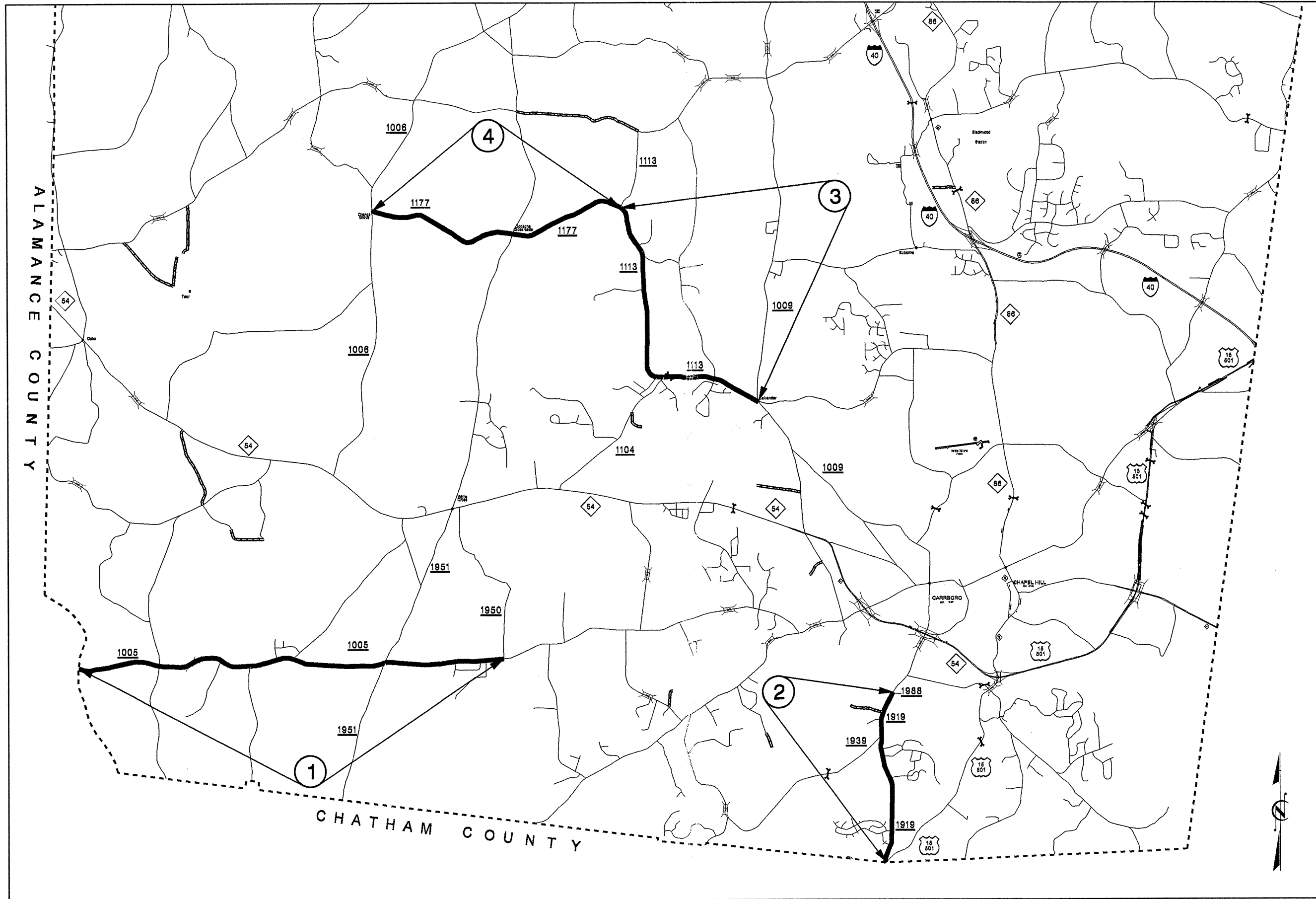


# 2012 ORANGE COUNTY

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	7C.068096, ETC	1	4

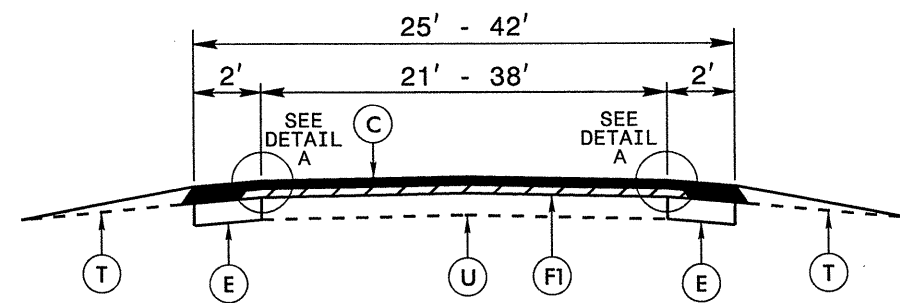
7C.068096  
7C.068097  
7C.068098



19-SEP-2011 14:26 S:\Contracts\Resurfacing Projects\Division 7\orange\CADD\orange\_vicinity.dgn  
Author: AL\_CS0237501

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7C.068096, ETC	2	4

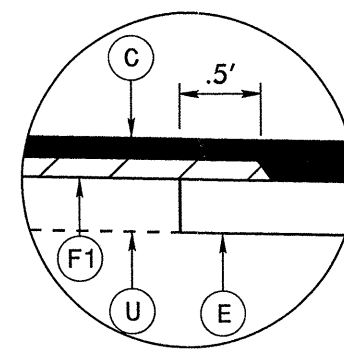
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7C.068098



