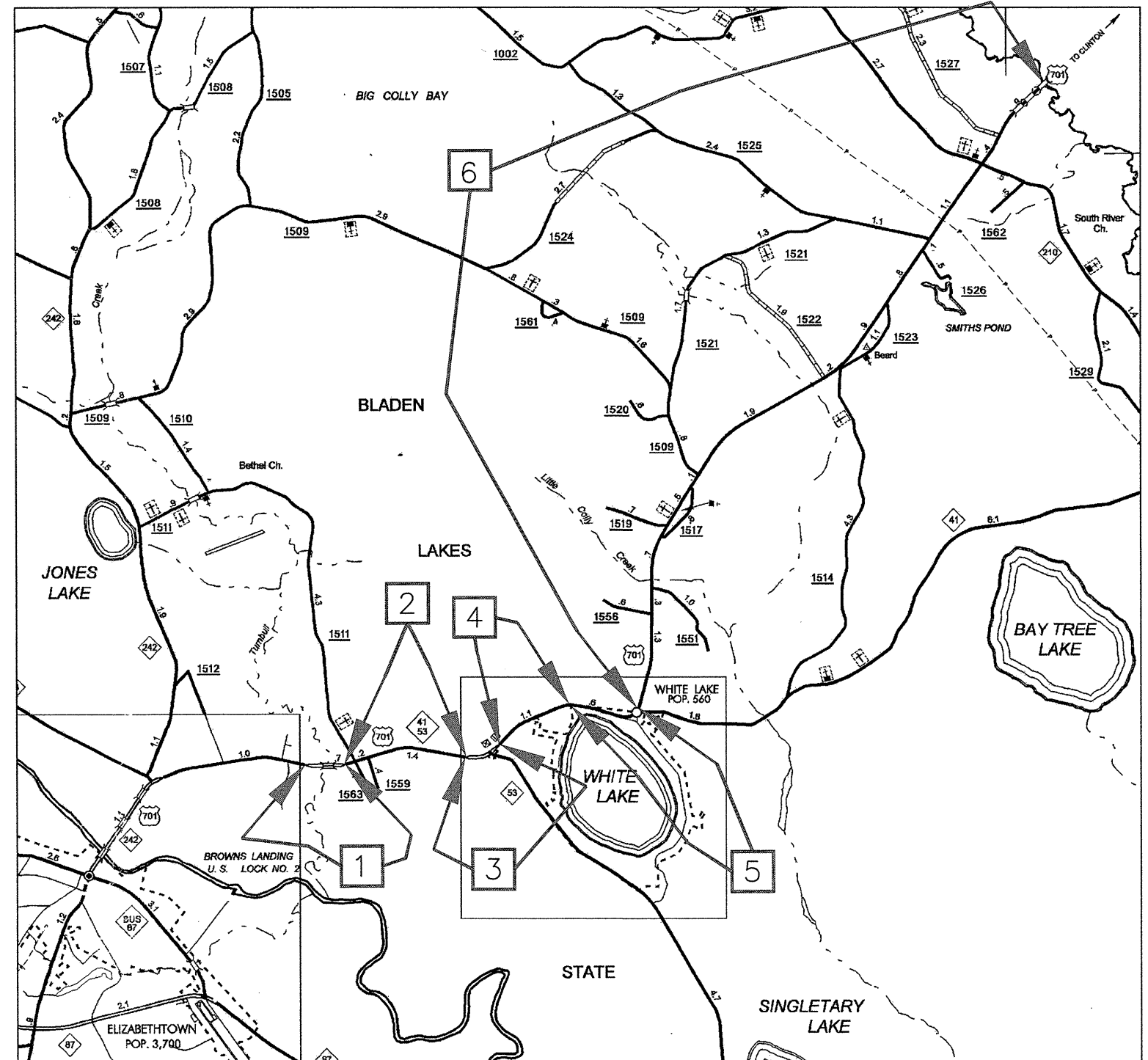
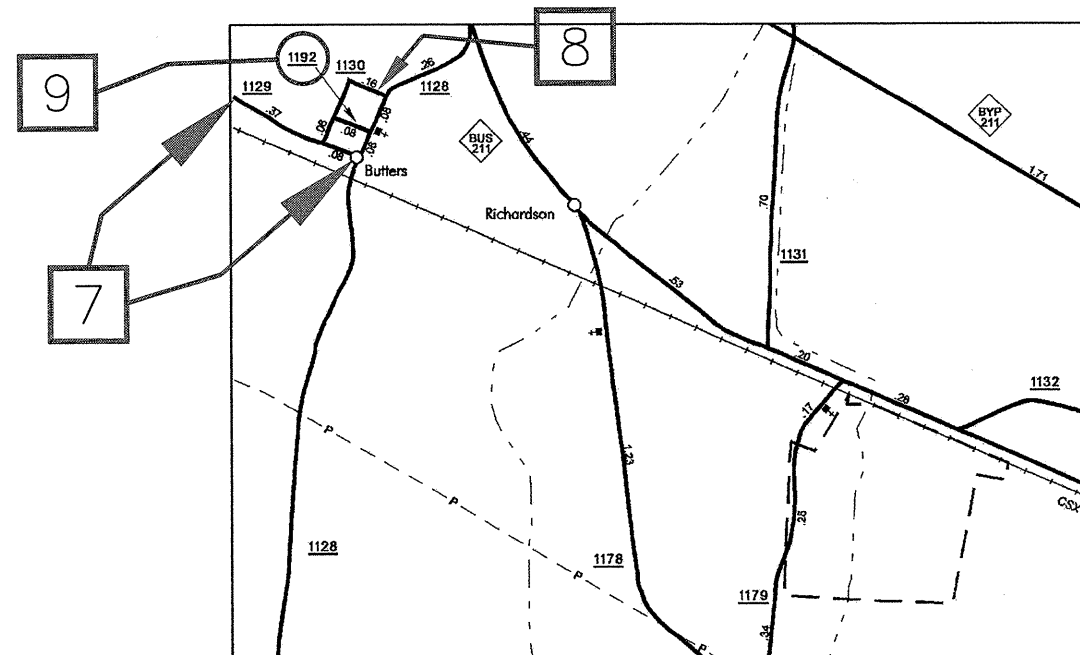
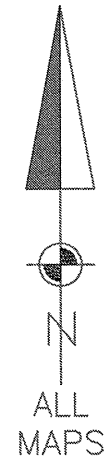
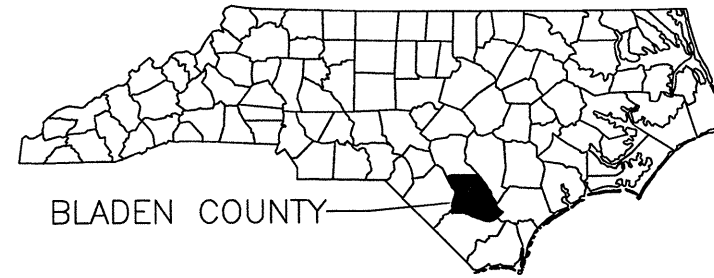
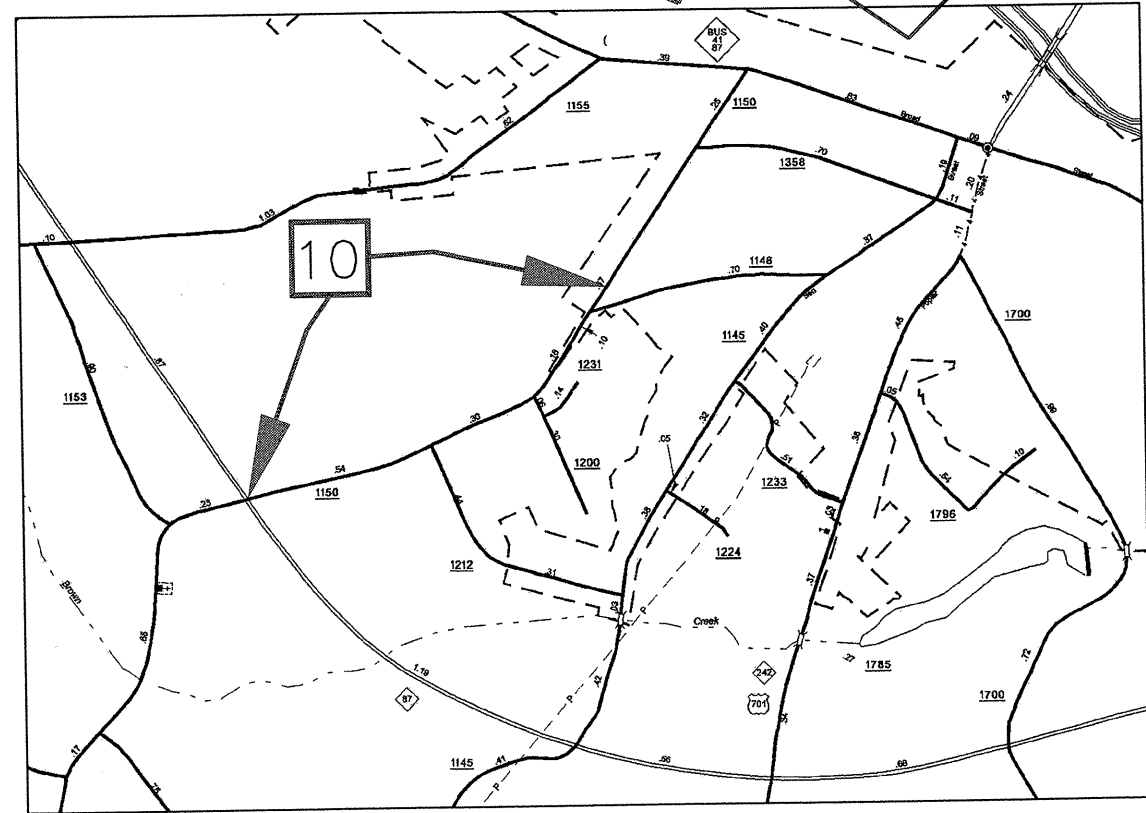
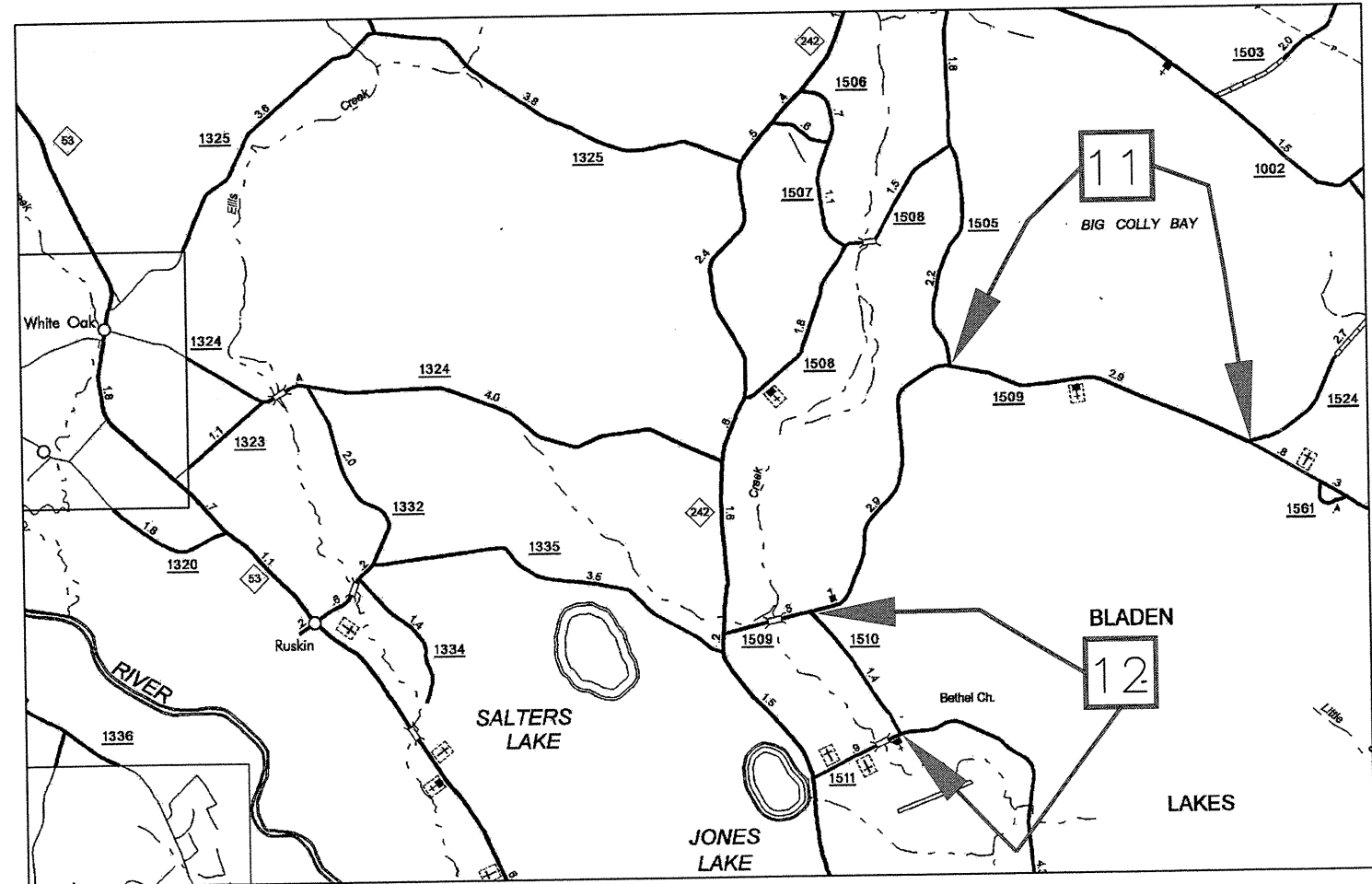
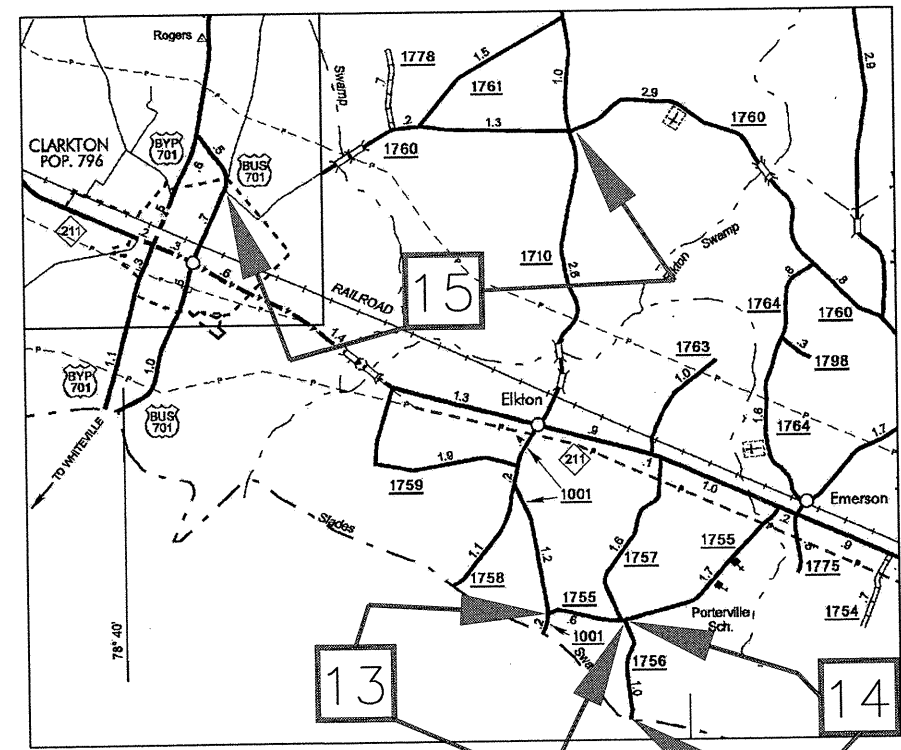
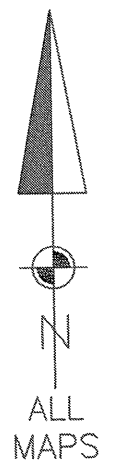


