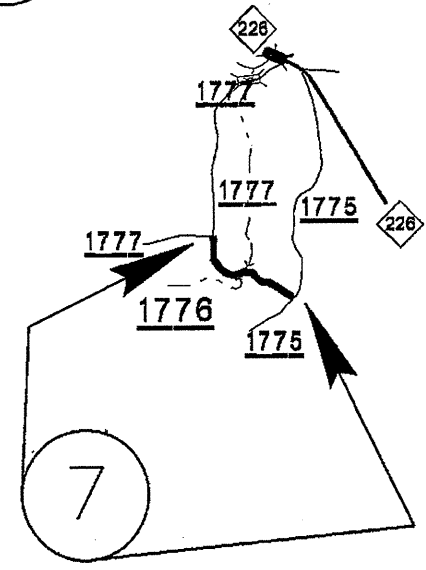
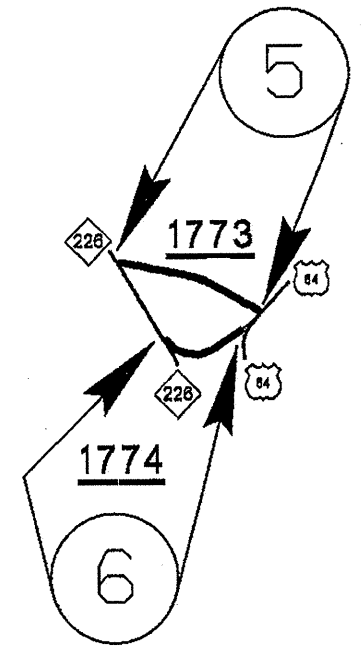
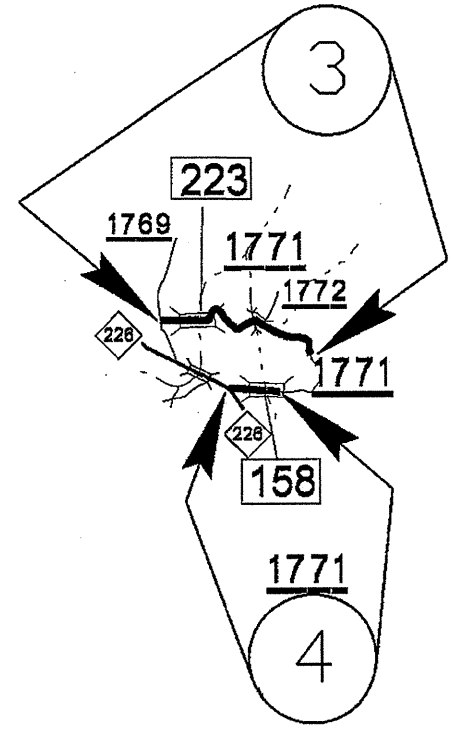
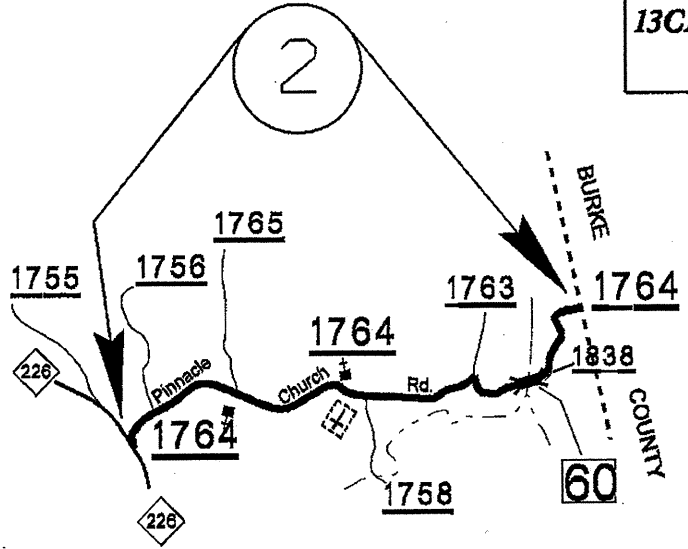
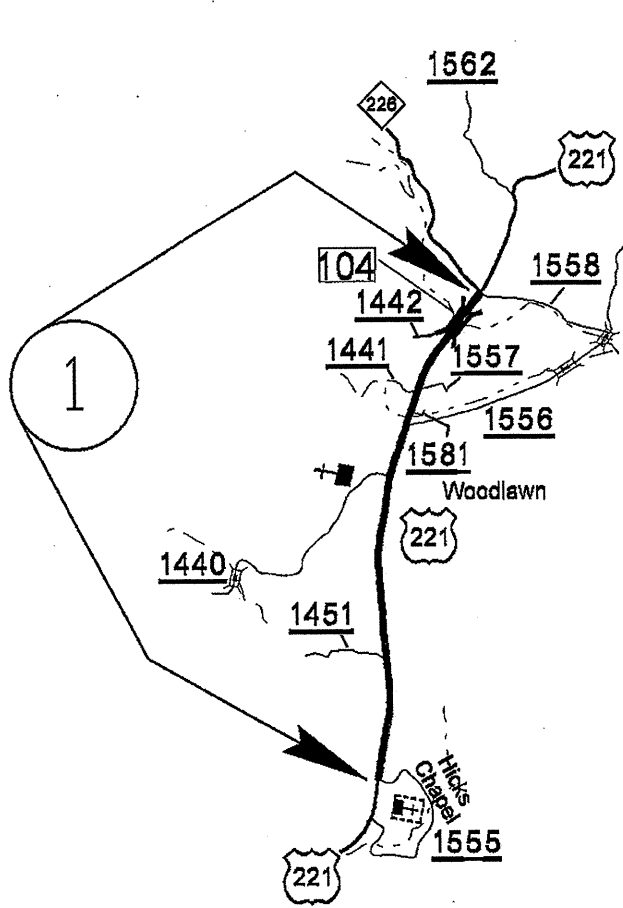
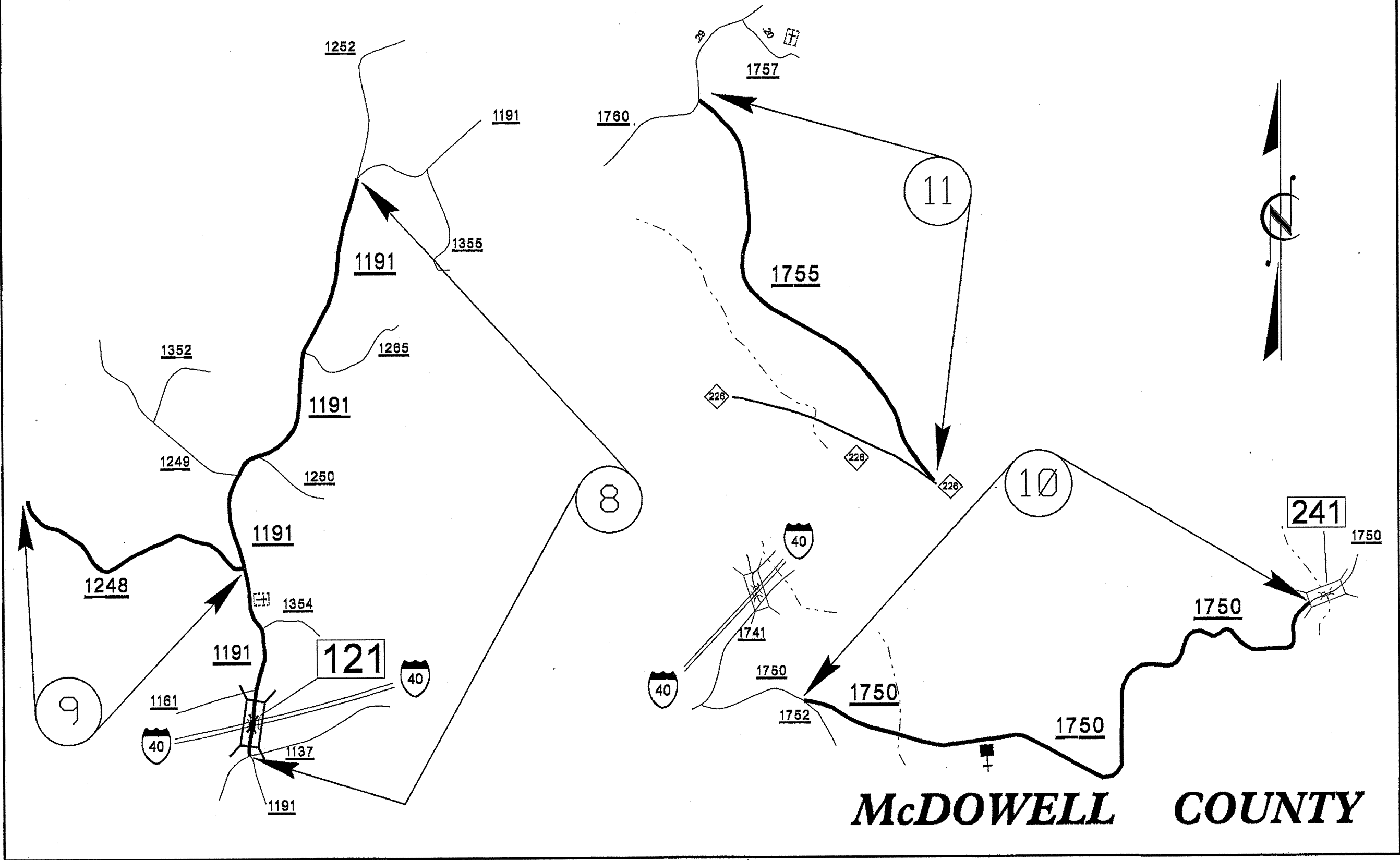