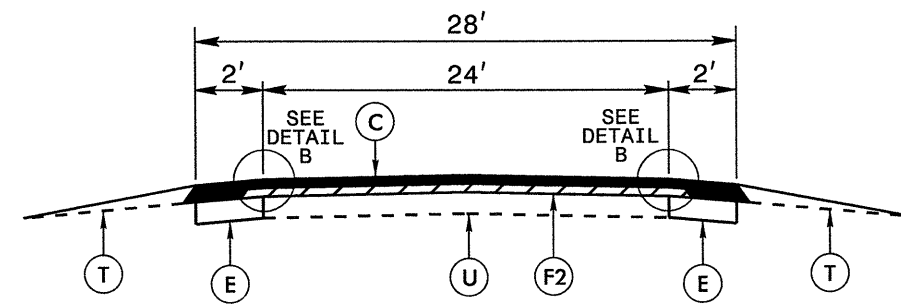
\*NOTE: ON MAP 1: NO PAVEMENT ON BRIDGE #84 FROM STA. 71+45 TO STA. 72+35

**TYPICAL SECTION NO. 1**

TO BE USED ON MAPS 1, 3, AND 4

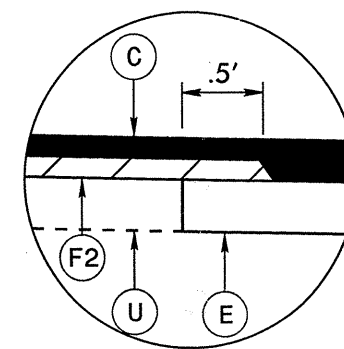


**DETAIL A**



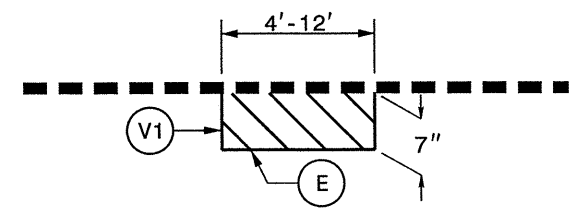
**TYPICAL SECTION NO. 2**

TO BE USED ON MAP 2



**DETAIL B**

**MILLING DETAIL 1**



MILL EXISTING ASPHALT PAVEMENT 7" IN DEPTH AND FILL WITH BASE COURSE, TYPE B25.0B AT LOCATIONS AS DIRECTED BY THE ENGINEER.