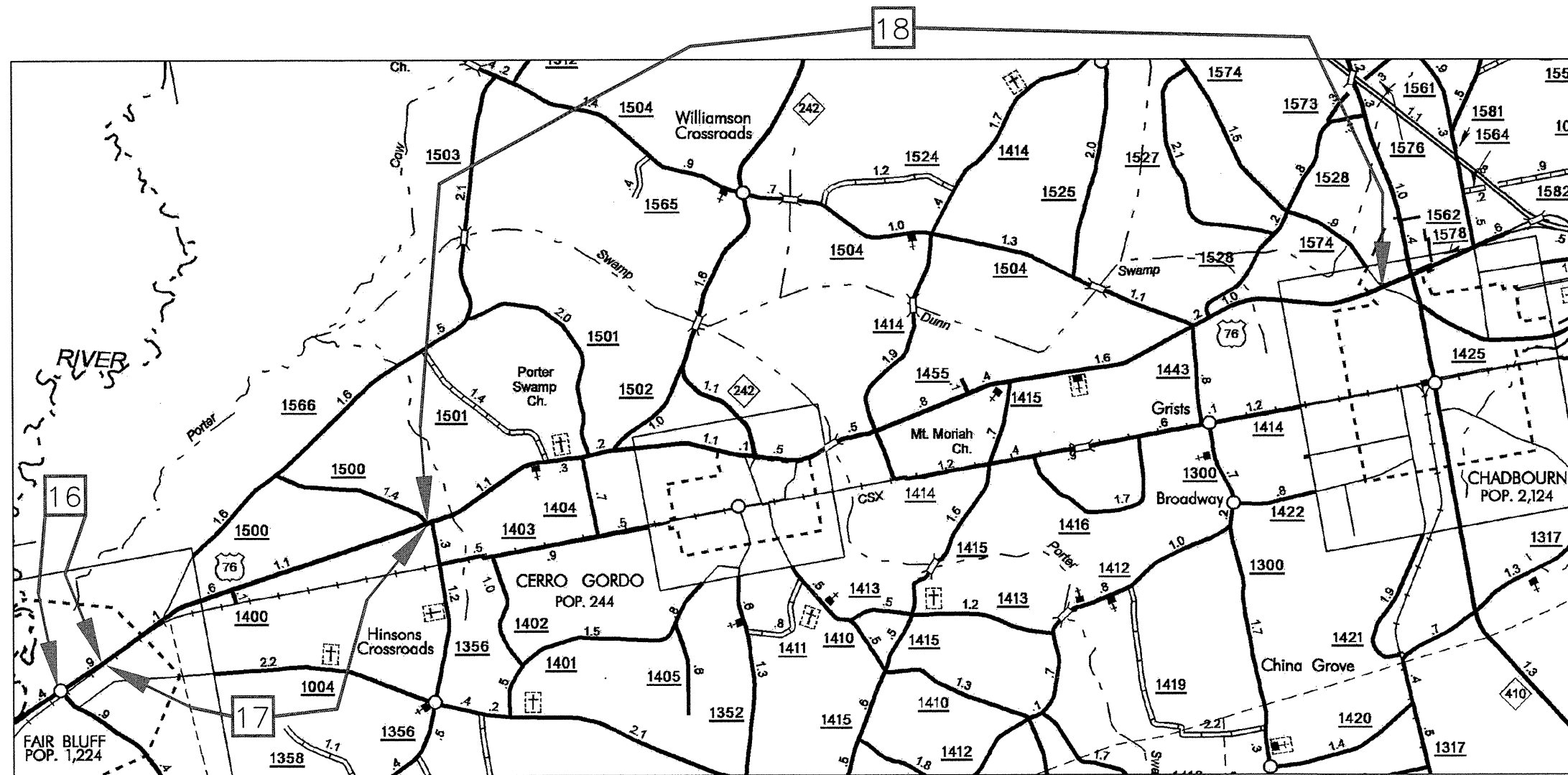
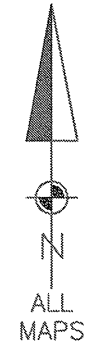
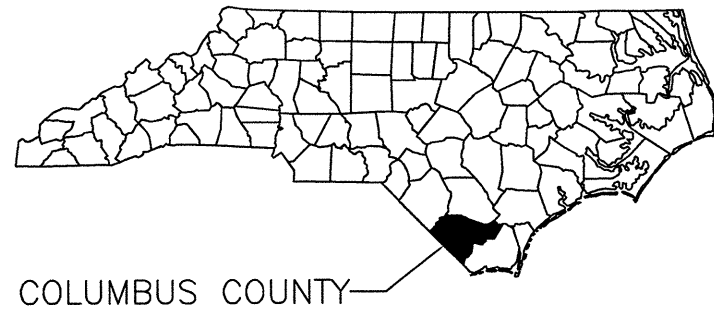
# RESURFACING MAPS — BLADEN COUNTY



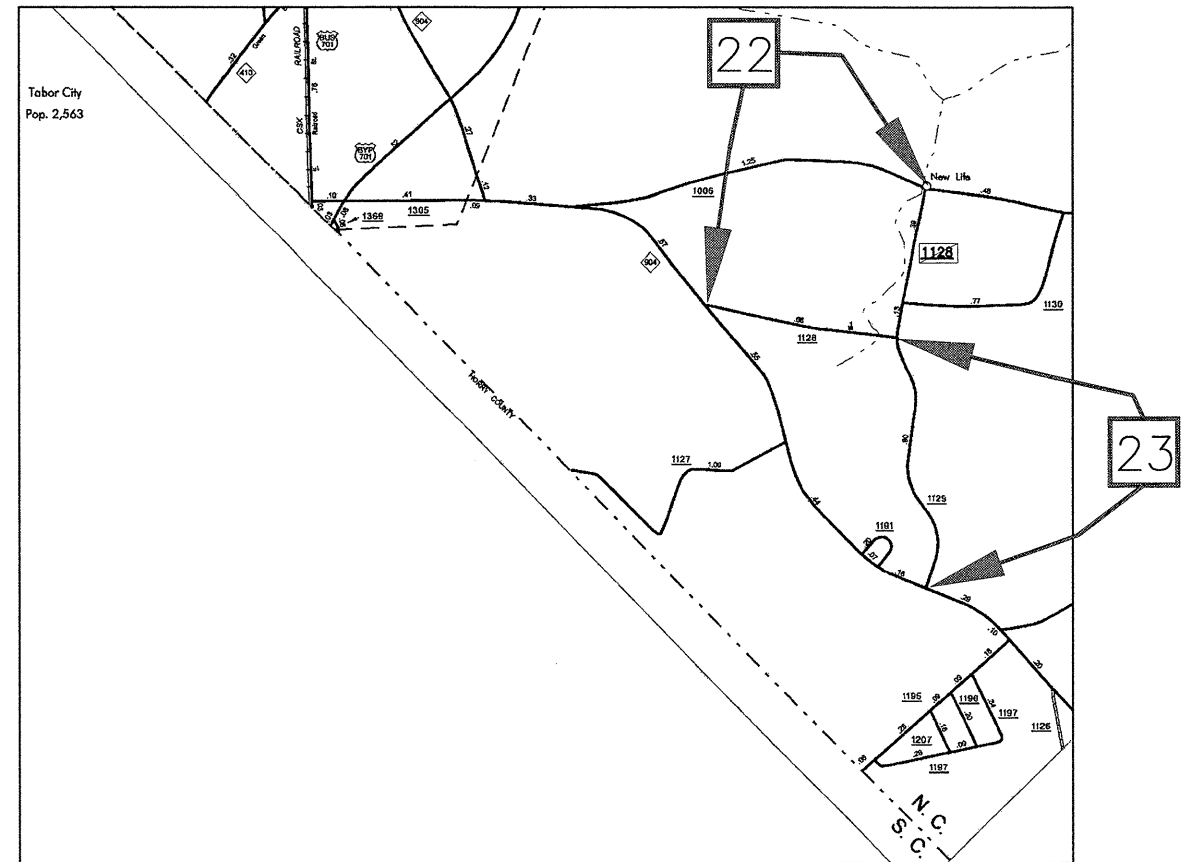
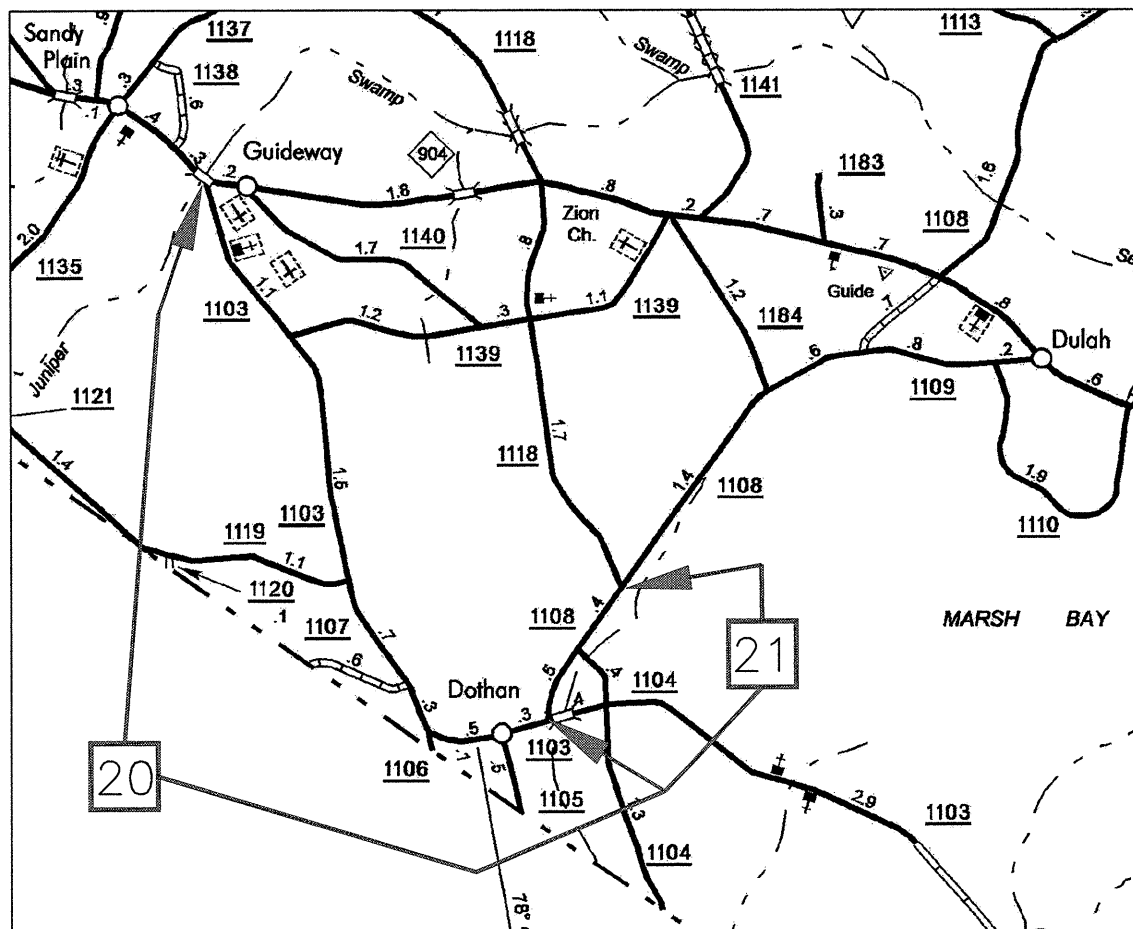
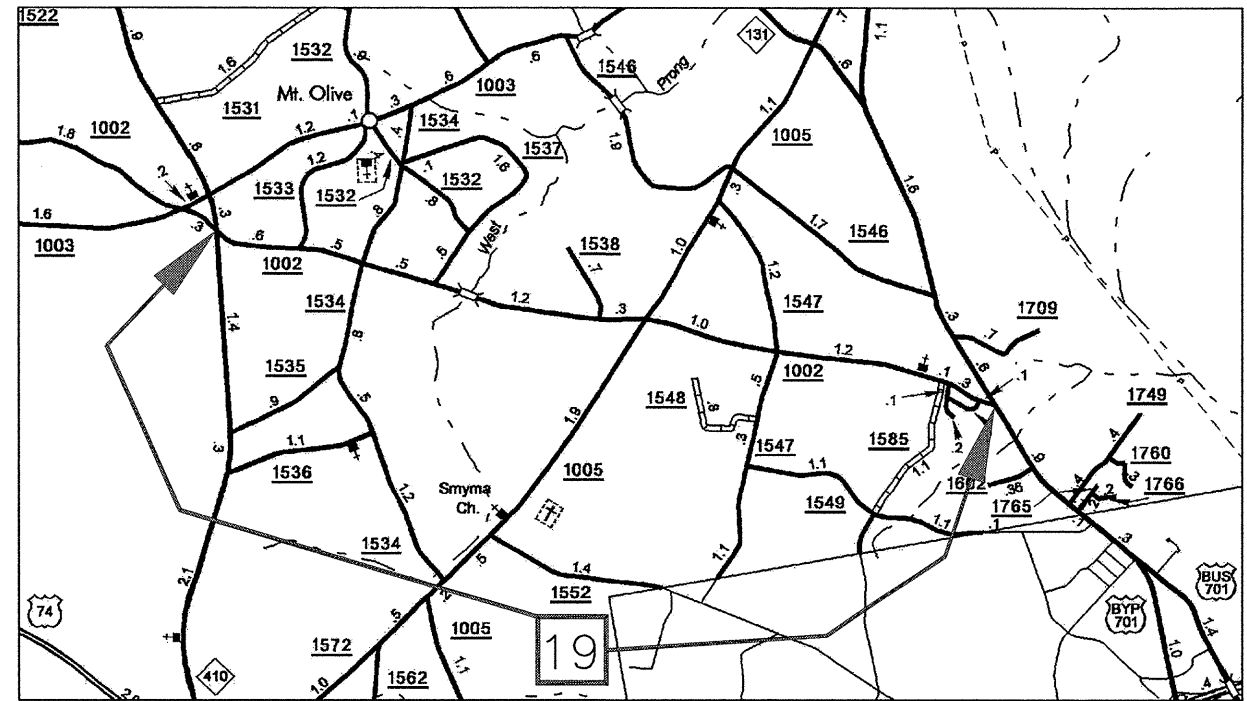
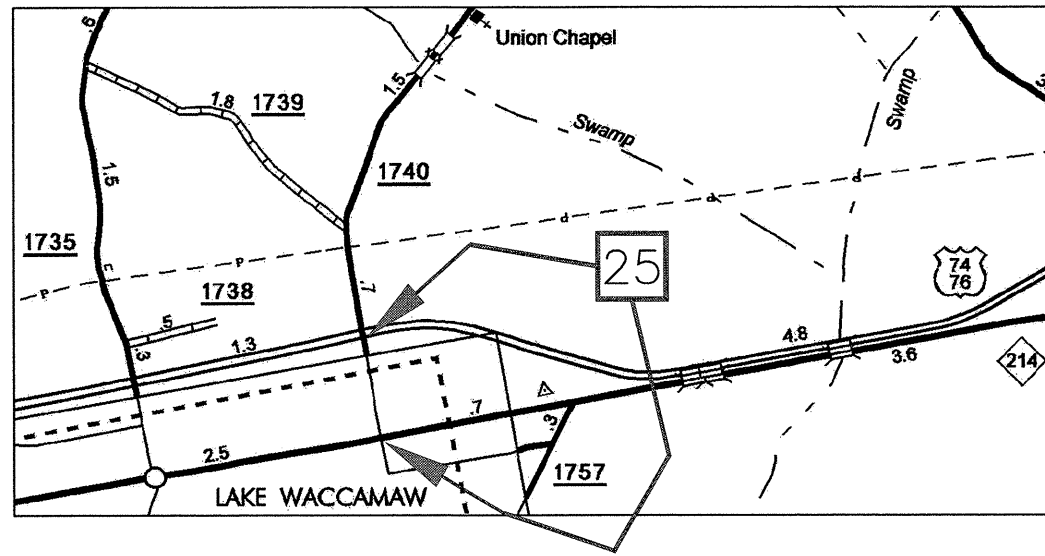
# RESURFACING MAPS – BLADEN COUNTY



