This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.
This file or an individual page shall not be considered a certified document.

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	1	

MAP 1

C9

C8

C12

C11

C9

Brindletown

Pilot Mountain

Silver Creek Knob
Elev. 2,838

Bolin Knob

McDOWELL COUNTY

Bee Ridge

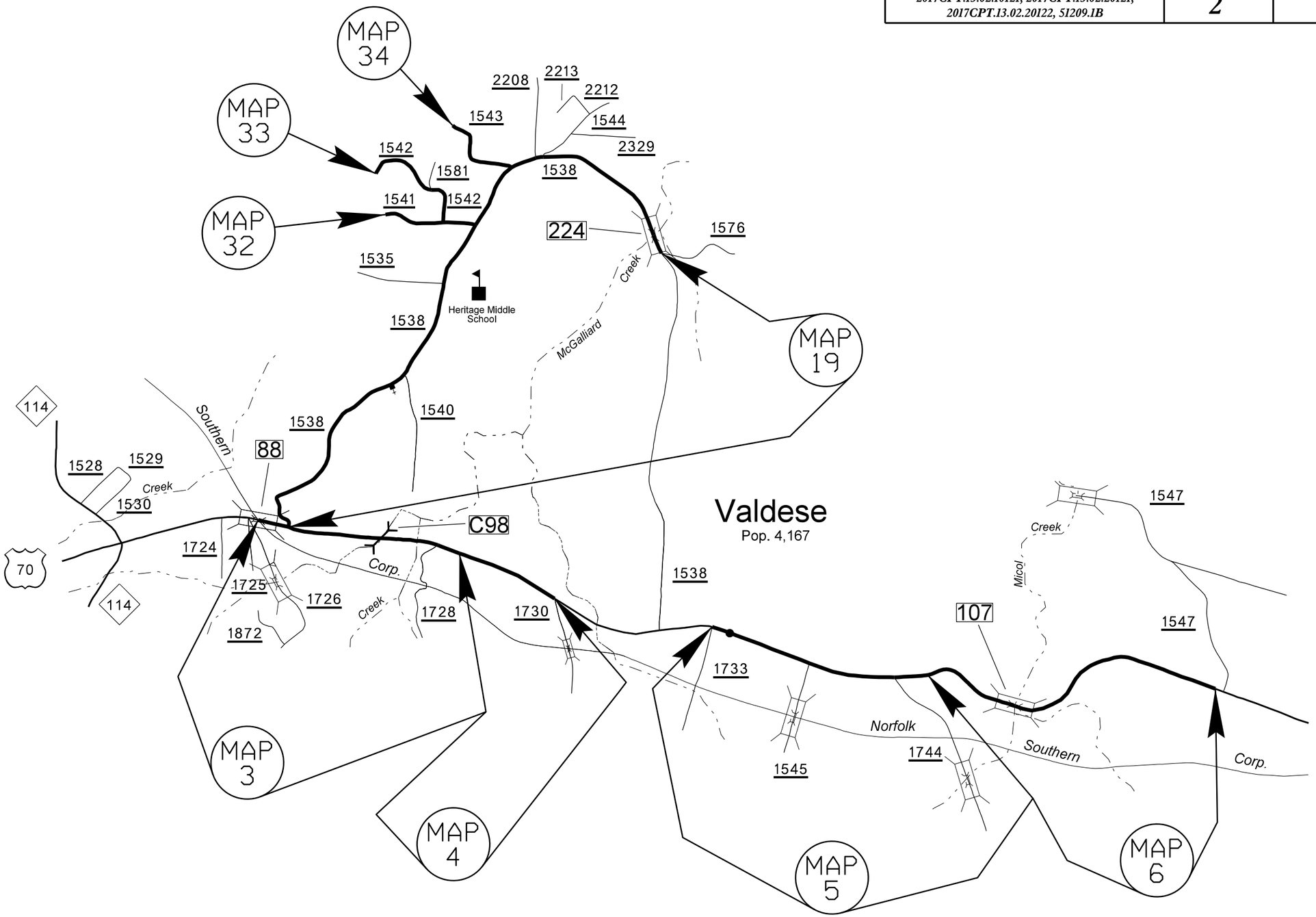
Bee Ridge

Brindletown

MAP 2

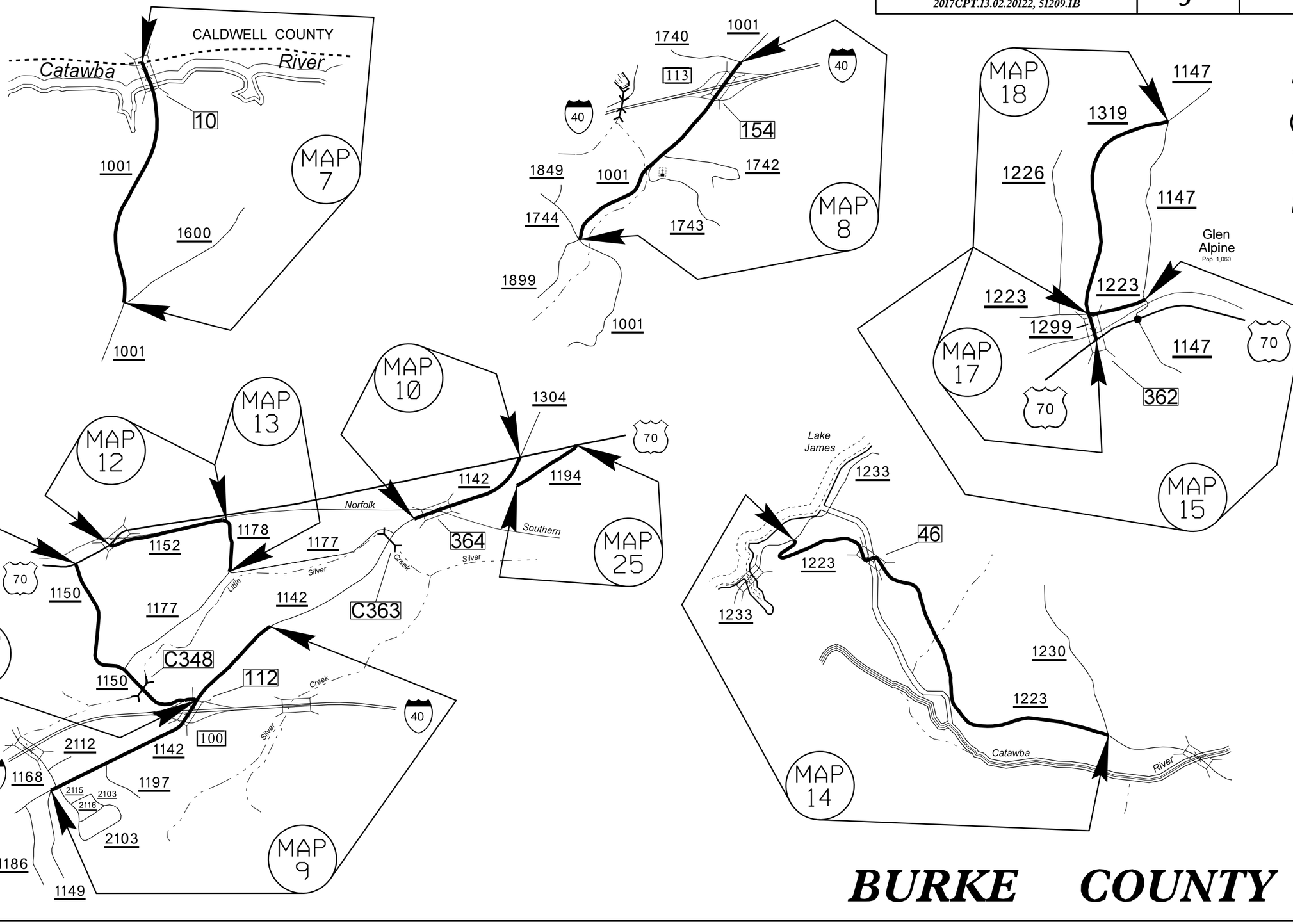
BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	2	



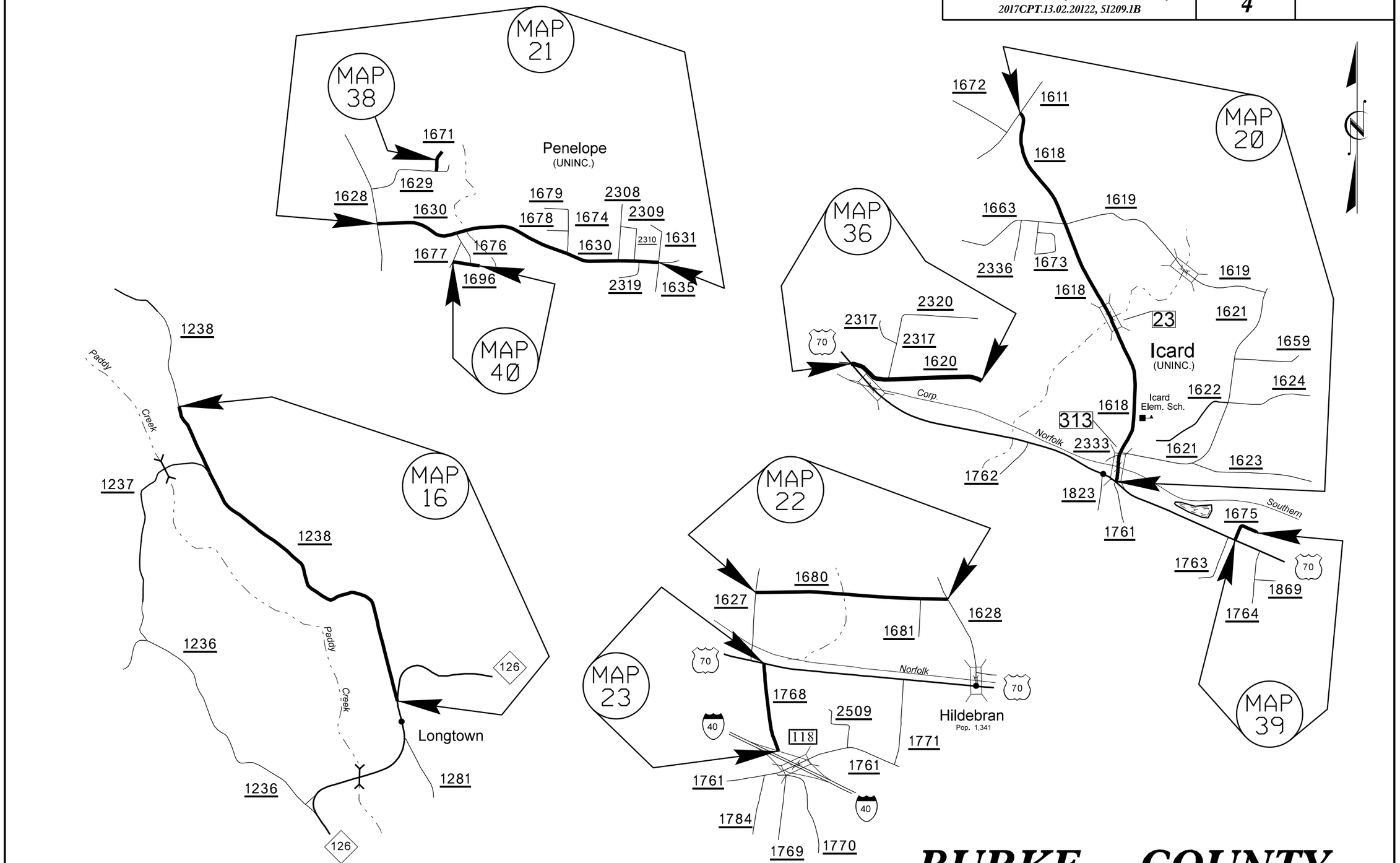
BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	3	



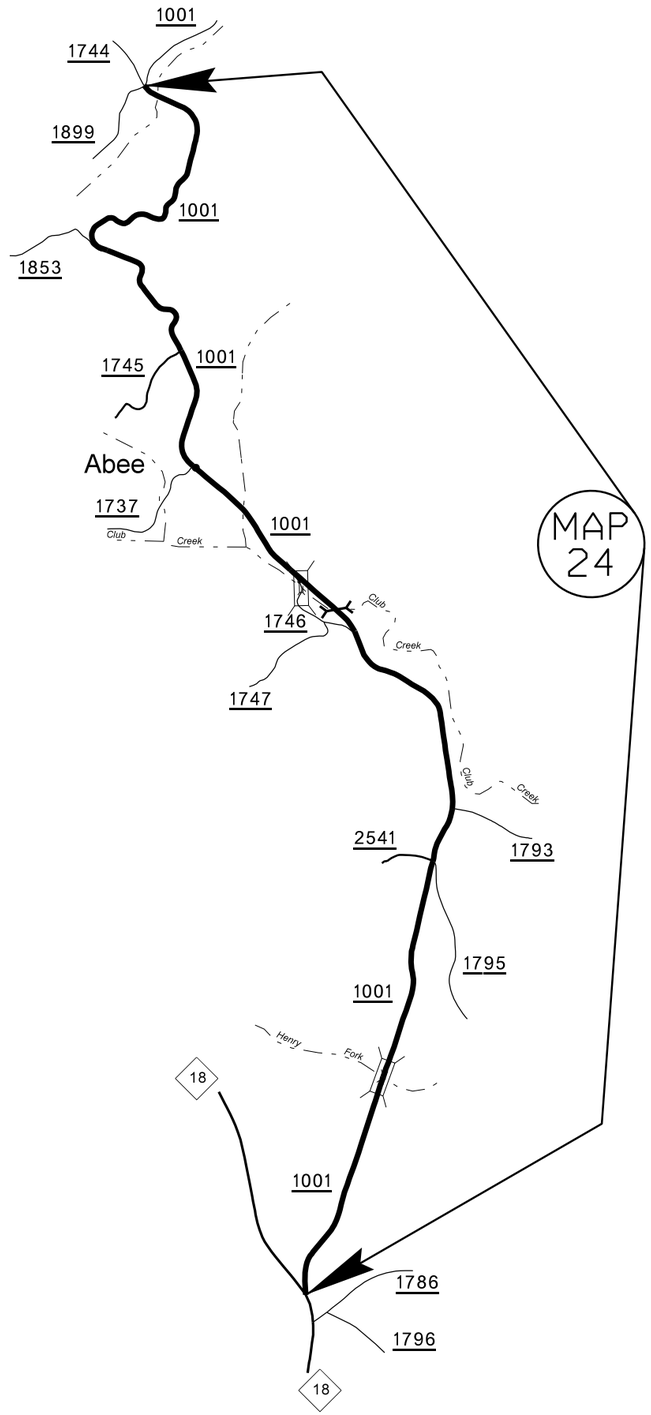
BURKE COUNTY

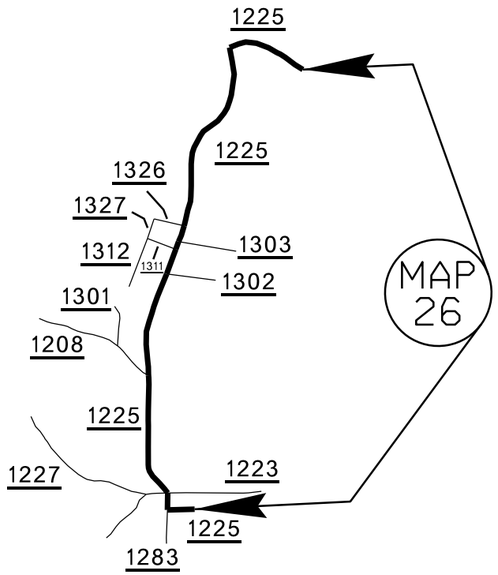
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	4	