TO BE USED IN CONJUNCTION WITH MAPS 1, 2, 3, AND 4

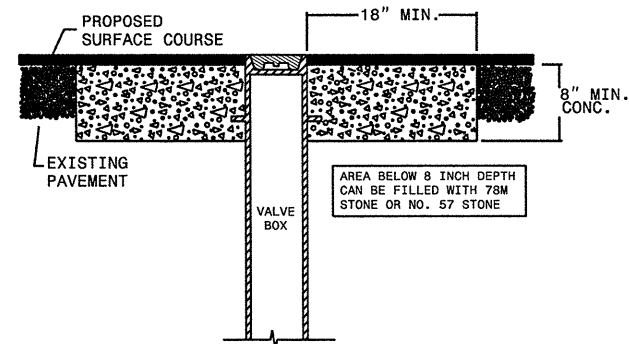
- MAP 1: 7" MILLING = 4386 SYD  
BASE COURSE, TYPE B25.0B = 1750 TON
- MAP 2: 7" MILLING = 752 SYD  
BASE COURSE, TYPE B25.0B = 300 TON
- MAP 3: 7" MILLING = 2005 SYD  
BASE COURSE, TYPE B25.0B = 800 TON
- MAP 4: 7" MILLING = 406 SYD  
BASE COURSE, TYPE B25.0B = 162 TON

**PAVEMENT SCHEDULE**

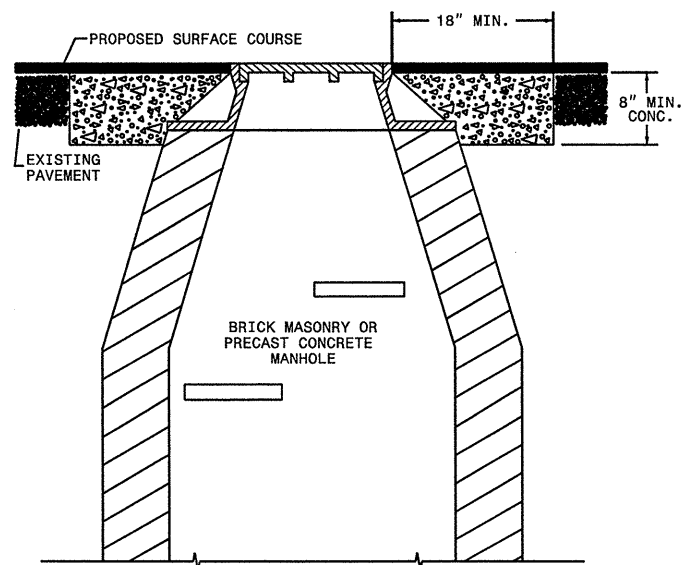
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
F1	AST MAT COAT, #67 STONE
F2	AST MAT COAT, #78M STONE
T	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.
U	EXISTING PAVEMENT.
V1	7" MILLING

I:\0-001-20110918  
Z:\2012 CR\_Results\Orange\7C.068096, 7C.068097, 7C.068098\CADD\typical1.dgn  
sdktng AL D7H023843

STANDARD CONCRETE ENCASEMENT FOR MANHOLE & VALVE CASTINGS IN PAVEMENT  
DETAIL DRAWING NO. 858.01

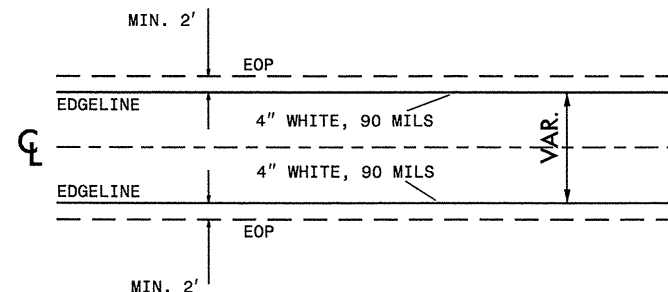


USE RAPID SET GROUT, MORTAR, OR CONCRETE CLASS B CONCRETE MAY BE USED WHEN ADJUSTMENTS ARE NOT IN THE TRAVEL LANE.