# RESURFACING MAPS – COLUMBUS COUNTY



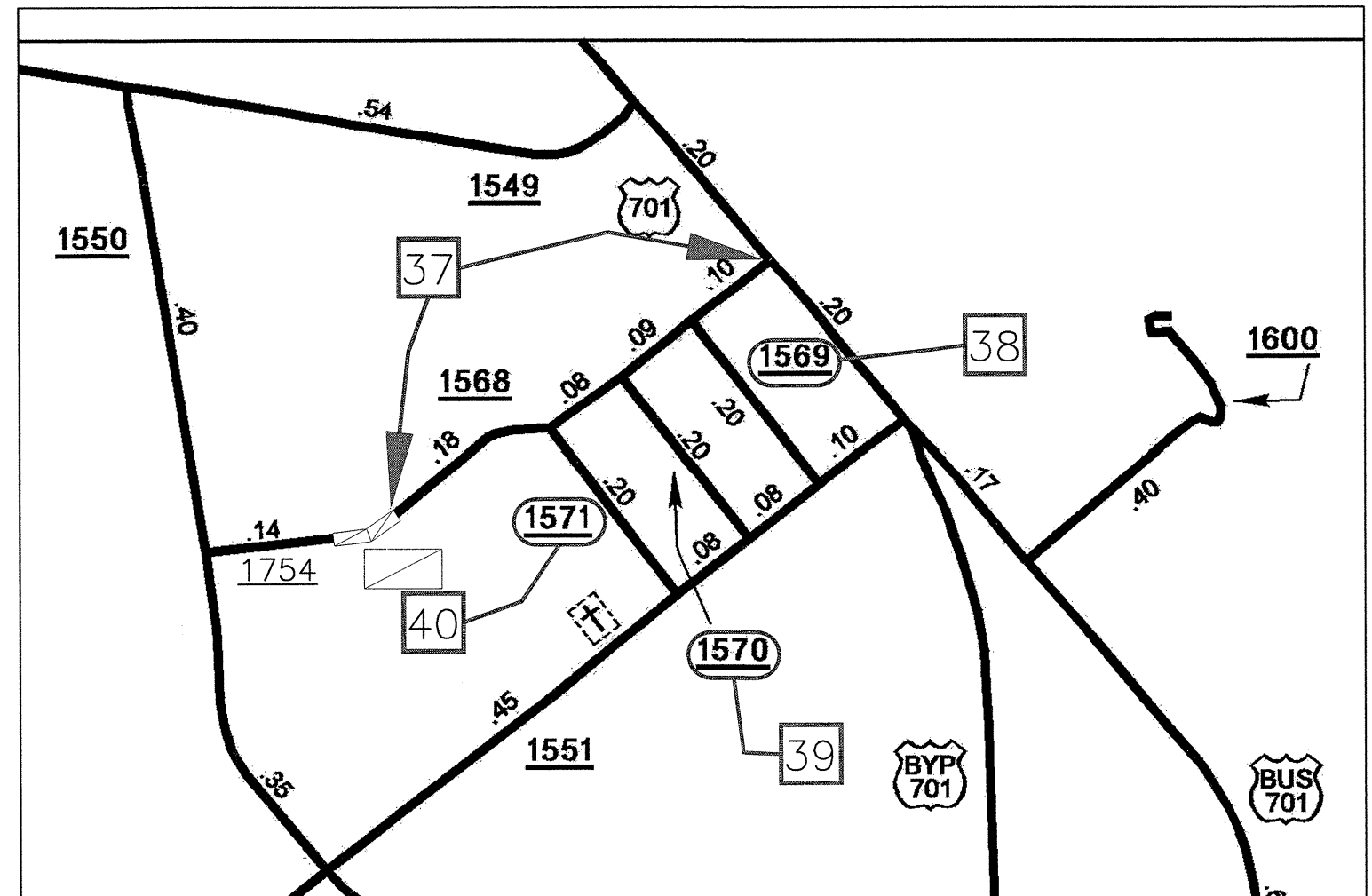
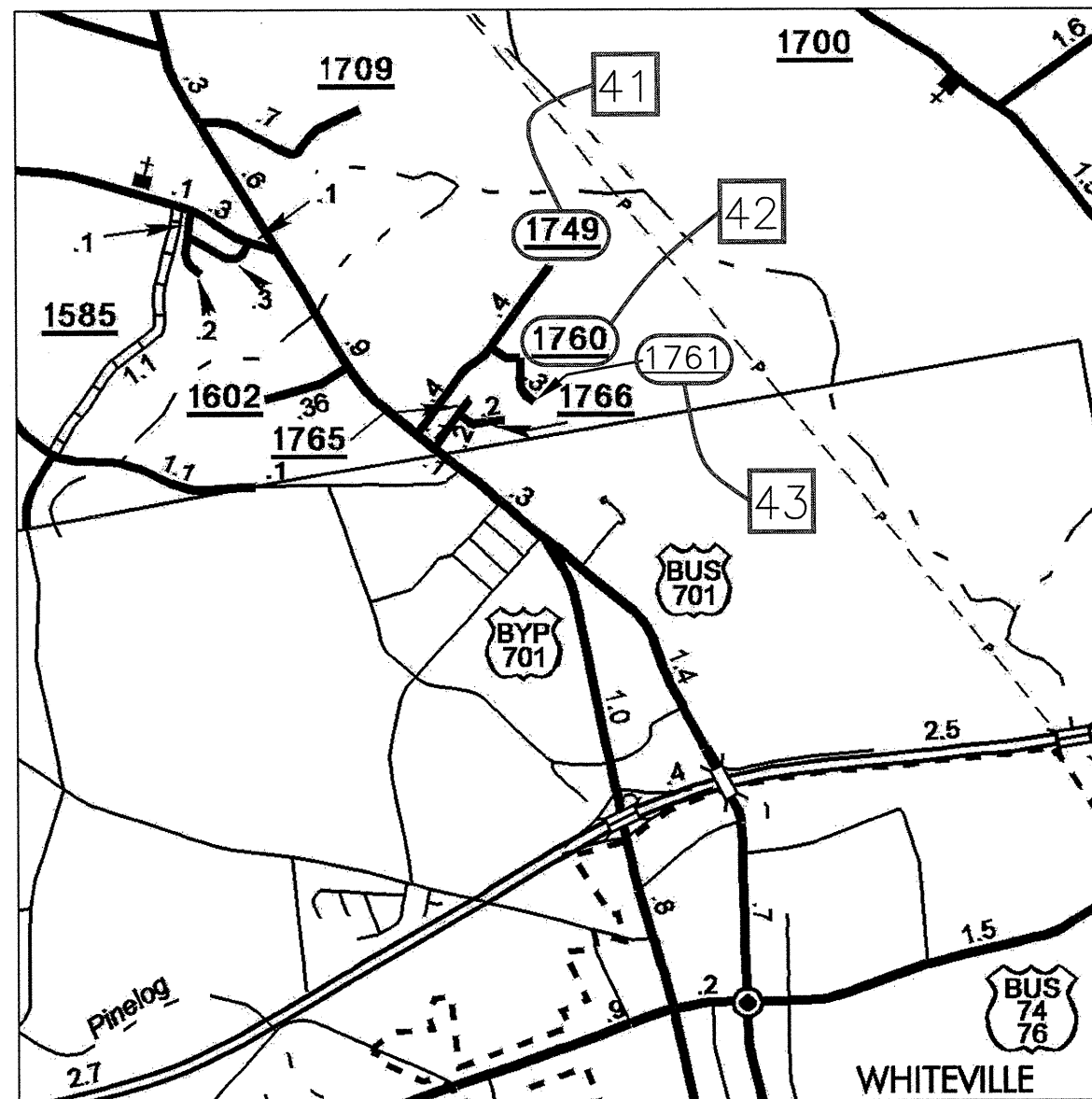
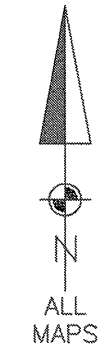
# RESURFACING MAPS – COLUMBUS COUNTY

