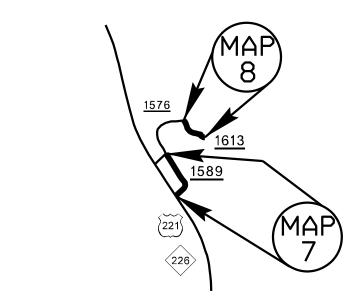
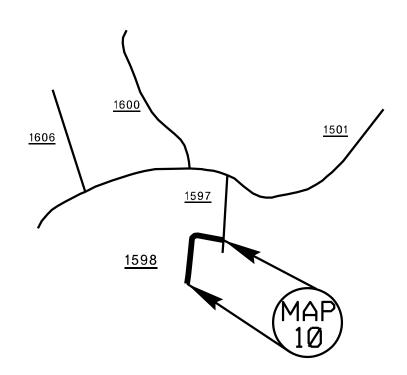
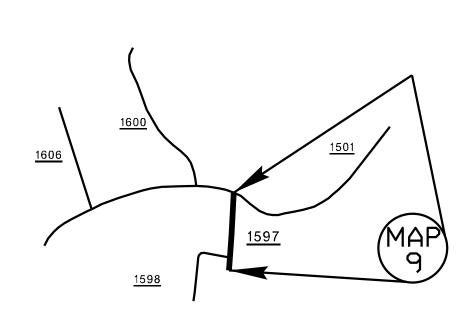
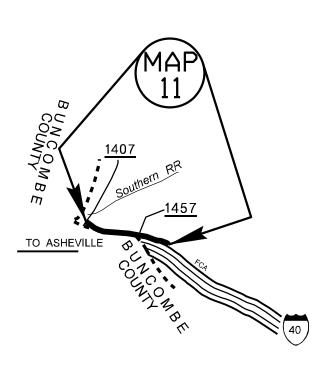