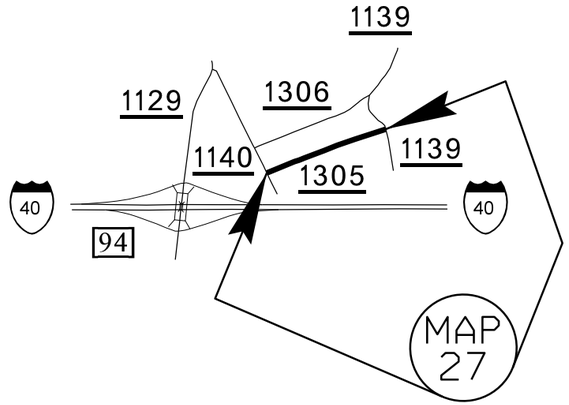


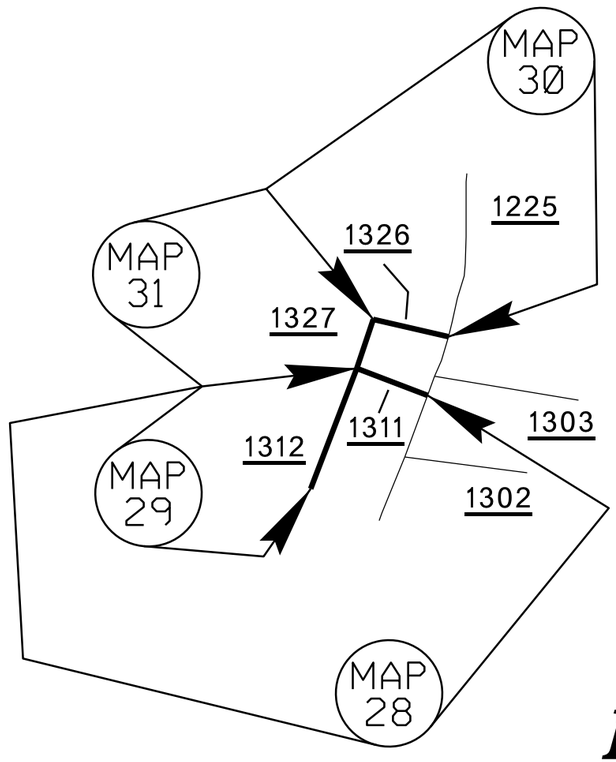
BURKE COUNTY

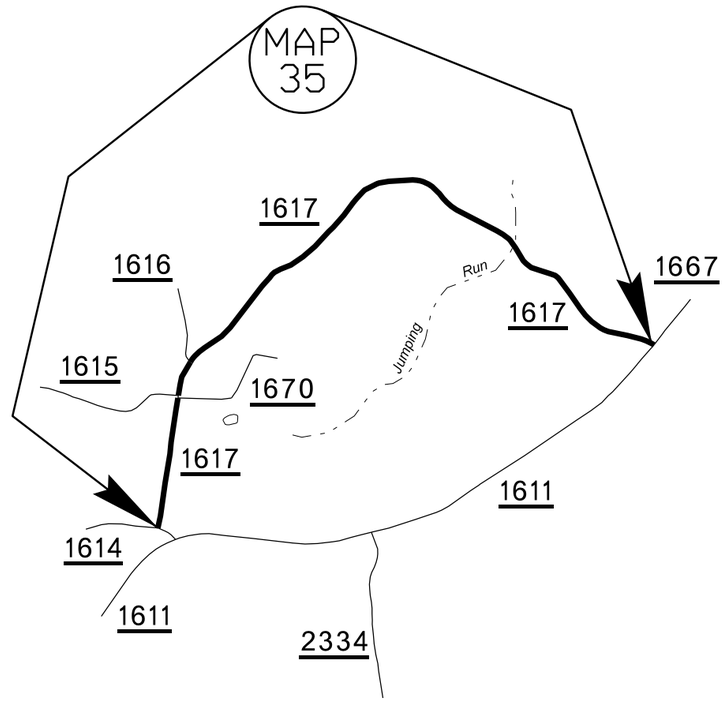
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	5	





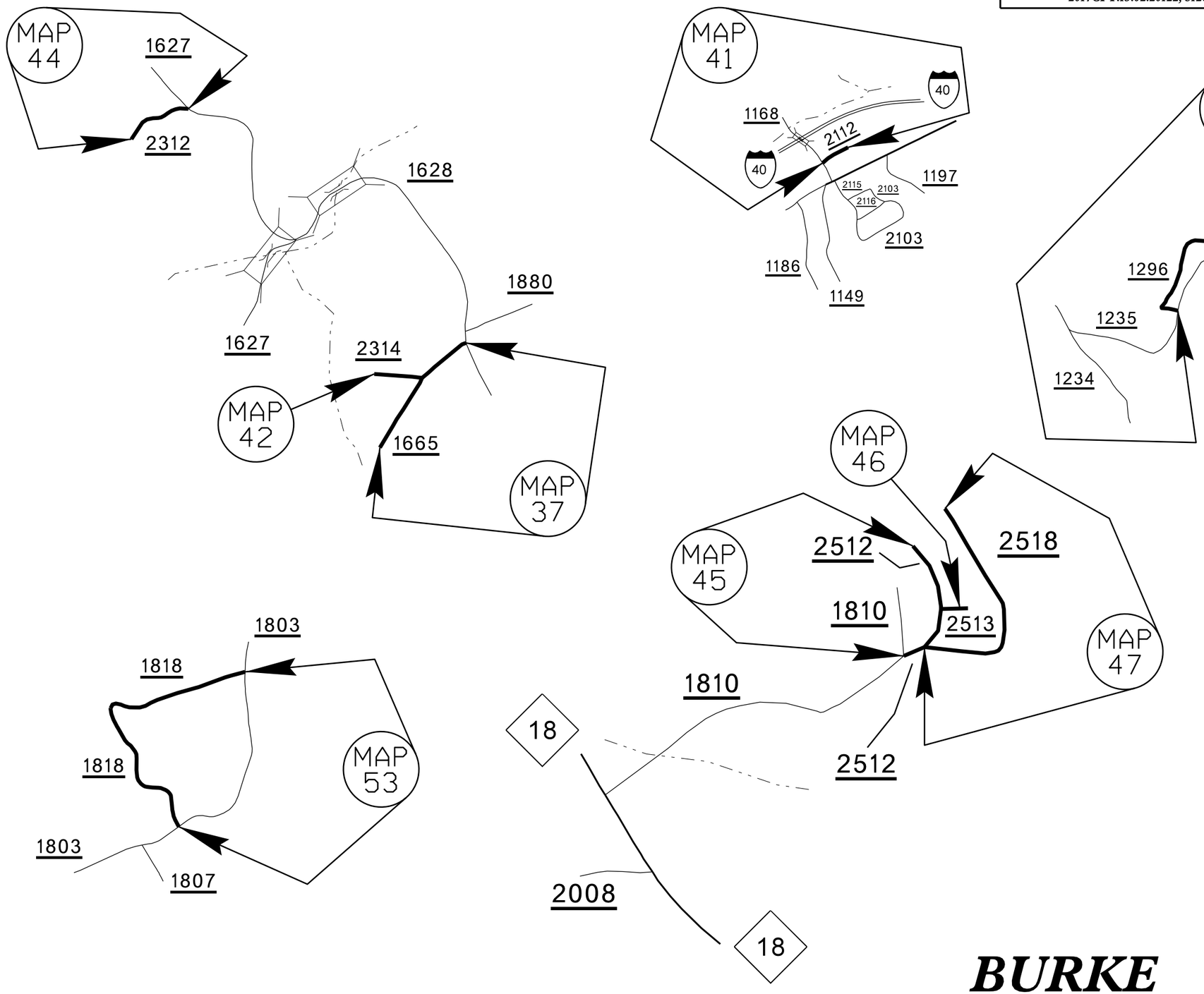






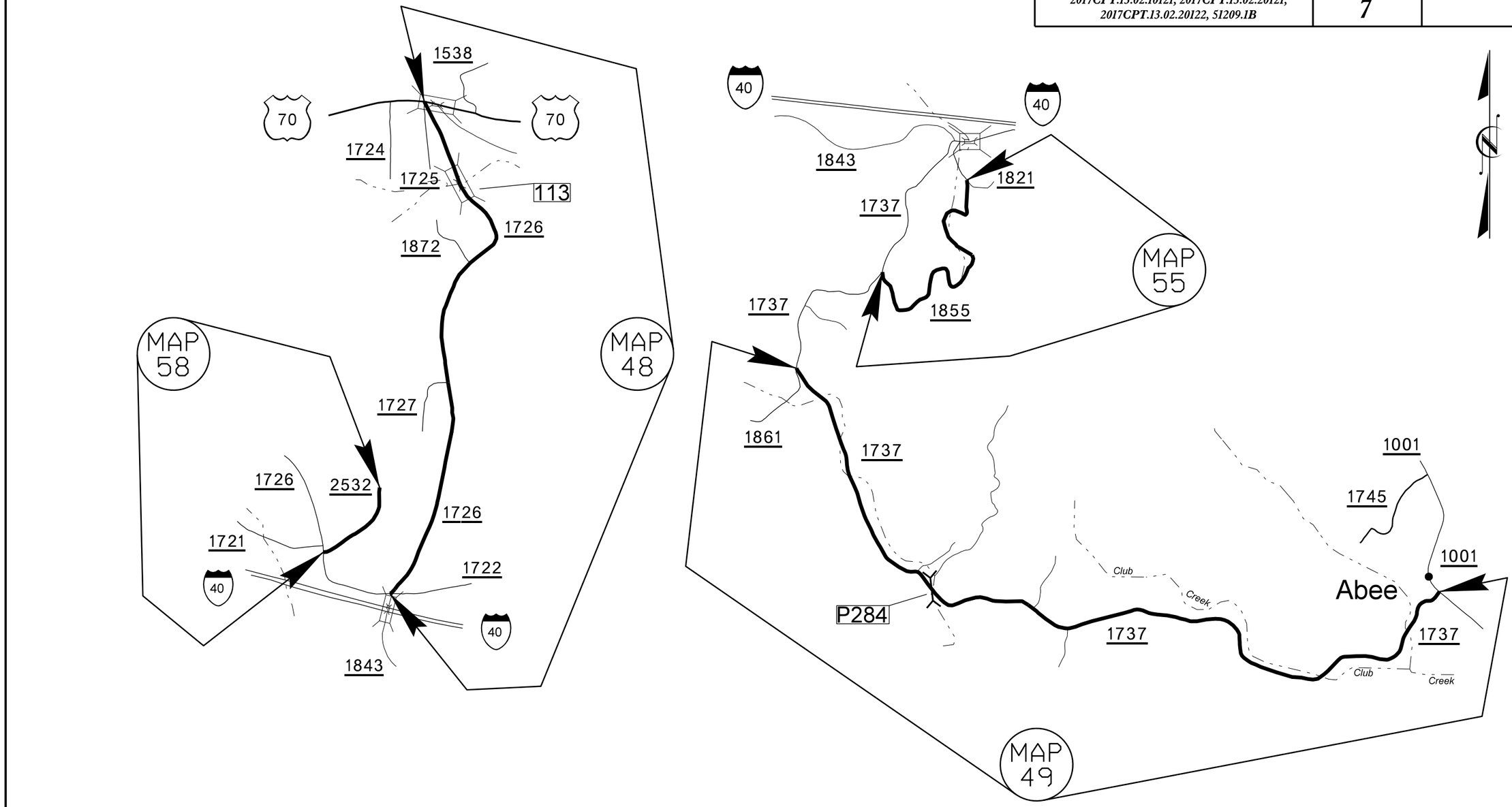
BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	6	



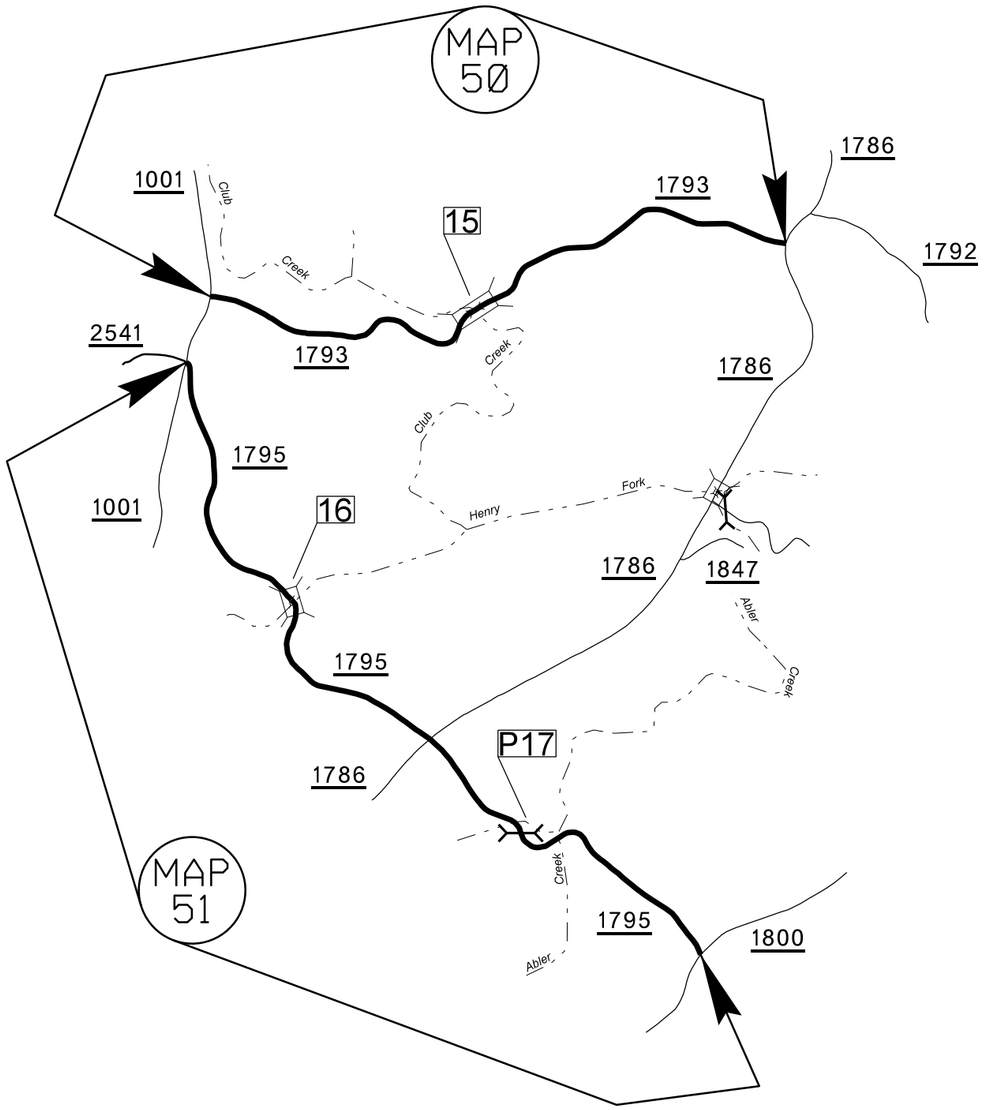
BURKE COUNTY

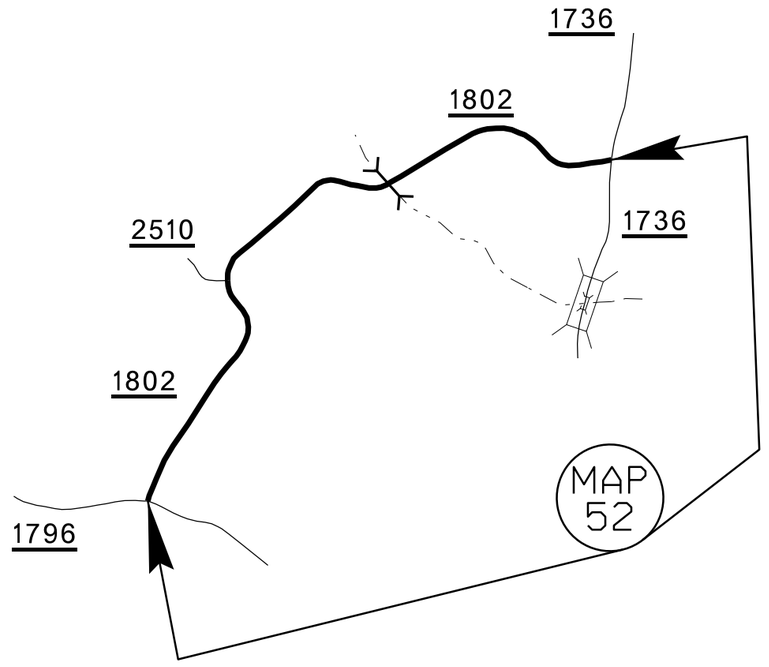
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	7	