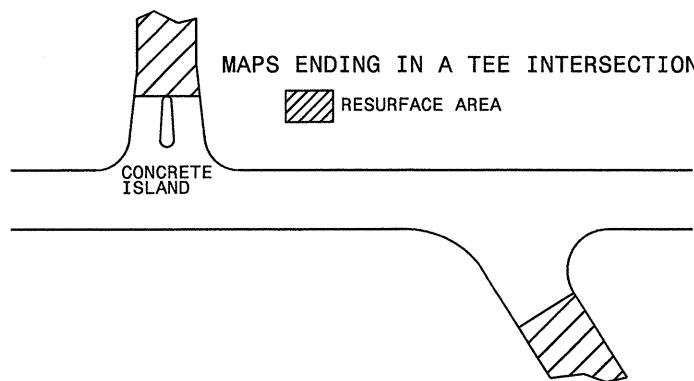
- NOTES:
- MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
  - ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
  - EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
  - RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED

STRIPING DETAIL 1  
GENERAL STRIPING DETAIL FOR ENTIRE PROJECT



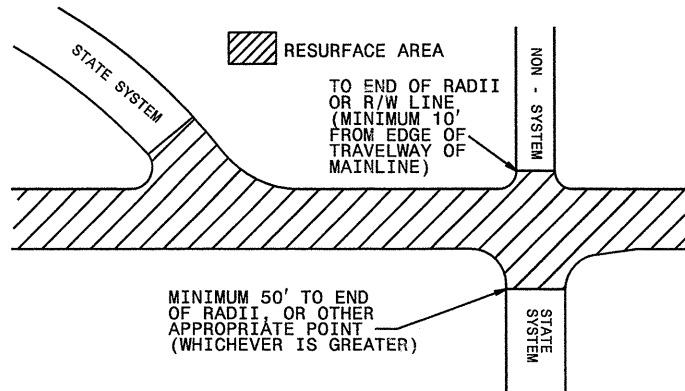
- NOTE:
- TO BE USED IN CONJUNCTION WITH TYPICAL SECTION NO. 1, 2, 3, & 4
  - USE IN CONJUNCTION WITH THE EXISTING PAVEMENT MARKINGS TO ESTABLISH THE STRIPING.
  - USE IN CONJUNCTION WITH THE NCDOT STANDARD DRAWINGS.

PAVING DETAIL 1  
MAIN LINE IS NOT BEING RESURFACED

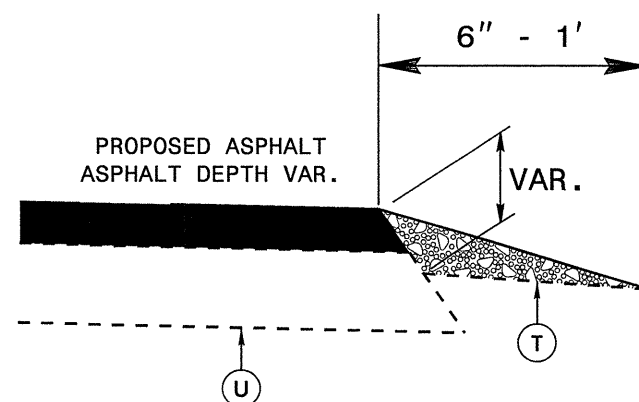


PAVING DETAIL 2  
MAIN LINE IS BEING RESURFACED

NOTE: NON-SYSTEM (CITY STREET, PRIVATE DRIVE, SCHOOL BUS DRIVE)