PROJECT NO.	SHEET NO.	TOTAL SHEETS
2018CPT.13.04.10591, 2018CPT.13.04.20591, 2018CPT.13.04.20592	2	19



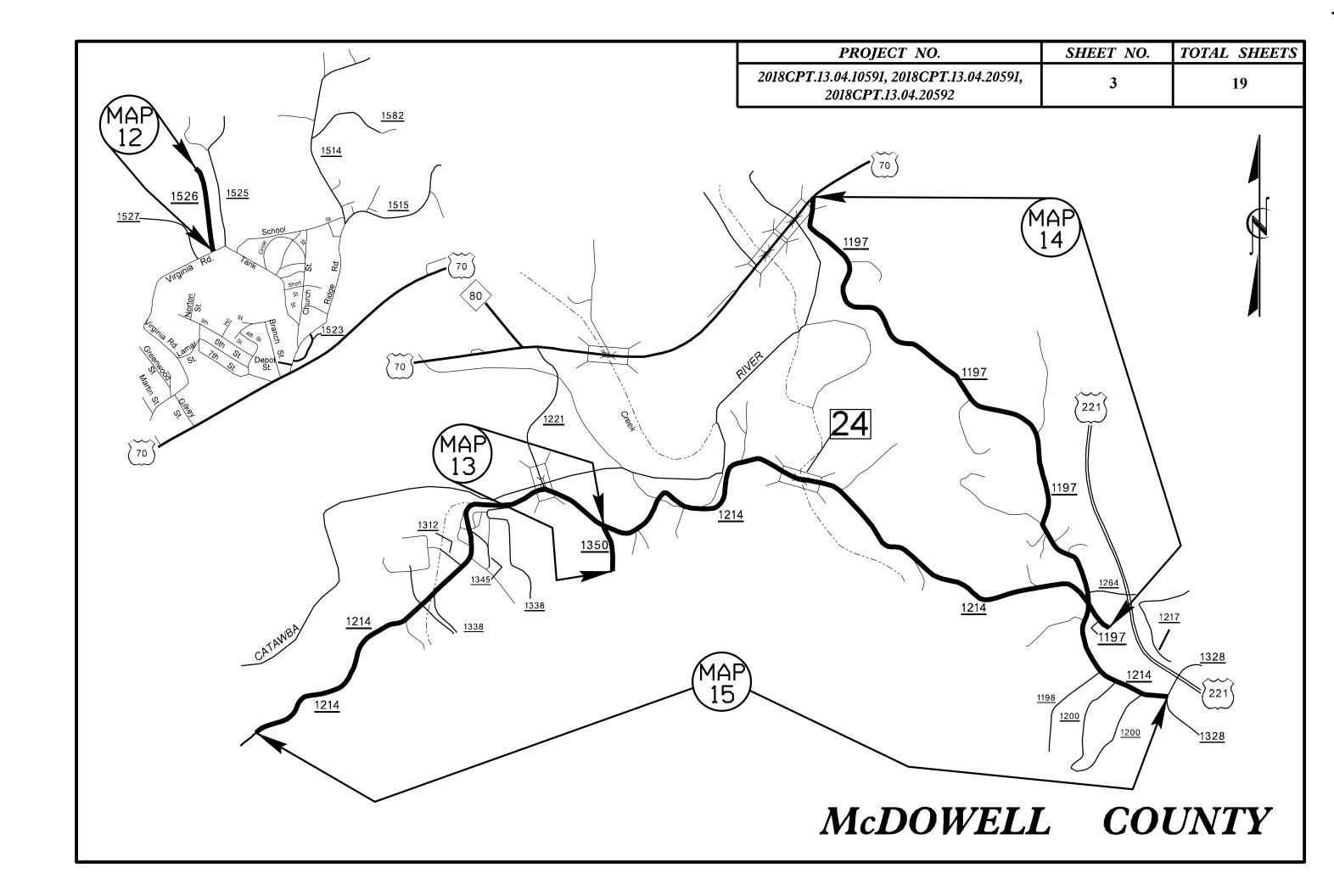


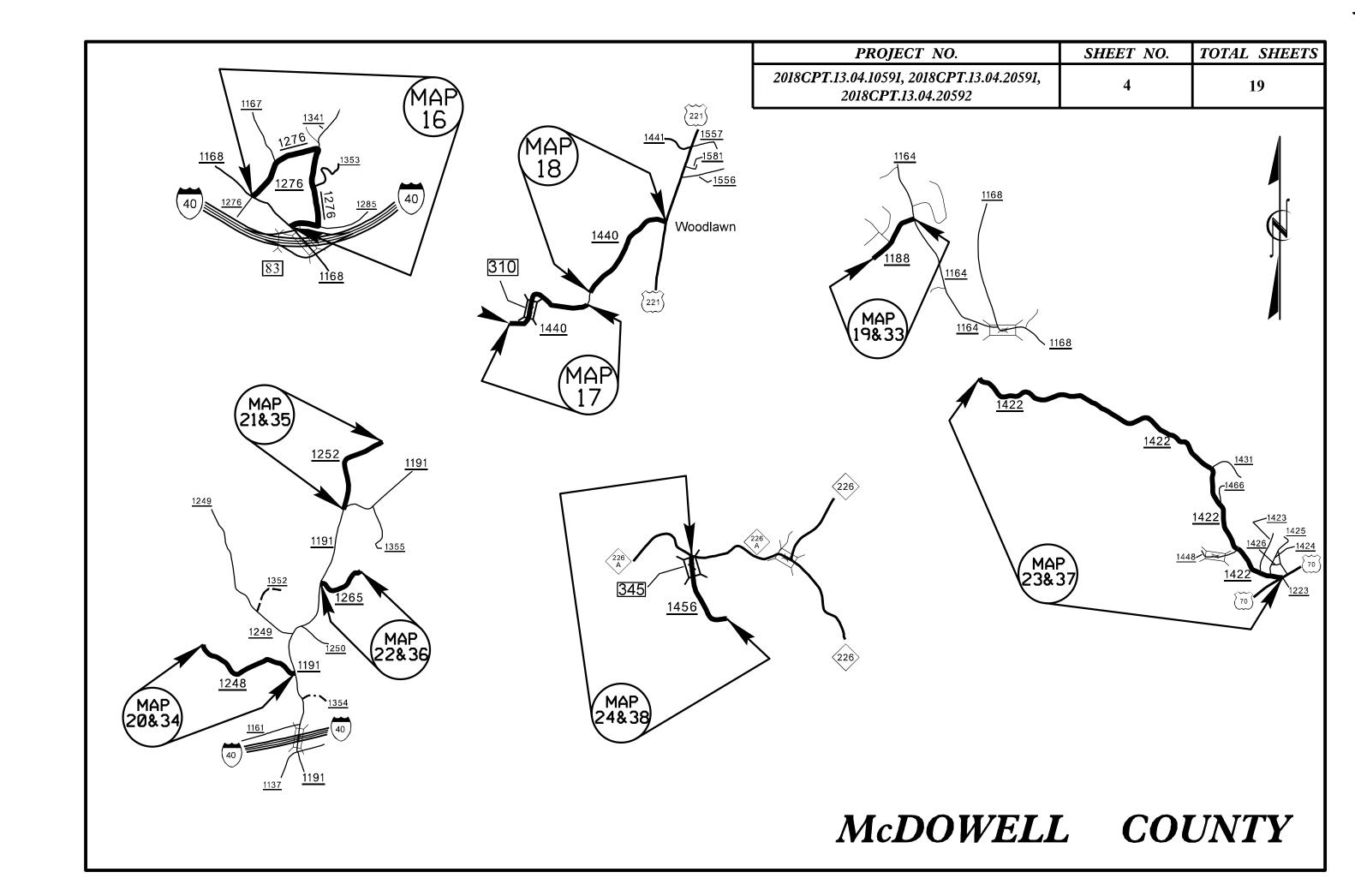


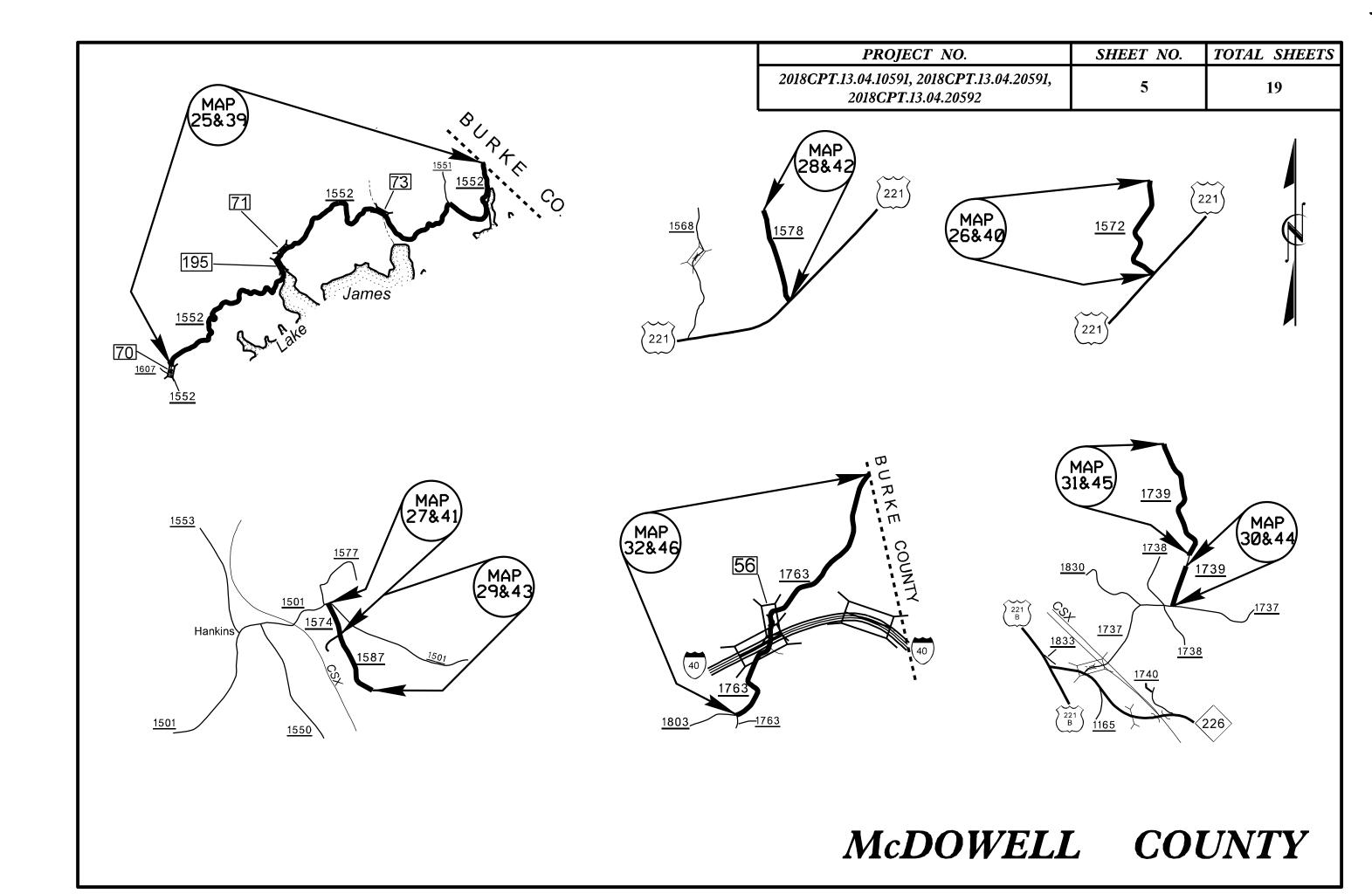


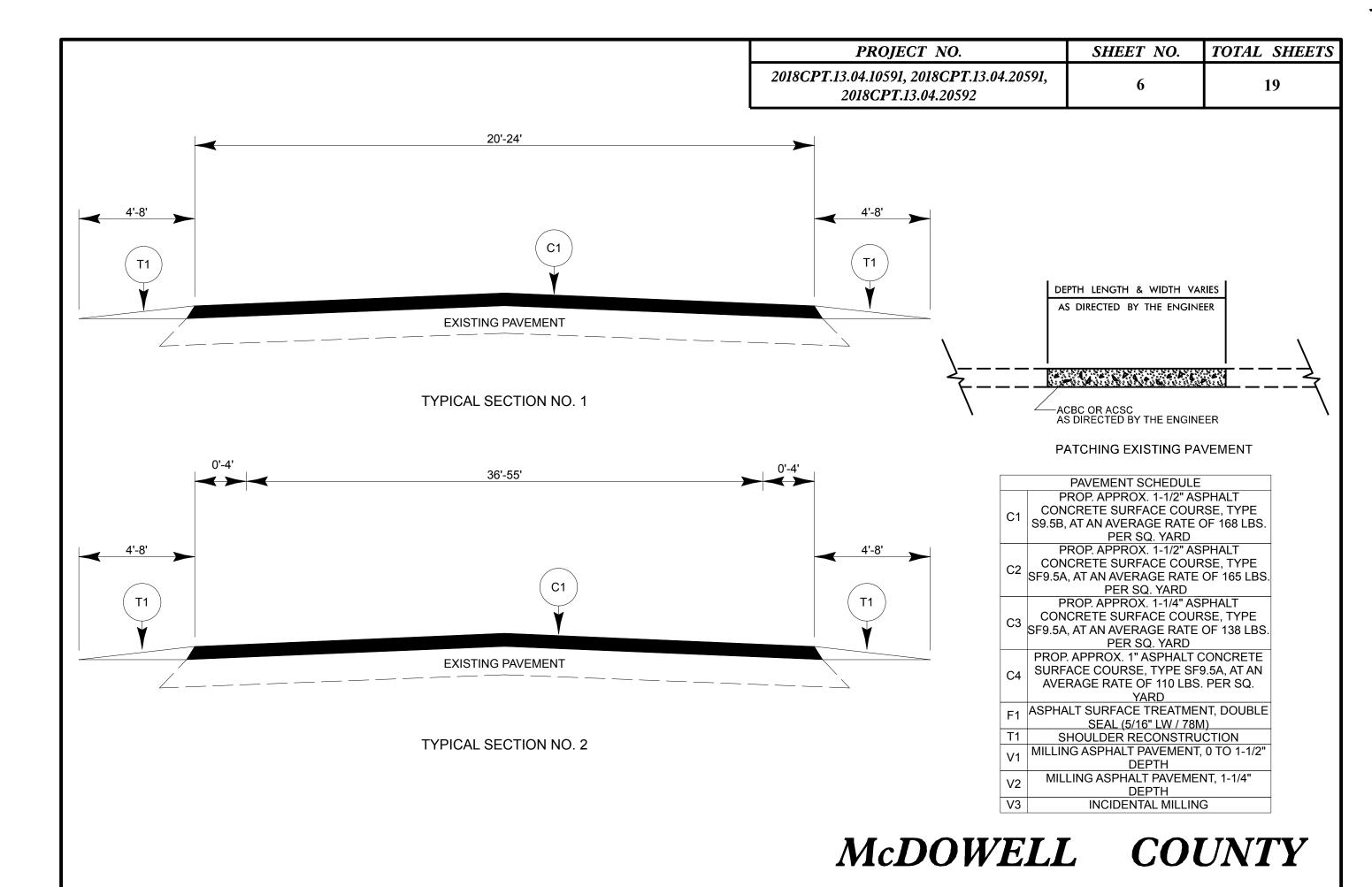


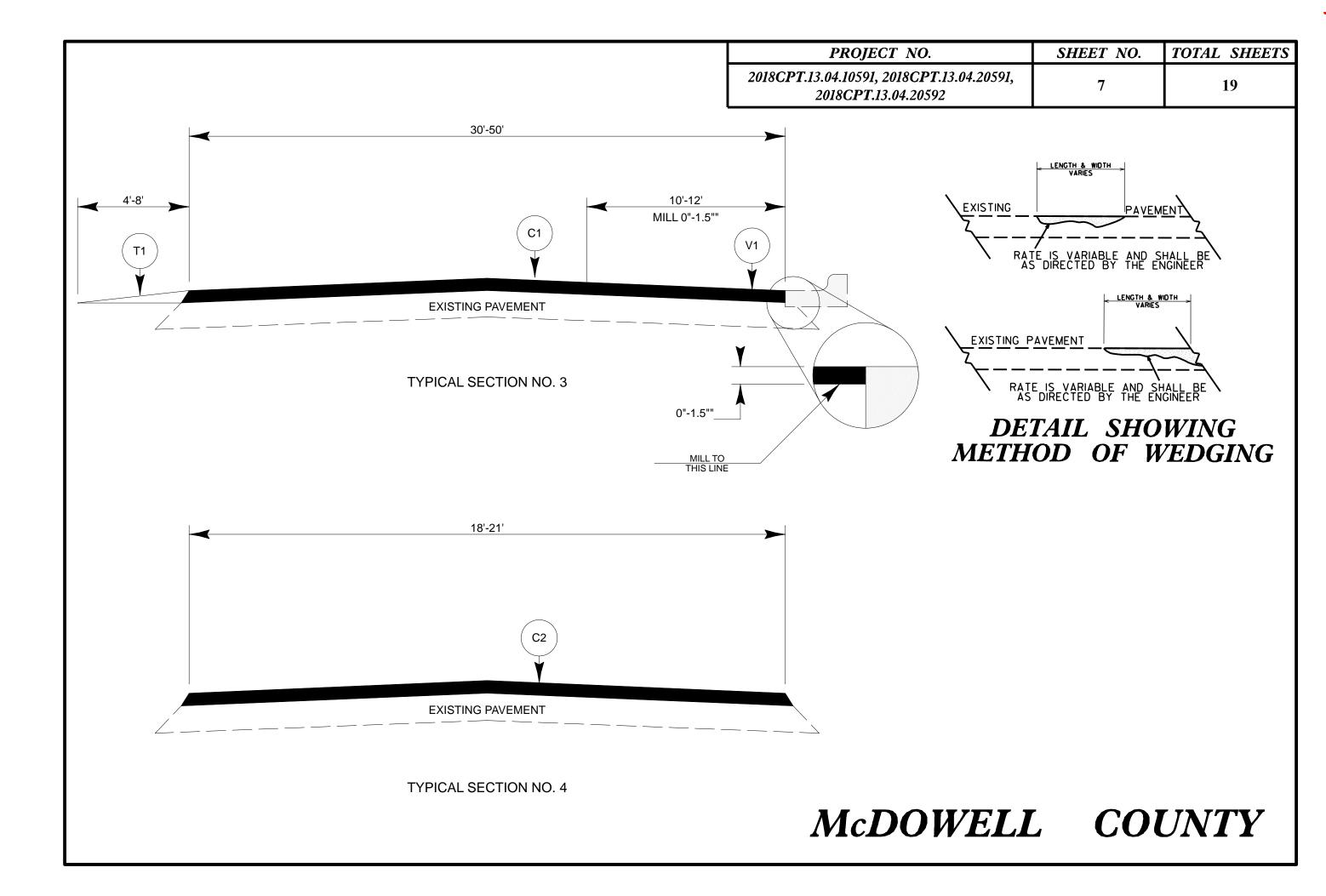


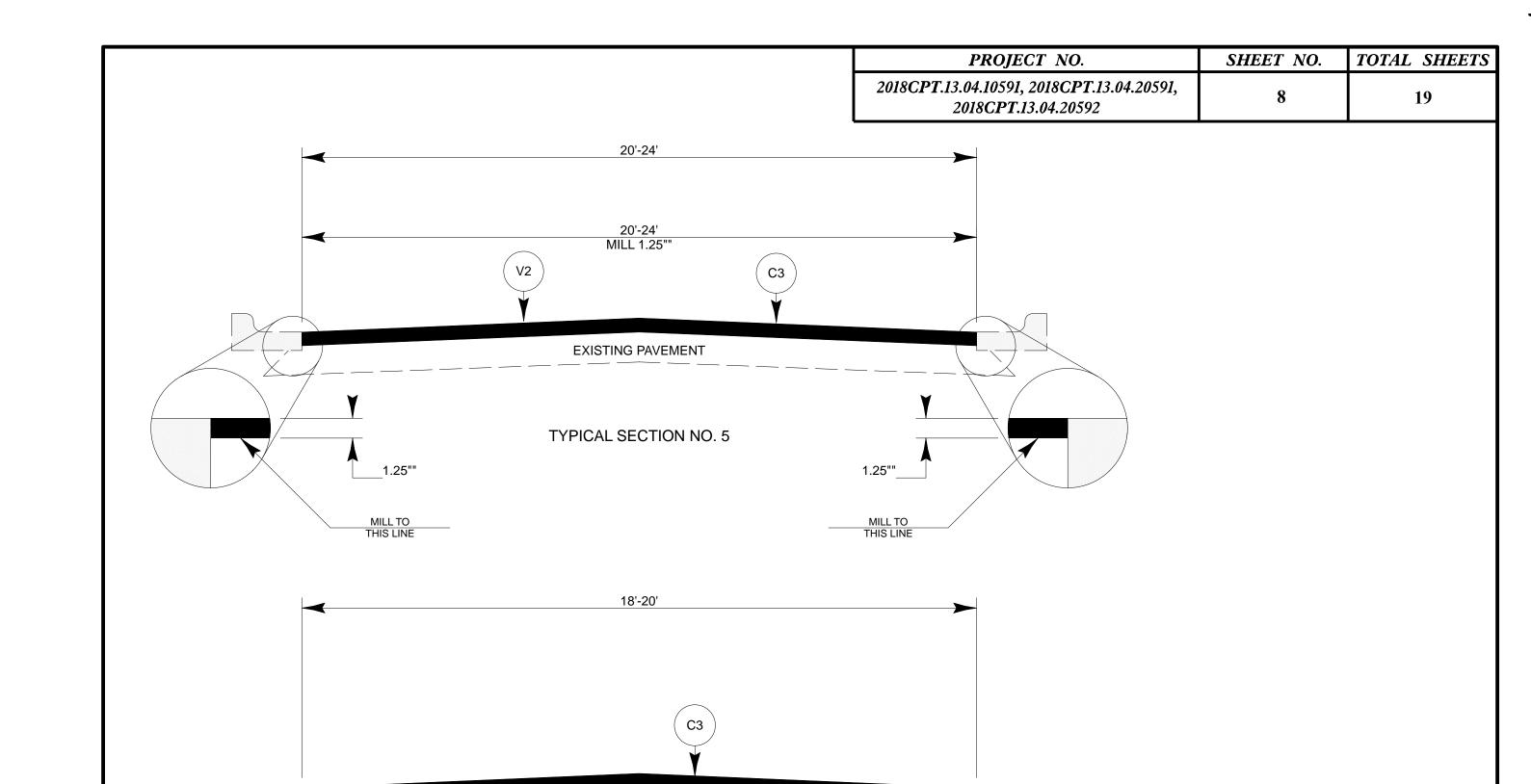










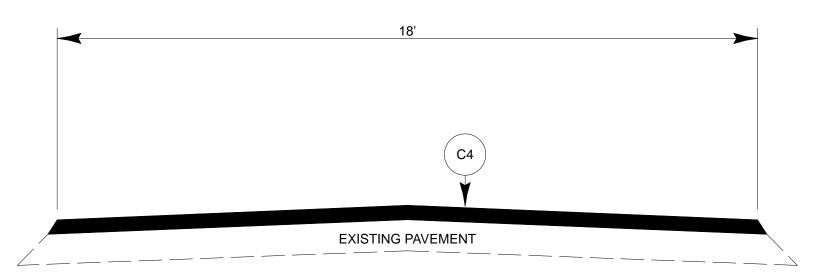


TYPICAL SECTION NO. 6

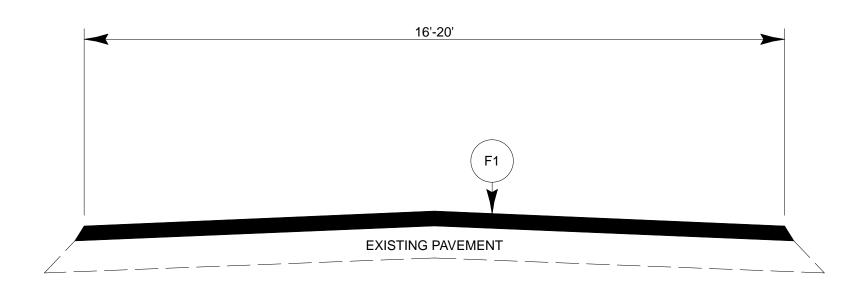
**EXISTING PAVEMENT** 

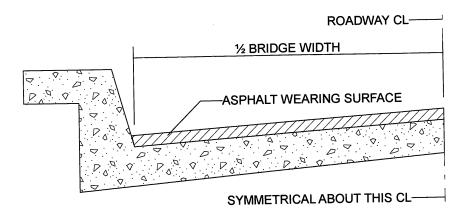
# McDOWELL COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2018CPT.13.04.10591, 2018CPT.13.04.20591, 2018CPT.13.04.20592	9	19



TYPICAL SECTION NO. 7





#### **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

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH 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", SP9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A ½", ULTRATHIN HOT MIX ASPHALT-TYPE A ½", ULTRATHIN HOT MIX ASPHALT-TYPE A ½", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX B 5/8", ULTRATHIN HOT MI 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.

