																											
		13	SR 2535	FROM SR 2532 TO EOM (MP 0.00 - 0.14)	3	2	ZWU	NO	NO	0.14	18																											
		14	SR 2457	FROM SR 2453 TO SR 2444 (MP 0.00 - MP 0.20)	3	2	ZWU	NO	NO	0.2	18																											
		15	SR 2446	FROM SR 2445 TO SR 2459 (MP 0.00 - MP 1.14)	3	2	ZWU	NO	NO	1.14	18																											
		16	SR 2447	FROM SR 2448 TO SR 2446 (MP 0.00 - MP 0.15)	3	2	ZWU	NO	NO	0.15	18																											
		17	SR 2451	FROM SR 2445 TO SR 2458 (MP 0.00 - 0.39)	3	2	ZWU	NO	NO	0.39	18																											
		18	SR 2452	FROM SR 2445 TO SR 2453 (MP 0.00 - MP 0.17)	3	2	ZWU	NO	NO	0.17	18																											
		19	SR 2460	FROM SR 2458 TO EOM (MP 0.00 - MP 0.90)	3	2	ZWU	NO	NO	0.9	18																											
		20	SR 2527	FROM SR 2542 TO SR 2529 (MP 0.00 - MP 0.35)	3	2	ZWU	NO	NO	0.35	18																											
		21	SR 2530	FROM SR 2527 TO SR 2528 (MP 0.00 - MP 0.44)	3	2	ZWU	NO	NO	0.44	18																											
		22	SR 1004	FROM SR 1297 TO HAYWOOD COUNTY LINE (MP 4.27 - MP 8.92)	3	2	ZWU	NO	NO	4.65	18																											
		23	SR 3618	FROM SR 3522 TO EOM (MP 0.00 - MP 0.20)	3	2	ZWU	NO	NO	0.2	18																											
		24	SR 1130	FROM SR 1101 TO US 19 (MP 1.24 - MP 4.24)	3	2	ZWU	NO	NO	3	20																											
		25	SR 1132	FROM SR 1130 TO US 19 (MP 0.00 - MP 0.30)	3	2	ZWU	NO	NO	0.3	18																											
		26	SR 1233	FROM US 19 TO US 19 (MP 0.00 - MP 0.48)	3	2	ZWU	NO	NO	0.48	20																											
		27	SR 1220	FROM SR 1004 TO 0.53 MILES SOUTH OF SR 1004 (MP 5.99 - MP 6.52)	5	2	ZWU	NO	NO	0.53	18	27		1.06					511	34																		
		28	SR 1220	FROM 2.30 MILES NORTH OF SR 1210 TO SR 1210 (MP 8.82 - MP 11.12)	5	2	ZWU	NO	NO	2.3	18	115		4.60					2,219	149																		
		29	SR 1887	FROM SR 1620 TO CUL-DE-SAC (MP 0.00 - MP 0.70)	3	2	ZWU	NO	NO	0.7	18																											
		30	SR 1888	FROM SR 1887 TO CUL-DE-SAC (MP 0.00 - MP 0.05)	3	2	ZWU	NO	NO	0.05	18																											
		31	SR 1889	FROM SR 1887 TO CUL-DE-SAC (MP 0.00 - MP 0.32)	3	2	ZWU	NO	NO	0.32	18																											
		32	SR 1890	FROM SR 1889 TO CUL-DE-SAC (MP 0.00 - MP 0.10)	3	2	ZWU	NO	NO	0.1	18																											
		33	SR 3635	FROM NC 112 TO EOM (MP 0.00 - MP 0.14)	3	2	ZWU	NO	NO	0.14	18																											
		34	SR 2529	FROM SR 2527 TO SR 2528 (MP 0.00 - MP 0.06)	3	2	ZWU	NO	NO	0.06	18																											
		35	SR 2528	FROM SR 2527 TO CUL-DE-SAC (MP 0.00 - MP 0.63)	3	2	ZWU	NO	NO	0.63	18																											
		36	SR 3597	FROM SR 3596 TO EOM (MP 0.00 - MP 0.14)	3	2	ZWU	NO	NO	0.14	18																											
		37	SR 3596	FROM SR 3495 TO EOM (MP 0.00 - MP 0.31)	3	2	ZWU	NO	NO	0.31	18																											
		38	SR 3603	FROM NC 146 TO CUL-DE-SAC (MP 0.00 - MP 0.14)	3	2	ZWU	NO	NO	0.14	18																											
		39	SR 2479	FROM NC 2474 TO EOM (MP 0.00 - MP 0.83)	3	2	ZWU	NO	NO	0.83	18																											
		40	SR 3437	FROM NC 112 FOR 0.25 MILES (MP 0.00 - MP 0.25)	1	2	ZWU	NO	NO	0.25	19	13		0.50			250	259		16																		
		41	SR 3437	FROM 0.08 MILES SOUTH OF SR 3533 TO SR 3445 (MP 0.46 - MP 2.49)	1	2	ZWU	NO	NO	2.03	19	101		4.06			1,000	2,105		126																		
		42	SR 3437	FROM SR 3445 TO SR 3446 (MP 2.49 - MP 3.63)	3	2	ZWU	NO	NO	1.14	19																											
		43	SR 1765	FROM SR 2207 TO SR 1764 (MP 0.00 - MP 0.65)	3	2	ZWU	NO	NO	0.65	18																											
		44	SR 1766	FROM SR 1765 TO SR 2207 (MP 0.00 - MP 0.44)	3	2	ZWU	NO	NO	0.44	18																											
		45	SR 1746	FROM MADISON COUNTY LINE TO SR 1743 (MP 0.00 - MP 1.37)	3	2	ZWU	NO	NO	1.37	18																											
		46	SR 1737	FROM SR 1764 TO SR 1733 (MP 0.00 - MP 0.98)	3	2	ZWU	NO	NO	0.98	18																											