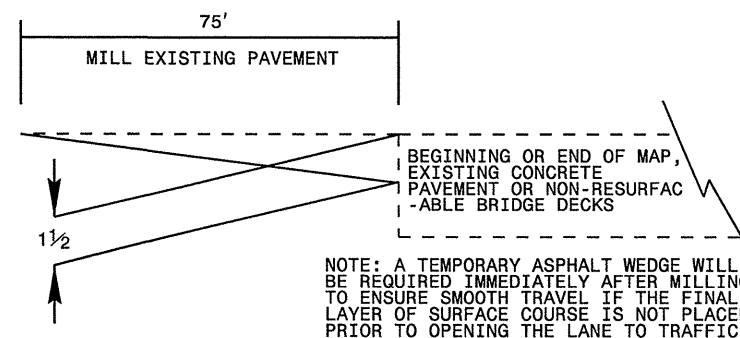


INCIDENTAL STONE SHOULDER DETAIL



NOTE: ASB OR ABC STONE SHOULD BE PLACED AT THE DESGRESSION OF THE ENGINEER

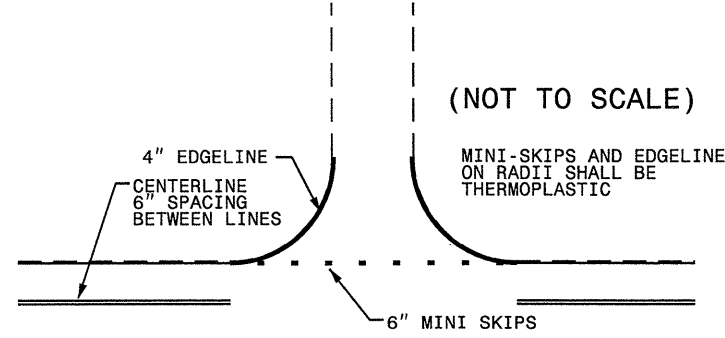
INCIDENTAL MILLING DETAIL



PAVEMENT SCHEDULE

C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
F1	AST MAT COAT, #67 STONE
F2	AST MAT COAT, #78M STONE
T	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.
U	EXISTING PAVEMENT.
V1	7" MILLING

TO BE USED AT ALL  
NON-SIGNALIZED INTERSECTIONS



NOTE: MINI SKIPS SHALL BE PLACED ON A 10' CYCLE, CONTAINING AN 8' AND 2' SKIP, THE WIDTH OF THE SKIP SHALL BE 6".