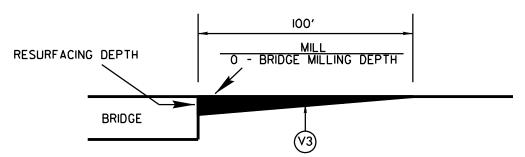
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF

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. 8

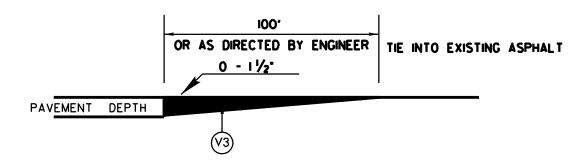
McDOWELL COUNTY

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2018CPT.13.04.10591, 2018CPT.13.04.20591, 2018CPT.13.04.20592	10	19



# MILLING DETAIL AT BRIDGE APPROACHES

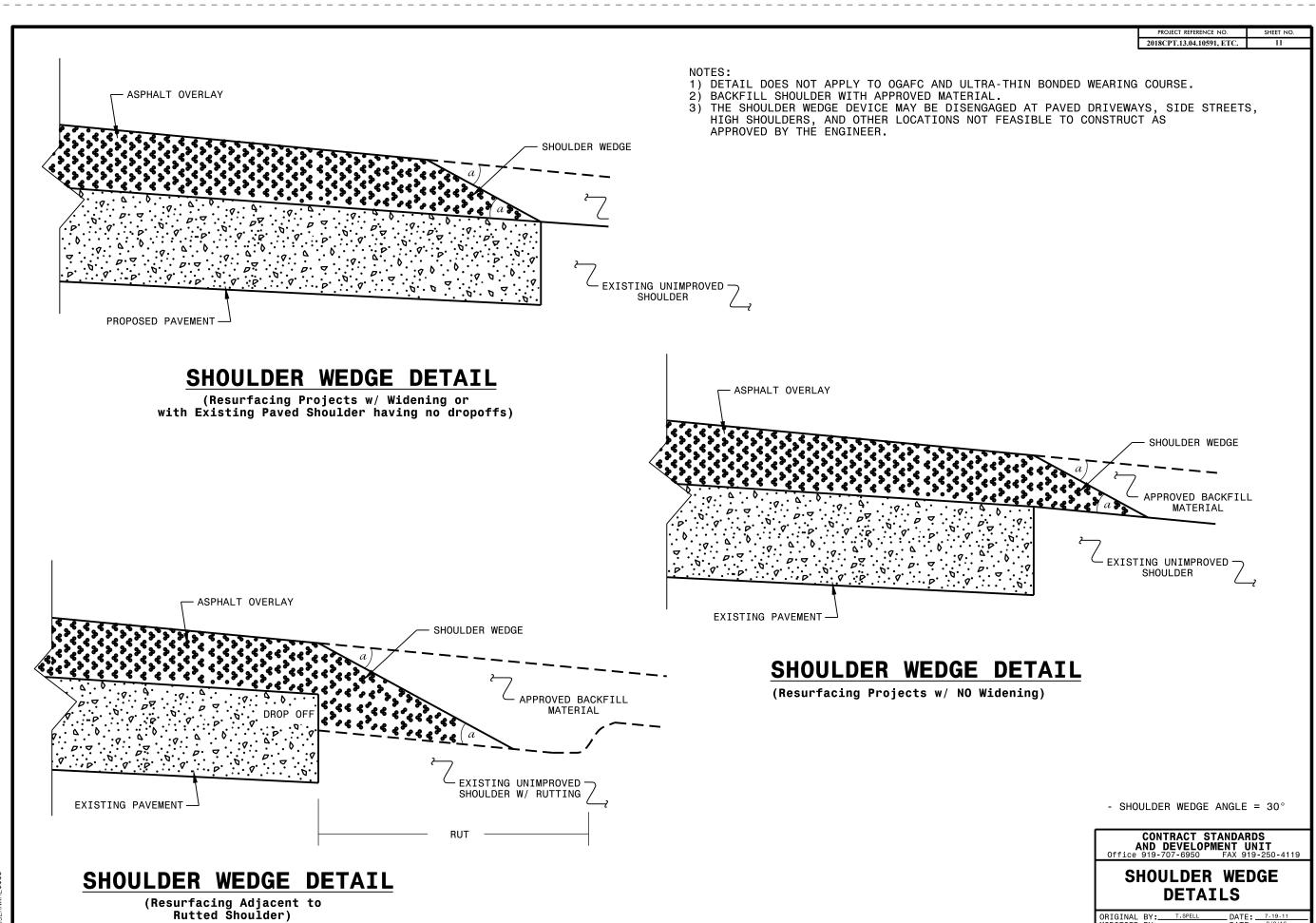
WHERE BRIDGES WILL NOT BE RESURFACED, OR WILL BE MILLED AND RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBER: 56 ON MAP 32/46.



# 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 \$9.5B.
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.

# McDOWELL COUNTY



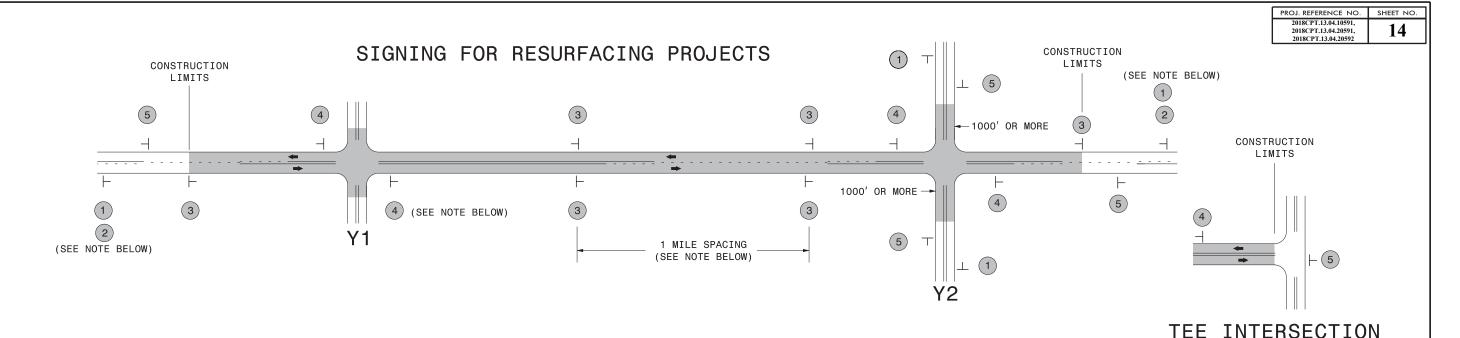
ORIGINAL BY: T.SPELL MODIFIED BY:

#### SUMMARY OF QUANTITIES

													IIIIES			T					1				т
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE	WARM MI ASPHALT		WIDTH	STONE BASE	SHOULDER RECONSTRUCTION	MILLING ASPHALT	MILLING ASPHALT	INCIDENTAL MILLING	L ASPHALT CONC	ASPHALT CONC	ASPHALT BINDER FOR	PATCHING EXISTING	ASPHALT SURFACE	EMULSION FOR	VACUUM TRUCK	ADJUSTMENT OF DROP	LOOP
								TESTING	REQUIRED					PAVEMENT,	PAVEMENT,		SURFACE	SURFACE	PLANT MIX		TREATMENT,	ASPHALT		INLET	SAWCUT
								REQUIRED	)					1-1/4" DEPTH	0" TO 1-1/2" DEPTH		COURSE, TYPE S9.5B	COURSE, TYPE SF9.5A			DOUBLE SEAL	SURFACE TREATMENT			
NO		NO			NO					MI	FT	TON	SMI	SY	SY	SY	TON	TON	TON	TON	SY	GAL	wĸ	EA	LF
2018CPT.13.04.10591	McDowell	1	NC 226	FDOM CD 1700 TO CD 17E4 / MAD 4 90C - MAD 0 C10 \	1	2	2WU	NO	YES			236	9.44	31	31	1,480	5,663	TON	340	630	31	GAL	WK	LA	Lr
2018CP1.13.04.10591	McDowell	1		FROM SR 1798 TO SR 1754 ( MP 4.896 - MP 9.618 )						4.722	21-23					1									
			NC 226	FROM US 221 TO MITCHELL CO. ( MP 25.132 - MP 30.428 )	1,2,3	2	MU	NO	NO	5.296	24-60	265	10.59		575	1,350	9,068		544	1,700				1	500
TOTAL FOR P	PROJ NO. 2018CPT.1	3.04.1059	1							10.018	1	501	20.03		575	2,830	14,731		884	2,330				1	500
				Ī				1	1	1				I			1		1						
2018CPT.13.04.20591	McDowell	3	SR 1135	FROM SR 1137 TO SR 1001 ( MP 5.303 - MP 8.953 )	4	2	2WU	NO	NO	3.650	20	183		-	-			3,911	262	960					-
		4	SR 1153	FROM US 221 TO SR 1001 ( MP 0.215 - MP 4.645 )	4	2	2WU	NO	YES	4.430	18-19	222						4,393	294	1,000					-
		5	SR 1434	FROM US 221 TO NC 80 ( MP 0.000 - MP 2.643 )	4	2	2WU	NO	NO	2.643	20-21	132						2,902	194	600					
		6	SR 1576	FROM US 221 TO DEAD END ( MP 0.000 - MP 0.201 )	4	2	2WU	NO	NO	0.201	18	10				250	-	194	13	40					
		7	SR 1589	FROM US 221 TO SR 1576 ( MP 0.000 - MP 0.150 )	4	2	2WU	NO	NO	0.150	18	8				250		145	10	55					
		8	SR 1613	FROM SR 1576 TO END MAINT ( MP 0.000 - MP 0.081 )	4	2	2WU	NO	NO	0.081	18	4						78	5	30					
		9	SR 1597	FROM SR 1501 TO END MAINT ( MP 0.000 - MP 0.179 )	4	2	2WU	NO	NO	0.179	18-20	9						182	12	20					
		10	SR 1598	FROM SR 1597 TO END MAINT ( MP 0.000 - MP 0.119 )	4	2	2WU	NO	NO	0.119	18-20	6						121	8	10					
		11	SR 1457	FROM SR 1407 TO GATE ( MP 0.000 - MP 0.221 )	5,6	2	2WU	NO	NO	0.221	18	11		700				178	12	30					
		12	SR 1526	FROM VIRGINIA RD TO DEAD END ( MP 0.000 - MP 0.264 )	6	2	2WU	NO	NO	0.264	18	13						212	14	60					
		13	SR 1350	FROM SR 1214 TO CUL-DE-SAC ( MP 0.000 - MP 0.153 )	7	2	2WU	NO	NO	0.153	18							98	7	30					
		14	SR 1197	FROM US 70 TO DEAD END ( MP 0.000 - MP 1.832 )	8	2	2WU	NO	NO	1.832	16-18							30	2	180	18,271	10,050			
		15	SR 1214	FROM SR 1328 TO END PVMT ( MP 0.000 - MP 4.222 )	8	2	2WU	NO	NO	4.222	17-20				1		1	60	4	420	47,061	25,884			
		16	SR 1214	FROM SR 1168 TO SR 1168 ( MP 0.122 - MP 1.063 )	8	2	2WU	NO	NO	0.941	18	1			1		1	30	2	180	9,937	5,466	1		
		17			8	2				0.692								30	2			4,020			
			SR 1440	FROM US 221 TO END PVMT ( MP 0.000 - MP 0.692 )			2WU	NO	NO		18									60	7,308				
		18	SR 1440	FROM BEGIN PVMT TO END MAINT ( MP 0.847 - MP 1.297 )	8	2	2WU	NO	NO	0.450	18									30	4,752	2,614			-
		19	SR 1188	FROM SR 1164 TO END MAINT ( MP 0.000 - MP 0.287 )		2	2WU	NO	NO	0.287	17									25					
		20	SR 1248	FROM SR 1191 TO END MAINT ( MP 0.000 - MP 0.733 )		2	2WU	NO	NO	0.733	18	1					1			40					
		21	SR 1252	FROM SR 1191 TO DEAD END ( MP 0.000 - MP 0.593 )		2	2WU	NO	NO	0.593	18-20	-		-	-					70					-
		22	SR 1265	FROM SR 1195 TO END MAINT ( MP 0.000 - MP 0.328 )		2	2WU	NO	NO	0.328	16						-			20					
		23	SR 1422	FROM US 70 TO END MAINT ( MP 0.000 - MP 2.685 )		2	2WU	NO	NO	2.685	10-18	1			1		1	30	2	415					
		24	SR 1456	FROM NC 226 ALT TO DEAD END ( MP 0.000 - MP 0.345 )		2	2WU	NO	NO	0.345	18									70					
		25	SR 1552	FROM BRIDGE TO BURKE CO. ( MP 0.892 - MP 6.088 )		2	2WU	NO	NO	5.196	20				-			50	3	440					
		26	SR 1572	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.257 )		2	2WU	NO	NO	0.257	17-18						1			35					
		27	SR 1574	FROM SR 1501 TO SR 1587 ( MP 0.000 - MP 0.116 )		2	2WU	NO	NO	0.116	18									20					
		28	SR 1578	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.597 )		2	2WU	NO	NO	0.597	18									45					
		29	SR 1587	FROM SR 1574 TO END MAINT ( MP 0.000 - MP 0.265 )		2	2WU	NO	NO	0.265	18									20					
		30	SR 1739	FROM SR 1737 TO END PVMT ( MP 0.000 - MP 0.170 )		2	2WU	NO	NO	0.170	18									10					
		31	SR 1739	FROM BEGIN PVMT TO END MAINT ( MP 0.260 - MP 0.846 )		2	2WU	NO	NO	0.586	18									15					
		32	SR 1763	FROM BURKE CO TO SR 1803 ( MP 0.000 - MP 1.580 )		2	2WU	NO	NO	1.580	18									50					
TOTAL FOR P	PROJ NO. 2018CPT.1	3.04.2059	1							33.966		598		700		500		12,614	844	4,980	87,329	48,034	1		
2018CPT.13.04.20592	McDowell	33	SR 1188	FROM SR 1164 TO END MAINT ( MP 0.000 - MP 0.287 )	8	2	2WU	NO	NO	0.287	17										2,862	1,575			
		34	SR 1248	FROM SR 1191 TO END MAINT ( MP 0.000 - MP 0.733 )	8	2	2WU	NO	NO	0.733	18										7,740	4,258			
		35	SR 1252	FROM SR 1191 TO DEAD END ( MP 0.000 - MP 0.593 )	8	2	2WU	NO	NO	0.593	18-20										6,610	3,636			
		36	SR 1265	FROM SR 1195 TO END MAINT ( MP 0.000 - MP 0.328 )	8	2	2WU	NO	NO	0.328	16										3,079	1,694			
		37	SR 1422	FROM US 70 TO END MAINT ( MP 0.000 - MP 2.685 )	8	2	2WU	NO	NO	2.685	10-18										26,778	14,728			
		38	SR 1456	FROM NC 226 ALT TO DEAD END ( MP 0.000 - MP 0.345 )	8	2	2WU	NO	NO	0.345	18										3,643	2,004			
		39	SR 1552	FROM BRIDGE TO BURKE CO. ( MP 0.892 - MP 6.088 )	8	2	2WU	NO	NO	5.196	20				1		1				60,966	35,532			
		40	SR 1572	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.257 )	8	2	2WU	NO	NO	0.257	17-18	1			1		1				2,639	1,451	2		
		41	SR 1572	FROM SR 1501 TO SR 1587 ( MP 0.000 - MP 0.116 )	8	2	2WU	NO	NO	0.257	17-18	1			<b>†</b>		1				1,225	674			
		41	SR 1574		8	2	2WU	NO	NO	0.116	18	1			1		1					3,468			
				FROM US 221 TO END MAINT ( MP 0.000 - MP 0.597 )								†			1		1				6,304				
		43	SR 1587	FROM SR 1574 TO END MAINT ( MP 0.000 - MP 0.265 )	8	2	2WU	NO	NO	0.265	18	+			+		+				2,798	1,539			
		44	SR 1739	FROM SR 1737 TO END PVMT ( MP 0.000 - MP 0.170 )	8	2	2WU	NO	NO	0.170	18	+			+		+				1,795	987			
		45	SR 1739	FROM BEGIN PVMT TO END MAINT ( MP 0.260 - MP 0.846 )	8	2	2WU	NO	NO	0.586	18	+			+		+				6,188	3,404			<del>                                     </del>
		46	SR 1763	FROM BURKE CO TO SR 1803 ( MP 0.000 - MP 1.580 )	8	2	2WU	NO	NO	1.580	18	+			+	400	+				16,685	9,177			
TOTAL FOR P	PROJ NO. 2018CPT.1	3.04.2059	2		]		1	1		13.738	1	1		1	1	400	1	I			149,312	84,127	2		
							I	1		1	1	1		1	T		1	1	l	I					+
	GRAND TOTAL							1	1	57.722		1,099	20.03	700	575	3,730	14,731	12,614	1,728	7,310	236,641	132,161	3	1	500