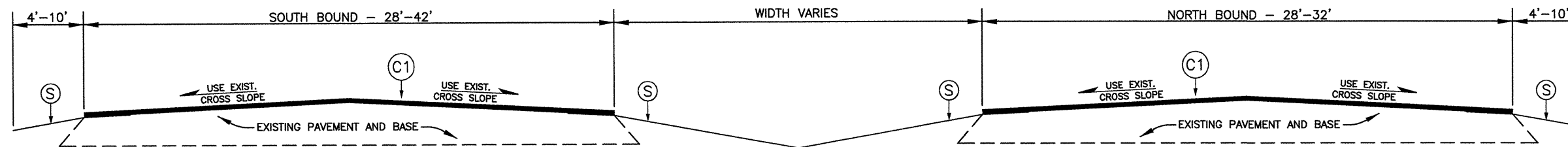


23



# RESURFACING MAPS – COLUMBUS COUNTY

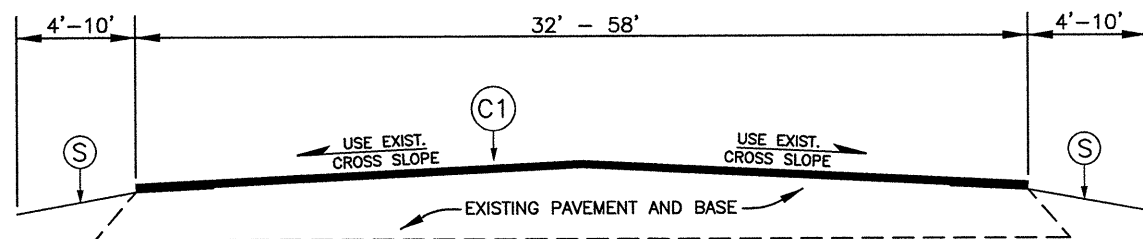




TYPICAL SECTION NO. 1

NOTES:

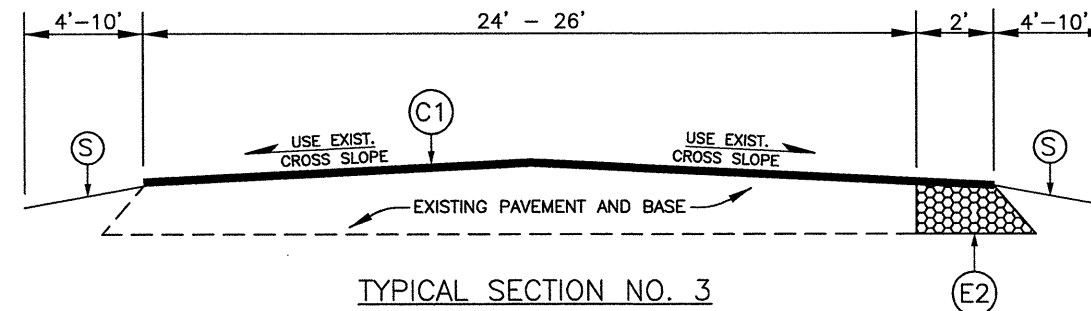
1. INCLUDES MILLING ON ASPHALT BRIDGE DECKS & BRIDGE APPROACHES, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 2.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 2

NOTE:

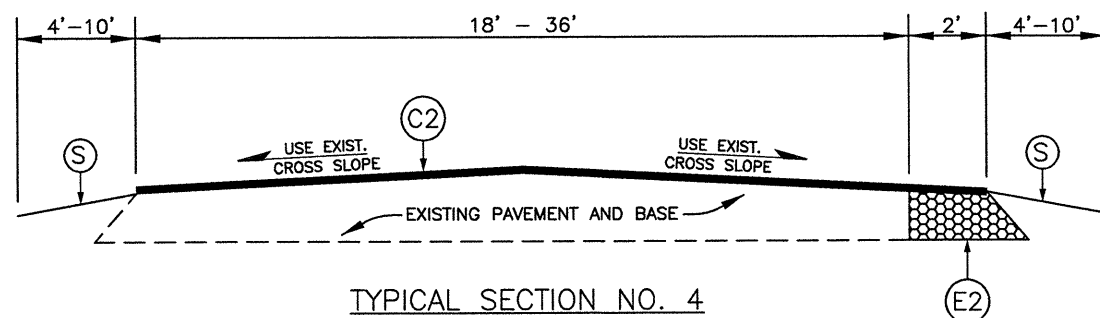
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 3

NOTES:

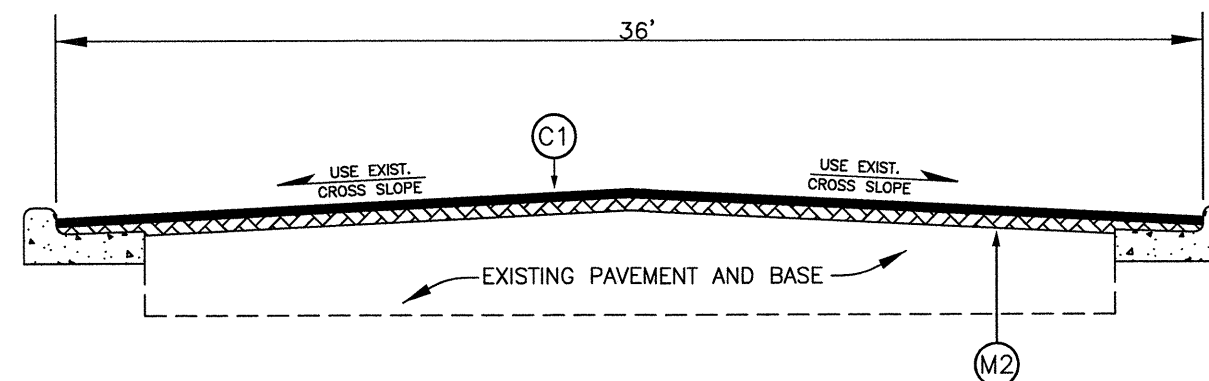
1. INCLUDES 2' WIDENING ON THE INSIDE RADIUS OF ALL CURVES, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.
2. INCLUDES MILLING ON ASPHALT BRIDGE DECKS & BRIDGE APPROACHES, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 2.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 4

NOTES:

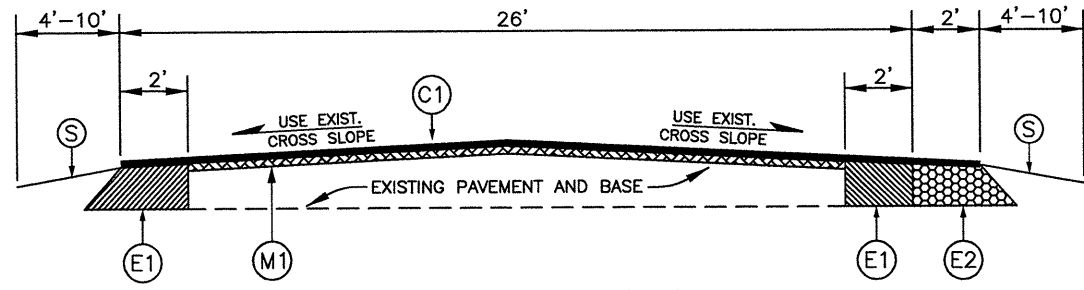
1. INCLUDES 2' WIDENING ON THE INSIDE RADIUS OF ALL CURVES, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.
2. INCLUDES MILLING ON ASPHALT BRIDGE DECKS & BRIDGE APPROACHES, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 2.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 5

NOTE:

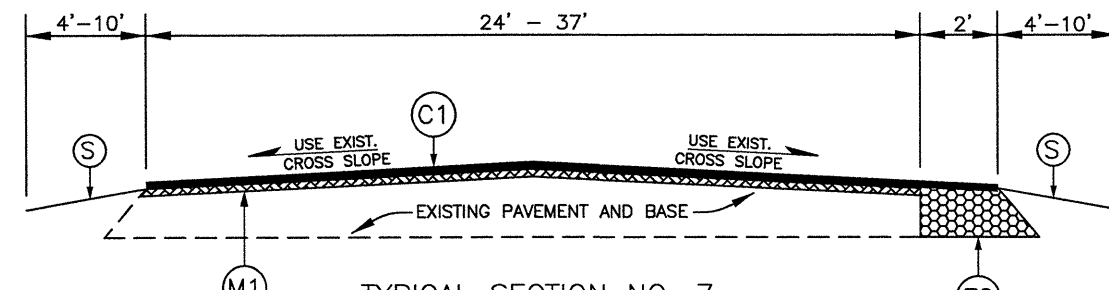
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 6

NOTES:

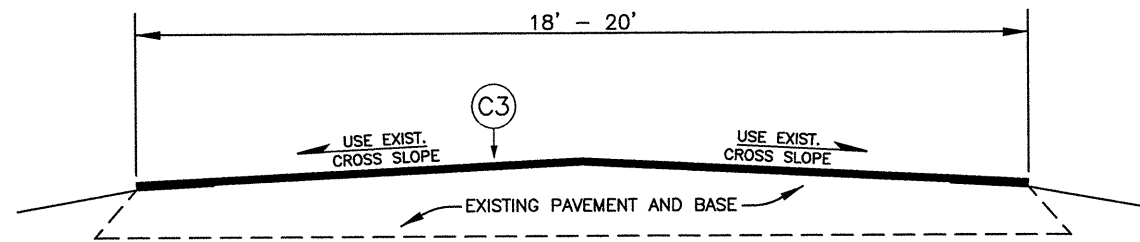
- EXISTING DITCHES WILL NOT BE RELOCATED, UNLESS DIRECTED BY ENGINEER. INCLUDES ADDITIONAL 2' WIDENING ON THE INSIDE RADIUS OF ALL CURVES, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.
- INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 7

NOTES:

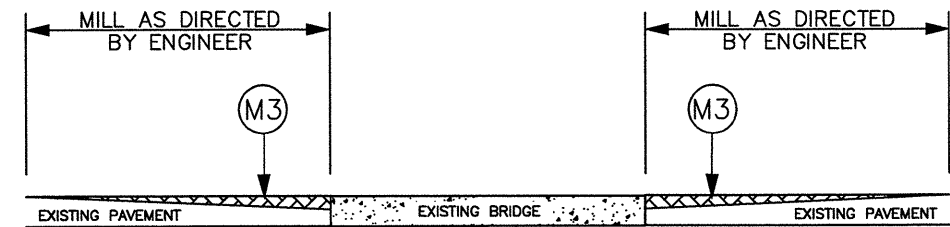
- INCLUDES 2' WIDENING ON THE INSIDE RADIUS OF ALL CURVES, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.
- INCLUDES MILLING ON ASPHALT BRIDGE DECKS & BRIDGE APPROACHES, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 2.
- INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



TYPICAL SECTION NO. 8

NOTE:

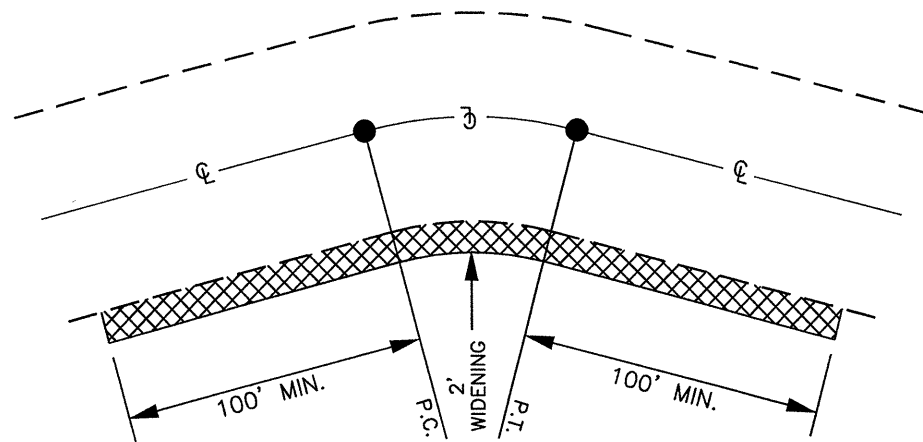
- INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



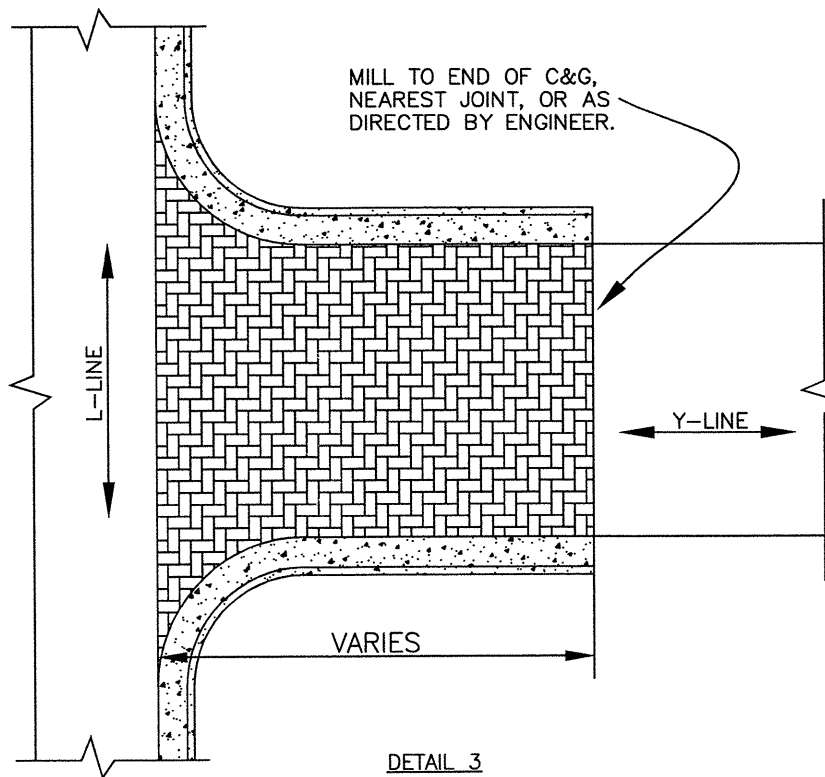
DETAIL 2  
MILLING APPROACHES

NOTE:

- MILLING SHALL BE PERFORMED AT BRIDGES AND RAILROAD APPROACHES AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH DETAIL 2.