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12 13CR.20591.11 13C.059082	1	

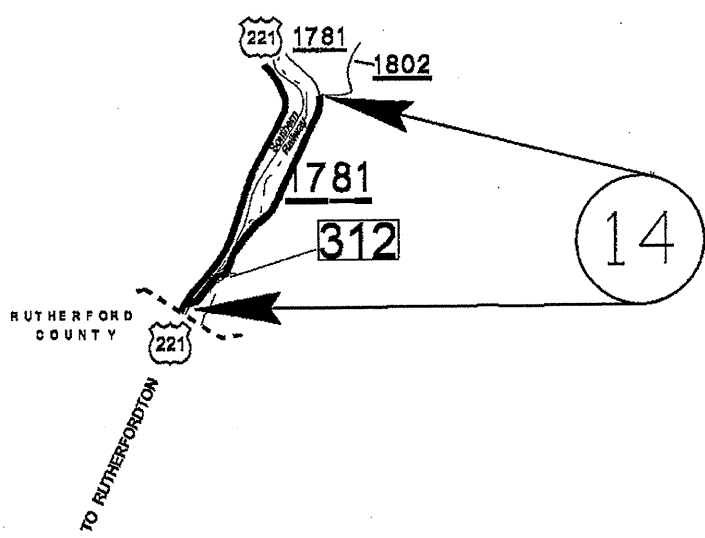
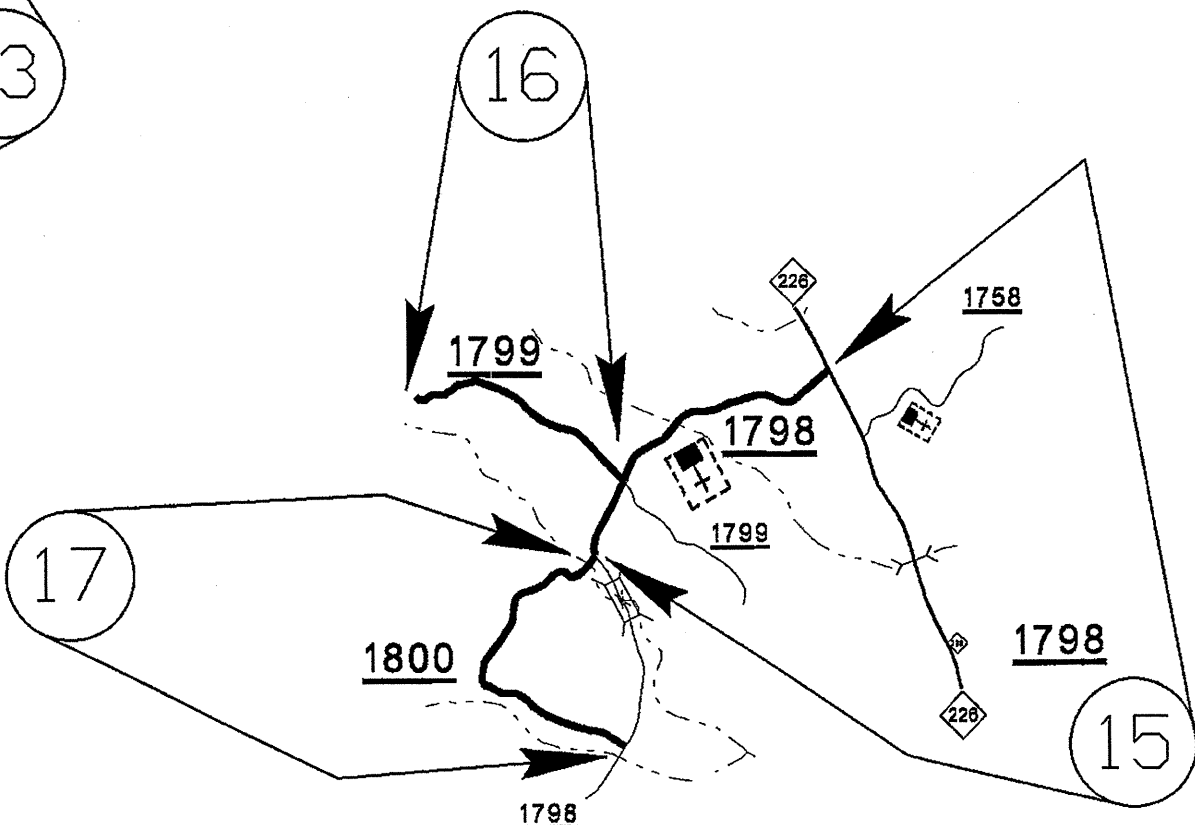
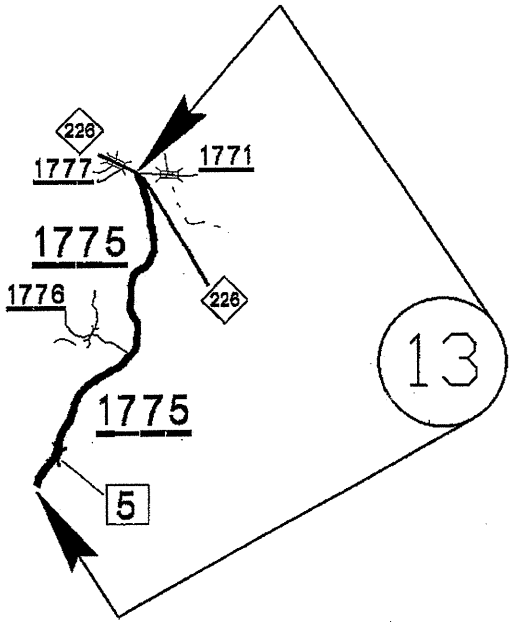
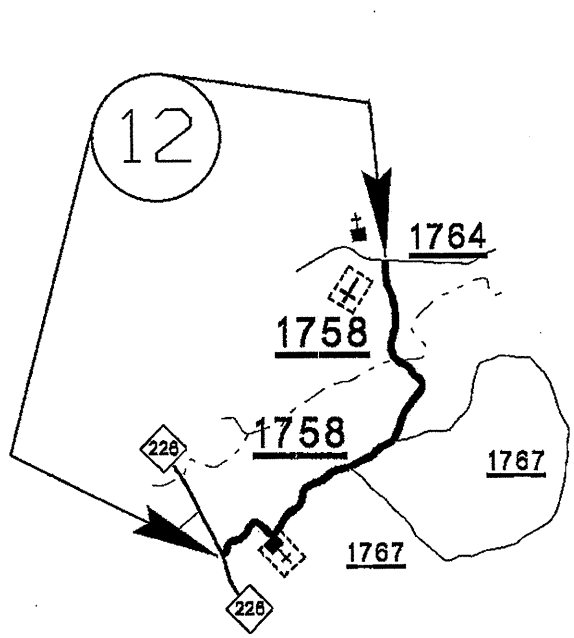