#### THERMOPLASTIC AND PAINT QUANTITIES

					1			<del>- ' ' ' '</del>			4695000000-E 4705000000-E 4710000000-E					4725000000-E		481000	2000 5	484700	0000 F	4847110000-E	4905000000-N		
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	LENGTH	WIDTH	WORK ZONE	TEMPORARY	THERMOPLASTIC	4705000000-E THERMOPLASTIC	4710000000-E THERMOPLASTIC	THERMOPLASTIC		THERMOPLASTIC		THERMOPLASTIC	PAINT PAVEMENT	PAINT PAVEMENT		POLYUREA	POLYUREA	SNOWPLOWABLE
							TYPE			SIGNS	TRAFFIC CONTROL		PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	MARKING LINES	MARKING LINES	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT MARKERS
										(STATIONARY)		MARKING LINES	MARKING LINES	MARKING LINES	MARKING	MARKING	MARKING	MARKING	MARKING	(4") WHITE	(4") YELLOW	MARKING LINES	MARKING LINES	MARKING LINES	
												(8", 90 MILS)	(16", 120 MILS)	(24", 120 MILS)	CHARACTER (120		SYMBOL (90 MILS		SYMBOL (90 MILS)			(4") WHITE	(4") YELLOW	(8") WHITE	
												YELLOW	WHITE	WHITE	MILS) RXR	MILS) ONLY	LT ARROW	STR & RT ARROW	RT ARROW			(HIGHLY	(HIGHLY	(HIGHLY	
																						REFLECTIVE ELEMENTS)	REFLECTIVE ELEMENTS)	REFLECTIVE ELEMENTS)	
																						ELEIVIEN 13)	ELEIVIENTS	ELLIVIEIVIS	
NO		NO			NO					SF	LS	LF	LF	LF	EA	EA	EA	EA	EA	LF	LF	LF	LF	LF	EA
2018CPT.13.04.10591	McDowell	1	NC 226	FROM SR 1798 TO SR 1754 ( MP 4.896 - MP 9.618 )	1	2	2WU	4.722	21-23	1,125	*											49,864	49,864		420
		2	NC 226	FROM US 221 TO MITCHELL CO. ( MP 25.132 - MP 30.428 )	1,2,3	2	MU	5.296	24-60	1,123		100		75			5	2				59,315	55,926	475	850
			INC 220	PROM 03 221 TO MITCHELL CO. ( MP 23.132 - MP 30.428 )	1,2,3		IVIU	5.290	24-00			100		/3			3	2				59,315	55,920	4/3	830
TOTAL FOR PRO	OJ NO. 2018CPT.13	3.04.10591	ι					10.018		1,125		100		75			5	2				109,179	105,790	475	1,270
																		7				214,	.969		
			1												U			-			<u>u</u>			u	
		1			1	ı	ı		1	1	1	1	1	1				1			1	1			1
2018CPT.13.04.20591	McDowell	3	SR 1135	FROM SR 1137 TO SR 1001 ( MP 5.303 - MP 8.953 )	4	2	2WU	3.650	20											77,088	77,088				
		4	SR 1153	EDONALIS 224 TO SD 4004 (NAD 0 245 NAD 4 C45 )	4	,	2WU	4.430	40.40											02.562	02.562				
		4	SK 1153	FROM US 221 TO SR 1001 ( MP 0.215 - MP 4.645 )	4	2	2WU	4.430	18-19	1										93,562	93,562				
		5	SR 1434	FROM US 221 TO NC 80 ( MP 0.000 - MP 2.643 )	4	2	2WU	2.643	20-21											55,820	55,820				190
		6	SR 1576	FROM US 221 TO DEAD END ( MP 0.000 - MP 0.201 )	4	2	2WU	0.201	18																
		7	SR 1589	FROM US 221 TO SR 1576 ( MP 0.000 - MP 0.150 )	4	2	2WU	0.150	18																
		8	SR 1613	FROM SR 1576 TO END MAINT ( MP 0.000 - MP 0.081 )	4	2	2WU	0.081	18																
+		9	SR 1597	FROM SR 1501 TO END MAINT ( MP 0.000 - MP 0.179 )	4	2	2WU	0.179	18-20	1		-	-			<del>                                     </del>	+	<del>                                     </del>		<b> </b>					-
		10	SR 1598	FROM SR 1597 TO END MAINT ( MP 0.000 - MP 0.119 )	4	2	2WU	0.119	18-20	1							1								ļ
1		11	SR 1457	FROM SR 1407 TO GATE ( MP 0.000 - MP 0.221 )	5.6	2	2WU	0.221	18			1	1	[		I	1	1		4,668		]			1
		- 11			<u> </u>					1			1			1	1	1		7,000					1
<b> </b>		12	SR 1526	FROM VIRGINIA RD TO DEAD END ( MP 0.000 - MP 0.264 )	6	2	2WU	0.264	18	4			ļ	ļ		<b></b>	<b>_</b>	<b> </b>		ļ					
1		13	SR 1350	FROM SR 1214 TO CUL-DE-SAC ( MP 0.000 - MP 0.153 )	7	2	2WU	0.153	18							I	İ								1
			1 1							1							1								
<del>                                     </del>		14	SR 1197	FROM US 70 TO DEAD END ( MP 0.000 - MP 1.832 )	8	2	2WU	1.832	16-18	4		-	-			<del>                                     </del>	+	1		38,692	38,692				<del>                                     </del>
		15	SR 1214	FROM SR 1328 TO END PVMT ( MP 0.000 - MP 4.222 )	8	2	2WU	4.222	17-20	_			75	60	4	<u> </u>	<u> </u>	<u> </u>		89,169	89,169				
		16	SR 1276	FROM SR 1168 TO SR 1168 ( MP 0.122 - MP 1.063 )		2	2WU	0.941	18											19,874	19,874				
		16	SK 1276	FROM SR 1168 TO SR 1168 ( MP 0.122 - MP 1.063 )	8		2WU	0.941	18	1							+			19,874	19,874				
		17	SR 1440	FROM US 221 TO END PVMT ( MP 0.000 - MP 0.692 )	8	2	2WU	0.692	18	2,269	*					4	1		1	14,615	14,615				
		18	SR 1440	FROM BEGIN PVMT TO END MAINT ( MP 0.847 - MP 1.297 )	8	2	2WU	0.450	18	_,										9,504	9,504				
			1 1																	3,304	3,304				
		19	SR 1188	FROM SR 1164 TO END MAINT ( MP 0.000 - MP 0.287 )		2	2WU	0.287	17																
		20	SR 1248	FROM SR 1191 TO END MAINT ( MP 0.000 - MP 0.733 )		2	2WU	0.733	18																
										1															
		21	SR 1252	FROM SR 1191 TO DEAD END ( MP 0.000 - MP 0.593 )		2	2WU	0.593	18-20	-							-								
		22	SR 1265	FROM SR 1195 TO END MAINT ( MP 0.000 - MP 0.328 )		2	2WU	0.328	16																
		23	SR 1422	FROM US 70 TO END MAINT ( MP 0.000 - MP 2.685 )		2	2WU	2.685	10-18																
			1 1		1					1							-								
		24	SR 1456	FROM NC 226 ALT TO DEAD END ( MP 0.000 - MP 0.345 )		2	2WU	0.345	18																
		25	SR 1552	FROM BRIDGE TO BURKE CO. ( MP 0.892 - MP 6.088 )		2	2WU	5.196	20																
						_																			
		26	SR 1572	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.257 )		2	2WU	0.257	17-18	4							-								
		27	SR 1574	FROM SR 1501 TO SR 1587 ( MP 0.000 - MP 0.116 )		2	2WU	0.116	18																
		28	SR 1578	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.597 )		2	2WU	0.597	18																
			1 1																						
		29	SR 1587	FROM SR 1574 TO END MAINT ( MP 0.000 - MP 0.265 )		2	2WU	0.265	18																
		30	SR 1739	FROM SR 1737 TO END PVMT ( MP 0.000 - MP 0.170 )		2	2WU	0.170	18																
										1															
		31	SR 1739	FROM BEGIN PVMT TO END MAINT ( MP 0.260 - MP 0.846 )		2	2WU	0.586	18	-							-								
		32	SR 1763	FROM BURKE CO TO SR 1803 ( MP 0.000 - MP 1.580 )		2	2WU	1.580	18																
								33.966		2,269			75	60	4	A	1		1	402,992	398,324				190
TOTAL FOR PRO	OJ NO. 2018CPT.13	3.04.20591	ı		1	<b>-</b>	<del>                                     </del>	33.900	1	2,209			/3	90	4	. 4	1	1	1						190
					1			1		<u> </u>	<u> </u>	<u> </u>	<u> </u>			8	1	2		801	,316	<u> </u>			<u> </u>
2040007 12 2 1		33	65	FROM CD 44C4 TC TURE TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO	_	_																			
2018CPT.13.04.20592	McDowell	33	SR 1188	FROM SR 1164 TO END MAINT ( MP 0.000 - MP 0.287 )	8	2	2WU	0.287	17	1		-	1	-		+	+	1							1
		34	SR 1248	FROM SR 1191 TO END MAINT ( MP 0.000 - MP 0.733 )	8	2	2WU	0.733	18	_								<u> </u>		15,481	15,481				
		35	SR 1252	FROM SR 1191 TO DEAD END ( MP 0.000 - MP 0.593 )	8	2	2WU	0.593	18-20			<u> </u>	<u> </u>					1							1
			1 1		<u> </u>	<u> </u>				1						<b>†</b>	+	<b>†</b>							
		36	SR 1265	FROM SR 1195 TO END MAINT ( MP 0.000 - MP 0.328 )	8	2	2WU	0.328	16	4							<b>_</b>								
1		37	SR 1422	FROM US 70 TO END MAINT ( MP 0.000 - MP 2.685 )	8	2	2WU	2.685	10-18							1	1			56,707	56,707				1
					9	_				1															
<b> </b>		38	SR 1456	FROM NC 226 ALT TO DEAD END ( MP 0.000 - MP 0.345 )	8	2	2WU	0.345	18	1		-				<del>                                     </del>	+	+							-
		39	SR 1552	FROM BRIDGE TO BURKE CO. ( MP 0.892 - MP 6.088 )	8	2	2WU	5.196	20	1,539	*									109,740	109,740				
		40	SR 1572	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.257 )	8	2	2WU	0.257	17-18	1,333															
<b> </b>			1 1							1						<b>†</b>	+	<b>†</b>							
		41	SR 1574	FROM SR 1501 TO SR 1587 ( MP 0.000 - MP 0.116 )	8	2	2WU	0.116	18	4						<b></b>	<b>_</b>	<b></b>							<b></b>
		42	SR 1578	FROM US 221 TO END MAINT ( MP 0.000 - MP 0.597 )	8	2	2WU	0.597	18							I	İ								1
					Ť					1			İ			İ	1	1							İ
		43	SR 1587	FROM SR 1574 TO END MAINT ( MP 0.000 - MP 0.265 )	8	2	2WU	0.265	18	1						<del>                                     </del>	+	<b> </b>							<del>                                     </del>
		44	SR 1739	FROM SR 1737 TO END PVMT ( MP 0.000 - MP 0.170 )	8	2	2WU	0.170	18	_						<u> </u>	<u> </u>	<u> </u>		<u> </u>					
		45	SR 1739		0	3	2WU	0.586	18																
			1 1	FROM BEGIN PVMT TO END MAINT ( MP 0.260 - MP 0.846 )	6					1			<del> </del>			<del> </del>	†	1							<del> </del>
		46	SR 1763	FROM BURKE CO TO SR 1803 ( MP 0.000 - MP 1.580 )	8	2	2WU	1.580	18	ļ	ļ	ļ	ļ			ļ	1	ļ		33,370	33,370				
								13.738		1,539						1	1			215,298	215,298				1
TOTAL FOR PRO	OJ NO. 2018CPT.13	3.04.20592	<u>'</u>		1	1	1			,						•		•							
	430,596																								
					1			57.722		4,933	1	100	75	135	4	4	6	2	1	618,290	613,622	109,179	105,790	475	1,460
1	GRAND TOTAL		ŀ		1	1	1	37.722		4,555	<del>-</del>	100	,,,	133	-		<del>                                     </del>	-						7/3	1,400
1																8		9		1,231	1,912	214,	,969		1
I																									



