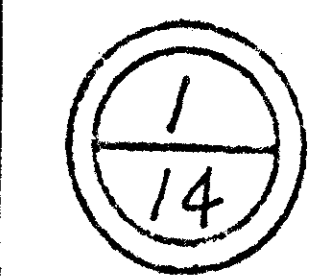


OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FHWA REGION	STATE	FEDERAL PROJECT			
5	OHIO				



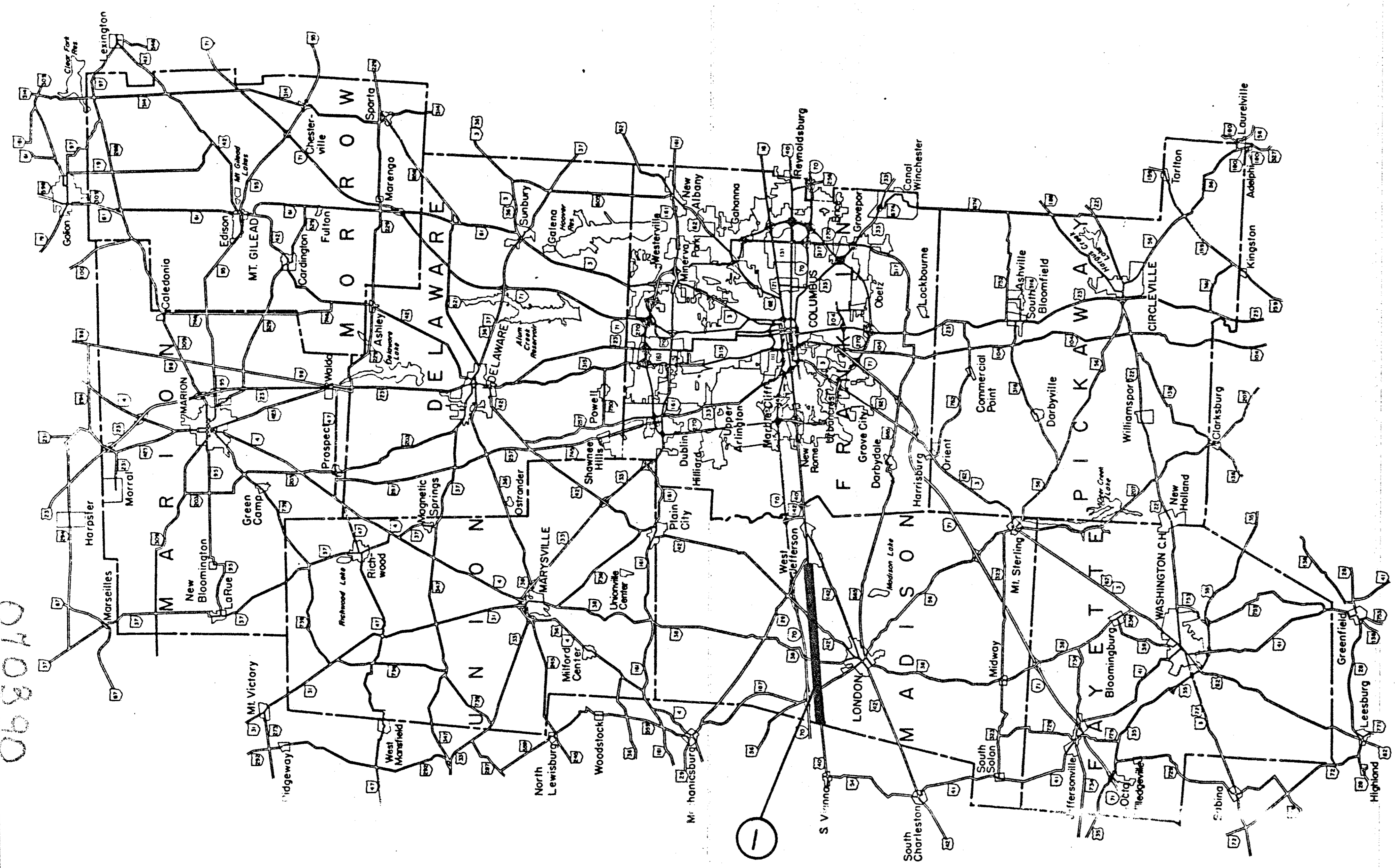
PLAN NO. 14

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINII		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	MAD	US-40	(0.00-7.71)	0.00	12.11	12.17	Somerset, Deer Creek, Jefferson		