BURKE COUNTY

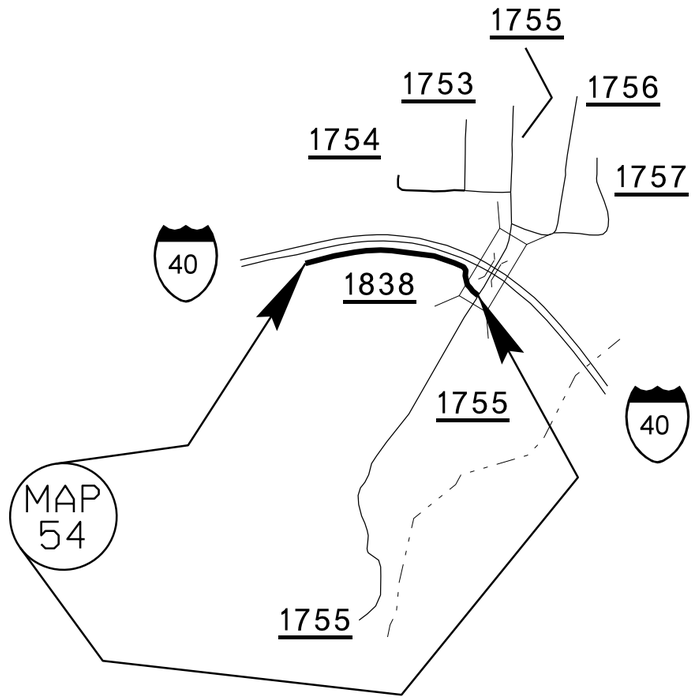
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	8	

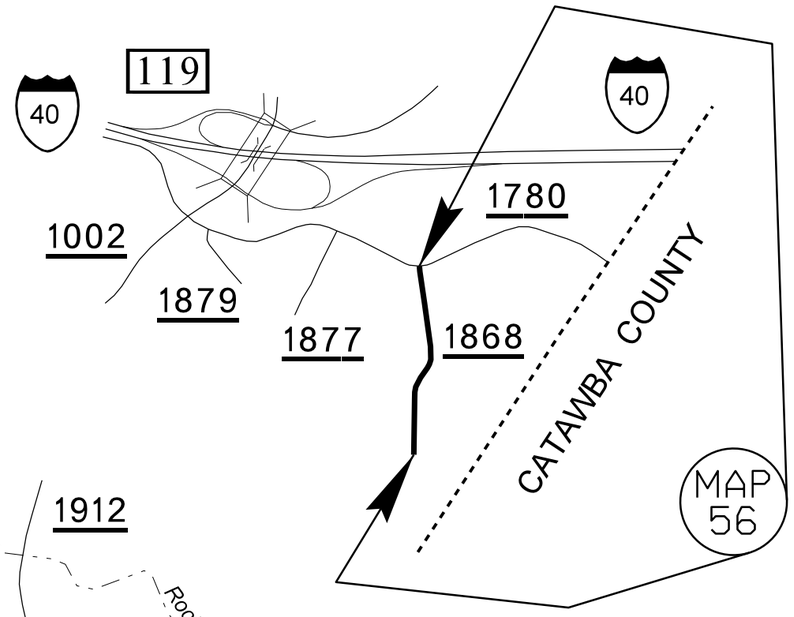


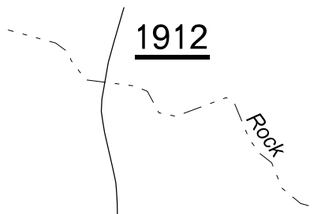


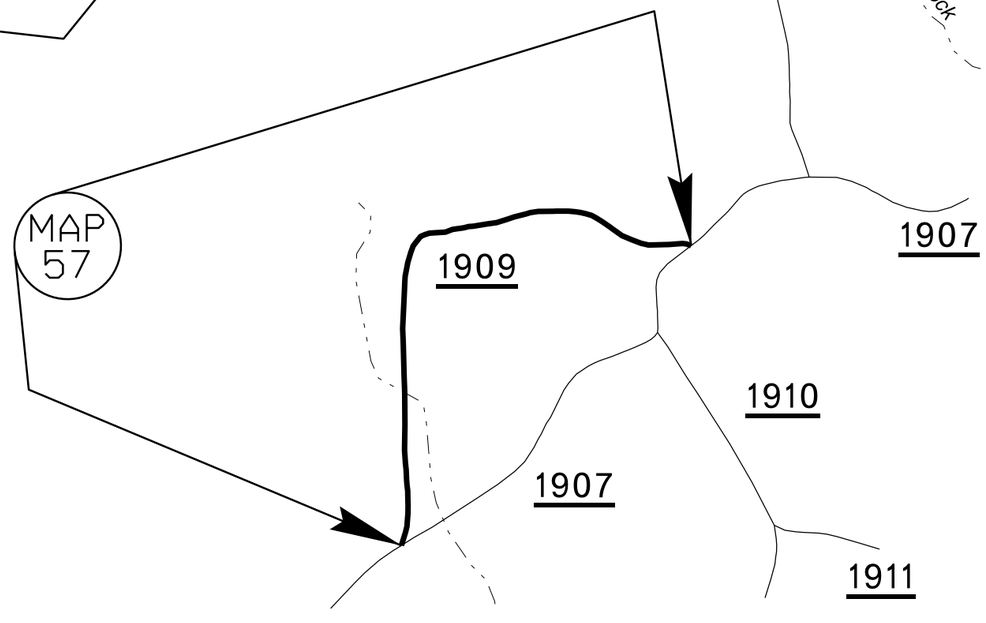
BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	9	



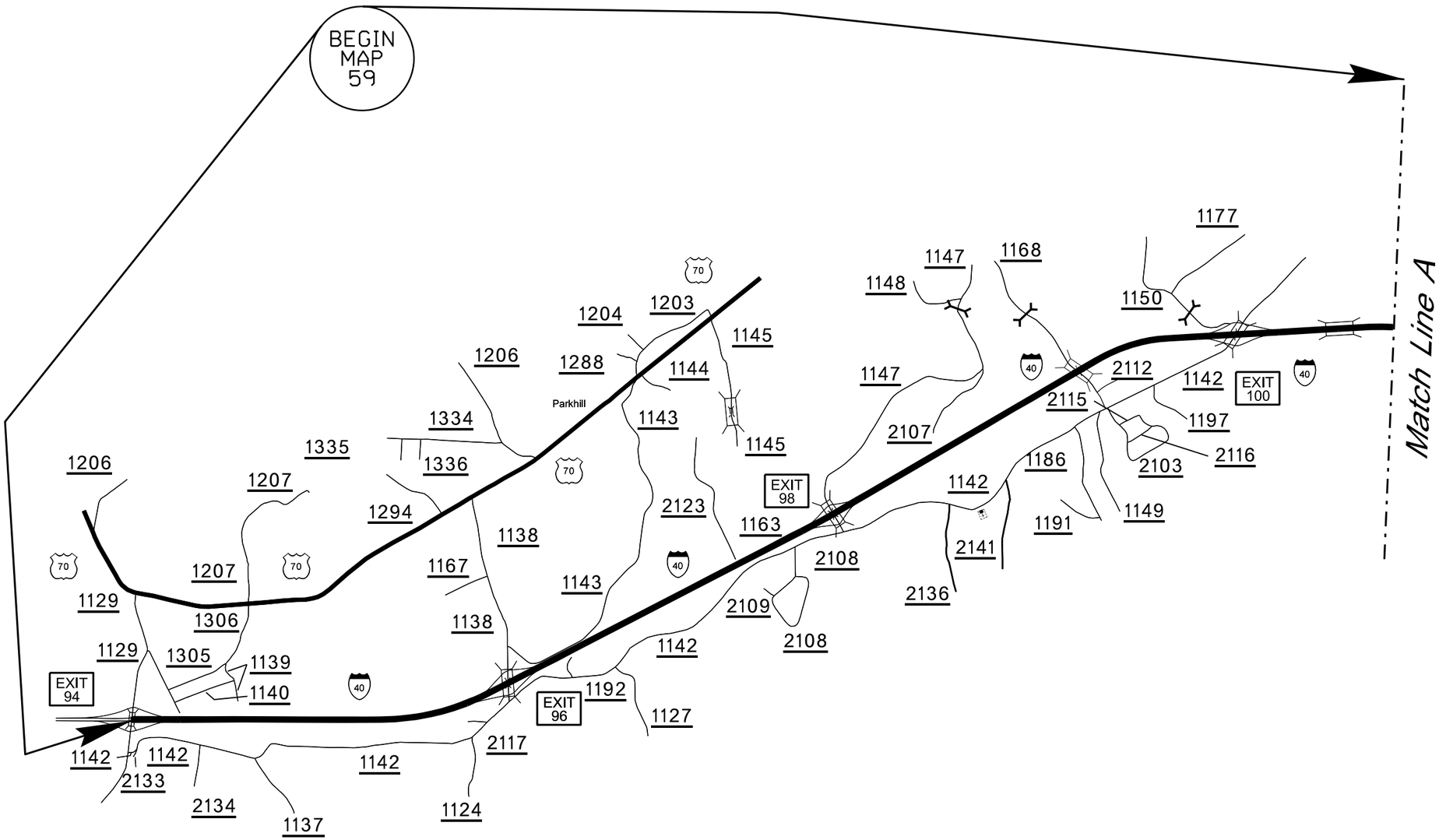






BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	10	



BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	11	

MAP 59

Match Line A

Match Line B

EXIT 103

EXIT 104

EXIT 105

EXIT 106

EXIT 107

1102 1102 1102 1107 1107 2013 1110 2119 2120 1110 1111 1941 1941 1942 1922 1924 1924 1708 1874 1922 1979 1924 1978 1704 1897 1711 2514 1832 1816 1708 1857 1712 1712 1926 1972 1844 1894 2505 1896 1895 1719 1719 1852 1718 2536 1713 2515 2530 2531 1726 1727 1728 2532 1721 1720 1726 1726

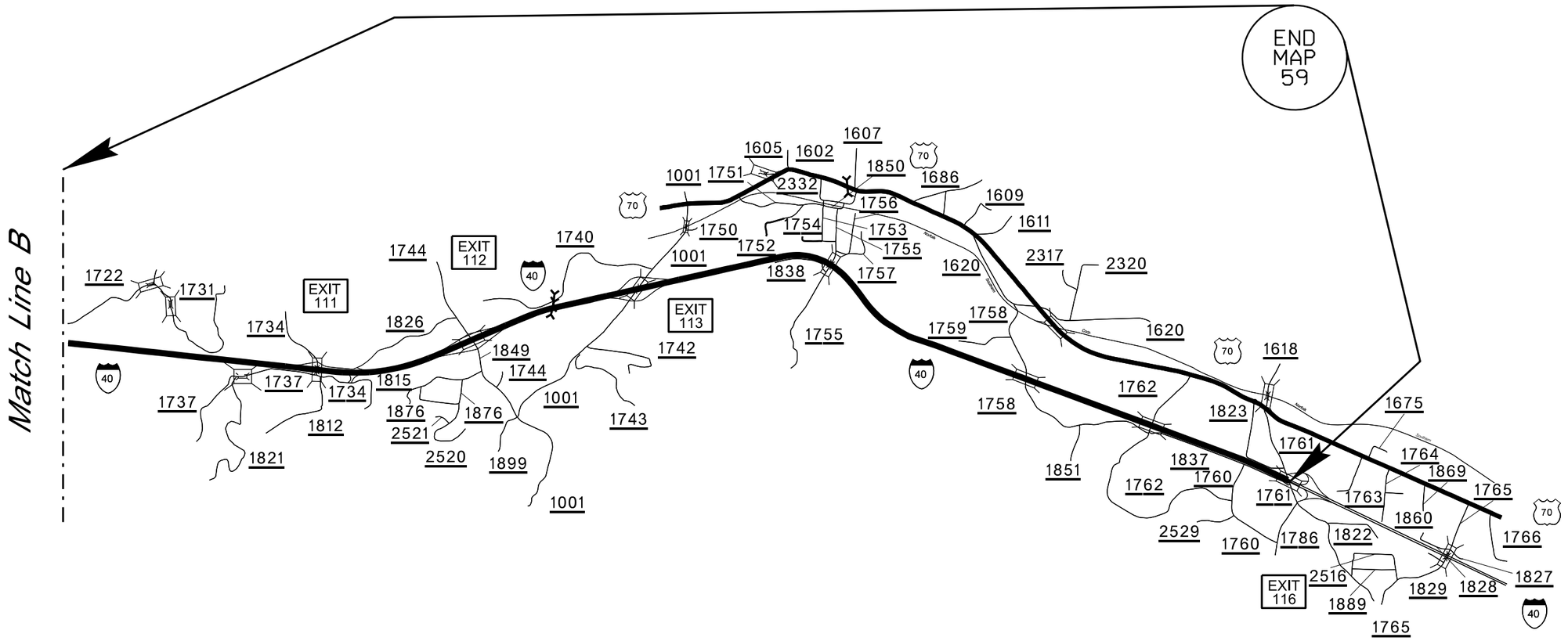
64 70 64 64 64

40 40 40 40 40 40 40 40 40

18 18 18 114

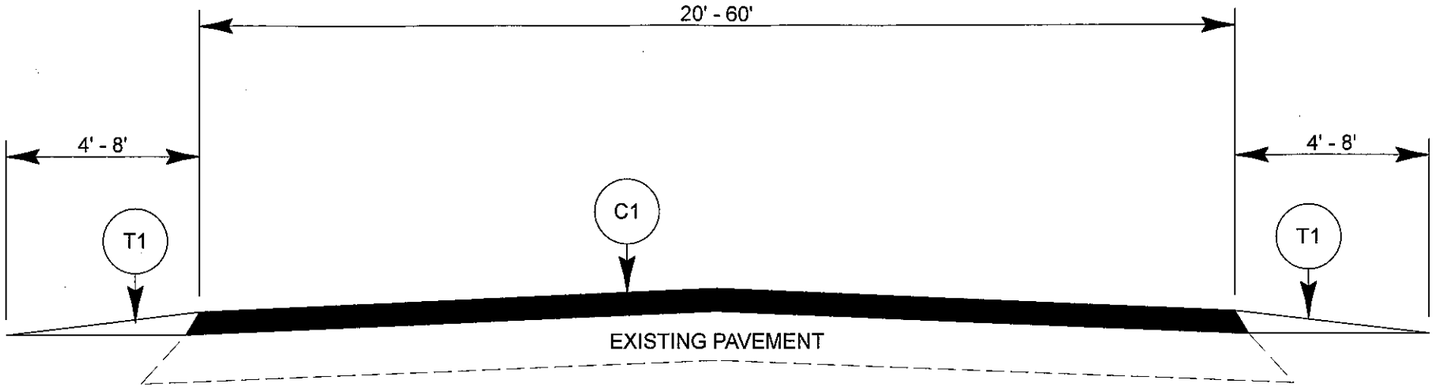
BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	12	