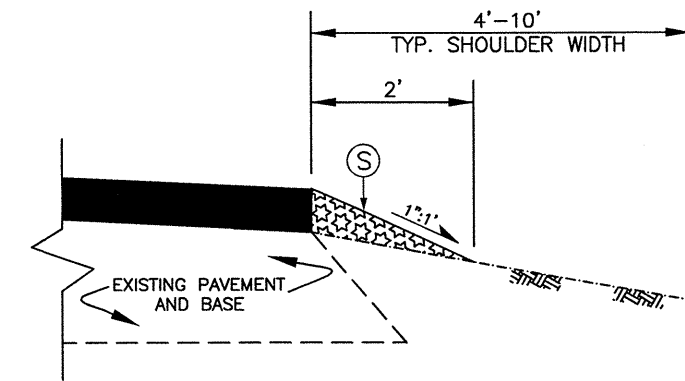


DETAIL 1  
INSIDE CURVE WIDENING



DETAIL 3  
Y-LINE / END JOINT MILLING

- NOTE: INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII, AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH DETAIL 3.

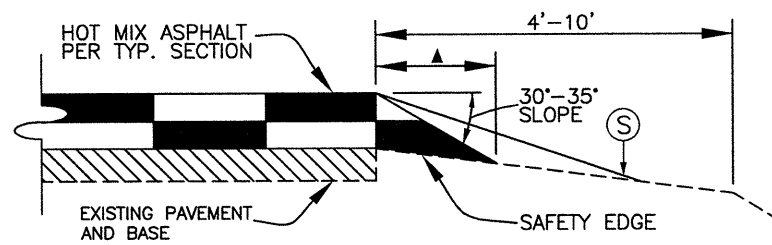


DETAIL 5  
SHOULDER RECONSTRUCTION

NOTES:

- SHOULDER SHALL BE RECONSTRUCTED FROM THE EDGE OF PAVEMENT OUT TO A WIDTH OF 2', WITH A TYPICAL SLOPE OF 1" PER FOOT AWAY FROM THE ROADWAY.
- THE EXISTING SHOULDER SHALL BE SCARIFIED PRIOR TO ADDING BORROW MATERIAL TO PROVIDE A GOOD BOND BETWEEN LAYERS. SHOULDER SHALL BE PROPERLY COMPACTED AFTER SOIL PLACEMENT.
- BORROW MATERIAL SHALL BE PLACED USING A WIDENING MACHINE OR SIMILAR DEVICE.
- A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.
- REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM WIDENING OPERATIONS WITHIN THE PROJECT LIMITS, OR FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.





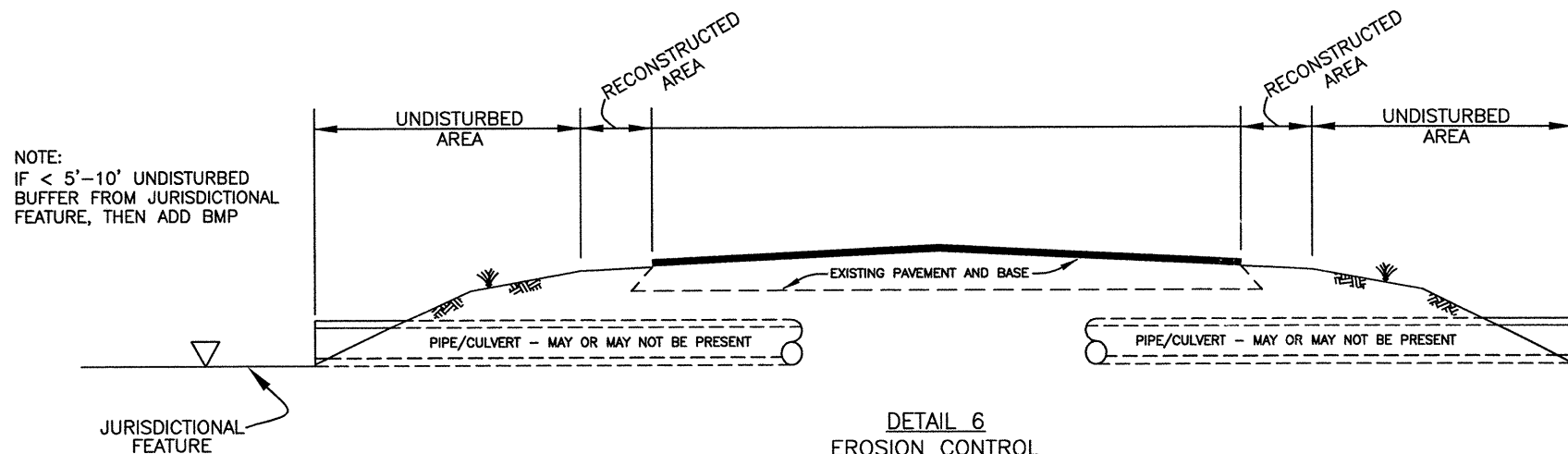
DETAIL 4  
SHOULDER WEDGE / SAFETY EDGE

NOTE:

- SAFETY EDGE SHALL BE CONSTRUCTED AS PART OF THE ROADWAY PAVEMENT. A SHOULDER WEDGE DEVICE SHALL BE ADDED TO THE SCREED OF THE PAVING MACHINE.
- SAFETY EDGE SHALL BE INCLUDED ON ALL TYPICALS EXCEPT FOR CURB & GUTTER SECTIONS, OR AS DIRECTED OTHERWISE BY ENGINEER.
- SAFETY EDGE SHALL BE USED ON THE SURFACE LAYER ONLY.
- SAFETY EDGE MAY BE CONSTRUCTED BY HAND WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS.
- THE CONSTRUCTION OF THE SAFETY EDGE, AS WELL AS ANY ADDITIONAL SITE PREPARATION OR EARTHWORK REQUIRED, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE ASPHALT CONCRETE SURFACE COURSE.

PAVEMENT SCHEDULE	
C1	Proposed approximately 1½" of Asphalt Concrete Surface Course, Type S-9.5-B, at an average rate of 168 pounds per square yard.
C2	Proposed approximately 1½" of Asphalt Concrete Surface Course, Type SF-9.5-A, at an average rate of 165 pounds per square yard.
C3	Proposed approximately 1" of Asphalt Concrete Surface Course, Type S-4.75-A, at an average rate of 100 pounds per square yard.
E1	Proposed approximately 5½" of Asphalt Concrete Base Course, Type B-25.0-B, at an average rate of 627 pounds per square yard for standard 2' widening.
E2	Proposed approximately 5½" of Asphalt Concrete Base Course, Type B-25.0-B, at an average rate of 627 pounds per square yard for 2' widening at inside curve radii, as Directed by the Engineer.
M1	Milling Depth 1" for the entire width of the roadway, or as Directed by the Engineer.
M2	Milling Depth 1½" for the entire width of the roadway including the Gutter Pan, or as Directed by the Engineer.
M3	Milling Depth 0" - 1½" at all Bridge and Railroad Approaches, for the entire width of the roadway, or as Directed by the Engineer.
S	Shoulder Reconstruction

DRAWINGS NOT TO SCALE



DETAIL 6  
EROSION CONTROL

NOTES:

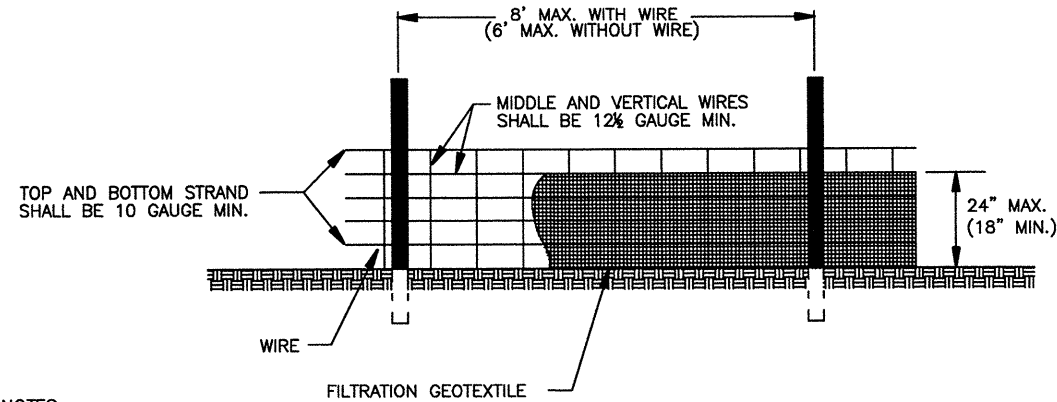
- IF A 5'-10' VEGETATED, UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE OR DRAINAGE INLET CAN BE MAINTAINED, THEN NO BMP'S NEEDED.
- IF < 5'-10' UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE OR DRAINAGE INLET, THEN ADD BMP'S.
- BMP OPTIONS:
  - MATting MAY BE APPLIED AS SHOWN IN NCDOT STD. DWG. 1631.01 TO ESTABLISH BUFFER.
  - IF MATting IS NOT PRACTICAL, OR THERE IS NOT ENOUGH SHOULDER WIDTH, THEN INSTALL TEMPORARY SILT FENCE AS SHOWN IN NCDOT STD. DWG. 1605.01, AND WATTLES WITH POLYACRYLAMIDE (PAM).

COLUMBUS		TYPICAL NO. 1	TYPICAL NO. 2	TYPICAL NO. 3	TYPICAL NO. 4	TYPICAL NO. 5	TYPICAL NO. 6	TYPICAL NO. 7	TYPICAL NO. 8
	PRIMARY					US 76-A	US 76-B	US 76-C	
SECONDARY					SR 1002, SR 1103, SR 1108, SR 1128, SR 1129, SR 1166, SR 1740 & SR 1914				SR 1185, SR 1186, SR 1187, SR 1198, SR 1199, SR 1200, SR 1201, SR 1202, SR 1203, SR 1204, SR 1568, SR 1569, SR 1570, SR 1571, SR 1749, SR 1760 & SR1761
BLADEN		TYPICAL NO. 1	TYPICAL NO. 2	TYPICAL NO. 3	TYPICAL NO. 4	TYPICAL NO. 5	TYPICAL NO. 6	TYPICAL NO. 7	TYPICAL NO. 8
	PRIMARY	US 701-A, US 701-C & US 701-E	US 701-B & US 701-D	US 701-F					
SECONDARY					SR 1150, SR 1509, SR 1510, SR 1755, SR 1756 & SR 1760				SR 1129, SR 1130 & SR 1192

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

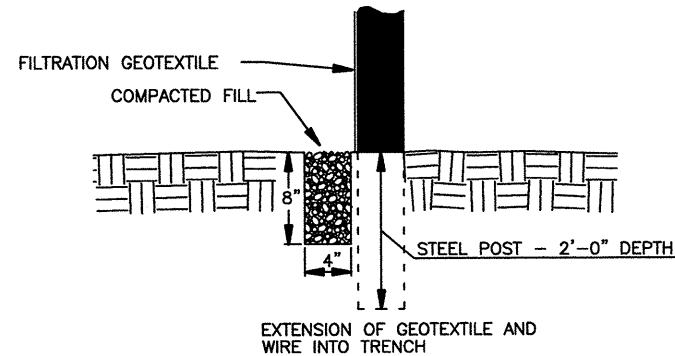
ENGLISH STANDARD DRAWING FOR  
TEMPORARY SILT FENCE

SHEET 1 OF 1  
1605.01



**NOTES**

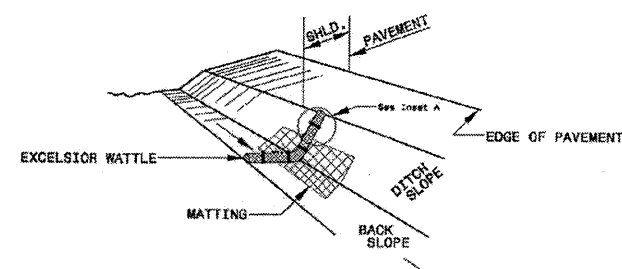
USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.  
USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.  
PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.  
FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.