**McDOWELL COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12 13CR.20591.11 13C.059082	2	

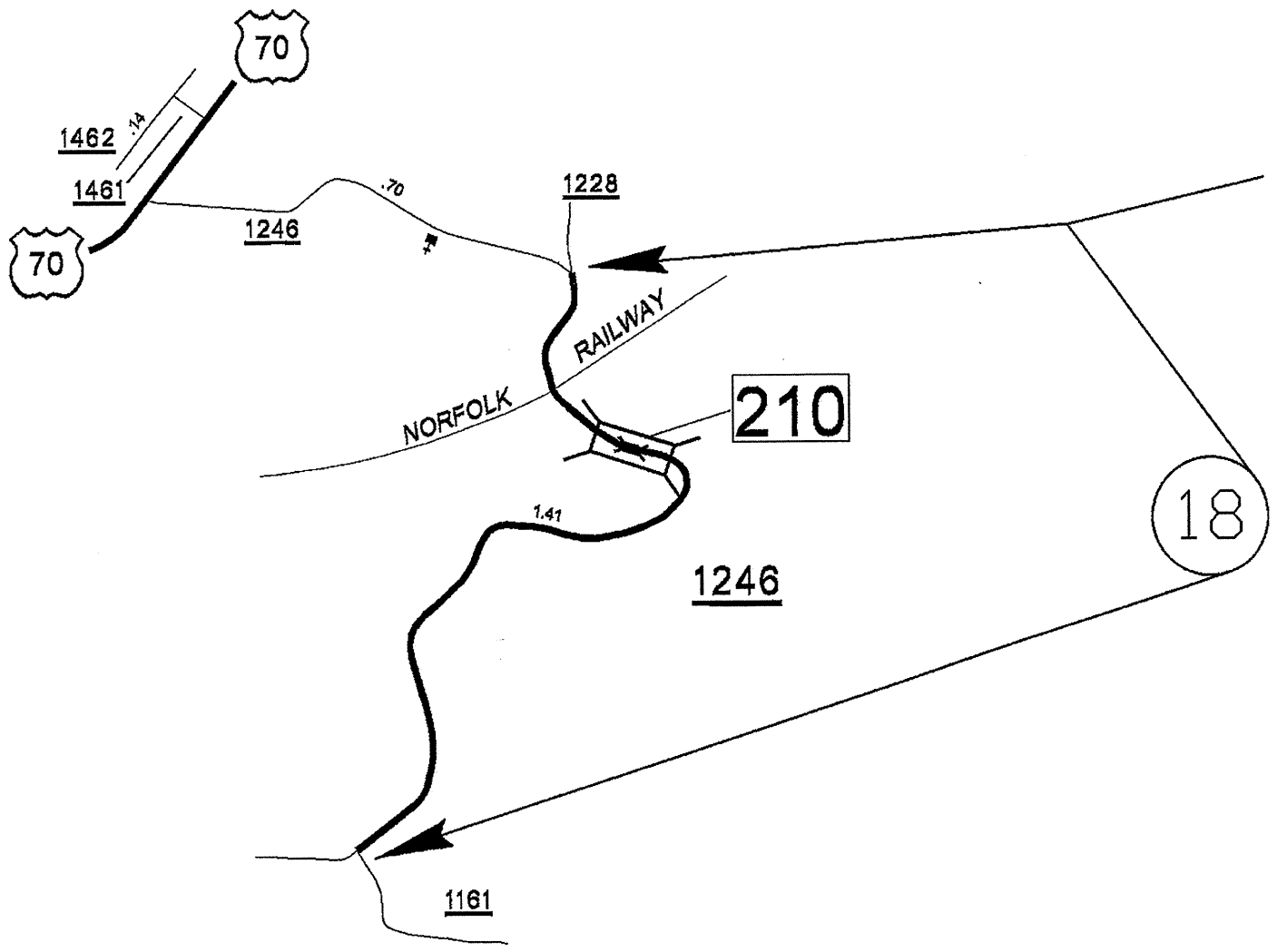


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12 13CR.20591.11 13C.059082	3	



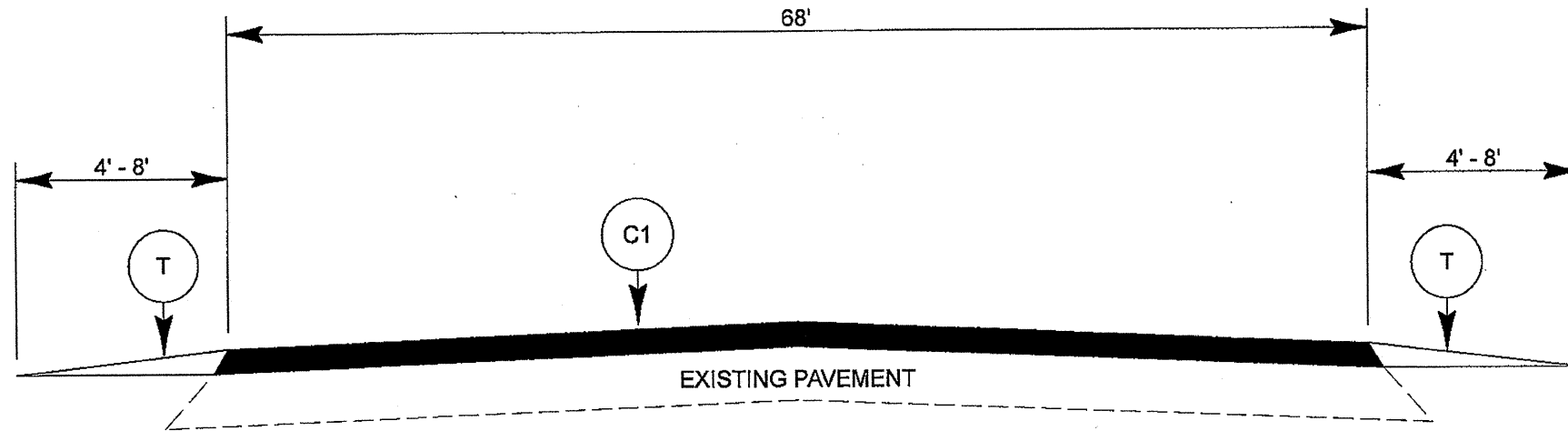
**McDOWELL COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12 13CR.20591.11 13C.059082	4	