PROJECT NO.	SHEET NO.	TOTAL NO.
7C.068096, 7C.068097 7C.068098,	4	4

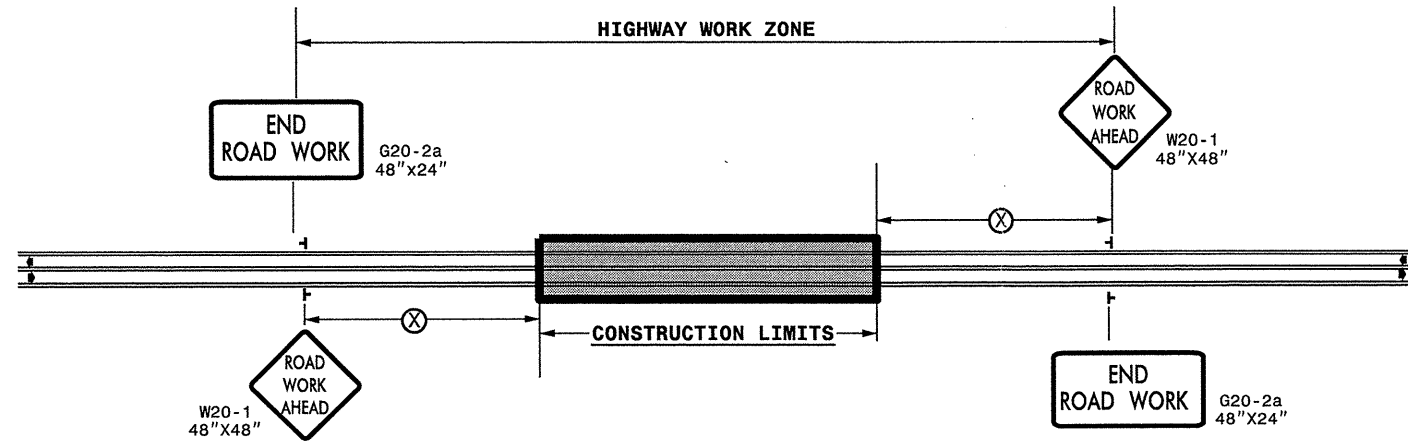
### SUMMARY OF QUANTITIES

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP NO.	FINAL SURFACE TESTING REQUIRED	LENGTH MI.	WIDTH FT.	BORROW EXCAVATION CY.	INCIDENTAL STONE BASE TONS.	SHOULDER RECONSTRUCTION SMI.	MILLING ASPHALT PAVEMENT, 7" DEPTH SY.	INCIDENTAL MILLING SY.	ASPHALT CONC BASE COURSE, TYPE B25.0B TONS.	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TONS.	ASPHALT BINDER FOR PLANT MIX TONS.	ASPHALT SURFACE TREATMENT, MAT COAT, #78M STONE SY.	GENERIC PAVING ITEM - [ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE] SY.	ADJ. OF MANHOLES EA.	ADJUSTMENT OF METER BOXES OR VALVE BOXES EA.	SEEDING & MULCHING AC.	GENERIC EROSION CONTROL ITEM - [RESIDENTIAL SEEDING] AC.					
7C.068096	Orange	1	SR 1005 (OLD GREENSBORO ROAD)	FROM ALAMANCE COUNTY LINE TO NEW PAVEMENT AT SR 1950 (CARL DURHAM ROAD)	1	NO	0.004	35	19	263	10.12	4,386	292	1,754	8	78	82				1.84	1.84					
					1	NO	0.005	28-37									5	9	1	97							
					1	NO	0.028	28										30	44	4	483						
					1	NO	0.227	22-28										244	321	32	3,467						
					1	NO	1.085	22										1,164	1,419	146	14,643						
					1	NO	0.004	22-27									208	4	6	1	59						
					BRIDGE #84				1	NO	0.017	27															
									1	NO	0.005	21-27					200	5	7	1	70						
									1	NO	3.688	21							3,957	4,767	493	47,606					
					TOTAL FOR MAP NO. 1						5.063		19	263	10.12	4,386	700	7,163	6,581	756		66,507			1.84	1.84	
TOTAL FOR PROJ NO. 7C.068096						5.063		19	263	10.12	4,386	700	7,163	6,581	756		66,507			1.84	1.84						
7C.068097	Orange	2	SR 1919 (SMITH LEVEL ROAD)	FROM JOINT 582' SOUTH OF SR 1988 (WOODCREST DRIVE TO JOINT NORTH US 15-501)	2	NO	1.854	24	19	120	3.71	752		2,289	2,715	283	27,192		1	6	0.67	0.67					
					TOTAL FOR MAP NO. 2						1.854		19	120	3.71	752		2,289	2,715	283	27,192		1	6	0.67	0.67	
					TOTAL FOR PROJ NO. 7C.068097						1.854		19	120	3.71	752		2,289	2,715	283	27,192		1	6	0.67	0.67	
7C.068098	Orange	3	SR 1113 (DAIRYLAND ROAD)	FROM SR 1113 (ROCKY RIDGE ROAD) TO SR 1009 (OLD NC 86)	1	NO	2.76	21	19	165	7.00	406		3,123	3,518	373		35,628			1.27	1.27					
					1	NO	0.14	26-30									150	205	20	2,179							
					1	NO	0.054	30										58	130	11	982						
					1	NO	0.092	22-26										99	134	13	1,455						
					1	NO	0.343	22										368	435	45	4,626						
					1	NO	0.112	30-38										120	185	18	2,032						
		TOTAL FOR MAP NO. 3						3.501		19	165	7.00	406		3,918	4,607	480		46,902			1.27	1.27				
4	SR 1177 (DAIRYLAND ROAD)	FROM SR 1006 (ORANGE GROVE ROAD) TO SR 1113 (ROCKY RIDGE ROAD)	1	NO	3.278	21	19	145	6.56	2,005			4,317	4,061	462		42,313			1.19	1.19						
			TOTAL FOR MAP NO. 4						3.278		19	145	6.56	2,005	4,317	4,061	462		42,313			1.19	1.19				
TOTAL FOR PROJ NO. 7C.068098						6.779		38	310	13.56	2,411			8,235	8,668	942		89,215			2.46	2.46					
GRAND TOTAL						13.696		76	693	27.39	7,549	700	17,687	17,964	1,981		27,192	155,722	1	6	4.97	4.97					