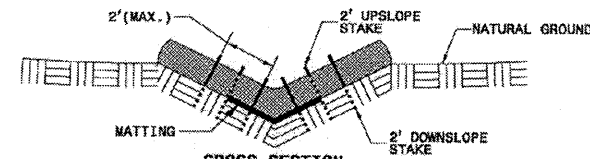
ENGLISH STANDARD DRAWING FOR  
TEMPORARY SILT FENCE

SHEET 1 OF 1  
1605.01

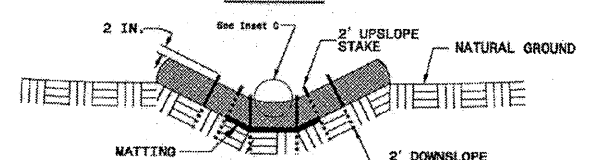
**WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL**



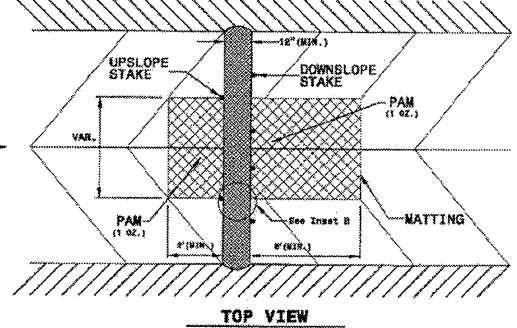
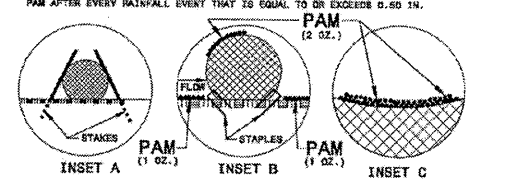
**ISOMETRIC VIEW**



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**



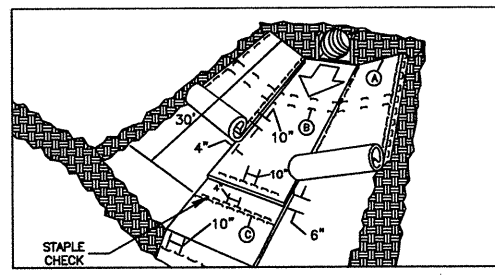
**TOP VIEW**

**NOTES:**  
USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.  
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.  
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.  
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.  
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.  
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.  
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.  
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM DIFFERENT MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.  
INITIALLY APPLY 2 OUNCES OF AMMONIUM OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

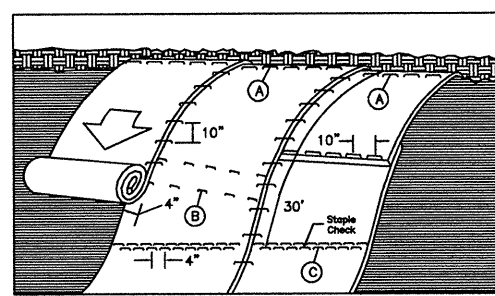
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
MATTING INSTALLATION

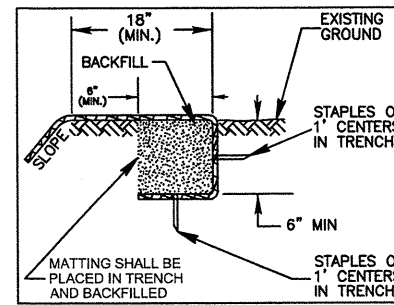
SHEET 1 OF 1  
1631.01



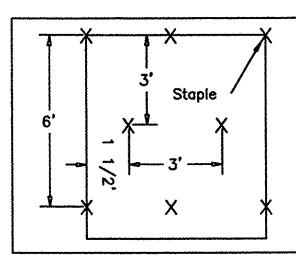
**MATTING IN DITCHES**



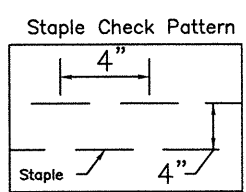
**MATTING ON SLOPES**



**DIAGRAM (A)**



**DIAGRAM (B)**



**DIAGRAM (C)**

**NOTES:**

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED.  
STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 8 INCHES IN LENGTH.

NOT TO SCALE

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
MATTING INSTALLATION

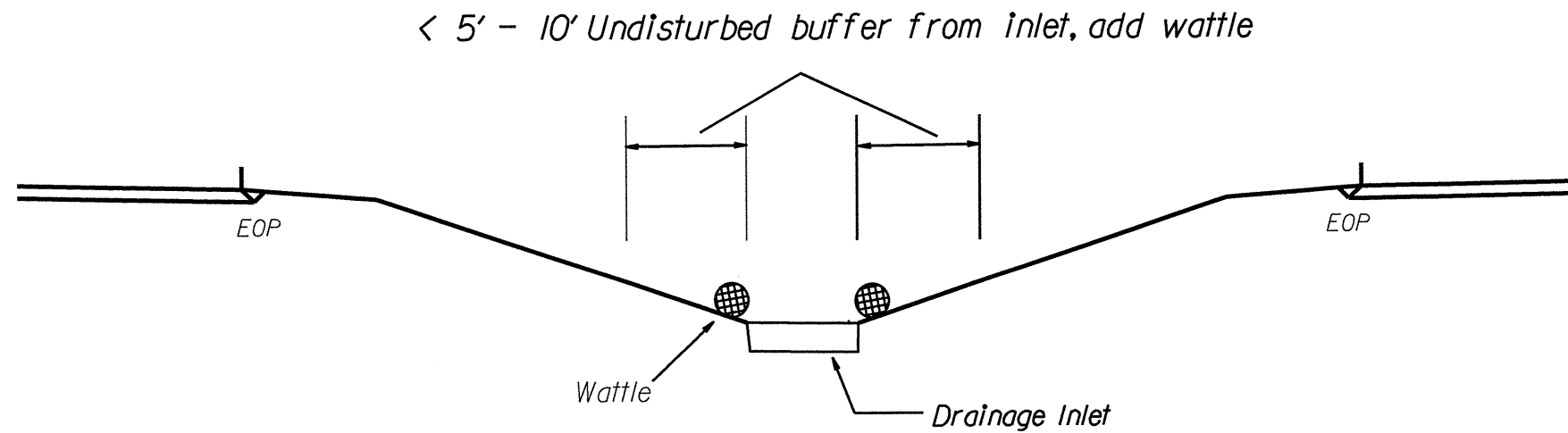
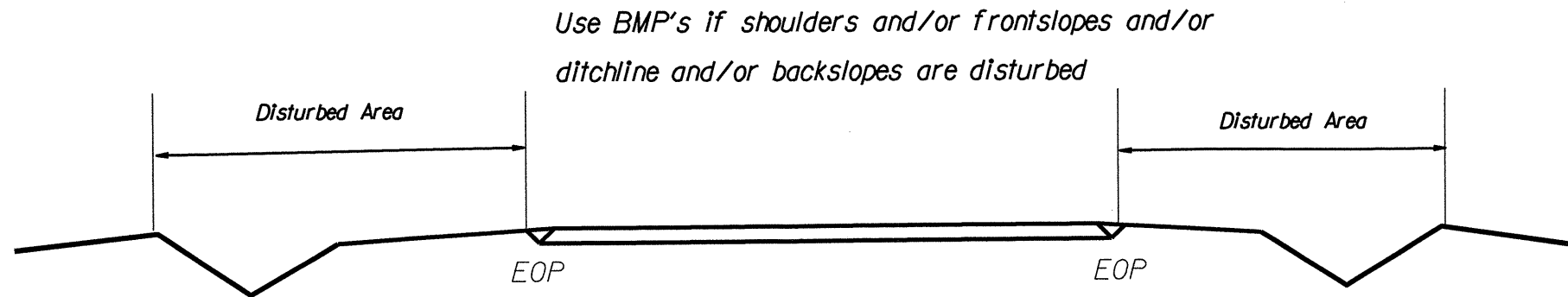
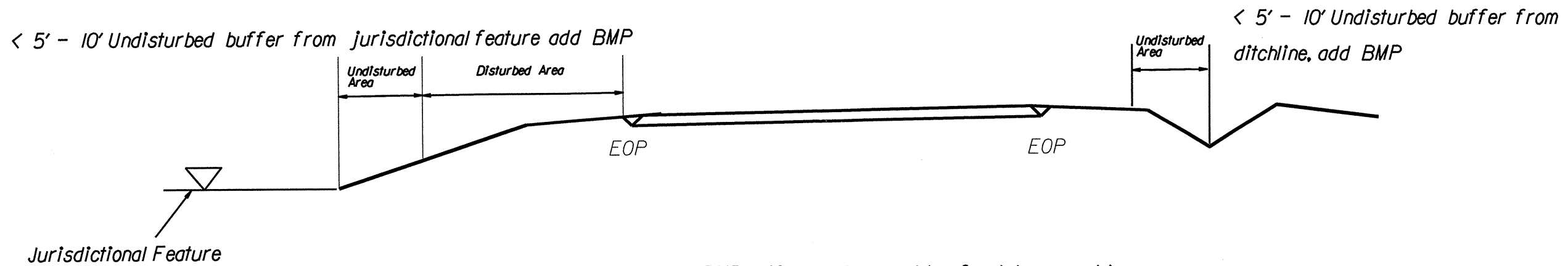
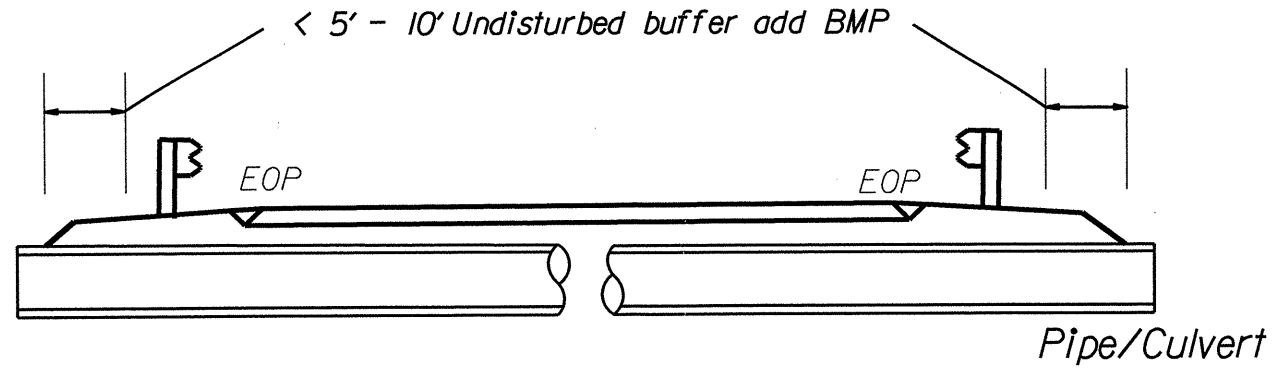
SHEET 1 OF 1  
1631.01

PROJECT REFERENCE NO. 6CR.10091.71	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

# EROSION CONTROL DETAIL



NOT TO SCALE

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10091.71, 6CR.20091.71 6CR.10241.71, ETC.	12	

## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1" MILLING SY	1 1/2" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	SURFACE COURSE, S4.75A TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	TEMPORARY SILT FENCE LF	MATTING FOR EROSION CONTROL SY	WATTLE LF	POLYACRYLAMIDE (PAM) LB	SEEDING & MULCHING ACR			
6CR.10091.71	Bladen	1	US 701 - A	FROM BEG. DIVIDED HWY TO END DIVIDED HWY	1	NO	0.49	60	12	0.98			3,755	44		1,461			88	10		20			1.00			
		2	US 701 - B	FROM END DIVIDED HWY TO BEGIN DIVIDED HWY	2	NO	1.42	44	6	2.84					178		2,449			147	5		57			0.65		
		3	US 701 - C	FROM BEGIN DIVIDED HWY TO END DIVIDED HWY	1	NO	0.46	60	11	0.92					44		1,373			82	9		18			1.00		
		4	US 701 - D	FROM END OF DIVIDED HWY TO WCL OF WHITE LAKE	2	NO	0.96	58	15	1.92					44		2,536			152	13		38			2.00		
		5	US 701 - E	FROM THE WCL OF WHITE LAKE TO NCL OF WHITE LAKE	1	NO	0.92	72	17	1.84					89		2,881			173	14		37			2.00		
		6	US 701 - F	FROM NCL WHITE LAKE TO THE SAMPSON CO. LINE	3	NO	9	24	216	18.00					2,112	622	662	10,998			689	180		360			22.00	
<b>TOTAL FOR PROJ NO. 6CR.10091.71</b>							<b>13.25</b>		<b>277</b>	<b>26.50</b>			<b>5,867</b>	<b>1,021</b>	<b>662</b>	<b>21,698</b>			<b>1,331</b>	<b>231</b>		<b>530</b>			<b>28.65</b>			
6CR.20091.71	Bladen	7	SR 1129	FROM SR 1128 TO DEAD END	8	NO	0.5	20	12					89				323	22	20								
		8	SR 1130	FROM SR 1129 TO SR 1128	8	NO	0.23	20	6						44				149	10	9							
		9	SR 1192	FROM SR 1130 TO SR 1128	8	NO	0.09	20	2						44				63	4	4							
		10	SR 1150	FROM END OF 3-LANE TO NC 87	4	NO	1.16	24	17	2.32					356	85		1,445			101	28		46			2.00	
		11	SR 1509	FROM SR 1524 TO SR 1505	4	NO	2.89	20	69	5.78					89	213		3,021			212	116		116			7.00	
		12	SR 1510	FROM SR 1511 TO SR 1509	4	NO	1.39	20	33	2.78					89	103		1,466			103	56		56			3.00	
		13	SR 1755	FROM SR 1756 TO SR 1001	4	NO	0.68	18	16	1.36					44	51		649			46	27		27			2.00	
		14	SR 1756	FROM SR 1755 TO COLUMBUS CO. LINE	4	NO	0.88	20	21	1.76					44	66		925			65	35		35			2.00	
		15	SR 1760	FROM US 701 BUS TO SR 1710	4	NO	3.23	18	78	6.46					1,267	133	239		3,058			215	129		129		8.00	
		<b>TOTAL FOR PROJ NO. 6CR.20091.71</b>							<b>11.05</b>		<b>254</b>	<b>20.46</b>			<b>1,267</b>	<b>932</b>	<b>757</b>		<b>10,564</b>	<b>535</b>	<b>778</b>	<b>424</b>		<b>409</b>			<b>24.00</b>	
		6CR.10241.71	Columbus	16	US 76 - A	FROM NC 904 TO HAMER ST.	5	NO	0.31	36				6,547		133		588			35	12						
				17	US 76 - B	FROM HAMER ST. TO SR 1500	6	NO	3.07	26	74	6.14	39,623			89	2,482	4,019			350	61		123			7.00	
				18	US 76 - C	FROM SR 1500 TO SR 1574	7	NO	9.25	24	222	18.50	136,341			1,267	533	681	11,787			737	185		370			22.00
		<b>TOTAL FOR PROJ NO. 6CR.10241.71</b>							<b>12.63</b>		<b>296</b>	<b>24.64</b>			<b>1,267</b>	<b>755</b>	<b>3,163</b>	<b>16,394</b>			<b>1,122</b>	<b>258</b>		<b>493</b>			<b>29.00</b>	
		6CR.20241.71	Columbus	19	SR 1002	FROM US 701 TO NC 410	4	NO	5.78	22	139	11.56			516	578	427		6,741			470	231		867		416	17
20	SR 1103			FROM SR 1108 TO NC 904	4	NO	4.2	18	101	8.40				267	309		4,002			282	168		135		65	3	10.00	
21	SR 1108			FROM SR 1118 TO SR 1103	4	NO	0.9	20	22	1.80				89	66		958			67	36		441		212	9	2.00	
22	SR 1128			FROM NC 904 TO SR 1006	4	NO	1.18	20	28	2.36				133	88		1,248			87	47		177		47	85	4	3.00
23	SR 1129			FROM SR 1128 TO NC 904	4	NO	0.89	20	21	1.78				44	66		935			66	36		134		36	64	3	2.00
24	SR 1166			FROM SR 1162 TO SR 1170	4	NO	1.49	18	36	2.98				133	110		1,431			101	60		224		60	107	5	4.00
25	SR 1740			FROM U S74 TO NC 214	4	NO	0.55	20	13	1.10				89	40		595			42	22		83		22	40	2	1.00
26	SR 1914			FROM NC 214 TO SR 1912	4	NO	1.5	18	36	3.00				133	110		1,440			101	60		225		60	108	5	4.00
27	SR 1185			FROM SR 1170 TO SR 1186	8	NO	0.14	18	3					44					85	6		6						
28	SR 1186			FROM SR 1185 TO SR 1187	8	NO	0.07	18	2					44					46	3		3						
29	SR 1187			FROM SR 1170 TO SR 1186	8	NO	0.16	18	4					44					96	7		6						
30	SR 1198			FROM US 701 TO SR 1202	8	NO	0.37	20	9					44					265	18		15						
31	SR 1199			FROM SR 1198 TO END MAINT.	8	NO	0.15	20	4					44					100	7		6						
32	SR 1200			FROM SR 1198 TO END MAIN	8	NO	0.07	20	2					44					51	3		3						
33	SR 1201			FROM SR 1198 TO SR 1202	8	NO	0.19	20	5					44					125	9		8						
34	SR 1202			FROM SR 1166 TO SR 1201	8	NO	0.27	20	6					44					174	12		11						
35	SR 1203			FROM SR 1198 TO END MAINT	8	NO	0.12	20	3					44					81	6		5						
36	SR 1204			FROM SR 1203 TO END MAINT	8	NO	0.12	20	3					44					81	6		5						
37	SR 1568			FROM US 701 TO END MAINT	8	NO	0.5	20	12					44					316	21		20						
38	SR 1569			FROM SR 1551 TO SR 1568	8	NO	0.2	20	5					44					131	9		8						
39	SR 1570			SR 1551 TO SR 1568	8	NO	0.2	20	5					44					131	9		8						
40	SR 1571			FROM SR 1551 TO SR 1568	8	NO	0.21	20	5					44					137	9		8						
41	SR 1749			FROM US 701 TO DEAD END	8	NO	0.83	20	20					44					519	35		33						
42	SR 1760			FROM SR 1749 TO PVMT CHANGE	8	NO	0.22	20	5					44					143	10		9						
43	SR 1761	FROM SR 1760 TO END PVMT	8	NO	0.43	20	10					44					272	18		17								
<b>TOTAL FOR PROJ NO. 6CR.20241.71</b>							<b>20.74</b>		<b>499</b>	<b>32.98</b>			<b>516</b>	<b>2,392</b>	<b>1,216</b>		<b>17,350</b>	<b>2,753</b>	<b>1,404</b>	<b>831</b>	<b>2,286</b>	<b>261</b>	<b>1,097</b>	<b>48</b>	<b>40.00</b>			
<b>GRAND TOTAL</b>							<b>57.67</b>		<b>1,326</b>	<b>104.58</b>			<b>175,964</b>	<b>6,547</b>	<b>8,917</b>	<b>5,100</b>	<b>5,798</b>	<b>38,092</b>	<b>27,914</b>	<b>3,288</b>	<b>4,635</b>	<b>1,744</b>	<b>2,286</b>	<b>1,693</b>	<b>1,097</b>	<b>48</b>	<b>121.65</b>	

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10091.71, 6CR.20091.71 6CR.10241.71, ETC.	13	

## THERMOPLASTIC AND PAINT QUANTITIES

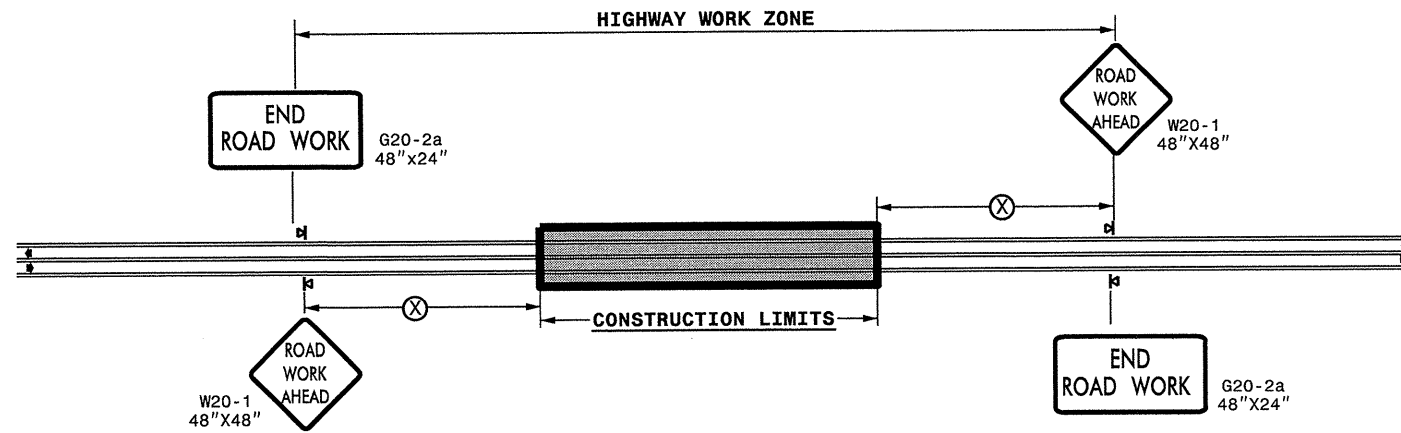
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4589000000-N	4685000000-E			4686000000-E			4695000000-E	4697000000-E	4710000000-E	4721000000-E					4725000000-E			4810000000-E		4900000000-N						
							TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M WHITE THERMO	4" X 120 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" X 120 M YELLOW THERMO	24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO MSG STOP 120 M	THERMO MSG AHEAD 120 M	THERMO MSG SCHOOL 120 M	THERMO STR ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR & LT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO RT ARROW 90 M	4" YELLOW PAINT	4" WHITE PAINT	CRYSTAL & RED MARKERS	YELLOW & YELLOW MARKERS						
NO							LS	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA					
6CR.10091.71	Bladen	1	US 701 - A	FROM BEG. DIVIDED HWY TO END DIVIDED HWY	0.49	60	1	4,000	4,000	1,000	1,000			250							10							50	16				
			2	US 701 - B	FROM END DIVIDED HWY TO BEGIN DIVIDED HWY	1.42	44	*	16,000		375	19,000			300									15						20	110		
			3	US 701 - C	FROM BEGIN DIVIDED HWY TO END DIVIDED HWY	0.46	60	*	5,400	5,000	700	1,500	700				8						16		2	1	9			75	25		
			4	US 701 - D	FROM END OF DIVIDED HWY TO WCL OF WHITE LAKE	0.96	58	*	10,300		1,350	11,100			700								6	5					7		60	110	
			5	US 701 - E	FROM THE WCL OF WHITE LAKE TO NCL OF WHITE LAKE	0.92	72	*	10,400	3,400	575	6,250	200		400			8						7	23				5		200	60	
			6	US 701 - F	FROM NCL WHITE LAKE TO THE SAMPSON CO. LINE	9	24	*	97,500	1,500	475	42,000			400									6						21	25	625	
TOTAL FOR PROJ NO. 6CR.10091.71							13.25	1	143,800	13,900	4,475	80,850	900	2,050	16				16				45	43	2	1	21			25	946		
								157,500		85,325						16				112									1,376				
6CR.20091.71	Bladen	7	SR 1129	FROM SR 1128 TO DEAD END	0.5	20																											
			8	SR 1130	FROM SR 1129 TO SR 1128	0.23	20																										
			9	SR 1192	FROM SR 1130 TO SR 1128	0.09	20																										
			10	SR 1150	FROM END OF 3-LANE TO NC 87	1.16	24		12,000			10,200						4	5													75	
			11	SR 1509	FROM SR 1524 TO SR 1505	2.89	20																										
			12	SR 1510	FROM SR 1511 TO SR 1509	1.39	20																										
TOTAL FOR PROJ NO. 6CR.20091.71							11.05									9	5																
									12,000		10,200					4	5																
									12,000		10,200				9														300				
6CR.10241.71	Columbus	16	US 76 - A	FROM NC 904 TO HAMER ST.	0.31	36	1				4,000																	4,000	25				
			17	US 76 - B	FROM HAMER ST. TO SR 1500	3.07	26	*	32,000			27,200																					
			18	US 76 - C	FROM SR 1500 TO SR 1574	9.25	24	*	89,950		375	59,050		530	100			24					30						27,200	32,000	20		
TOTAL FOR PROJ NO. 6CR.10241.71							12.63	1	121,950		375	90,250		530	100			24				30					90,250	122,325	651	45			
								121,950		90,625					24					30						212,575		696					
6CR.20241.71	Columbus	19	SR 1002	FROM US 701 TO NC 410	5.78	22		60,500			51,500																						
			20	SR 1103	FROM SR 1108 TO NC 904	4.2	18																										
			21	SR 1108	FROM SR 1118 TO SR 1103	0.9	20																										
			22	SR 1128	FROM NC 904 TO SR 1006	1.18	20																										
			23	SR 1129	FROM SR 1128 TO NC 904	0.89	20																										
			24	SR 1166	FROM SR 1162 TO SR 1170	1.49	18																										
			25	SR 1740	FROM U S74 TO NC 214	0.55	20		6,000		2,250																						
			26	SR 1914	FROM NC 214 TO SR 1912	1.5	18																										
			27	SR 1185	FROM SR 1170 TO SR 1186	0.14	18																										
			28	SR 1186	FROM SR 1185 TO SR 1187	0.07	18																										
			29	SR 1187	FROM SR 1170 TO SR 1186	0.16	18																										
			30	SR 1198	FROM US 701 TO SR 1202	0.37	20																										
			31	SR 1199	FROM SR 1198 TO END MAINT.	0.15	20																										
			32	SR 1200	FROM SR 1198 TO END MAIN	0.07	20																										
			33	SR 1201	FROM SR 1198 TO SR 1202	0.19	20																										
			34	SR 1202	FROM SR 1166 TO SR 1201	0.27	20																										
			35	SR 1203	FROM SR 1198 TO END MAINT	0.12	20																										
			36	SR 1204	FROM SR 1203 TO END MAINT	0.12	20																										
			37	SR 1568	FROM US 701 TO END MAINT	0.5	20																										
			38	SR 1569	FROM SR 1551 TO SR 1568	0.2	20																										
			39	SR 1570	SR 1551 TO SR 1568	0.2	20																										
			40	SR 1571	FROM SR 1551 TO SR 1568	0.21	20																										
			41	SR 1749	FROM US 701 TO DEAD END	0.83	20																										
42	SR 1760	FROM SR 1749 TO PVMT CHANGE	0.22	20																													
43	SR 1761	FROM SR 1760 TO END PVMT	0.43	20																													
TOTAL FOR PROJ NO. 6CR.20241.71							20.74		66,500		2,250	51,500															191,600	190,200	533				
								66,500		53,750																							
<b>GRAND TOTAL</b>					<b>57.67</b>		<b>1</b>	<b>344,050</b>	<b>13,900</b>	<b>7,100</b>	<b>232,800</b>	<b>900</b>	<b>2,580</b>	<b>115</b>	<b>16</b>	<b>4</b>	<b>5</b>	<b>24</b>	<b>45</b>	<b>73</b>	<b>2</b>	<b>1</b>	<b>21</b>	<b>453,690</b>	<b>494,825</b>	<b>1,081</b>	<b>1,824</b>						
								<b>357,950</b>		<b>239,900</b>						<b>49</b>				<b>142</b>				<b>948,515</b>		<b>2,905</b>							