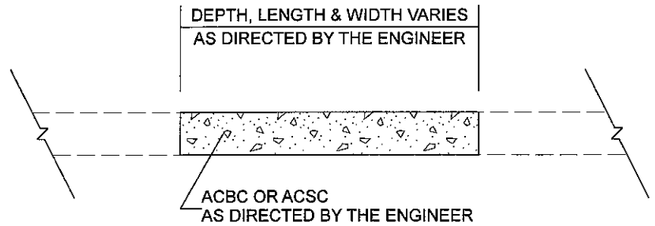


BURKE COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, ETC.	13	

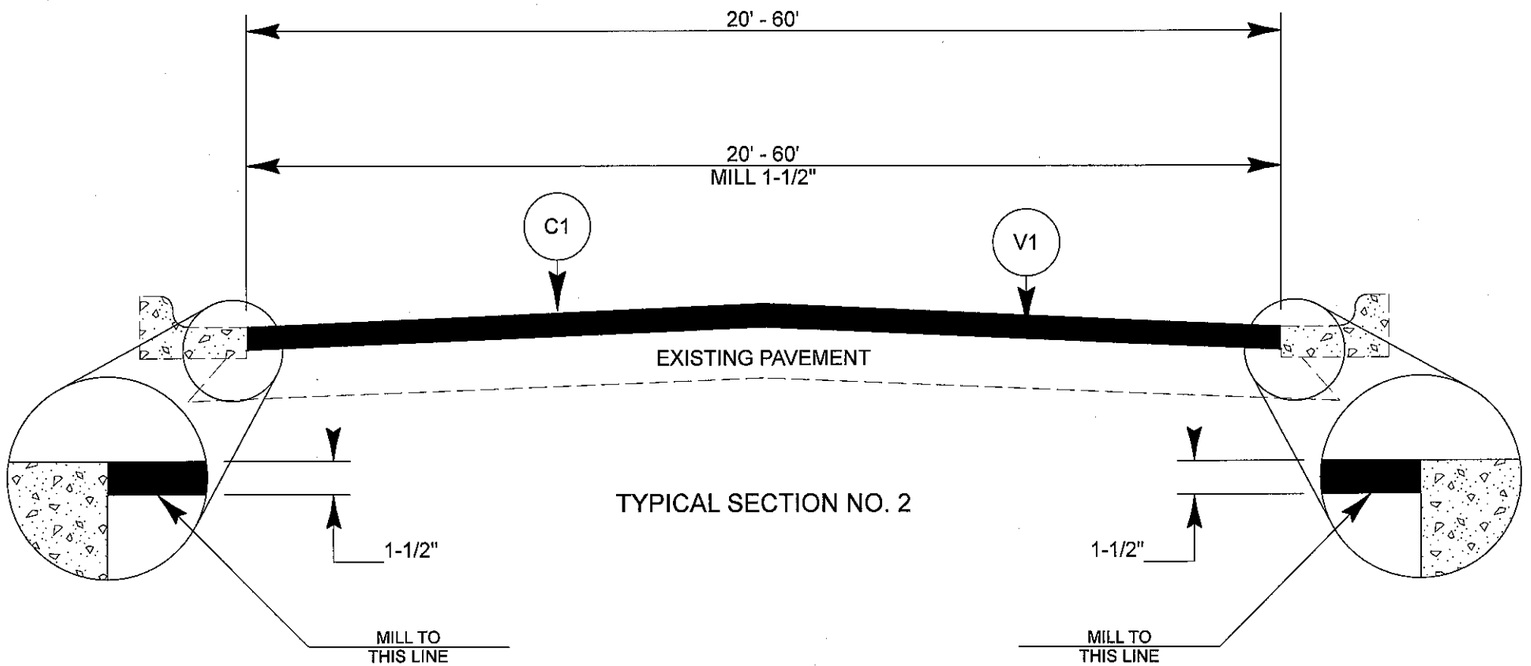


TYPICAL SECTION NO. 1



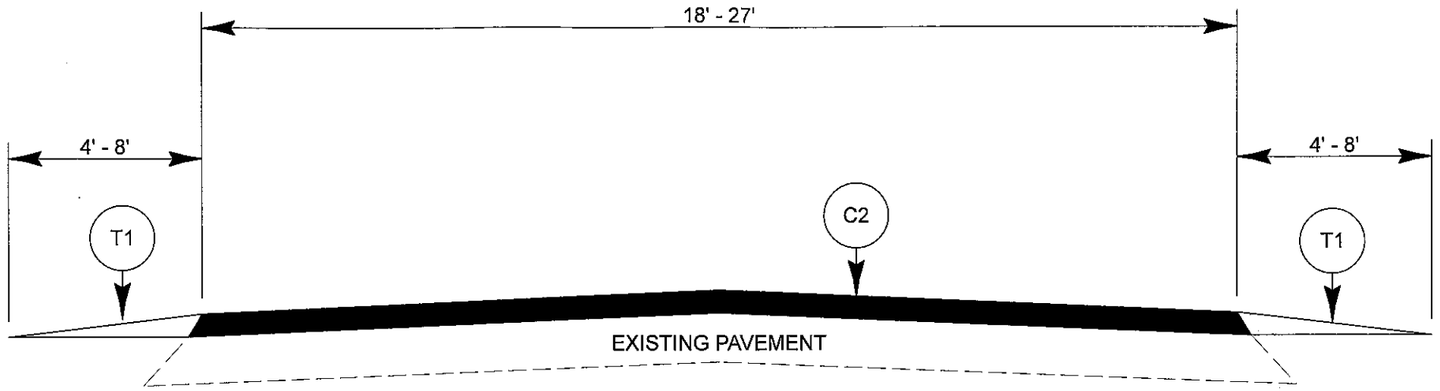
PATCHING EXISTING PAVEMENT

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. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, DOUBLE SEAL (LIGHTWEIGHT AGGREGATE)
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH
V2	MILLING ASPHALT PAVEMENT, 2" DEPTH
V3	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH
V4	INCIDENTAL MILLING
Y1	LATEX MODIFIED MICRO-SURFACING, TYPE III

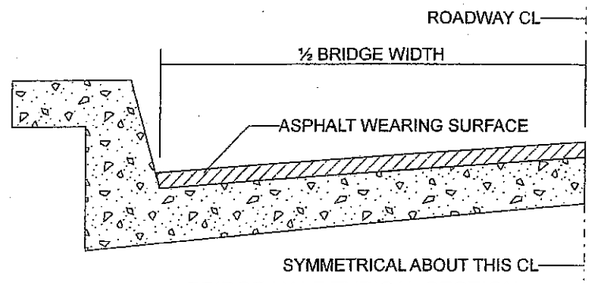


TYPICAL SECTION NO. 2

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, ETC.	14	



TYPICAL SECTION NO. 3



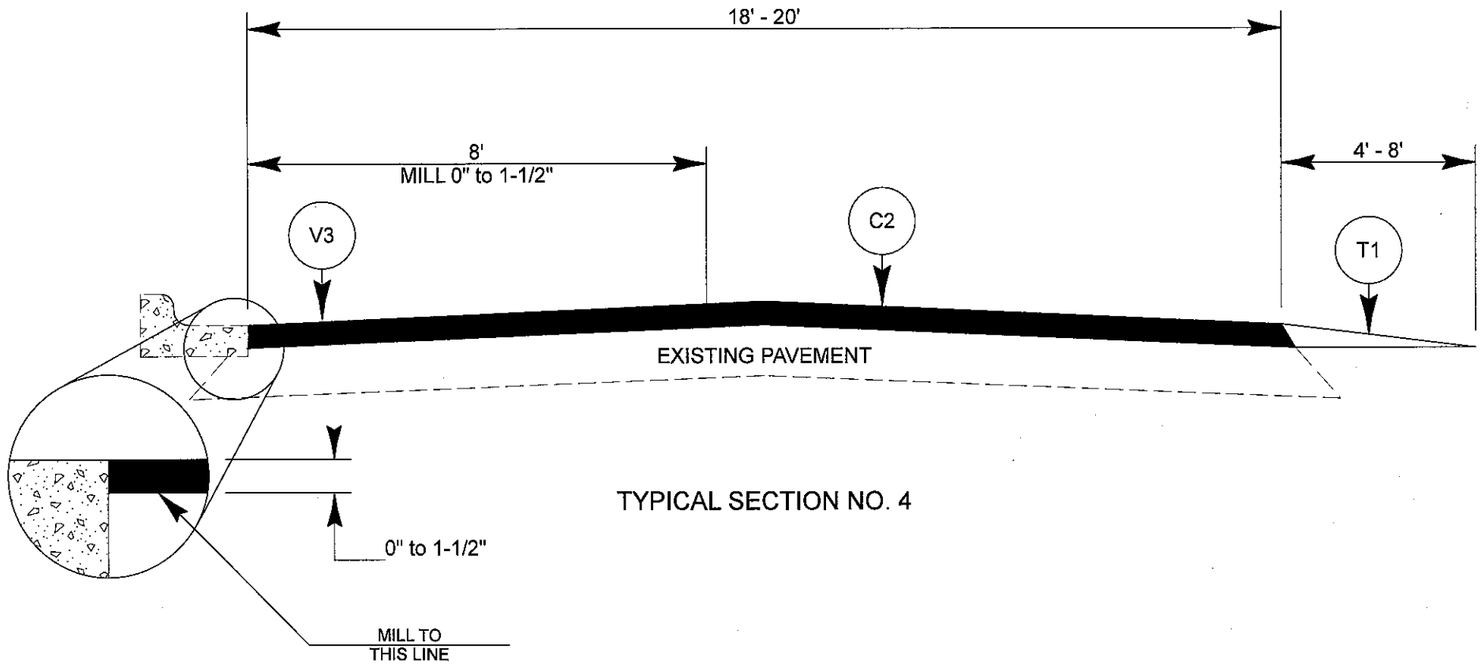
BRIDGE HALF TYPICAL SECTION

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 ½", SF9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A ¼", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C ½".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 ¾", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C ½".

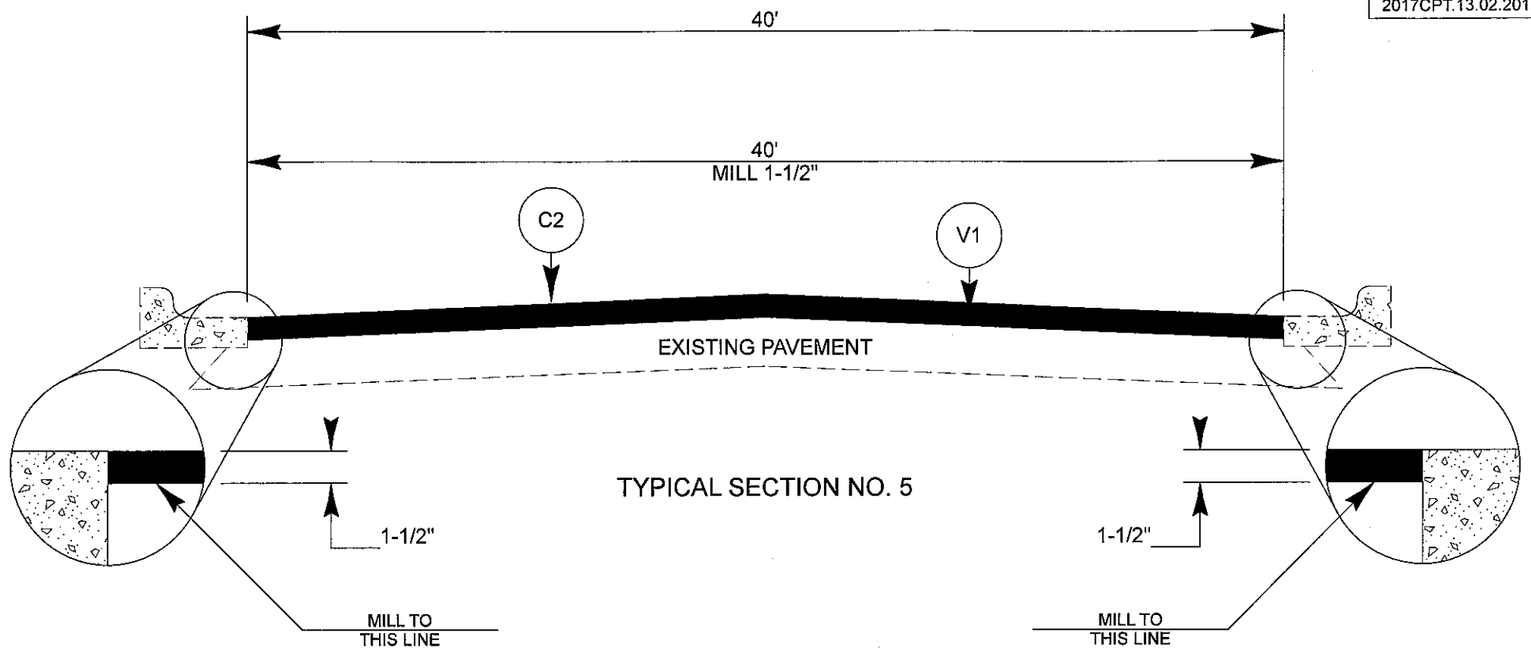
NOTES

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.

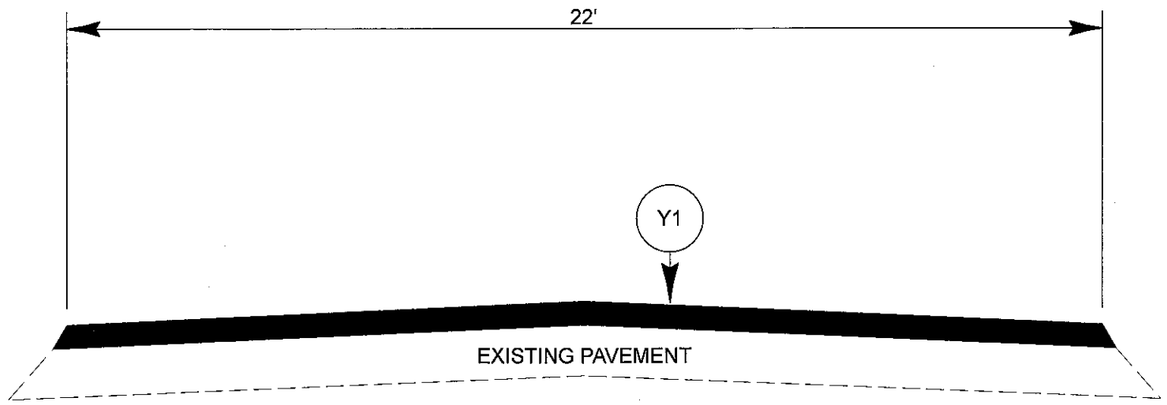


TYPICAL SECTION NO. 4

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, ETC.	15	

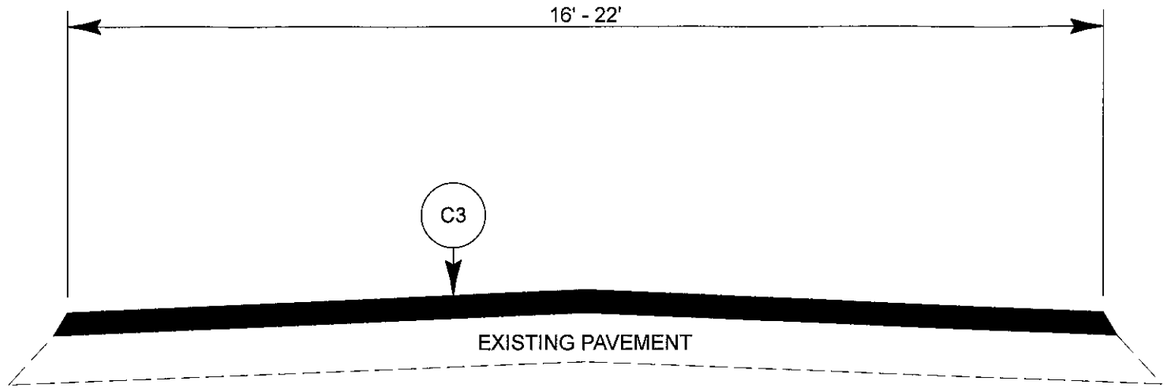


TYPICAL SECTION NO. 5

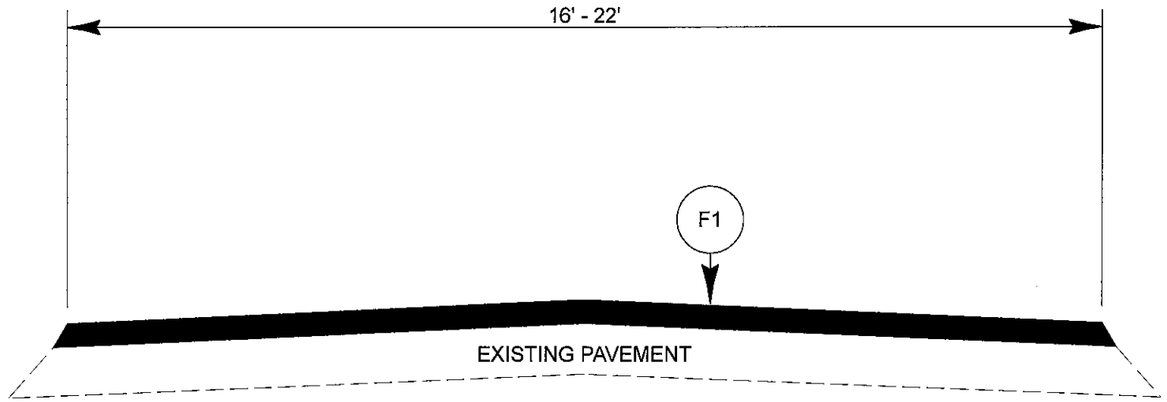


TYPICAL SECTION NO. 6

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, ETC.	16	

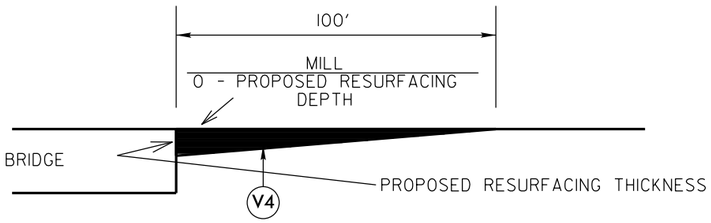


TYPICAL SECTION NO. 7



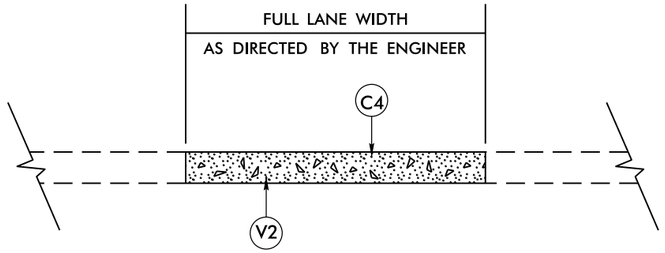
TYPICAL SECTION NO. 8

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	17	



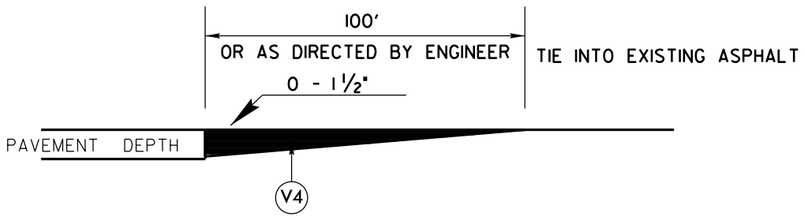
MILLING DETAIL AT BRIDGE APPROACHES

WHERE BRIDGES WILL NOT BE RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBERS: 10 ON MAP 7, 154 ON MAP 8, 46 ON MAP 14, 362 ON MAP 17, 292 ON MAP 24, 16 ON MAP 51, AND 212 ON MAP 52.