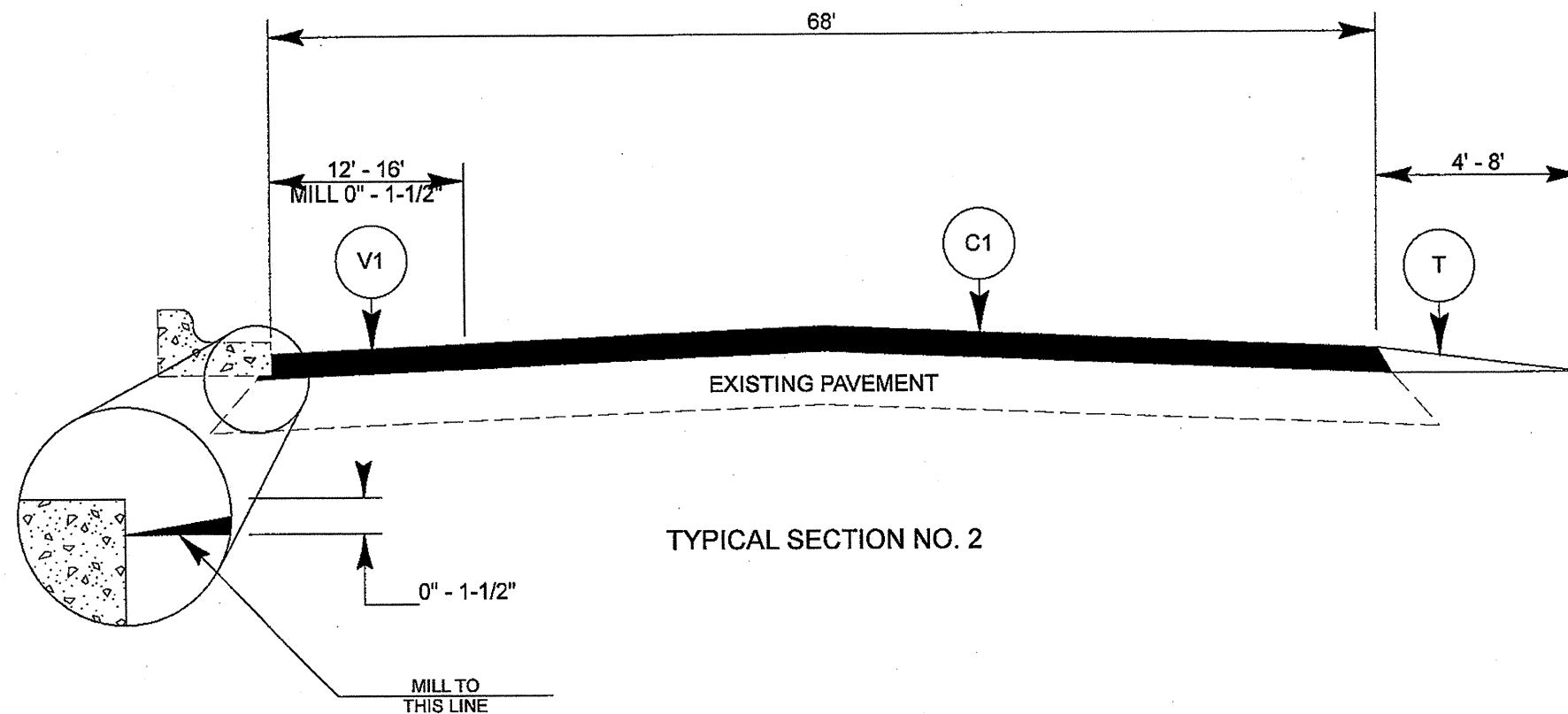
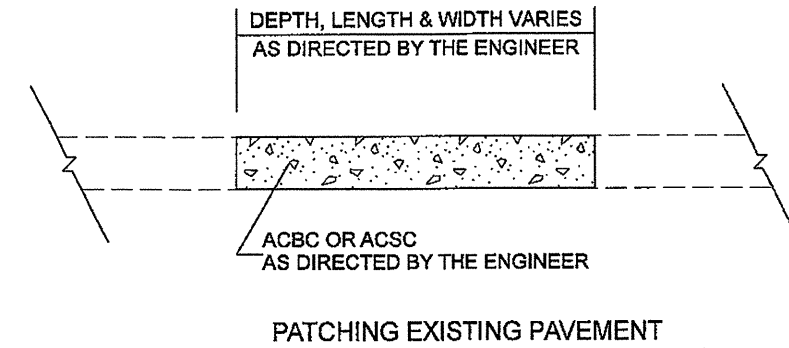


**McDOWELL COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12, 13CR.20591.11, 13C.059082,	5	



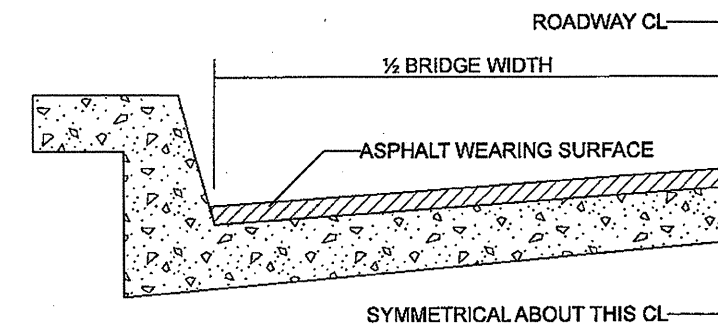
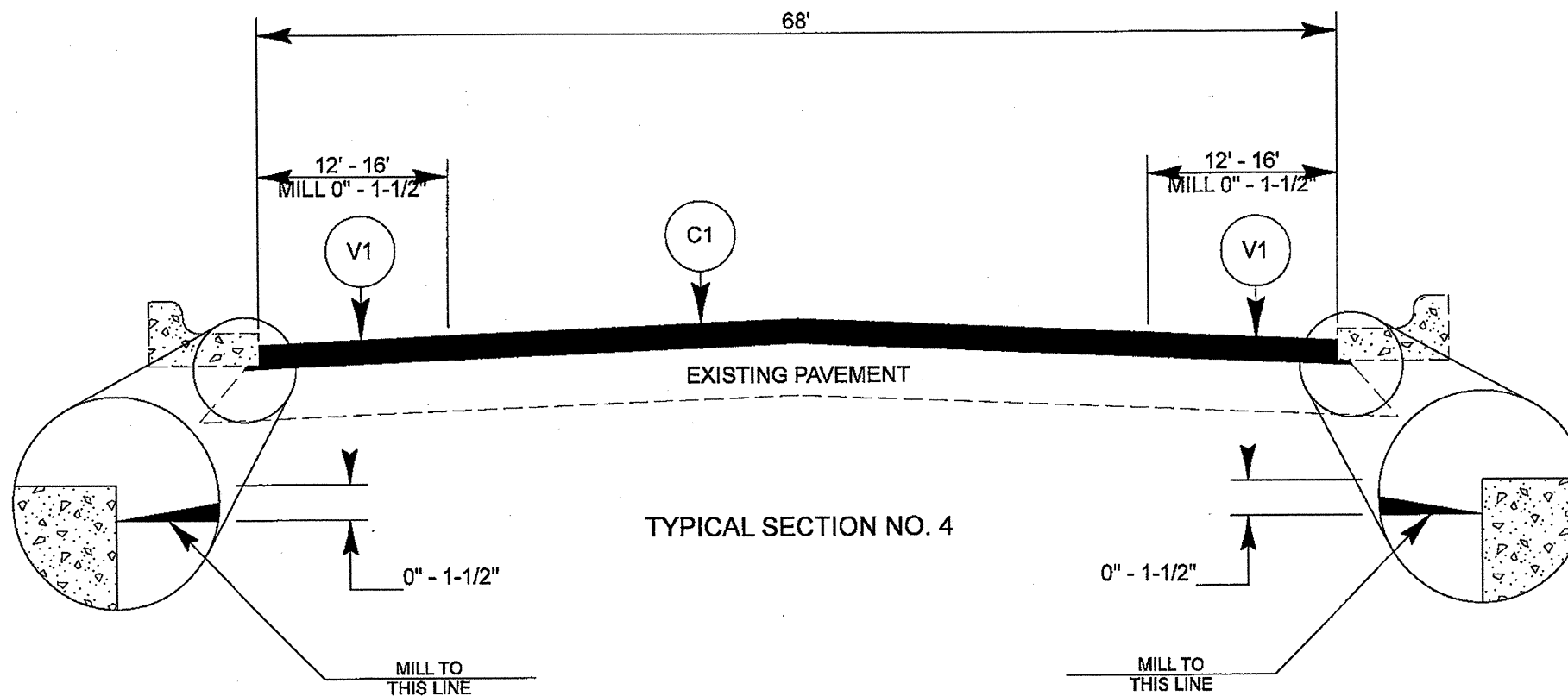
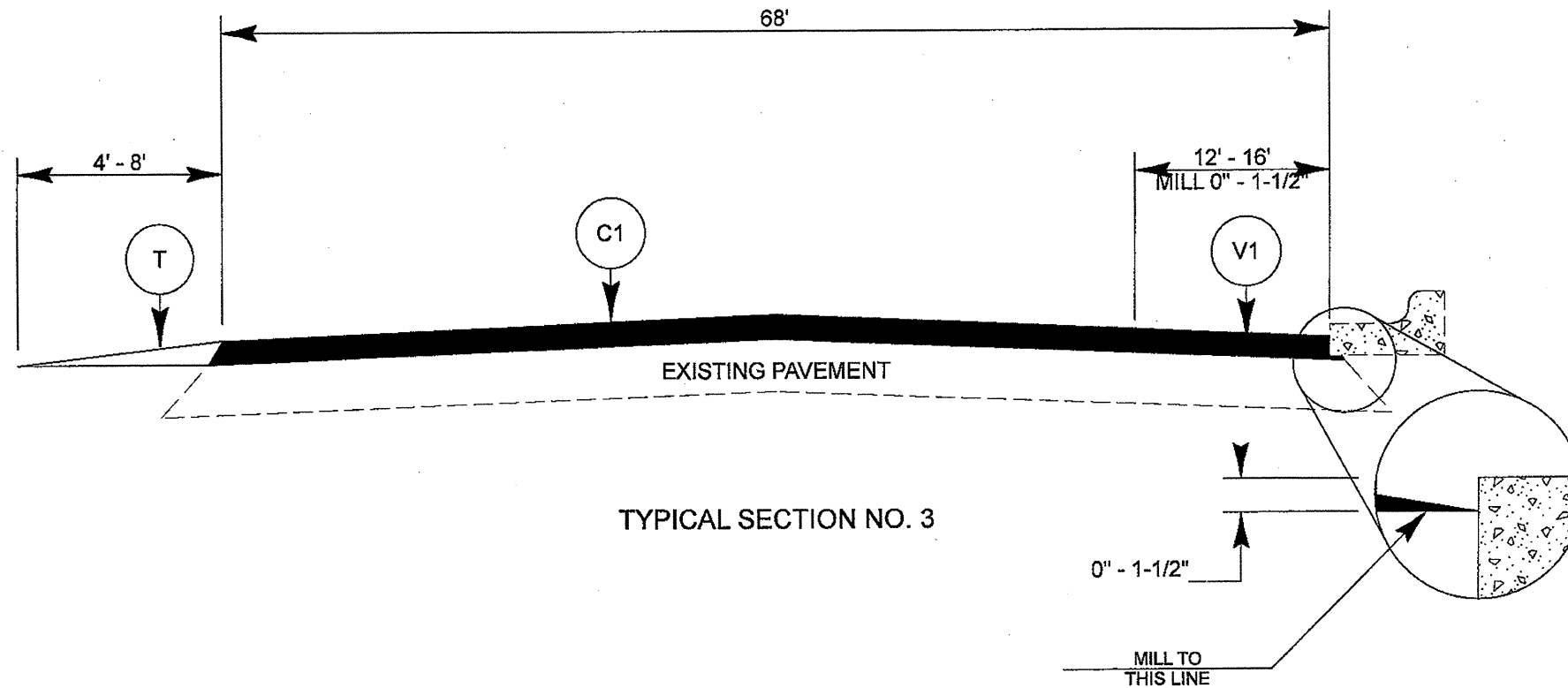
TYPICAL SECTION NO. 1