#### **LEGEND**

- STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

# MAINLINE (-L-) SIGNING

# -Y- LINE SIGNING

# TES AND DIRECTION NOTES PER DIF SIGNING PLACEMENT P



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

#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)

LOW/SOFT SHOULDER

ROAD

UNDER

CONST

END

ROAD WORK

G20-2 A

- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
- 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.
  - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION
  - ALONG -L- LINE.

#### PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

#### 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.





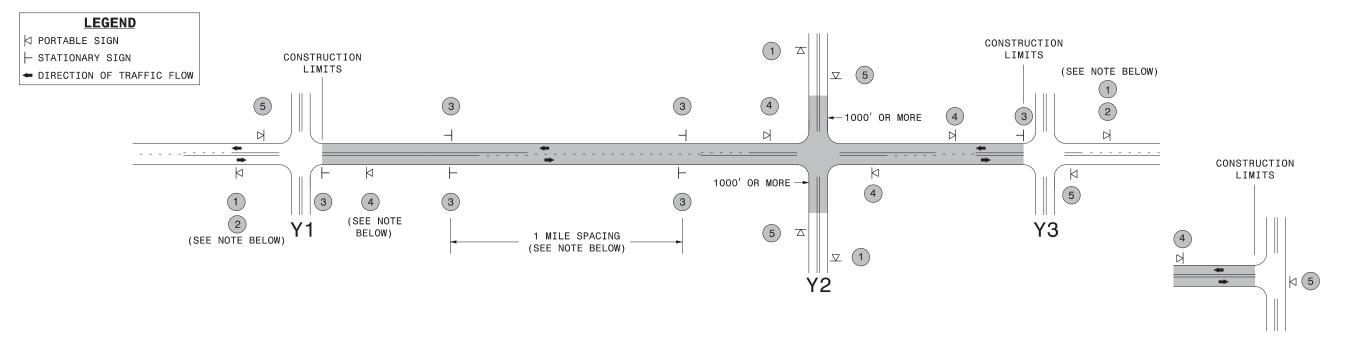
PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER



RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS

PROJ. REFERENCE NO. SHEET NO. 2018CPT.13.04.10591 15 2018CPT.13.04.20592

## SIGNING FOR ASPHALT SURFACE TREATMENT



TEE INTERSECTION

## MAINLINE (-L-) SIGNING

# -Y- LINE SIGNING

#### ROAD - PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y-WORK LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. AHEAD / W20-1 48" X 48" 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE - SIGN #2 ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH 2 2) SUBDIVISION ROADS ROUND UP TO THE NEAREST WHOLE NUMBER. DO NOT USE FRACTIONAL OR DECIMAL 3) DEAD END ROADS TES AND DIRECTION LOOSE - ALTERNATE THE FOLLOWING TWO SIGNS: (3) GRAVEL - STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT". W8-7 48" X 48" REMOVE UPON COMPLETION OF WORK. - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. NOT ER UNMARKED - AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION ROAD PAVEMENT AND SPACE 1 MILE APART THEREAFTER. WORK ŚP 48'' X 48'' Д AHFAD SIGNING PLACEMENT F - THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND PLACED 500' IN ADVANCE SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. OF FLAGGER. ROAD - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. UNDER - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS. TREAT CONST SP 13106 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.

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN

#### STATIONARY SIGNING NOT REQUIRED FOR THE FOLLOWING -Y- LINE CONDITIONS:

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALLE BE USED ALONG THE -Y- LINE AS SHOWN BELOW.



PLACED 250' IN ADVANCE OF FLAGGER.

MAPS LESS THAN 2 MILES FND

ROAD WORK

G20–2 A 48" X 24"

START OF CONTRACT WORK.

FOR AST RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, USE A STATIONARY "LOOSE GRAVEL" SIGN AT THE BEGINNING CONSTRUCTION LIMIT FOLLOWED BY AN "UNMARKED PAVEMENT" SIGN MIDWAY THROUGH AND AN "END ROAD WORK" SIGN AT THE END CONSTRUCTION LIMIT.

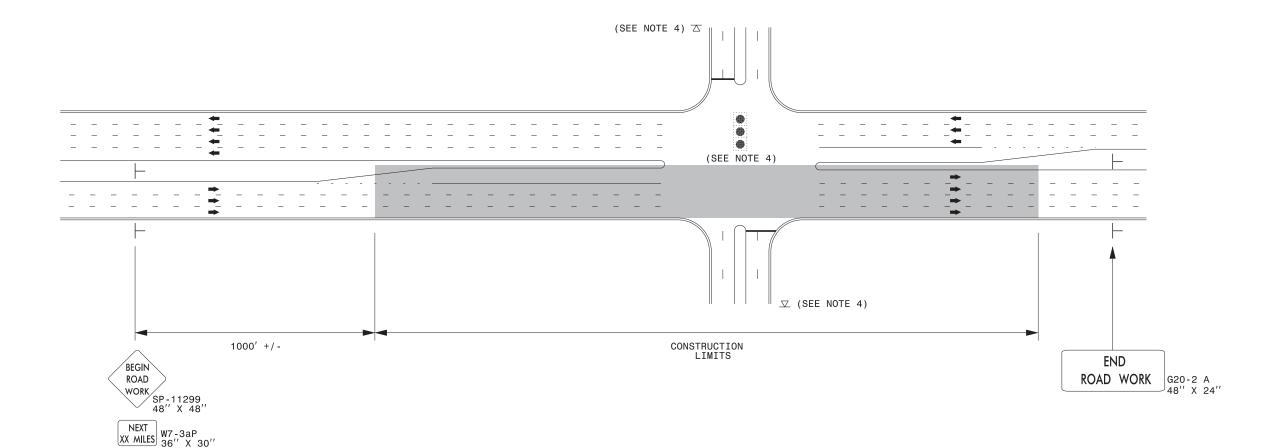
WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE



ADVANCE WARNING SIGNS FOR 2-LANE ROADWAY ASPHALT SURFACE TREATMENT

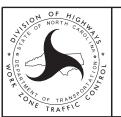
## URBAN / SUBURBAN WORKZONES



#### NOTES:

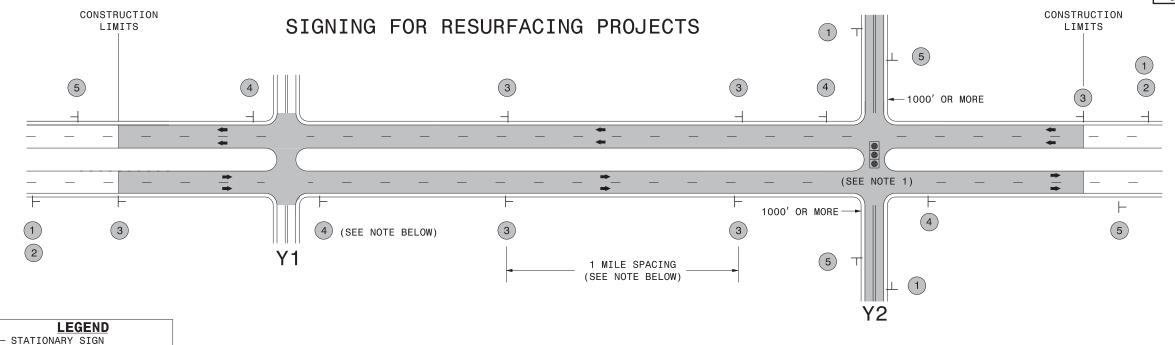
- 1)  $48" \times 48"$  SIZED SIGNS (SP- 11299) MAY BE REDUCED TO  $36" \times 36"$  ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS 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.