# SIGNING FOR RESURFACING PROJECTS



**LEGEND**

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

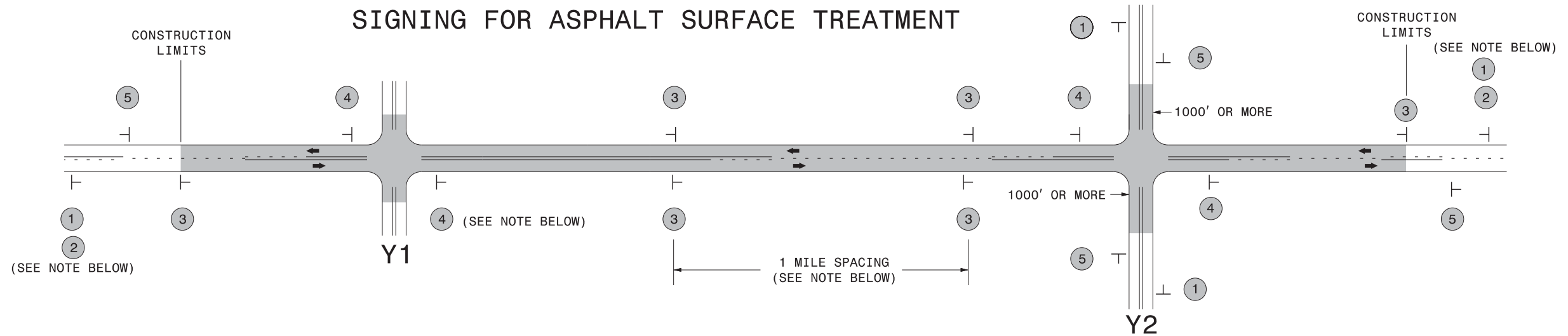
## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	①	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>SUBDIVISION ROADS</li> <li>DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">   <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	②	 <small>W7-3aP 24" X 18"</small>	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	③	 <small>SP 13107 48" X 48"</small>	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.	
	④	 <small>SP 13106 48" X 48"</small>	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.	
	⑤	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	

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**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

## SIGNING FOR ASPHALT SURFACE TREATMENT



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	2	 <small>W7-3aP 24" X 18"</small>	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)		
	3	 <small>W8-7 48" X 48"</small>	ALTERNATE THE FOLLOWING TWO SIGNS: STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT".		
		 <small>SP 48" X 48"</small>	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.		
	4	 <small>SP 13106 48" X 48"</small>	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.		
5	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.			

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.