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
E1	PROP. APPROX. 6" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YARD IN EACH OF TWO LAYERS
F1	ASPHALT SURFACE TREATMENT, SPLIT SEAL
T	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT, 0" TO 1-1/2" DEPTH

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12, 13CR.20591.11, 13C.059082,	6	



#### BRIDGE HALF TYPICAL SECTION

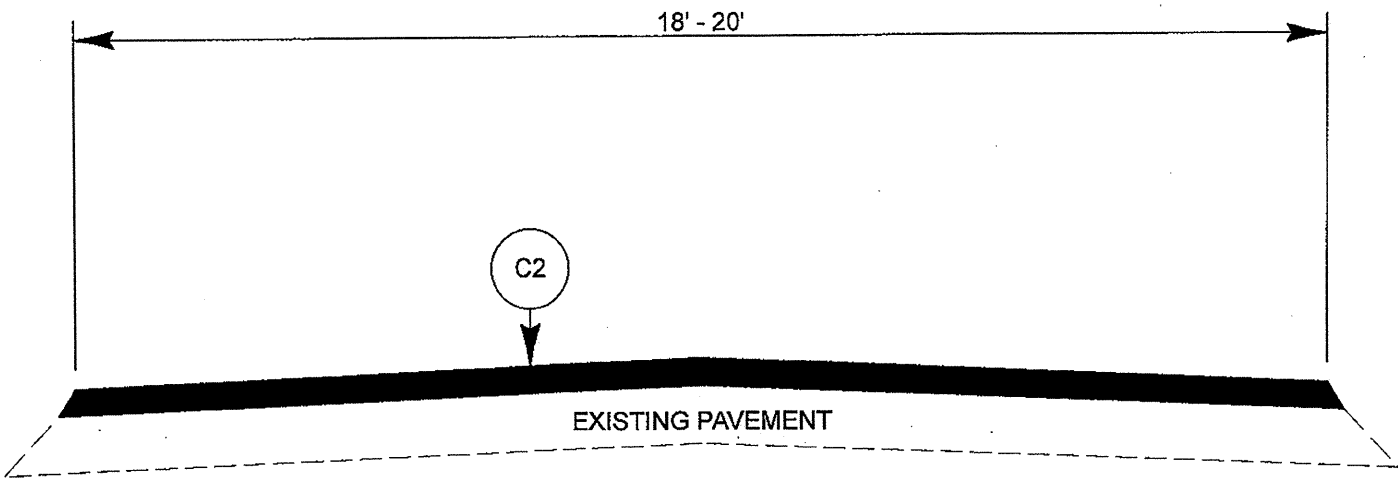
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

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

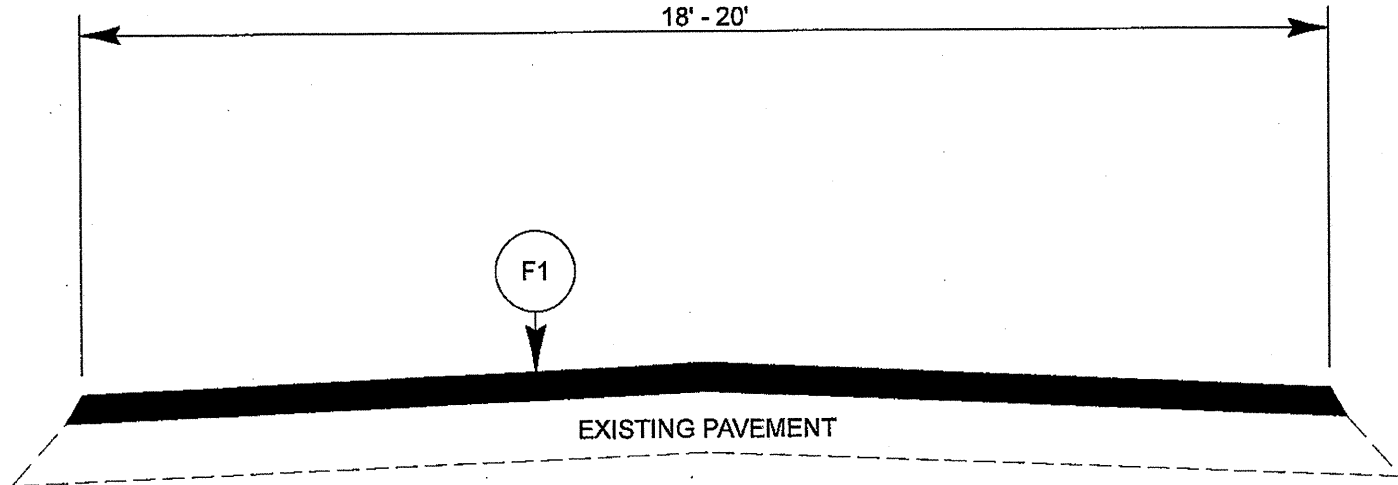
#### NOTES

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

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12, 13CR.20591.11, 13C.059082,	7	