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	LENGTH	WIDTH	4685000000-E	4686000000-E	4688000000-E	4690000000-E	4710000000-E	4721000000-E	4810000000-E		4820000000-E	4900000000-N		
							4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	6" X 90 M WHITE THERMO LF	6" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	YELLOW & YELLOW MARKERS EA		
7C.068096	Orange	1	SR 1005 (OLD GREENSBORO ROAD)	FROM ALAMANCE COUNTY LINE TO NEW PAVEMENT AT SR 1950 (CARL DURHAM ROAD)	5.063	22	53,470	46,786		212						375		
					TOTAL FOR MAP NO. 1				5.063		53,470	46,786	212					375
					TOTAL FOR PROJ NO. 7C.068096				5.063		53,470	46,786	212					375
7C.068097	Orange	2	SR 1919 (SMITH LEVEL ROAD)	FROM JOINT 582' SOUTH OF SR 1988 (WOODCREST DRIVE TO JOINT NORTH US 15-501)	1.854	24	18,380	18,591		50	6				250			
					TOTAL FOR MAP NO. 2				1.854		18,380	18,591	50	6			250	
					TOTAL FOR PROJ NO. 7C.068097				1.854		18,380	18,591	50	6			250	
7C.068098	Orange	3	SR 1113 (DAIRYLAND ROAD)	FROM SR 1113 (ROCKY RIDGE ROAD) TO SR 1009 (OLD NC 86)	3.501	21	900		214				72,638	69,084	742	275		
					TOTAL FOR MAP NO. 3				3.501		900	214			72,638	69,084	742	275
					4	SR 1177 (DAIRYLAND ROAD)	FROM SR 1006 (ORANGE GROVE ROAD) TO SR 1113 (ROCKY RIDGE ROAD)	3.278	21	450		76				66,540	60,058	
		TOTAL FOR MAP NO. 4						3.278		450	76			66,540	60,058		250	
		TOTAL FOR PROJ NO. 7C.068098				6.779		1,350		290			139,178	129,142	742	525		
GRAND TOTAL				13.696		73,200	65,377	290	212	50	6	139,178	129,142	742	1,150			

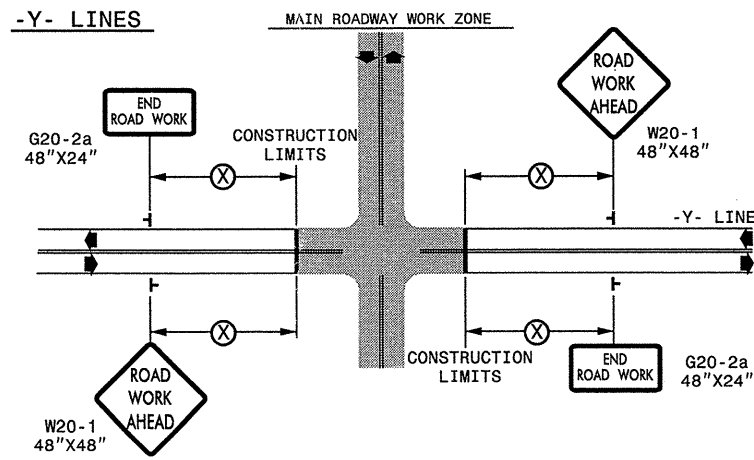
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



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 ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- \*\* 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**

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS






APPROVED: _____	DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
SEAL	SCALE: NONE	REVISIONS	
	DATE: 7-98	10/01	
	DWG. BY:	10-98	03/04
	DESIGN BY: 01/01	11/04	
REVIEWED BY:			