The Standard 19 89 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. _____ and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. _____ and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

LOCATION MAP



Approved
Date 4-13-90 W. Howard Tweed
District Deputy Director of Transportation

Approved
Date 4-19-90 B. D. Hanfilanis
Engineer, Bureau of Bridges and Structural Design

Approved
Date 5-8-90 James R. Longenecker
Deputy Director, Operations

Approved
Date _____
Assistant Director, Department of Transportation

Approved
Date 5-9-90 Bernard B. Hurst
Director, Department Of Transportation

Title Sheet	1
Schematic	2
Mainline Pavement Calculations	2
Extra Areas & Deductions	3-4
Shoulder Calculations	5
Partial Depth Pavement Repair	6
Pavement Planing	6
Full Depth Pavement Repair	7
Pavement Marking	8-12
General Notes	13
General Summary	14

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS
BP-5	10-1-87	
MT-95.30	10-10-88	
MT-97.10	4-29-88	
MT-97.11	10-4-89	
MT-99.10	11-14-86	
MT-99.20	4-29-88	
TC-35.10	8-29-84	
TC 41.10	8-29-84	
TC 41.20	3-26-79	

— PORTION TO BE IMPROVED

001

06800

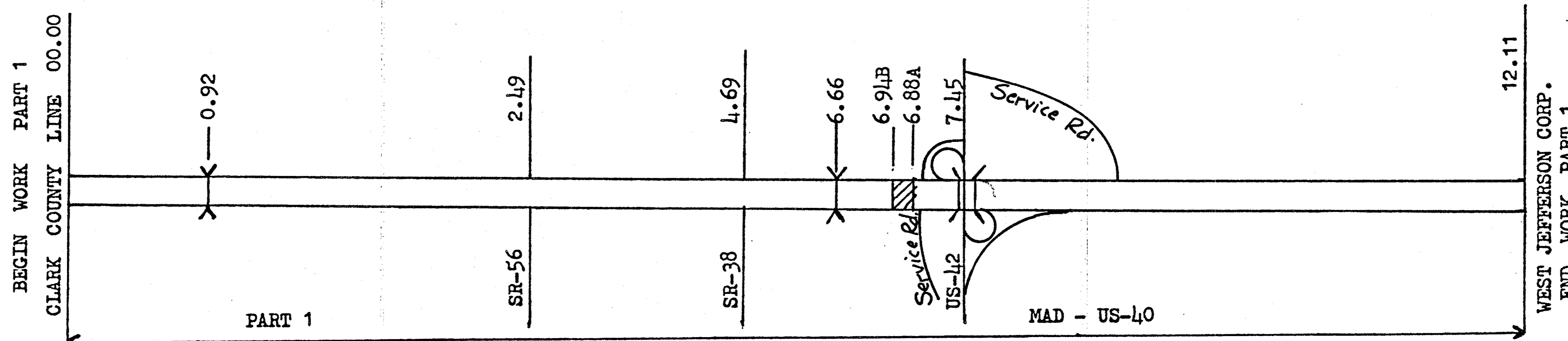
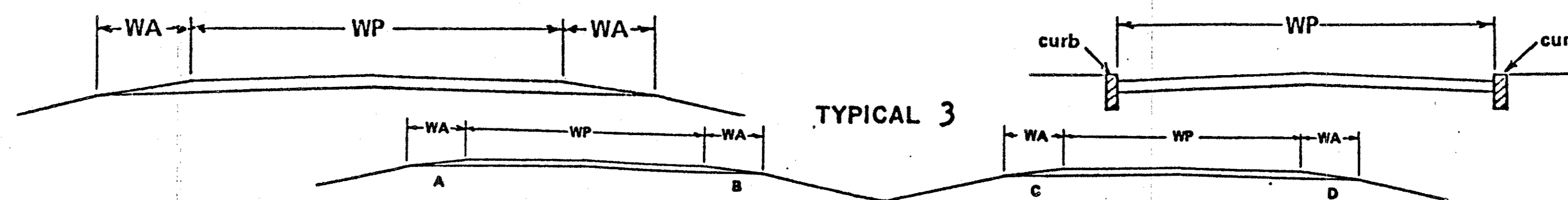
ASPHALT CONCRETE