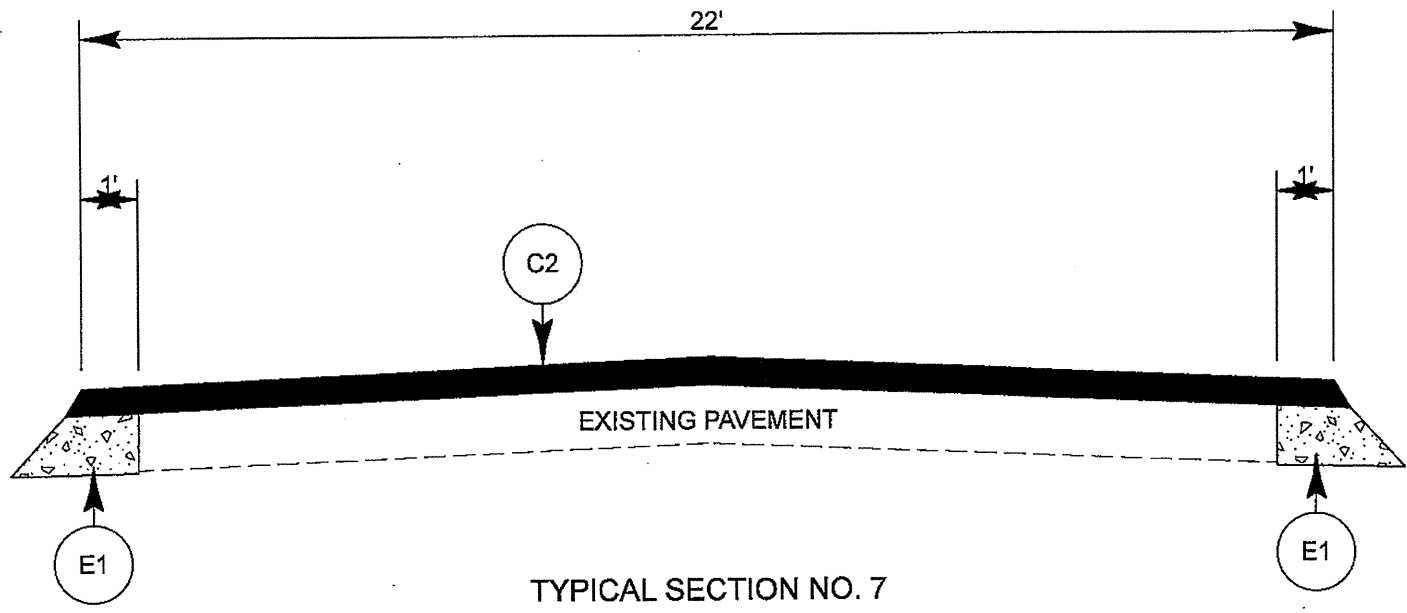


TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 6

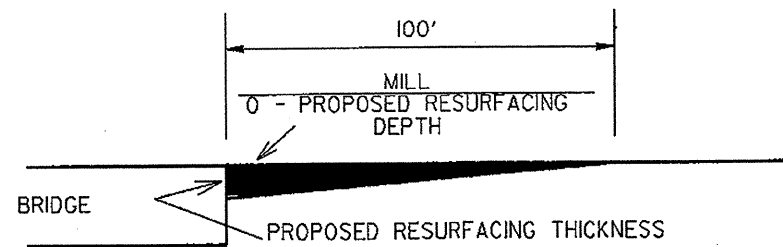
PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.12, 13CR.20591.11, 13C.059082,	8	



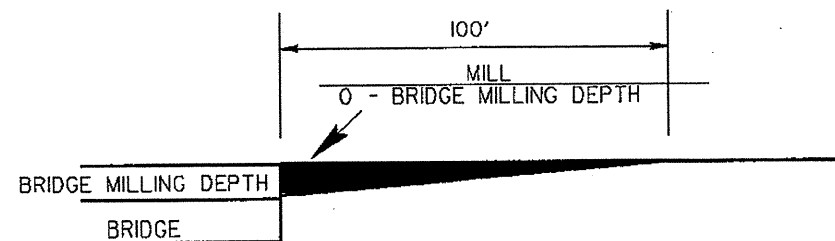
TYPICAL SECTION NO. 7



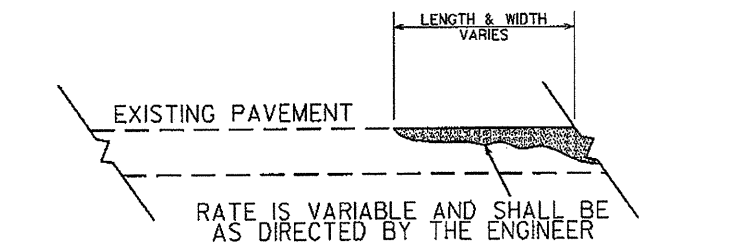
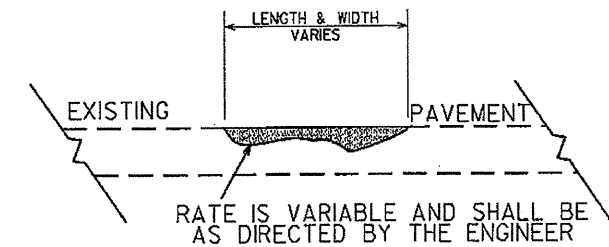
<b>PROJECT NO.</b>	<b>SHEET NO.</b>	<b>TOTAL SHEETS</b>
13CR.10591.12, 13CR.20591.11, 13C.059082	9	



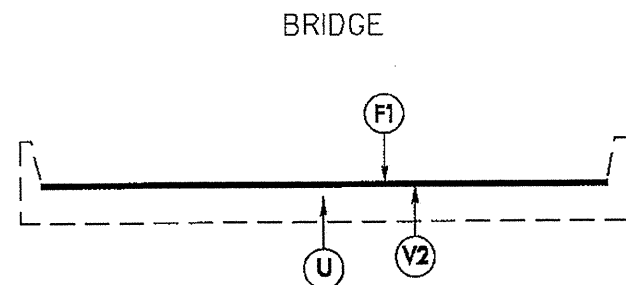
**MILLING DETAIL AT BRIDGE APPROACHES  
WHERE BRIDGES WILL NOT BE RESURFACED  
COST OF BRIDGE APPROACH MILLING IS INCIDENTAL TO OTHER ITEMS**



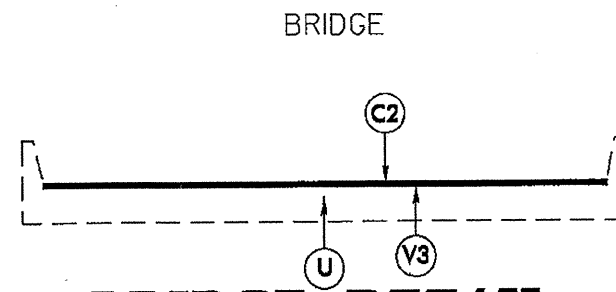
**MILLING DETAIL AT BRIDGE APPROACHES  
WHERE BRIDGES WILL BE MILLED THEN RESURFACED  
COST OF BRIDGE APPROACH MILLING IS INCIDENTAL TO OTHER ITEMS**