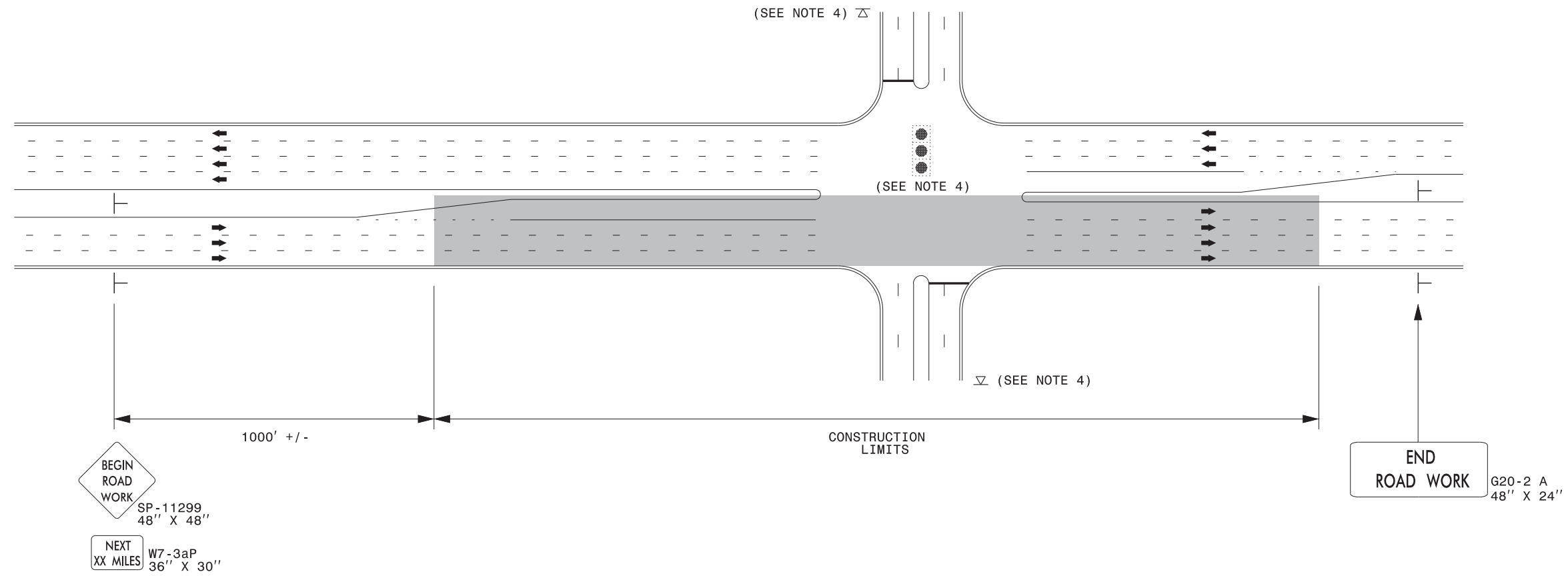


PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

	<p><b>ADVANCE WARNING SIGNS FOR ASPHALT SURFACE TREATMENTS 2 LANE ROADWAYS</b></p>
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## URBAN / SUBURBAN WORKZONES



### NOTES:

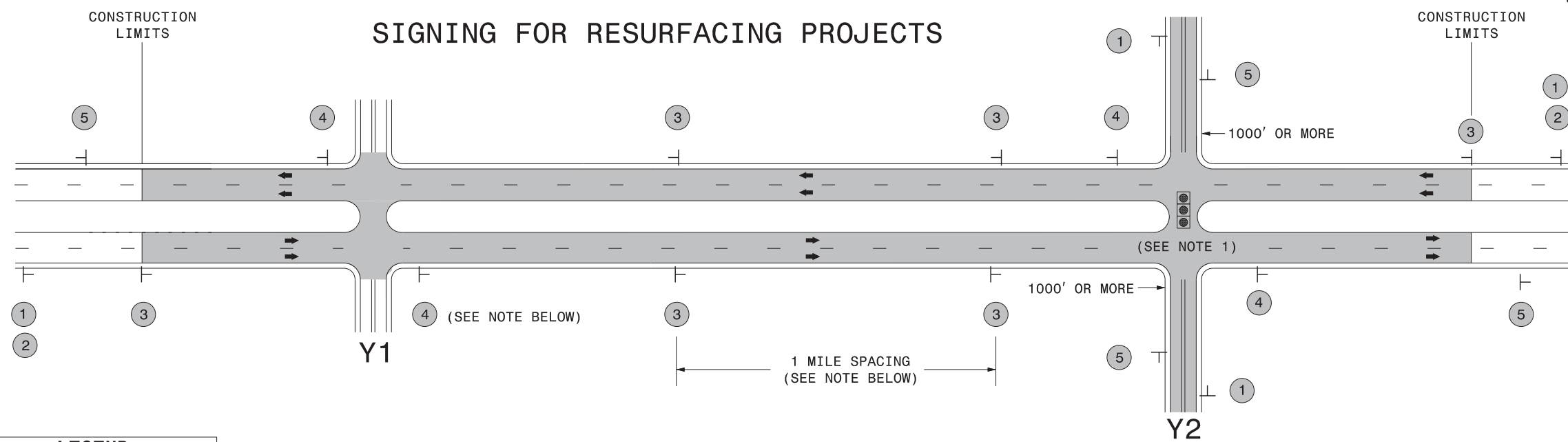
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. 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.

### LEGEND

- ┆ STATIONARY SIGN
- ➔ DIRECTION OF TRAFFIC FLOW



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



**LEGEND**  
 | STATIONARY SIGN  
 ← DIRECTION OF TRAFFIC FLOW

**MAINLINE (-L-) SIGNING**

**-Y- LINE SIGNING**

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">   <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.</li> </ol>
		<p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>	
		<p>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

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**RESURFACING  
ADVANCE WARNING SIGNS  
FOR RURAL AND SUBURBAN  
MULTI-LANE ROADWAYS  
W/ SHOULDER SECTIONS**