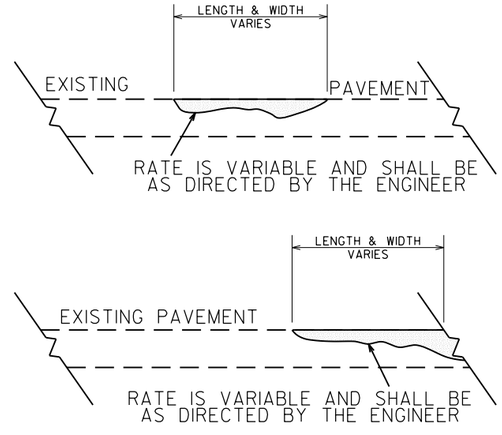
DETAIL FOR MILL & FILL EXISTING PAVEMENT ON I–40

SEE ATTACHED MILL & FILL SUMMARY SHEET FOR LOCATIONS



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.

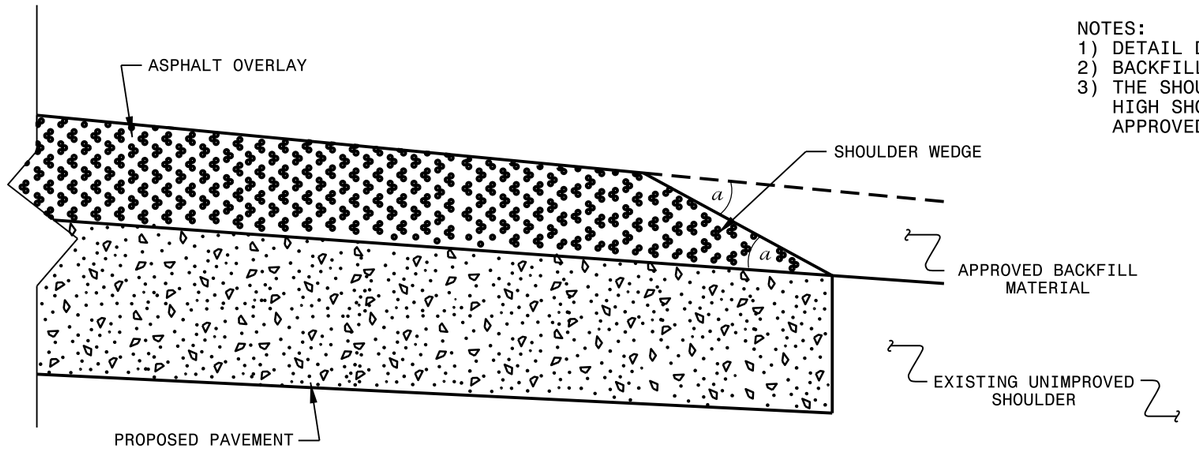


DETAIL SHOWING METHOD OF WEDGING

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121	18

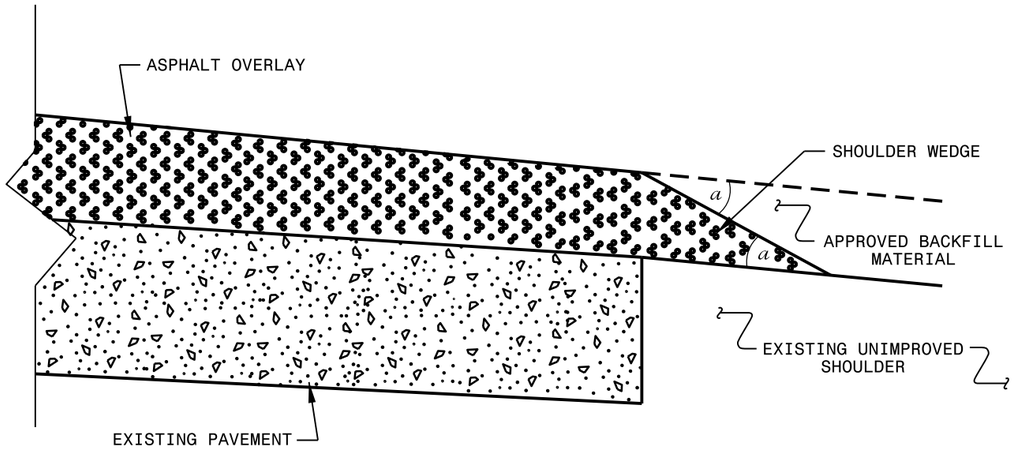
etc

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, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



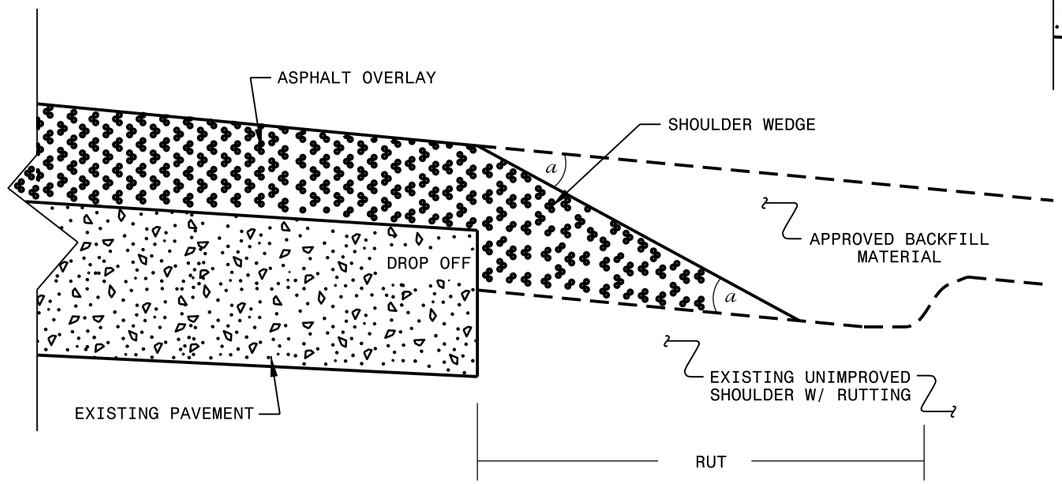
SHOULDER WEDGE DETAIL

(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

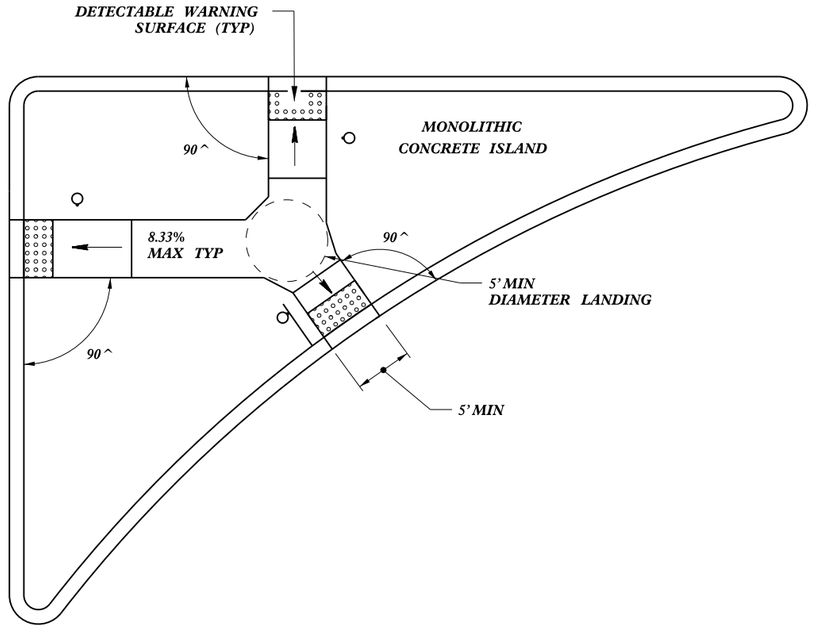
SHOULDER WEDGE DETAILS

ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	2/2/16
CHECKED BY:		DATE:	
FILE SPEC.:	s:usr/details/stand/shoulderwedgedetail.dgn		

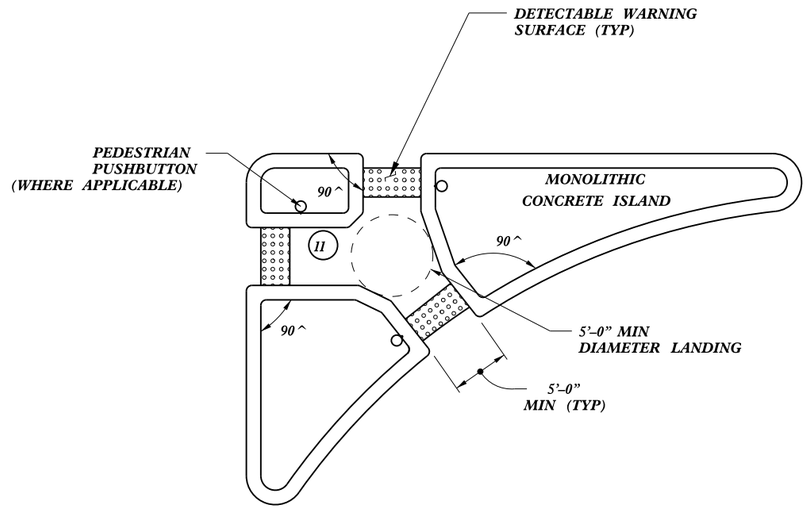
24-MAR-2016 11:45
S:\Contracts\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121	19

etc



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.

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

CURB RAMPS

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

5/14/99

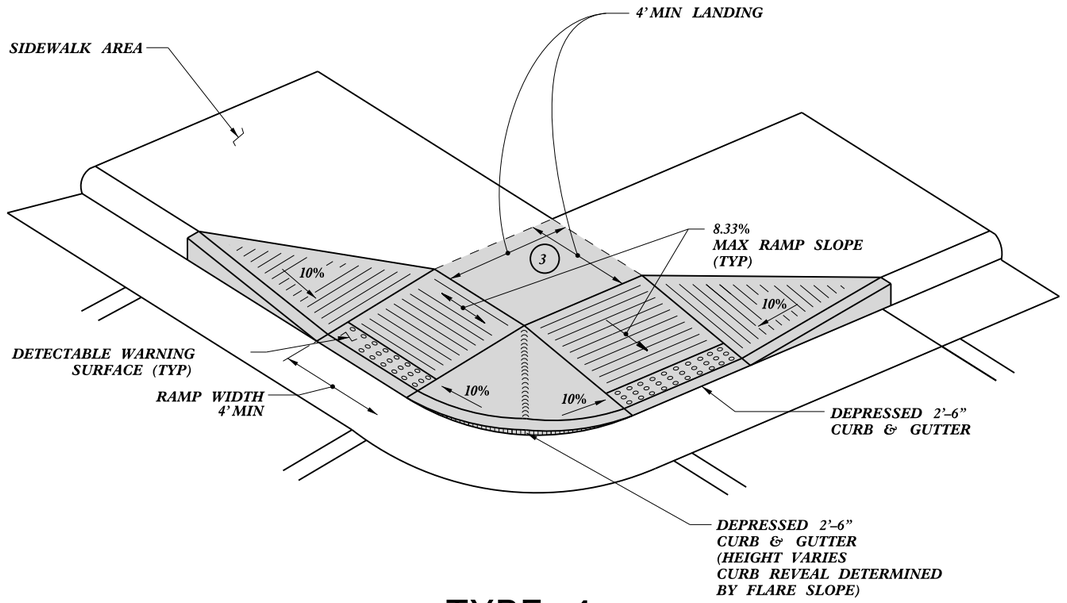
04-AUG-2011 09:03
$$$$USERNAME$$$$
S:\Contracts\Special Details\Vericward\stds\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121	20

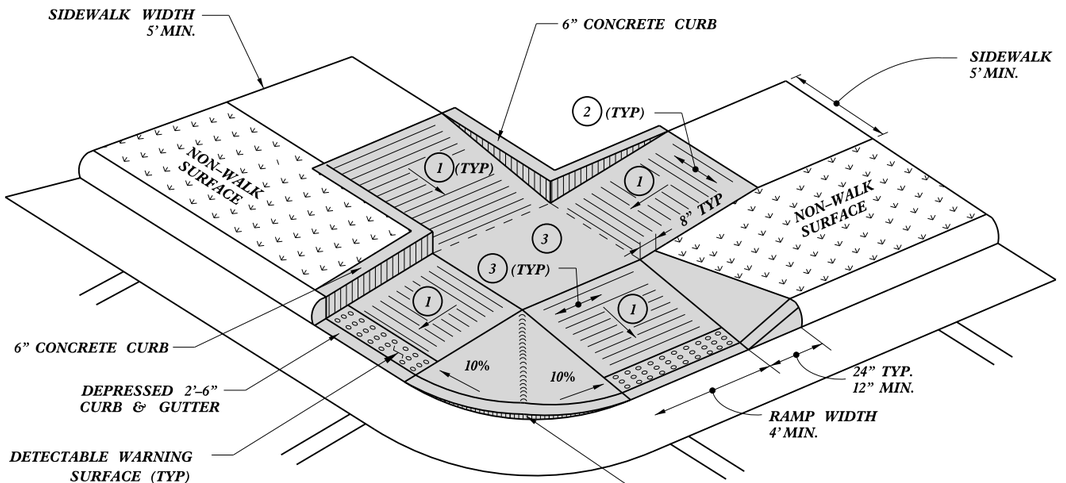
etc

5/14/99

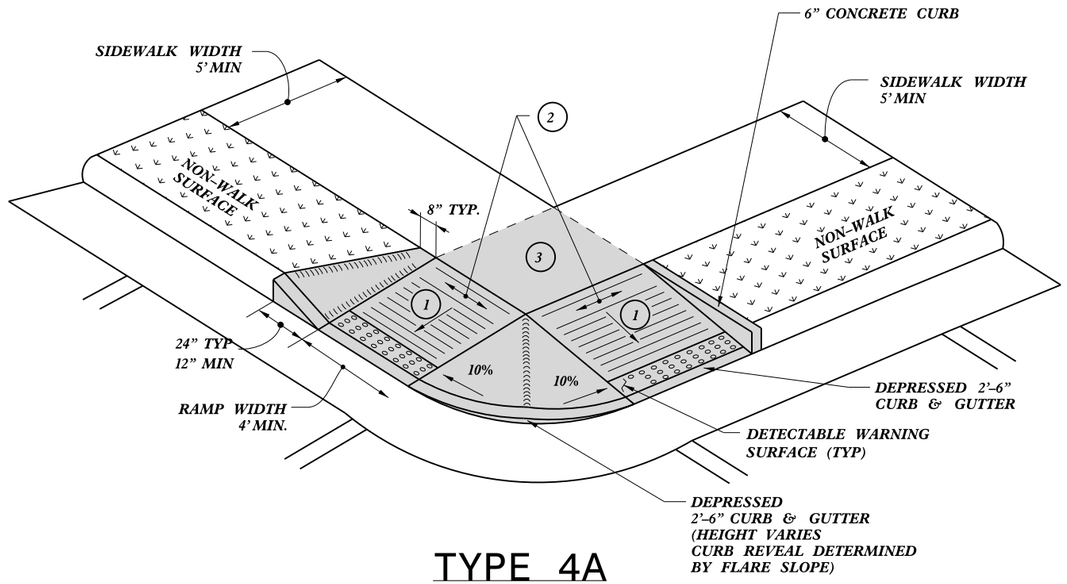
PAY LIMITS FOR CURB RAMP



TYPE 4



TYPE 5



TYPE 4A

(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

Shared Landing

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

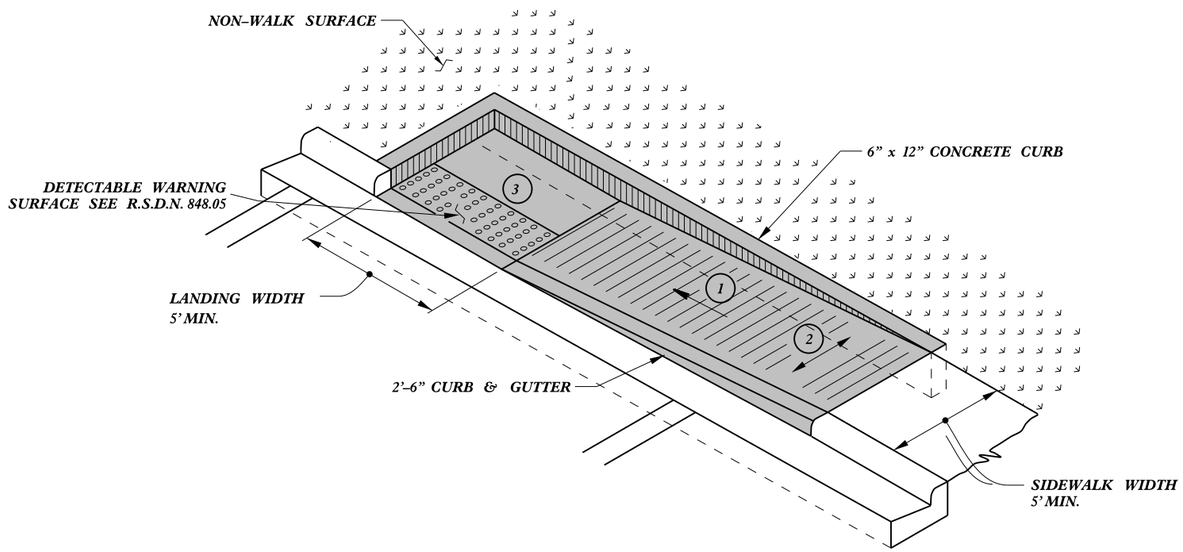
16-SEP-2011 15:06
S:\Contracts\Special Details\jhowerton\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details.dgn
jhowerton AT CSD237501