**DETAIL SHOWING  
METHOD OF WEDGING**

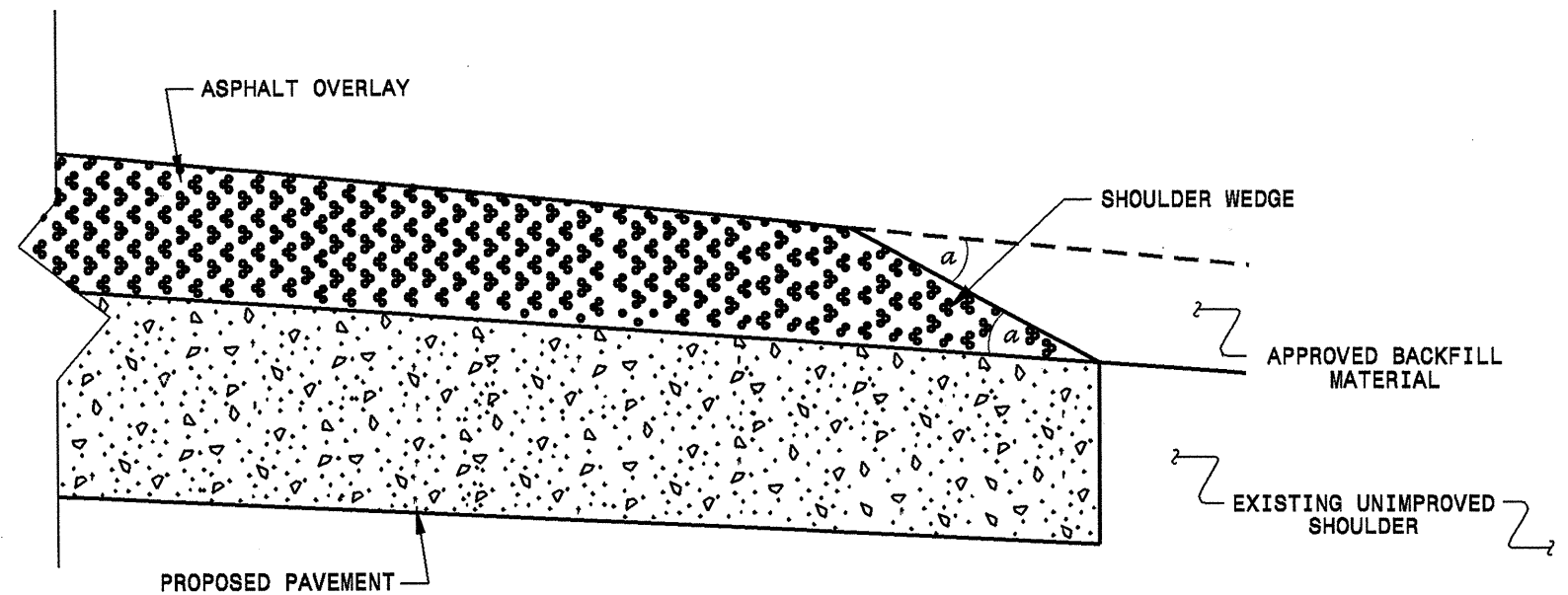


**BRIDGE DETAIL**  
BRIDGE #5 MAP 13, BRIDGE #11  
MAP 15, BRIDGE #121 MAP 8,  
AND BRIDGE #312 MAP 14  
MILL 1" OF EXISTING PAVEMENT  
SEE MAPS FOR BRIDGE LOCATION



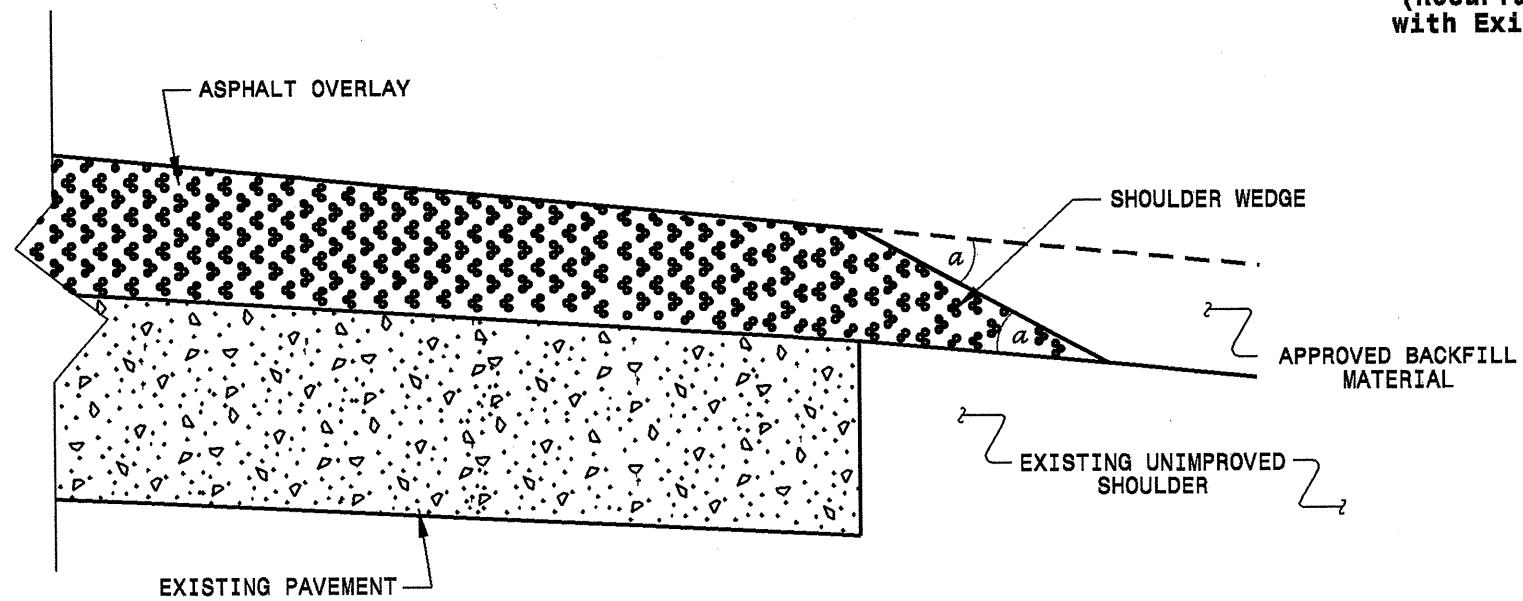
**BRIDGE DETAIL**  
BRIDGE #60 MAP 2, BRIDGE #158  
MAP 4, AND BRIDGE #223 MAP 3  
MILL 1 1/2" OF EXISTING PAVEMENT  
SEE MAPS FOR BRIDGE LOCATION

PAVEMENT SCHEDULE	
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
F1	ASPHALT SURFACE TREATMENT, SPLIT SEAL
U	EXISTING PAVEMENT
V2	MILLING ASPHALT PAVEMENT, 1" DEPTH
V3	MILLING ASPHALT PAVEMENT, 1 1/2" DEPTH



### SHOULDER WEDGE DETAIL

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



### SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)

**NOTES:**

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

$a$  - SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS  
AND DEVELOPMENT UNIT  
Office 919-707-8950 FAX 919-250-4119

### SHOULDER WEDGE DETAILS

ORIGINAL BY: T. SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/18/12
CHECKED BY:	DATE:
FILE SPEC.: e:\user\details\stand\shoulderwedge\detail.dgn	