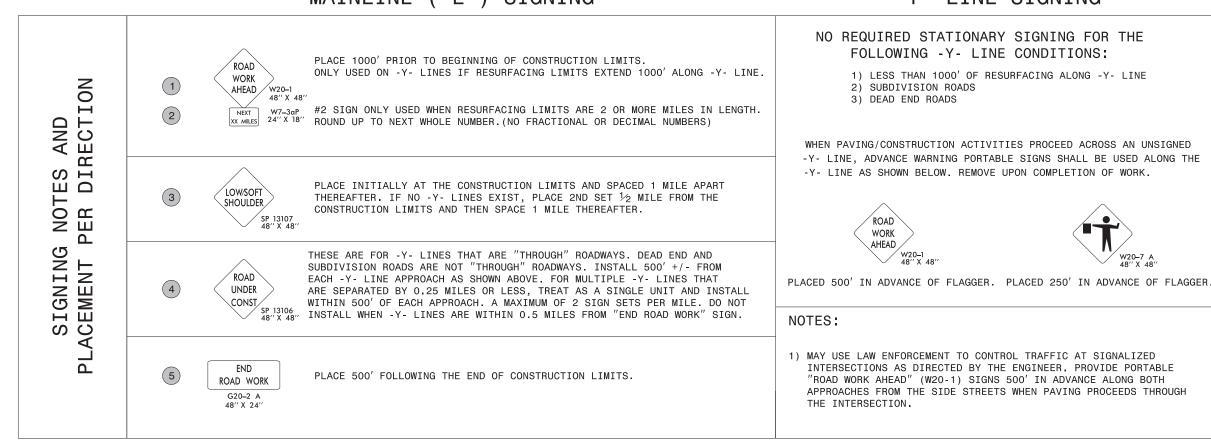
RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

PROJ. REFERENCE NO. SHEET NO. 2018CPT.13.04.10591 17 2018CPT.13.04.20591 2018CPT.13.04.20592



# MAINLINE (-L-) SIGNING

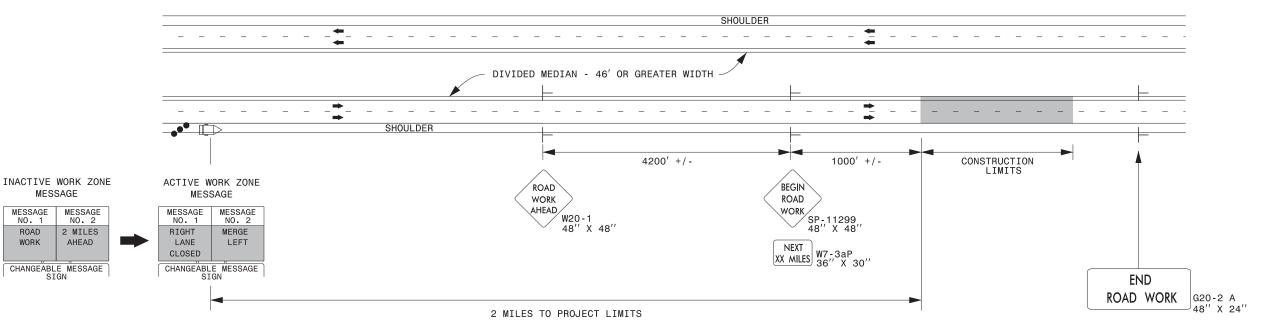
# -Y- LINE SIGNING





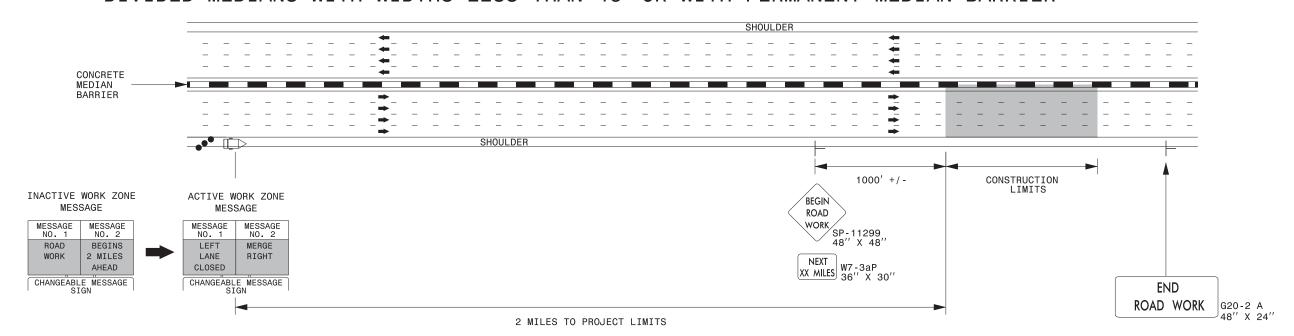
RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS

← DIRECTION OF TRAFFIC FLOW



## DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



#### NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMPS 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMPS WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.



RESURFACING ADVANCE
WARNING SIGNS FOR
HIGH SPEED FACILITIES
≥ 60 MPH

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LEGEND

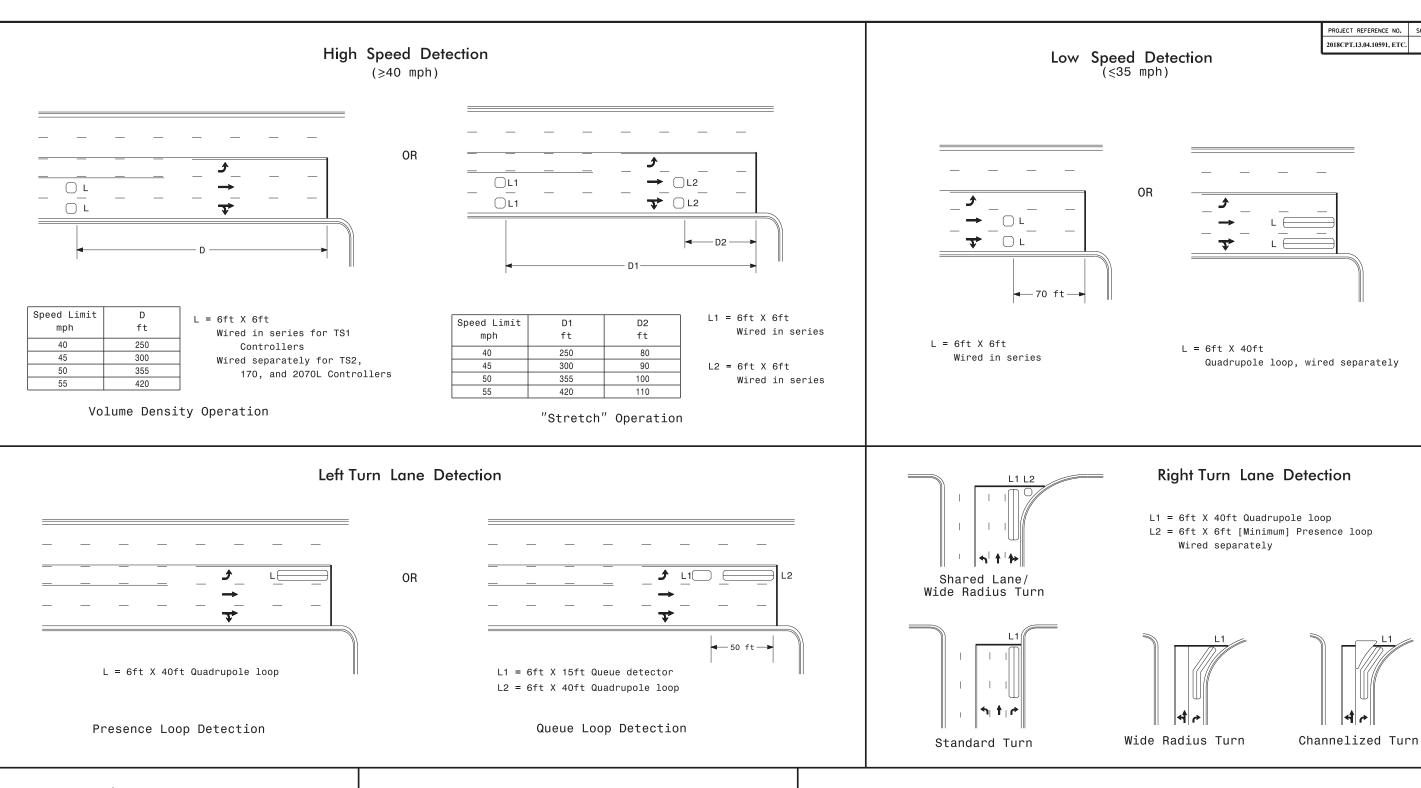
DIRECTION OF TRAFFIC

CHANGEABLE MESSAGE

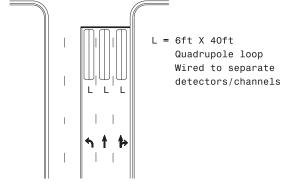
⊢ STATIONARY SIGN

TRAFFIC DRUM

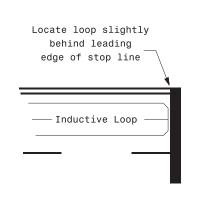
sers/rmgarrett/Dowr :rmgarrett







## Presence Loop Placement at Stop Lines



## Loop may be located in advance of stop line under any of the

- following conditions: 1) stop line is greater than  $15^\prime$ from edge of intersecting roadway
- 2) loop detects a permissive or protected/permissive left turn
- 3) for an exclusive right turn lane

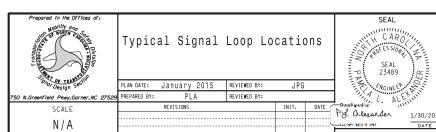
#### Recommended Number of Turns

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



PROJECT REFERENCE NO. 2018CPT.13.04.10591, ETC.