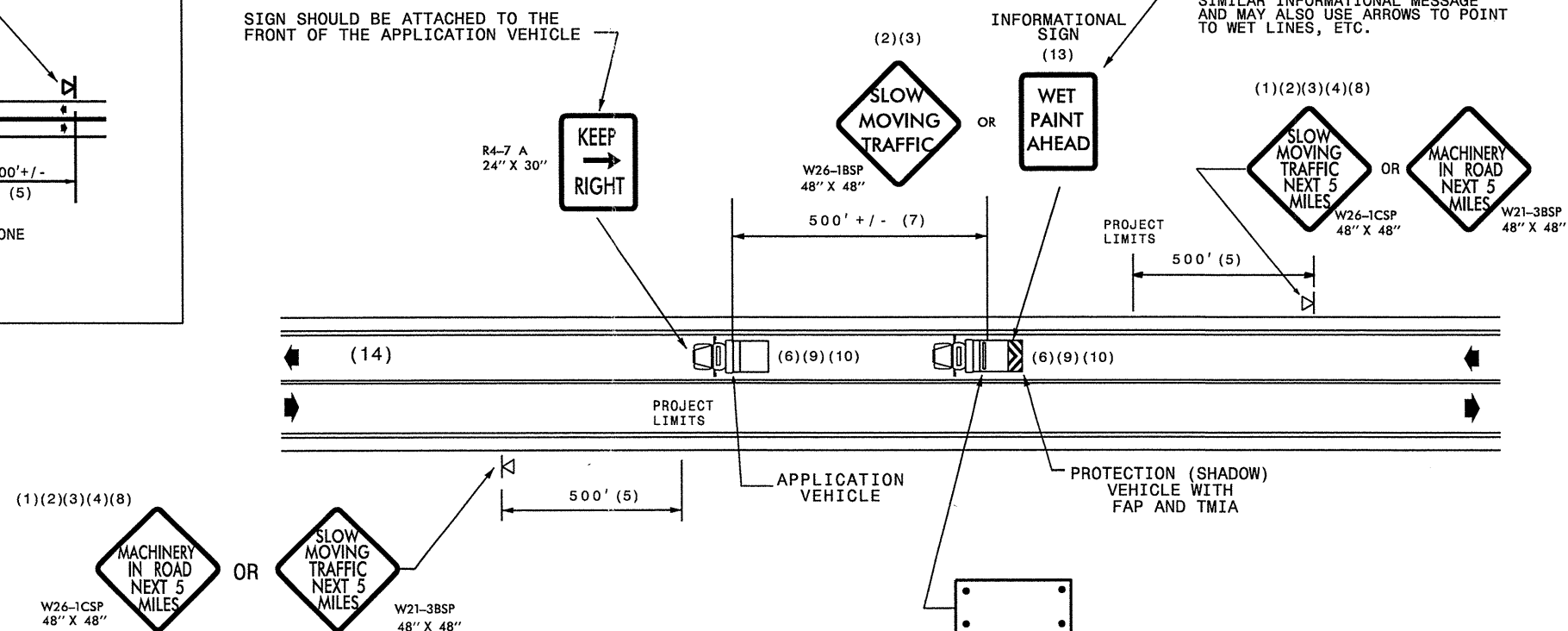
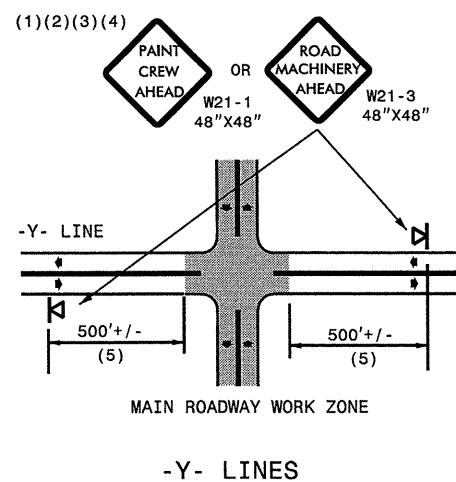
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 atfaukner AT TE237500

### 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"



## 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