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121	21

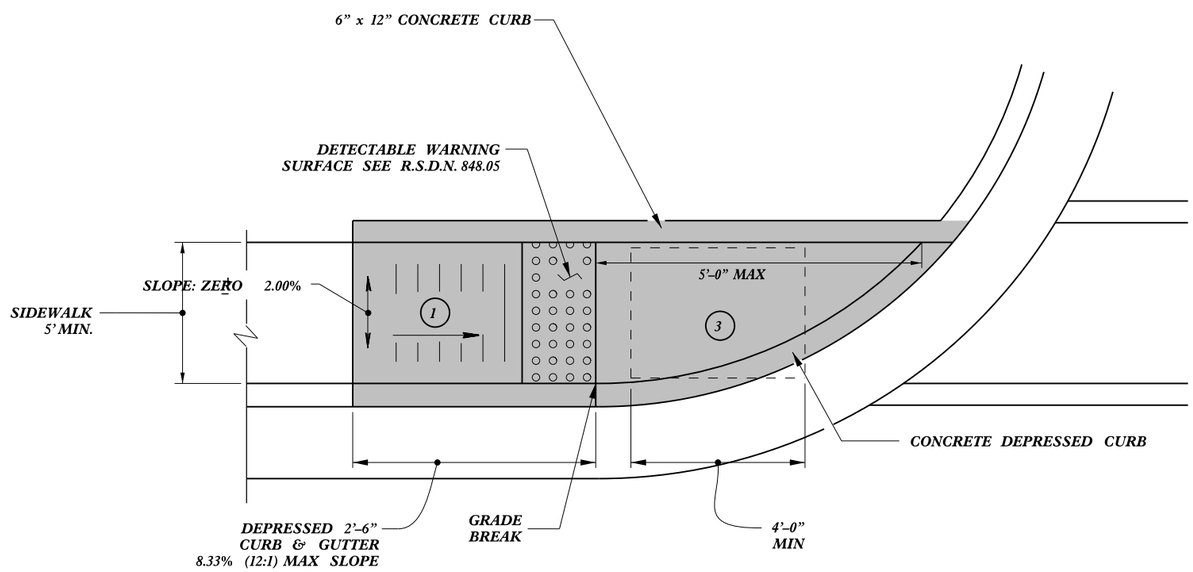
etc

5/14/99

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

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

CURB RAMPS

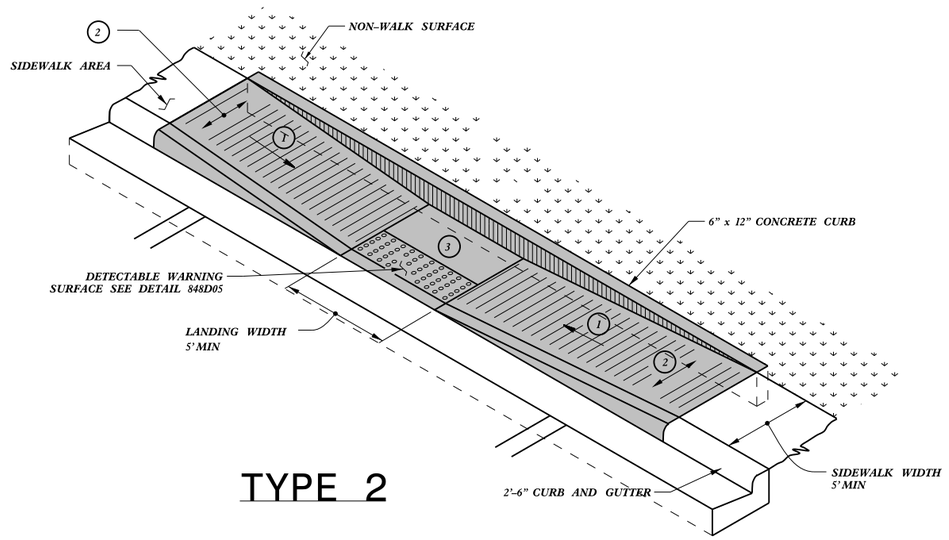
Directional Ramps

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

14-SEP-2011 08:03
S:\Contracts\Special Details\jhowerton\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn
jhowerton AT CSD237501

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121	22

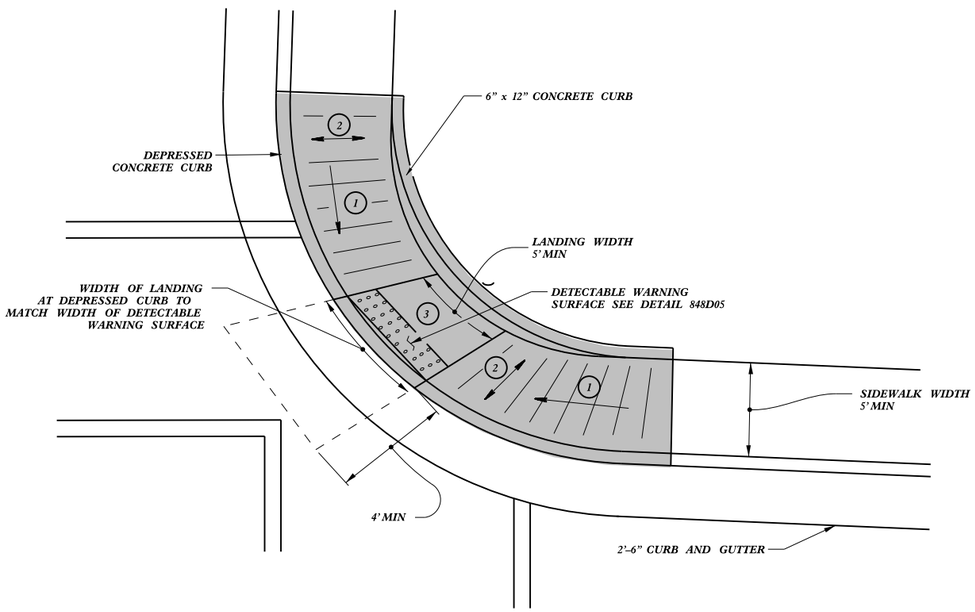
etc



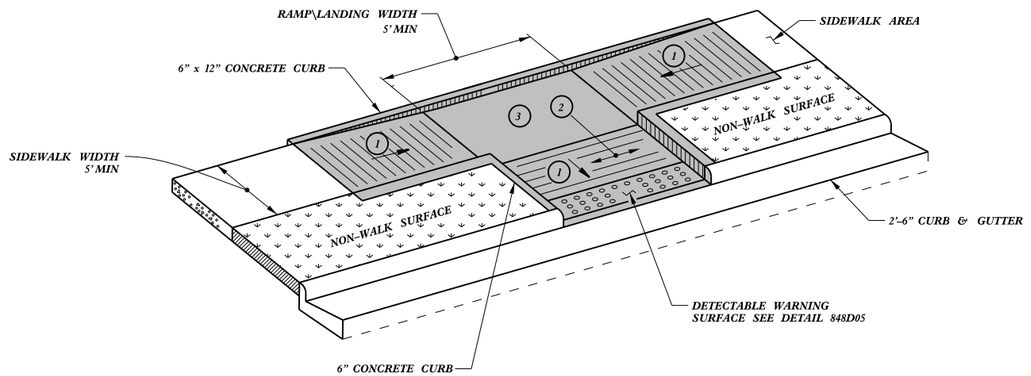
TYPE 2

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

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

Parallel Ramps

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

5/14/99

I:\SFP-2011\08\04
St\Contracts\Special Details\jhowerton\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn
jhowerton
AT CSD237501

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	23	

SUMMARY OF MILL & FILL ON I-40

I-40 WEST BOUND

APPROXIMATE MILE MARKER LOCATION	LANE	APPROXIMATE LENGTH OF REPAIR LF	APPROXIMATE WIDTH OF REPAIR LF	ASPHALT CONC SURFACE COURSE, TYPE S9.5C TON
115.75	RT	50	12.5	8.0
113.64	RT	50	12.5	8.0
112.4	RT	50	12.5	8.0
111.1	RT	100	12.5	16.0
110.4	LT	50	12.0	7.0
107.6	LT	50	12.0	7.0
107.05	RT	50	12.5	8.0
104.78	RT	400	12.5	62.0
104.5	RT	300	12.5	47.0
103.84	LT	800	12.0	119.0
103.84	RT	800	12.5	124.0
103.66	LT	200	12.0	30.0
103.34	LT	50	12.0	7.0
101.41	LT	600	12.0	90.0
98.95	RT	50	12.5	8.0
98.57	RT	50	12.5	8.0
97.59	RT	850	12.5	132.0
96.55	RT	50	12.5	8.0
96.37	RT	100	12.5	16.0
96.25	LT	50	12.0	7.0
95.85	RT	50	12.5	8.0
95.41	RT	50	12.5	8.0

I-40 EAST BOUND

APPROXIMATE MILE MARKER LOCATION	LANE	APPROXIMATE LENGTH OF REPAIR LF	APPROXIMATE WIDTH OF REPAIR LF	ASPHALT CONC SURFACE COURSE, TYPE S9.5C TON
96.35	RT	100	12.5	16.0
98.5	RT	250	12.5	39.0
100	RT	100	12.5	16.0
100.54	RT	500	12.5	78.0
102.28	RT	50	12.5	8.0
102.41	RT	1250	12.5	194.0
102.7	RT	900	12.5	140.0
103.07	RT	50	12.5	8.0
103.13	RT	100	12.5	16.0
103.58	RT	200	12.5	31.0
104.18	LT	50	12.0	7.0
104.5	RT	800	12.5	124.0
105.8	RT	150	12.5	23.0
107.25	RT	100	12.5	16.0
108.55	RT	50	12.5	8.0
108.6	RT	50	12.5	8.0
110.67	RT	50	12.5	8.0
111.4	RT	50	12.5	8.0
111.59	RT	50	12.5	8.0
111.67	RT	50	12.5	8.0
112.24	RT	50	12.5	8.0
112.75	RT	100	12.5	16.0
114.35	RT	50	12.5	8.0
115.33	RT	50	12.5	8.0
115.51	RT	50	12.5	8.0