23-AUC-2011E08  
 C:\DOT\DESIGN\GROUPS-WZTCCC\TMU\WZTC\Resur-facing\2011Resur-facing\2011Eastern\2011.D1v06\C202851A-D\_6CR.10091.71x4\_m3\_Bladen-Columbus\_US701US76\_mSRs\_AKP\Final Out\C202851A-D\_6CR.10091.71x4\_2wayundivvrbfrwys.july200  
 ckpatel AT TE244748

WBS ELEMENTS: 6CR.10091.71, 6CR.10241.71,  
6CR.20091.71 & 6CR.20241.71

PROJ. REFERENCE NO. SEE TO THE LEFT	SHEET NO. TCP-1
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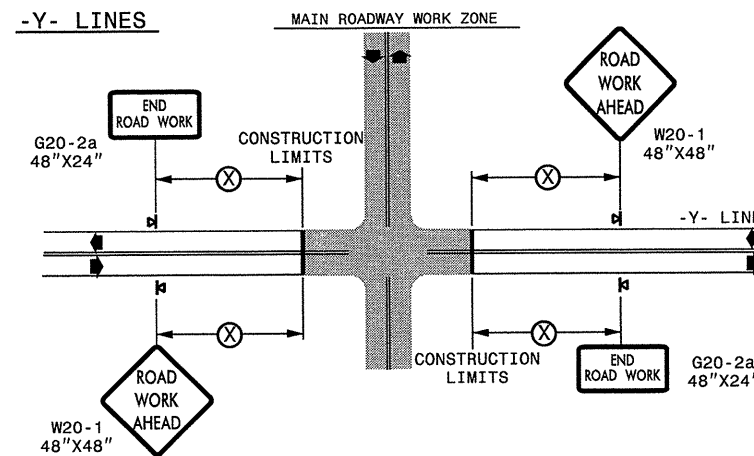
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)**



**GENERAL NOTES**

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCE WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

- ◀ PORTABLE SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

**DETAIL DRAWING  
FOR TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS**






SHEET 1 OF 1

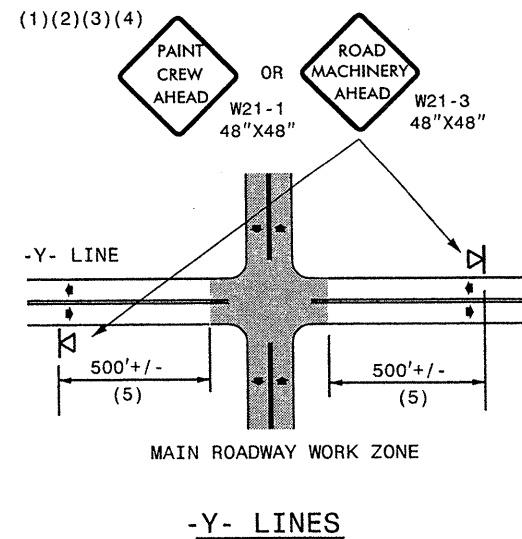
APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED ADVANCED WORK ZONE WARNING SIGNS	
SEAL 	SCALE: NONE	
	DATE: 12/10	
	DWG. BY: _____	
	DESIGN BY: _____	
REVIEWED BY: _____	REVISIONS	

## GENERAL NOTES

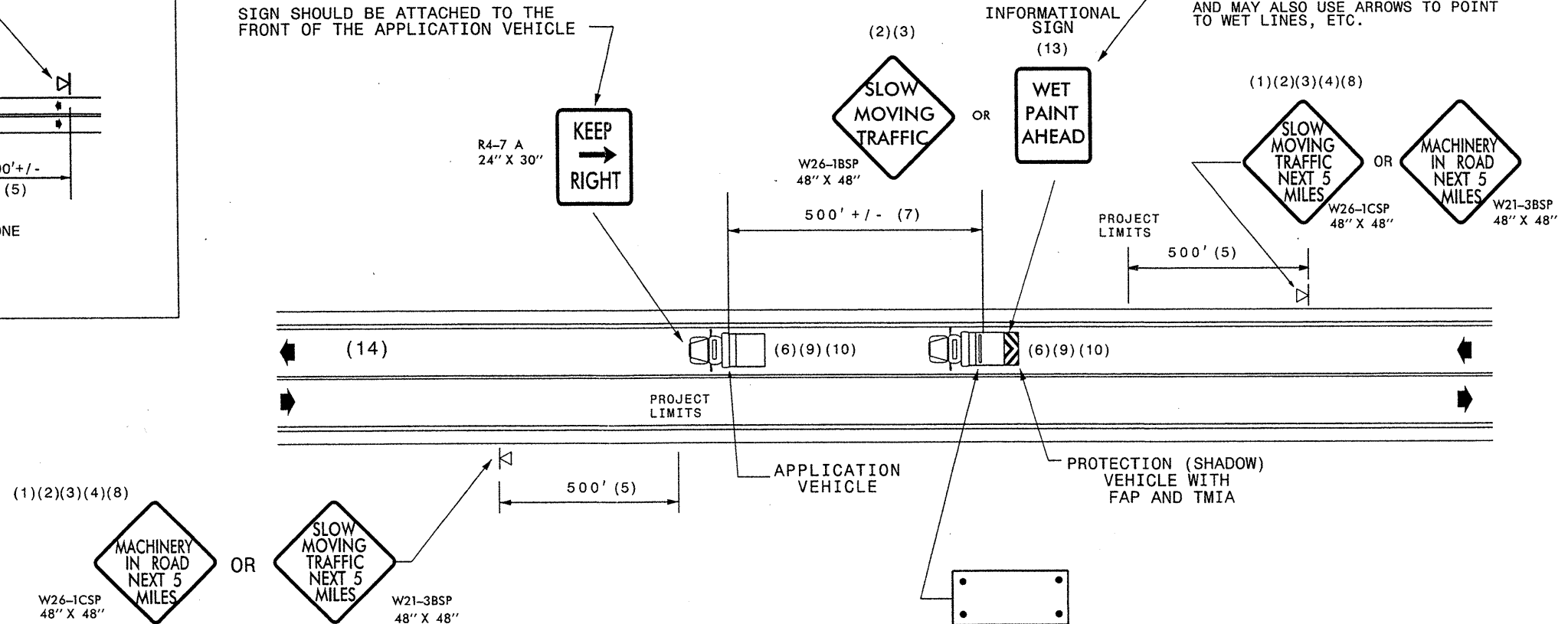
- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
  - A. TRUCK MOUNTED SIGNS
  - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
  - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
  - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.
- (13) INFORMATIONAL SIGNS SHOULD BE ACTIVITY SPECIFIC, i.e. "PAINT CREW IN ROAD". SIGNS MAY BE RECTANGULAR OR DIAMOND SHAPE. SIGN SIZE SHOULD BE BASED ON THE MOTORIST ABILITY TO RECOGNIZE SIGN WHEN TRAVELING FIVE (5) MILES ABOVE POSTED SPEED LIMIT.
- (14) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

## LEGEND

-  PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
-  FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), "CAUTION MODE"



SIGN SHOULD BE ATTACHED TO THE FRONT OF THE APPLICATION VEHICLE



# MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)  
PLACING PAVEMENT MARKING OR MARKERS  
ON TWO-LANE TWO-WAY ROADWAYS








**DRAWING NUMBER 6**  
IMPLEMENTATION DATE: 07/01/97  
REVISED: 11/03/04

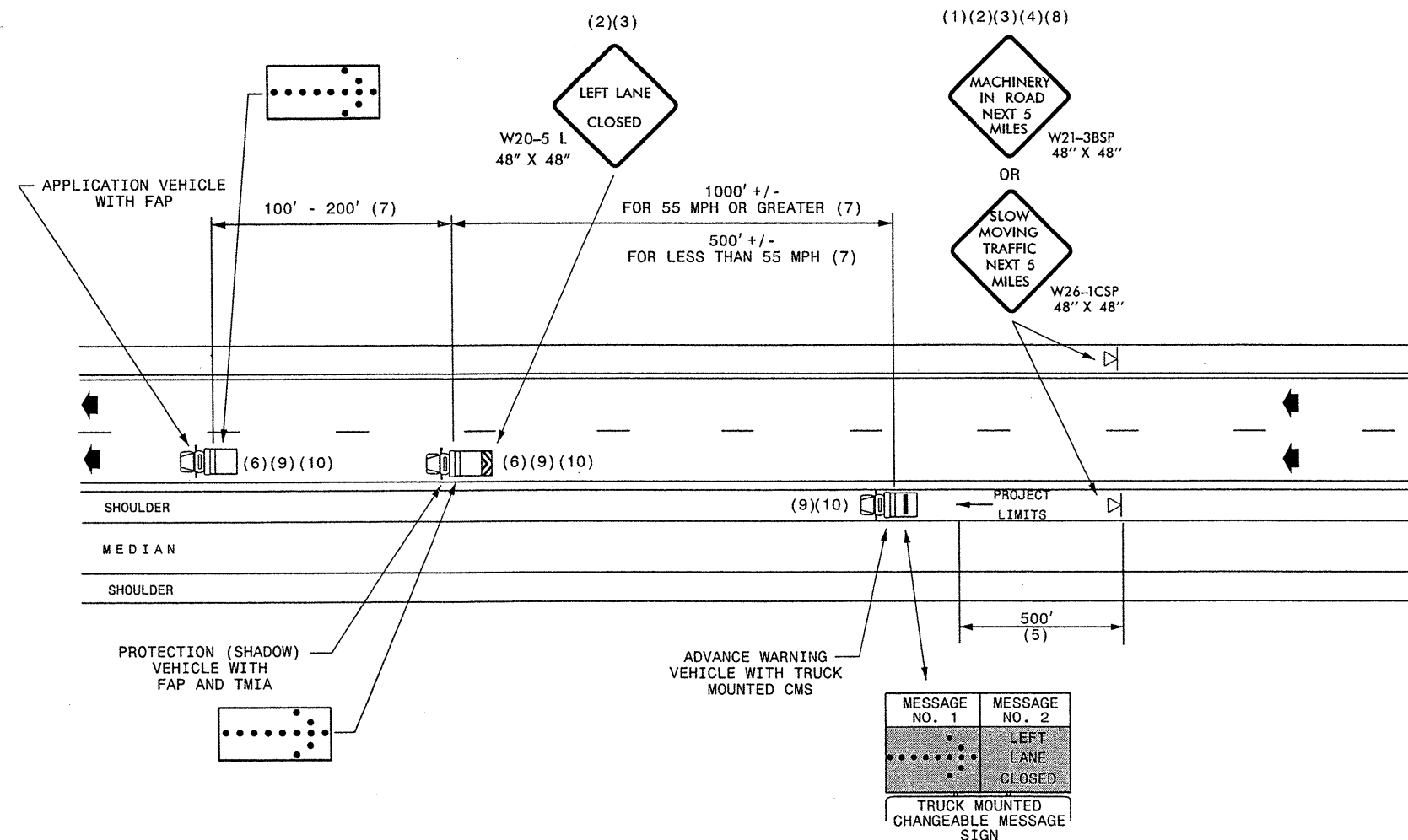
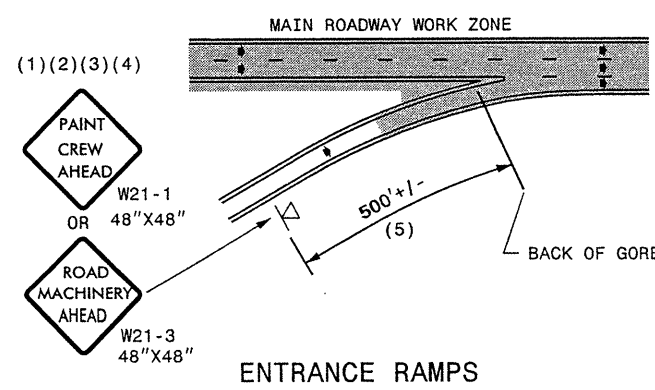
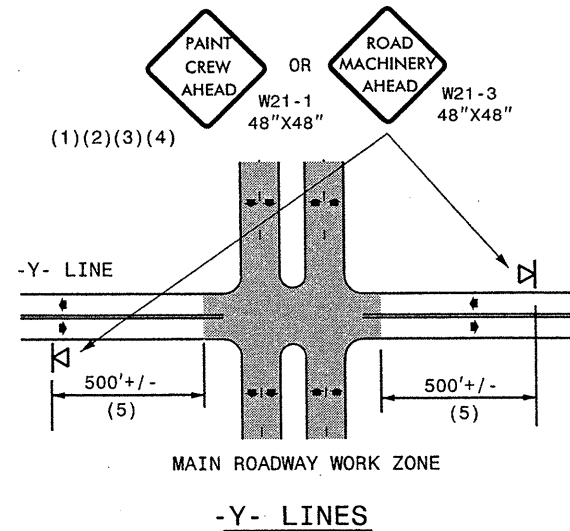
## GENERAL NOTES

- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
  - A. TRUCK MOUNTED SIGNS
  - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
  - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
  - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF FIVE (5) FEET FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.

- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.

## LEGEND

-  PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
-  ADVANCE WARNING VEHICLE WITH TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS) AND LIGHT BAR. MESSAGE SIGN LETTER HEIGHT SHOULD BE A MINIMUM OF 10 INCHES.
-  FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), APPROPRIATE DIRECTION INDICATED
-  CHANGEABLE MESSAGE SIGN



# MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)  
PLACING PAVEMENT MARKING OR MARKERS  
ON NON-INTERSTATE MULTILANE DIVIDED ROADWAYS

**DRAWING NUMBER 7**  
IMPLEMENTATION DATE: 07/01/97  
REVISED: 11/03/04