PROJECT NO.	SHEET NO.	TOTAL NO.
13CR.10591.12, 13CR.20591.11	11	11
13C.059082,		

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 1" DEPTH	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH	MILLING ASPHALT PAVEMENT, 0" TO 1-1/2" DEPTH SY	ASPHALT CONC BASE COURSE, TYPE B25.0B TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	ASPHALT SURFACE TREATMENT, SPLIT SEAL SY
13CR.10591.12	McDowell	1	US 221	N. END OF SR 1555 TO NC 226 (MP 19.33 TO MP 22.26)	1, 2, 3, 4	NO	NO	2.93	68	146.50	5.86			10,100		12,140		728	900	
<b>TOTAL FOR PROJ NO. 13CR.10591.12</b>								<b>2.93</b>		<b>146.50</b>	<b>5.86</b>			<b>10,100</b>		<b>12,140</b>		<b>728</b>	<b>900</b>	
13CR.20591.11	McDowell	2	SR 1764	FROM NC 226 TO BURKE COUNTY LINE (MP 0.00 TO MP 3.23)	5	NO	NO	3.23	18	161.50			360				3,117	209	1,500	
		3	SR 1771	FROM SR 1769 TO EOP (MP 0.00 TO MP 1.04)	5	NO	NO	1.04	18	52.00			73				1,004	67	1,070	
		4	SR 1771	FROM EOP TO NC 226 (MP 1.55 TO MP 1.77)	5	NO	NO	0.22	18	11.00			49				212	14	230	
		5	SR 1773	FROM NC 226 TO US 64 (MP 0.00 TO MP 0.88)	5	NO	NO	0.88	20	44.00							943	63	500	
		6	SR 1774	FROM NC 226 TO EOP (MP 0.18 TO MP 0.63)	5	NO	NO	0.45	18	22.50							434	29	1,000	
		7	SR 1776	FROM SR 1777 TO SR 1775 (MP 0.00 TO MP 0.70)	5	NO	NO	0.7	18	35.00							675	45	400	
		8	SR 1191	FROM SR 1252 TO SR 1137 (MP 2.77 TO MP 4.47)	6	NO	NO	1.7	18			700								17,952
		9	SR 1248	FROM SR 1191 TO EOM (MP 0.00 TO MP 0.74)	6	NO	NO	0.74	18											7,814
		10	SR 1750	FROM SR 1752 TO BRIDGE #241 (MP 1.11 TO MP 3.42)	6	NO	NO	2.31	20											27,104
		11	SR 1755	FROM NC 226 TO SR 1760 (MP 0.00 TO MP 1.29)	6	NO	NO	1.29	18											13,622
		12	SR 1758	FROM SR 1764 TO NC 226 (MP 0.00 TO MP 1.95)	6	NO	NO	1.95	20											22,880
		13	SR 1775	FROM NC 226 TO EOM (MP 0.00 TO MP 2.60)	6	NO	NO	2.6	18			131								27,456
		14	SR 1781	FROM US 221 TO SR 1802 (MP 0.00 TO MP 1.46)	6	NO	NO	1.46	18			162								15,418
		15	SR 1798	FROM NC 226 TO SR 1800 (MP 0.00 TO MP 1.60)	6	NO	NO	1.6	18			45								16,896
		16	SR 1799	FROM SR 1798 TO EOM (MP 0.00 TO MP 0.91)	6	NO	NO	0.91	18											9,610
		17	SR 1800	FROM SR 1798 TO SR 1798 (MP 0.00 TO MP 1.03)	6	NO	NO	1.03	18											10,877
<b>TOTAL FOR PROJ NO. 13CR.20591.11</b>								<b>22.11</b>		<b>326.00</b>		<b>1,038</b>	<b>482</b>				<b>6,385</b>	<b>427</b>	<b>4,700</b>	<b>169,629</b>
13C.059082	McDowell	18	SR 1246	FROM SR 1228 TO SR 1161 (MP 1.64 TO MP 3.05)	7	NO	NO	1.41	22	70.50					625		1,771	146	650	
<b>TOTAL FOR PROJ NO. 13C.059082</b>								<b>1.41</b>		<b>70.50</b>					<b>625</b>		<b>1,771</b>	<b>146</b>	<b>650</b>	
<b>GRAND TOTAL</b>								<b>26.45</b>		<b>543.00</b>	<b>5.86</b>	<b>1,038</b>	<b>482</b>	<b>10,100</b>	<b>625</b>	<b>12,140</b>	<b>8,156</b>	<b>1,301</b>	<b>6,250</b>	<b>169,629</b>

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4685000000-E		4686000000-E		4710000000-E		4725000000-E		4810000000-E		4905000000-N	
							THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS) WHITE LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) WHITE LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) YELLOW LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS) LF	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS, LT ARROW) EA	PAINT PAVEMENT MARKING LINES (4") WHITE LF	PAINT PAVEMENT MARKING LINES (4") YELLOW LF	SNOWPLOWABLE PAVEMENT MARKERS EA				
13CR.10591.12	McDowell	1	US 221	N. END OF SR 1555 TO NC 226 (MP 19.33 TO MP 22.26)	2.93	68	30,941	7,735	39,205	250	96						775	
<b>TOTAL FOR PROJ NO. 13CR.10591.12</b>					<b>2.93</b>		<b>30,941</b>	<b>7,735</b>	<b>39,205</b>	<b>250</b>	<b>96</b>						<b>775</b>	
13CR.20591.11	McDowell	2	SR 1764	FROM NC 226 TO BURKE COUNTY LINE (MP 0.00 TO MP 3.23)	3.23	18								68,218	68,218			
		3	SR 1771	FROM SR 1769 TO EOP (MP 0.00 TO MP 1.04)	1.04	18								21,965	21,965			
		4	SR 1771	FROM EOP TO NC 226 (MP 1.55 TO MP 1.77)	0.22	18								4,646	4,646			
		5	SR 1773	FROM NC 226 TO US 64 (MP 0.00 TO MP 0.88)	0.88	20								18,586	18,586			
		6	SR 1774	FROM NC 226 TO EOP (MP 0.18 TO MP 0.63)	0.45	18								9,504	9,504			
		7	SR 1776	FROM SR 1777 TO SR 1775 (MP 0.00 TO MP 0.70)	0.7	18								14,784	14,784			
		8	SR 1191	FROM SR 1252 TO SR 1137 (MP 2.77 TO MP 4.47)	1.7	18								35,904	35,904			
		9	SR 1248	FROM SR 1191 TO EOM (MP 0.00 TO MP 0.74)	0.74	18								15,629	15,629			
		10	SR 1750	FROM SR 1752 TO BRIDGE #241 (MP 1.11 TO MP 3.42)	2.31	20								48,787	48,787			
		11	SR 1755	FROM NC 226 TO SR 1760 (MP 0.00 TO MP 1.29)	1.29	18								27,245	27,245			
		12	SR 1758	FROM SR 1764 TO NC 226 (MP 0.00 TO MP 1.95)	1.95	20								41,184	41,184			
		13	SR 1775	FROM NC 226 TO EOM (MP 0.00 TO MP 2.60)	2.6	18								54,912	54,912			
		14	SR 1781	FROM US 221 TO SR 1802 (MP 0.00 TO MP 1.46)	1.46	18								30,835	30,835			
		15	SR 1798	FROM NC 226 TO SR 1800 (MP 0.00 TO MP 1.60)	1.6	18								33,792	33,792			
		16	SR 1799	FROM SR 1798 TO EOM (MP 0.00 TO MP 0.91)	0.91	18								19,219	19,219			
		17	SR 1800	FROM SR 1798 TO SR 1798 (MP 0.00 TO MP 1.03)	1.03	18								21,754	21,754			
<b>TOTAL FOR PROJ NO. 13CR.20591.11</b>					<b>22.11</b>									<b>466,964</b>	<b>466,964</b>			
13C.059082	McDowell	18	SR 1246	FROM SR 1228 TO SR 1161 (MP 1.64 TO MP 3.05)	1.41	22								29,779	29,779			
<b>TOTAL FOR PROJ NO. 13C.059082</b>					<b>1.41</b>									<b>29,779</b>	<b>29,779</b>			
<b>GRAND TOTAL</b>					<b>26.45</b>		<b>30,941</b>	<b>7,735</b>	<b>39,205</b>	<b>250</b>	<b>96</b>			<b>496,743</b>	<b>496,743</b>		<b>775</b>	
<b>GRAND TOTAL</b>								<b>46,940</b>						<b>993,486</b>				