NOTE - SEE "SUMMARY OF QUANTITIES" FOR ASPHALT TOTAL

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	24	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAV., 1-1/2" DEPTH SY	MILLING ASPHALT PAV., 2" DEPTH SY	MILLING ASPHALT PAV., 0" TO 1-1/2" DEPTH SY	INCIDENTAL MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	LATEX MODIFIED MICRO-SURFACING, TYPE III SY	CONC CURB RAMP EA	ADJ. OF DROP INLETS EA	ADJ. OF MAN-HOLES EA	ADJ. OF METER BOXES OR VALVE BOXES EA	INDUCTIVE LOOP SAWCUT LF	PORTABLE LIGHTING LS
2017CPT.13.02.10121	Burke	1	US 64	FROM MCDOWELL COUNTY LINE TO SR 1969 (MP 0.00 - MP 2.78)	1	2	2WU	NO	YES	2.78	26	139	5.56				850	3,937			236	420									
		2	US 64	FROM SR 1969 TO SR 1102 (MP 2.78 - MP 8.84)	1	2	2WU	NO	YES	6.06	25.5	303	12.12				5,000	8,418			505	1,400									
		3	US 70	FROM BRIDGE NO. 88 OVER RR TO BEG C&G (MP 17.98 - MP 18.69)	1	2	2WU	NO	NO	0.71	26	36	1.42				850	1,005			60	200						1	2	300	
		4	US 70	FROM BEG C&G TO SR 1730 (MP 18.69 - MP 18.92)	2	4	MU	NO	NO	0.23	48			6,500			650	600			36	200				6				800	
		5	US 70	FROM SR 1733 TO END C&G (MP 19.54 - MP 20.27)	2	4	MU	NO	NO	0.73	38			16,500			600	1,509			91	200				29					
		6	US 70	FROM END C&G TO 0.15 MILES WEST OF SR 1547 (MP 20.27 - MP 21.27)	1	2	2WU	NO	NO	1	26.5	50	2.00				290	1,443			87	125						1	1		
TOTAL FOR PROJ NO. 2017CPT.13.02.10121										**11.51**		**528**	**21.10**	**23,000**			**8,240**	**16,912**			**1,015**	**2,545**				**35**		**2**	**3**	**1,100**	
		7	SR 1001	FROM CALDWELL COUNTY LINE TO BEG C&G (MP 0.00 - MP 0.92)	1	2	2WU	NO	NO	0.92	24	46	1.84				535	1,203			72	525									
		8	SR 1001	FROM SR 1740 TO SR 1744 (MP 3.29 - MP 4.38)	1,2	2	2WU	NO	NO	1.09	26	55	2.18	1,500			2,250	1,544			93	75									
		9	SR 1142	FROM SR 1149 TO RAINTREE DRIVE (MP 5.06 - MP 6.35)	1	2	2WU	NO	YES	1.29	32	65	2.58				3,320	2,246			135	225							9		
		10	SR 1142	FROM PVMT CHG TO US 70 (MP 7.20 - MP 7.68)	1,2	2	2WU	NO	YES	0.48	40	24	0.96	2,800			800	1,044			63	150							1		
		11	SR 1150	FROM US 70 TO SR 1142 (MP 0.00 - MP 0.93)	3	2	2WU	NO	NO	0.93	26	47	1.86							1,294	87	250									
		12	SR 1152	FROM SR 1178 TO US 70 (MP 0.00 - MP 0.52)	1	2	2WU	NO	NO	0.52	20	26	1.04				275	567			34	35						1	1		
		13	SR 1178	FROM SR 1177 TO SR 1152 (MP 0.00 - MP 0.25)	1	2	2WU	NO	NO	0.25	24	13	0.50				275	327			20	50						1	3		
		14	SR 1223	FROM SR 1233 TO SR 1230 (MP 0.00 - MP 2.14)	3	2	2WU	NO	YES	2.14	19	107	4.28							2,179	146	500									
		15	SR 1223	FROM SR 1319 TO SR 1147 (MP 4.16 - MP 4.39)	3,4	2	2WU	NO	YES	0.23	19	7	0.29			800				234	16	25						1	5	4		
		16	SR 1238	FROM END PVMT TO NC 126 (MP 13.79 - MP 15.66)	3	2	2WU	NO	NO	1.87	18	94	3.74							1,805	121	300									
		17	SR 1299	FROM SR 1223 TO US 70 (MP 0.00 - MP 0.10)	5	4	MU	NO	NO	0.1	40			1,150						214	14	50					1				
		18	SR 1319	FROM SR 1223 TO SR 1147 (MP 0.00 - MP 0.86)	3	2	2WU	NO	NO	0.86	22	43	1.72							1,140	76	300					2				
		19	SR 1538	FROM US 70 TO SR 1576 (MP 0.00 - MP 2.21)	3	2	2WU	NO	NO	2.21	20	111	4.42							2,583	173	425									
		20	SR 1618	FROM SR 1611 TO US 70 (MP 0.00 - MP 1.85)	1	2	2WU	NO	NO	1.7	20	85	3.40				1,450	1,855			111	510									
		21	SR 1630	FROM SR 1628 TO SR 1631 (MP 0.00 - MP 1.34)	3	2	2WU	NO	NO	1.34	20	67	2.68							1,436	96	360									
		22	SR 1680	FROM SR 1628 TO SR 1627 (MP 0.00 - MP 0.88)	1	2	2WU	NO	NO	0.88	20	44	1.76				650	960			58	225							1		
		23	SR 1768	FROM US 70 TO I-40 RAMP (MP 0.00 - MP 0.41)	1	2	2WU	NO	NO	0.41	20	21	0.82				450	447			27	80									
		24	SR 1001	FROM SR 1744 TO NC 18 S (MP 4.38 - MP 9.80)	6	2	2WU	NO	NO	5.42	22											1,450				76,950					
		25	SR 1194	FROM US 70 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	NO	NO	0.31	20									221	15	10							1		
2017CPT.13.02.20121	Burke	26	SR 1225	FROM WCL OF GLEN ALPINE TO EOM (MP 0.00 - MP 1.81)	7	2	2WU	NO	NO	1.81	18							1,162	78	25									
		27	SR 1305	FROM SR 1140 TO SR 1139 (MP 0.00 - MP 0.29)	7	2	2WU	NO	NO	0.29	18							186	12	200									
		28	SR 1311	FROM SR 1225 TO SR 1312 (MP 0.00 - MP 0.09)	7	2	2WU	NO	NO	0.09	18							58	4	10									
		29	SR 1312	FROM SR 1311 TO DEAD END (MP 0.00 - MP 0.15)	7	2	2WU	NO	NO	0.15	18							96	6	15									
		30	SR 1326	FROM SR 1225 TO SR 1327 (MP 0.00 - MP 0.09)	7	2	2WU	NO	NO	0.09	18							58	4	10									
		31	SR 1327	FROM SR 1311 TO SR 1326 (MP 0.00 - MP 0.10)	7	2	2WU	NO	NO	0.1	18							64	4	10									
		32	SR 1541	FROM SR 1538 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	NO	NO	0.31	18							199	13	110								1		
		33	SR 1542	FROM SR 1541 TO DEAD END (MP 0.00 - MP 0.39)	7	2	2WU	NO	NO	0.39	18							250	17	20									
		34	SR 1543	FROM SR 1538 TO DEAD END (MP 0.00 - MP 0.29)	7	2	2WU	NO	NO	0.29	18							186	12	25									
		35	SR 1617	ROM SR 1614 TO SR 1611 (MP 0.00 - MP 1.84)	7	2	2WU	NO	NO	1.84	19							1,246	84	360									
		36	SR 1620	FROM US 70 TO EOM (MP 0.58 - MP 1.20)	7	2	2WU	NO	NO	0.62	18							398	27	65									
		37	SR 1665	FROM SR 1628 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	NO	YES	0.31	18							199	13	10									
		38	SR 1671	FROM SR 1629 TO EOM (MP 0.00 - MP 0.10)	7	2	2WU	NO	NO	0.1	18							64	4	10									
		39	SR 1675	FROM US 70 TO DEAD END (MP 0.00 - MP 0.15)	7	2	2WU	NO	NO	0.15	18							96	6	10									
		40	SR 1696	FROM SR 1677 TO SR 1676 (MP 0.00 - MP 0.08)	7	2	2WU	NO	NO	0.08	18							51	3	25									
		41	SR 2112	FROM SR 1168 TO CUL-DE-SAC (MP 0.00 - MP 0.12)	7	2	2WU	NO	NO	0.12	21							90	6	60									
		42	SR 2314	FROM SR 1665 TO EOM (MP 0.00 - MP 0.11)	7	2	2WU	NO	NO	0.11	16							63	4	10									
		43	SR 1296	FROM SR 1235 TO DEAD END (MP 0.00 - MP 0.71)	7	2	2WU	NO	NO	0.71	16							405	27	150									
		44	SR 2312	FROM SR 1627 TO DEAD END (MP 0.00 - MP 0.16)	7	2	2WU	NO	NO	0.16	20							114	8	35									
		45	SR 2512	FROM SR 2513 TO CUL-DE-SAC (MP 0.11 - MP 0.23)	7	2	2WU	NO	NO	0.12	20							86	6	10									
		46	SR 2513	FROM SR 2512 TO CUL-DE-SAC (MP 0.00 - MP 0.04)	7	2	2WU	NO	NO	0.04	20							29	2	10									
		47	SR 2518	FROM SR 2512 TO EOM (MP 0.00 - MP 0.39)	7	2	2WU	NO	NO	0.39	20							278	19	120									
TOTAL FOR PROJ NO. 2017CPT.13.02.20121										**31.22**		**855**	**34.07**	**5,450**		**800**	**10,005**	**10,193**		**16,484**	**1,716**	**6,845**			**76,950**	**3**	**1**	**7**	**21**		
		48	SR 1726	FROM US 70 TO SR 1722 (MP 0.00 - MP 1.44)	8	2	2WU	NO	NO	1.44	19										30	16,051	8,792							
		49	SR 1737	FROM SR 1861 TO SR 1001 (MP 1.59 - MP 4.66)	8	2	2WU	NO	NO	3.07	19										30	34,220	18,822							
		50	SR 1793	FROM SR 1001 TO SR 1786 (MP 0.00 - MP 1.87)	8	2	2WU	NO	NO	1.87	20										140	21,941	12,042							
		51	SR 1795	FROM SR 1800 TO SR 1001 (MP 0.00 - 2.54)	8	2	2WU	NO	NO	2.54	21										25	31,293	17,198							
		52	SR 1802	FROM SR 1796 TO SR 1736 (MP 0.00 - MP 1.70)	8	2	2WU	NO	NO	1.7	21										165	20,944	11,520							
2017CPT.13.02.20122	Burke	53	SR 1818	FROM SR 1803 TO SR 1803 (MP 0.00 - MP 0.99)	8	2	2WU	NO	NO	0.99	22										200	12,778	7,028							
		54	SR 1838	FROM SR 1755 TO BARRICADE (MP 0.00 - MP 0.29)	8	2	2WU	NO	NO	0.29	19										60	3,233	1,778							
		55	SR 1855	FROM SR 1737 TO SR 1821 (MP 0.00 - MP 0.62)	8	2	2WU	NO	NO	0.62	16										15	5,820	3,165							
		56	SR 1868	FROM SR 1780 TO EOM (MP 0.00 - MP 0.31)	8	2	2WU	NO	NO	0.31	18										45	3,274	1,801							
		57	SR 1909	FROM SR 1907 TO SR 1907 (MP 0.00 - MP 0.94)	8	2	2WU	NO	NO	0.94	18										220	9,926	5,460							
		58	SR 2532	FROM SR 1726 TO EOM (MP 0.00 - MP 0.25)	8	2	2WU	NO	NO	0.25	18										10	2,640	1,423							
TOTAL FOR PROJ NO. 2017CPT.13.02.20122										**14.02**											**940**	**162,120**	**89,029**							
51209.1B	Burke	59	I-40	FROM SR 1129 TO SR 1761 (MP 94 - MP 116)	detail	4	MD	NO	NO	22	76				14,300			1,600		94										*
TOTAL FOR PROJ NO. 51209.1B										**22**					**14,300**			**1,600**		**94**										
GRAND TOTAL										**78.75**		**1,383**	**55.17**	**28,450**	**14,300**	**800**	**18,245**	**27,105**	**1,600**	**16,484**	**2,825**	**10,330**	**162,120**	**89,029**	**76,950**	**38**	**1**	**9**	**24**	**1,100**	**1**

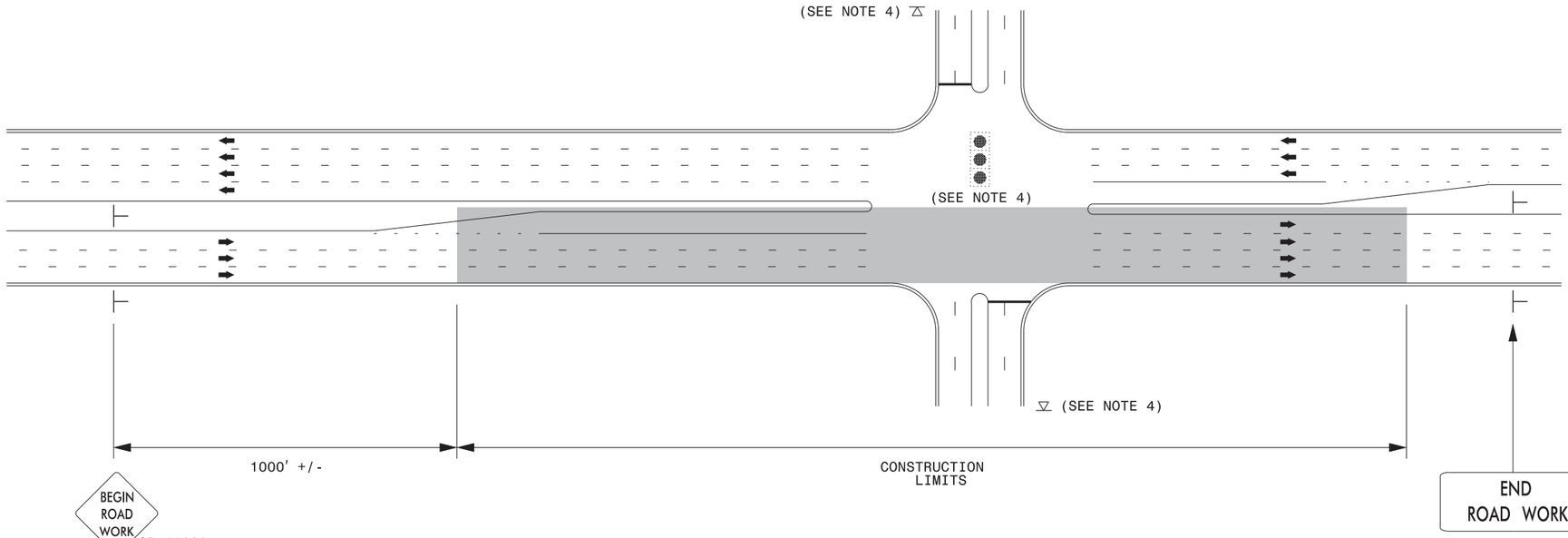
PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.13.02.10121, 2017CPT.13.02.20121, 2017CPT.13.02.20122, 51209.1B	25	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/ GENERAL WARNING SIGNING SF	4457000 TEMP. TRAFFIC CONTROL LS	4695000000-E THERMO (8", 90 MILS) WHITE LF	4695000000-E THERMO (8", 90 MILS) YELLOW LF	46970000 THERMO (8", 120 MILS) WHITE LF	47000000 THERMO (12", 90 MILS) YELLOW LF	47050000 THERMO (16", 120 MILS) WHITE LF	47100000 THERMO (24", 120 MILS) WHITE LF	4721000000-E THERMO CHARACTER (120 MILS) ONLY EA	4721000000-E THERMO CHARACTER (120 MILS) RXR EA	4721000000-E THERMO CHARACTER (120 MILS) SCHOOL EA	4725000000-E THERMO SYMBOL (90 MILS) LT ARROW EA	4725000000-E THERMO SYMBOL (90 MILS) RT ARROW EA	4725000000-E THERMO SYMBOL (90 MILS) STR ARROW EA	4725000000-E THERMO SYMBOL (90 MILS) STR & RT ARROW EA	4725000000-E THERMO SYMBOL (90 MILS) STR & LT ARROW EA	4805000000-N COLD APPLIED, TYPE II (LT ARROW) EA	4805000000-N COLD APPLIED, TYPE II (RT ARROW) EA	4805000000-N COLD APPLIED, TYPE II (STR & RT ARROW) EA	4810000000-E PAINT (4") WHITE LF	4810000000-E PAINT (4") YELLOW LF	4815000000-E PAINT (6") WHITE LF	4815000000-E PAINT (6") YELLOW LF	4820000 PAINT (8") WHITE LF	4825000 PAINT (12") WHITE LF	4835000 PAINT (24") WHITE LF	4840000 PAINT CHAR-ACTER (ONLY) EA	4845000000-E PAINT SYMBOL (LT ARROW) EA	4845000000-E PAINT SYMBOL (RT ARROW) EA	4845000000-E PAINT SYMBOL (STR ARROW) EA	4845000000-E PAINT SYMBOL (STR & RT ARROW) EA	4850000000 REMOVAL OF PAV. MARKING LINES (4") LF	4905...-N SNOW-PLOW ABLE PAV. MARKERS EA
2017CPT.13.02.10121	Burke	1	US 64	FROM MCDOWELL COUNTY LINE TO SR 1969 (MP 0.00 - MP 2.78)	1	2	2WU	2.78	26	1,292	*	145	100				70				2								58,714	58,714												185
		2	US 64	FROM SR 1969 TO SR 1102 (MP 2.78 - MP 8.84)	1	2	2WU	6.06	25.5																				127,988	127,988												400
		3	US 70	FROM BRIDGE NO. 88 OVER RR TO BEG C&G (MP 17.98 - MP 18.69)	1	2	2WU	0.71	26																				15,196	14,996												60
		4	US 70	FROM BEG C&G TO SR 1730 (MP 18.69 - MP 18.92)	2	2	MU	0.23	48					450			170	8				4							3,642	7,287			350		170	8		4				45
		5	US 70	FROM SR 1733 TO END C&G (MP 19.54 - MP 20.27)	2	2	MU	0.73	38					2,000			450				25							2,400	23,127					450		25					150
		6	US 70	FROM END C&G TO 0.15 MILES WEST OF SR 1547 (MP 20.27 - MP 21.27)	1	2	2WU	1	26.5					48															21,120	21,120												90
TOTAL FOR PROJ NO. 2017CPT.13.02.10121								**11.51**		**1,292**		**145**	**100**	**2,498**			**690**	**8**			**27**	**4**						**229,060**	**253,232**			**350**		**620**	**8**	**25**	**4**			**29**	**930**
												245						**8**			**31**							**482,292**												
2017CPT.13.02.20121	Burke	7	SR 1001	FROM CALDWELL COUNTY LINE TO BEG C&G (MP 0.00 - MP 0.92)	1	2	2WD	0.92	24	3,546	*																	19,430	19,430												65
		8	SR 1001	FROM SR 1740 TO SR 1744 (MP 3.29 - MP 4.38)	1,2	2	2WU	1.09	26			350					160	4			4	2	6	1				23,520	23,440			950		18	4	2	2	4			110
		9	SR 1142	FROM SR 1149 TO RAINTREE DRIVE (MP 5.06 - MP 6.35)	1	2	2WU	1.29	32						100		225				14	5	4		2			27,944	40,868												200
		10	SR 1142	FROM PVMT CHG TO US 70 (MP 7.20 - MP 7.68)	1,2	2	2WU	0.48	40						120		40				4	1	1					10,958	10,138							2	1	1			55
		11	SR 1150	FROM US 70 TO SR 1142 (MP 0.00 - MP 0.93)	3	2	2WU	0.93	26																			19,642	19,642												
		12	SR 1152	FROM SR 1178 TO US 70 (MP 0.00 - MP 0.52)	1	2	2WU	0.52	20																			10,982	10,982												
		13	SR 1178	FROM SR 1177 TO SR 1152 (MP 0.00 - MP 0.25)	1	2	2WU	0.25	24																			5,280	5,280												
		14	SR 1223	FROM SR 1233 TO SR 1230 (MP 0.00 - MP 2.14)	3	2	2WU	2.14	19																			45,196	45,196												
		15	SR 1223	FROM SR 1319 TO SR 1147 (MP 4.16 - MP 4.39)	3,4	2	2WU	0.23	19							45	125		2									4,858	4,858												
		16	SR 1238	FROM END PVMT TO NC 126 (MP 13.79 - MP 15.66)	3	2	2WU	1.87	18																			39,494	39,494												
		17	SR 1299	FROM SR 1223 TO US 70 (MP 0.00 - MP 0.10)	5	2	MU	0.1	40								25	4			1	3		1		2	2	2	1,306	2,112			230				1	3		1		
		18	SR 1319	FROM SR 1223 TO SR 1147 (MP 0.00 - MP 0.86)	3	2	2WU	0.86	22																			18,164	18,164												
		19	SR 1538	FROM US 70 TO SR 1576 (MP 0.00 - MP 2.21)	3	2	2WU	2.21	20								40			12		2						46,676	46,676												
		20	SR 1618	FROM SR 1611 TO US 70 (MP 0.00 - MP 1.85)	1	2	2WU	1.7	20								40			12								35,904	35,904												
		21	SR 1630	FROM SR 1628 TO SR 1631 (MP 0.00 - MP 1.34)	3	2	2WU	1.34	20																			28,300	28,300												
		22	SR 1680	FROM SR 1628 TO SR 1627 (MP 0.00 - MP 0.88)	1	2	2WU	0.88	20																			18,586	18,586												
		23	SR 1768	FROM US 70 TO I-40 RAMP (MP 0.00 - MP 0.41)	1	2	2WU	0.41	20																			8,660	8,660												
		24	SR 1001	FROM SR 1744 TO NC 18 S (MP 4.38 - MP 9.80)	6	2	2WU	5.42	22																			114,470	114,470											114,470	
		25	SR 1194	FROM US 70 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	0.31	20																																
		26	SR 1225	FROM WCL OF GLEN ALPINE TO EOM (MP 0.00 - MP 1.81)	7	2	2WU	1.81	18																			38,228	38,228												
		27	SR 1305	FROM SR 1140 TO SR 1139 (MP 0.00 - MP 0.29)	7	2	2WU	0.29	18																																
		28	SR 1311	FROM SR 1225 TO SR 1312 (MP 0.00 - MP 0.09)	7	2	2WU	0.09	18																																
		29	SR 1312	FROM SR 1311 TO DEAD END (MP 0.00 - MP 0.15)	7	2	2WU	0.15	18																																
		30	SR 1326	FROM SR 1225 TO SR 1327 (MP 0.00 - MP 0.09)	7	2	2WU	0.09	18																																
		31	SR 1327	FROM SR 1311 TO SR 1326 (MP 0.00 - MP 0.10)	7	2	2WU	0.1	18																																
		32	SR 1541	FROM SR 1538 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	0.31	18																																
		33	SR 1542	FROM SR 1541 TO DEAD END (MP 0.00 - MP 0.39)	7	2	2WU	0.39	18																																
		34	SR 1543	FROM SR 1538 TO DEAD END (MP 0.00 - MP 0.29)	7	2	2WU	0.29	18																																
		35	SR 1617	ROM SR 1614 TO SR 1611 (MP 0.00 - MP 1.84)	7	2	2WU	1.84	19																			38,860	38,860												
		36	SR 1620	FROM US 70 TO EOM (MP 0.58 - MP 1.20)	7	2	2WU	0.62	18																			13,094	13,094												
		37	SR 1665	FROM SR 1628 TO DEAD END (MP 0.00 - MP 0.31)	7	2	2WU	0.31	18																																
		38	SR 1671	FROM SR 1629 TO EOM (MP 0.00 - MP 0.10)	7	2	2WU	0.1	18																																
		39	SR 1675	FROM US 70 TO DEAD END (MP 0.00 - MP 0.15)	7	2	2WU	0.15	18																																
		40	SR 1696	FROM SR 1677 TO SR 1676 (MP 0.00 - MP 0.08)	7	2	2WU	0.08	18																																
		41	SR 2112	FROM SR 1168 TO CUL-DE-SAC (MP 0.00 - MP 0.12)	7	2	2WU	0.12	21																																
		42	SR 2314	FROM SR 1665 TO EOM (MP 0.00 - MP 0.11)	7	2	2WU	0.11	16																																
		43	SR 1296	FROM SR 1235 TO DEAD END (MP 0.00 - MP 0.71)	7	2	2WU	0.71	16																																
		44	SR 2312	FROM SR 1627 TO DEAD END (MP 0.00 - MP 0.16)	7	2	2WU	0.16	20																																
		45	SR 2512	FROM SR 2513 TO CUL-DE-SAC (MP 0.11 - MP 0.23)	7	2	2WU	0.12	20																																
		46	SR 2513	FROM SR 2512 TO CUL-DE-SAC (MP 0.00 - MP 0.04)	7	2	2WU	0.04	20																																
		47	SR 2518	FROM SR 2512 TO EOM (MP 0.00 - MP 0.39)	7	2	2WU	0.39	20																																
TOTAL FOR PROJ NO. 2017CPT.13.02.20121								**31.22**		**3,546**		**350**			**220**	**45**	**655**	**8**	**2**	**24**	**23**	**13**	**11**	**2**	**2**	**2**	**2**	**2**	**569,552**	**582,382**			**1,180**		**18**		**5**	**6**	**5**	**1**	**114,470**	**430**
																		34					**51**				**6**		**1,151,934**								**17**				
2017CPT.13.02.20122	Burke	48	SR 1726	FROM US 70 TO SR 1722 (MP 0.00 - MP 1.44)	8	2	2WU	1.44	19	1,580	*																	30,413	30,413												
		49	SR 1737	FROM SR 1861 TO SR 1001 (MP 1.59 - MP 4.66)	8	2	2WU	3.07	19																			64,838	64,838												
		50	SR 1793	FROM SR 1001 TO SR 1786 (MP 0.00 - MP 1.87)	8	2	2WU	1.87	20																			39,494	39,494												
		51	SR 1795	FROM SR 1800 TO SR 1001 (MP 0.00 - 2.54)	8	2	2WU	2.54	21																			53,645	53,645												
		52	SR 1802	FROM SR 1796 TO SR 1736 (MP 0.00 - MP 1.70)	8	2	2WU	1.7	21																			35,904	35,904												
		53	SR 1818	FROM SR 1803 TO SR 1803 (MP 0.00 - MP 0.99)	8	2	2WU	0.99	22																			20,909	20,909												
		54	SR 1838	FROM SR 1755 TO BARRICADE (MP 0.00 - MP 0.29)	8	2	2WU	0.29	19																				6,125												
		55	SR 1855	FROM SR 1737 TO SR 1821 (MP 0.00 - MP 0.62)	8	2	2WU	0.62	16																																
		56	SR 1868	FROM SR 1780 TO EOM (MP 0.00 - MP 0.31)	8	2	2WU	0.31	18																			6,547	6,547												
		57	SR 1909	FROM SR 1907 TO SR 1907 (MP 0.00 - MP 0.94)	8	2	2WU	0.94	18																			19,853	19,853												
		58	SR 2532	FROM SR 1726 TO EOM (MP 0.00 - MP 0.25)	8	2	2WU	0.25	18																																
TOTAL FOR PROJ NO. 2017CPT.13.02.20122								**14.02**		**1,580**																		**271,603**	**277,728**												
																												549,331												
51209.1B	Burke	59	I-40	FROM SR 1129 TO SR 1761 (MP 94 - MP 116)	detail	4	MD	22	76	830	*																				21,300	3,700		250								125
TOTAL FOR PROJ NO. 51209.1B								**22**		**830**																				**25,000**		**250**									**125**
GRAND TOTAL								**78.75**		**7,248**	**1**	**495**	**100**	**2,498**	**220**	**45**	**1,345**	**16**	**2**	**24**	**50**	**17**	**11**	**2**	**2**	**2**	**2**	**2**	**1,070,215**	**1,113,342**	**21,300**	**3,700**	**1,530**	**250**	**638**	**8**	**30**	**10**	**5**	**1**	**114,470**	**1,485**
												595						**42**			**82**							**2,183,557**		**25,000**						**46**				

PROJ. REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121 etc	TMP-1

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

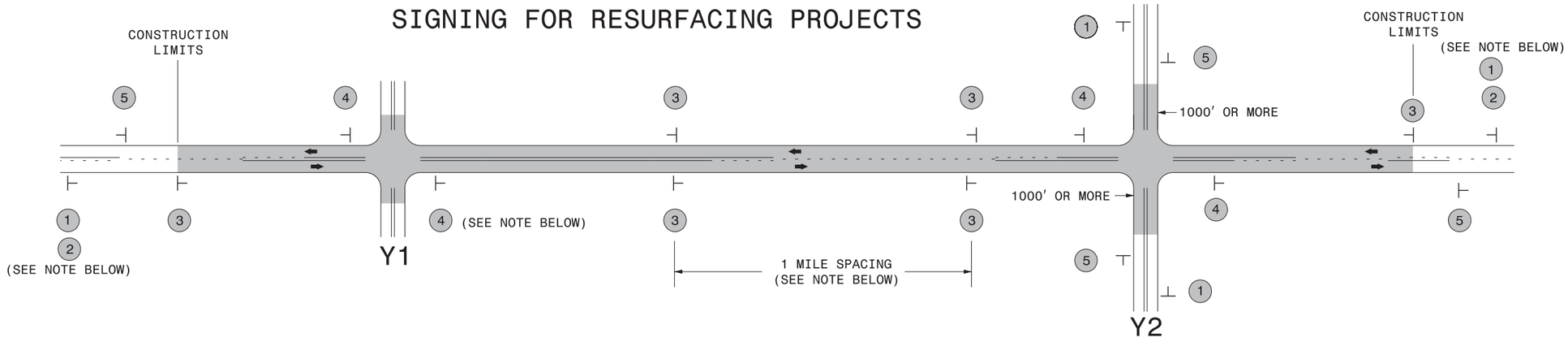
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121 etc	TMP-2

SIGNING FOR RESURFACING PROJECTS



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD W20-1 48″ X 48″	PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.
2	NEXT XX MILES W7-3aP 24″ X 18″	#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	LOW/SOFT SHOULDER SP 13107 48″ X 48″	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
4	ROAD UNDER CONST SP 13106 48″ X 48″	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	END ROAD WORK G20-2 A 48″ X 24″	PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD W20-1 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

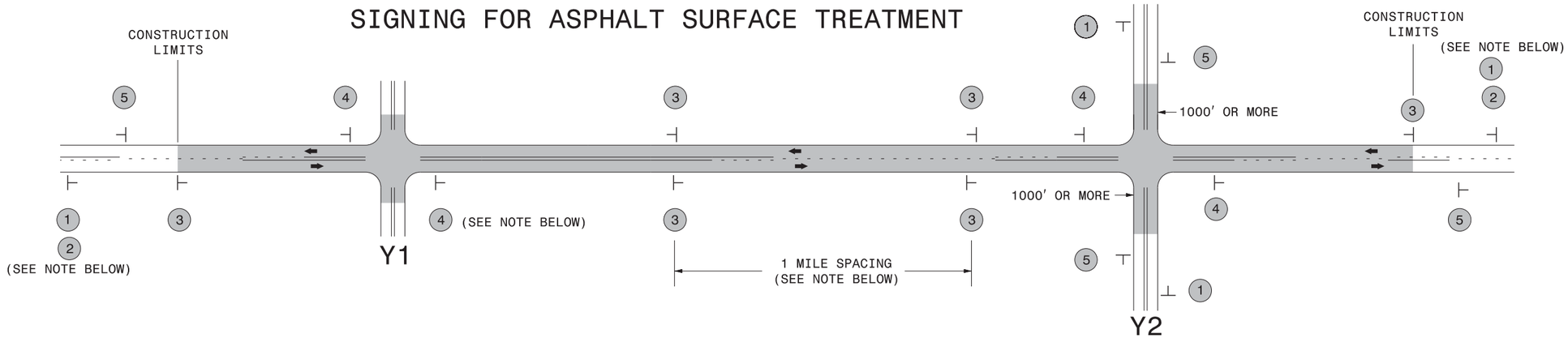
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

3/9/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_2Ln (2).dgn
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121 etc	TMP-3

SIGNING FOR ASPHALT SURFACE TREATMENT



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD — W20-1, 48″ X 48″

PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS.
ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

2 — NEXT XX MILES — W7-3aP, 24″ X 18″

#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 — LOOSE GRAVEL — W8-7, 48″ X 48″

UNMARKED PAVEMENT — SP, 48″ X 48″

ALTERNATE THE FOLLOWING TWO SIGNS:

STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT".

PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.

4 — ROAD UNDER CONST — SP 13106, 48″ X 48″

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 — END ROAD WORK — G20-2 A, 48″ X 24″

PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD — W20-1, 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A, 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

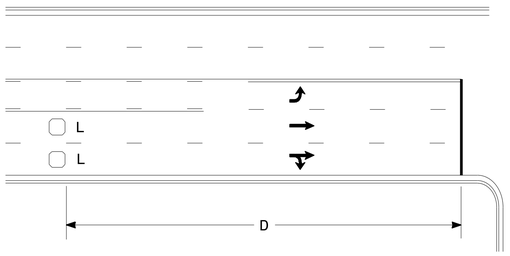
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ADVANCE WARNING SIGNS FOR ASPHALT SURFACE TREATMENTS 2 LANE ROADWAYS

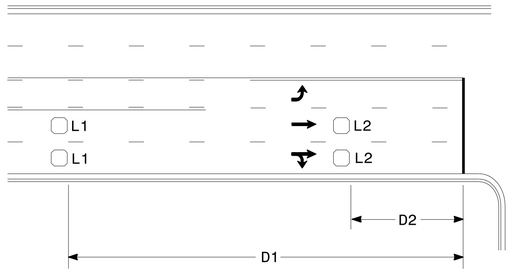
12/22/2014
S:\TMU\WZTC\Apps\WorkZoneGeneralExternalWebPage\DesRes\Documents\Resurfacing\Resurfacing_AdvWarn_2Ln - AST.dgn
User:rmgarrett

PROJECT REFERENCE NO.	SHEET NO.
2017CPT.13.02.10121 etc	SIG-1

High Speed Detection
(≥40 mph)



OR



Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1 Controllers
Wired separately for TS2, 170, and 2070L Controllers

Volume Density Operation

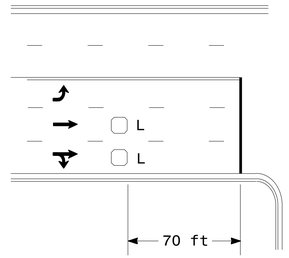
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

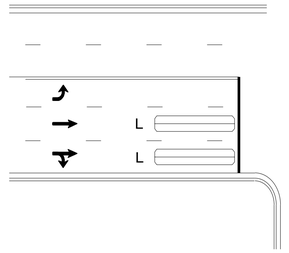
L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

Low Speed Detection
(≤35 mph)



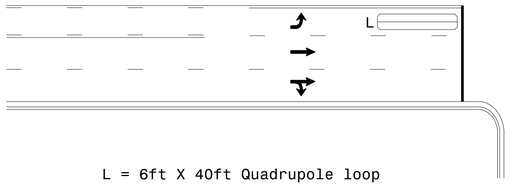
OR



L = 6ft X 6ft
Wired in series

L = 6ft X 40ft
Quadrupole loop, wired separately

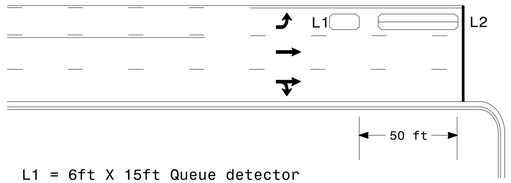
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

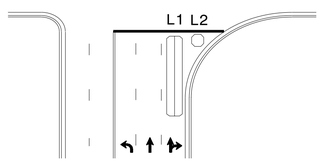
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

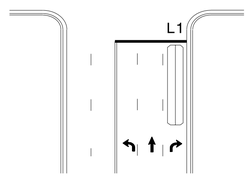
Queue Loop Detection

Right Turn Lane Detection

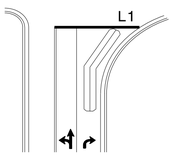


Shared Lane/
Wide Radius Turn

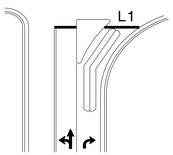
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

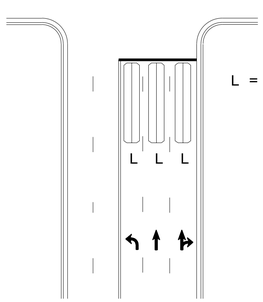


Wide Radius Turn



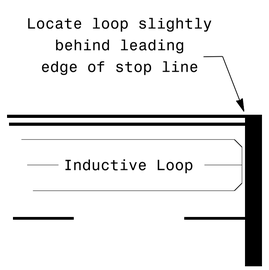
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate detectors/channels

Presence Loop Placement at Stop Lines



Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15′ from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6′ X 6′ loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6′ X 15′ Loops:
Lead-in < 150′, use 2 turns
Lead-in > 150′, use 3 turns

Prepared in the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23489 ENGINEER PAMELA L. ALEXANDER

DocuSigned by: P L Alexander
B4756E00CE4E46D...
1/30/2015
DATE

SIG. INVENTORY NO.

30-JAN-2015 12:39
S:\#TSGUM\TIS Signal\Signal Design Section\Eastern Region\loop typical2015.dgn
palexander