PLAN NO.
19

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14

TYPICAL 1

TYPICAL 2

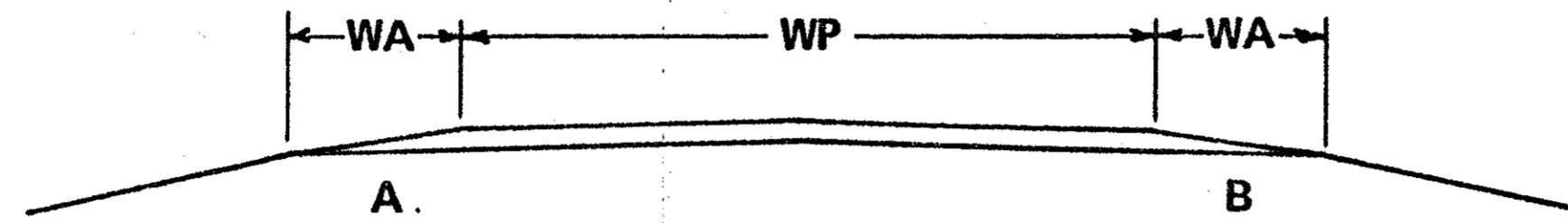


PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						TEMP. LANE LINE, CLASS II MILE	TEMP. CENTER LINE, CLASS II MILE			
									407		ASPHALT CONCRETE			617			202	604	604
			TACK COAT @ .10 gal./s.y. GALS.	COVER AGGR. @ .000... lbs./s.y. TONS					ITEM 404 THICK INCHES	ITEM 404 CU. YDS.	ITEM 404 THICK INCHES	ITEM 404 CU. YDS.	AGGREGATE TYPE A	RAISED PAVE. MARKERS REMOVED FOR STORAGE EACH			CATCH BASIN ADJUSTED TO GRADE EACH	INLET ADJUSTED TO GRADE EACH	MANHOLE ADJUSTED TO GRADE EACH
1	US-40	0.00 - 1.90	1.90	10,032	22/24	3	404	51,275									3.80		
		1.90 - 3.03	1.13	5,966	24/24	3	404	31,819									4	2.26	
		3.03 - 6.90B	3.87	20,434	24/24	3	404	108,981						1				7.74	
		6.90B- 6.94B	.04	211	68	2	404	1,594										.08	.04
		6.88A- 7.20	.32	1,690	68	2	404	12,769									4	.64	.32
		7.20 - 7.24	.04	211	48	1	404	1,125										.08	.04
		7.24 - 7.42	.18	950	24/24	3	404	5,067										.36	
		7.42 - 7.71	.29	1,531	24/22	3	404	7,825							1			.58	
1	US-40	7.71 - 12.11	4.40	23,232	24/24	3	404	123,904									8.80		
		Extra Areas from Sheet 4						48,865					474				.77	.86	
1	US-40	TOTAL PART 1	12.17	64,257				393,224	39,322	1 1/2	13,654		474	1015	2	4	4	25.11	1.26

SHOULDER TREATMENT

TYPICAL 1



TYPICAL 2



*NOTES

1. **SEAL COAT:** After completion of the mix the Seal Coat shall be applied when directed by the Engineer.
2. **PENETRATION CHOKE:** Choke to be applied in two applications; approximately 0.004 cu. yd./sq. yd. shall be applied immediately on the mix after initial rolling. Not earlier than two days nor later than five days following the final rolling the penetration coat and final choke application shall be performed in accordance with the provisions of 409.07 and 409.08.
3. **MIX BITUMINOUS MATERIAL:** Include 0.20 gal./sq. yd. to be applied as a penetration.
4. **PRIME COAT:** A minimum of 36 hours shall elapse after completion of Prime Coat before any subsequent treatment.
5. **MIX:** Mix to be completed on shoulders within ___ days following completion of the adjacent pavement.
6. **SHIELD:** The contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of the pavement or edgelines. The attention of the contractor is directed to 107.12 of the Specifications.
7. **APPLICATION RATE:** The rate of application for mix bituminous material shall be ___ gal. per sq. yd. for slag or ___ gal. per sq. yd. for gravel or stone.
8. **CENTRAL MIXING:** When central mixing is used, the mix bituminous material shall be reduced 0.20 - 0.25 gal./sq. yd. to prevent in-transit drainage and applied as a penetration.

5
14

PLAN NO.

SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	EXISTING TYPE - WIDTH(ft.)								AREA SQ. YDS.	407 TACK		405 MIX		408 PRIME	409 SEAL		617		*NOTES				
			MILES	LIN. FT.		A				B					C				Bit. Matl.	Cover Aggr.	MIX	CHOKE	PRIME		SEAL		Shoulder Preparation	Compacted Aggregate
						Type	Width	Type	Width	Type	Width	Type	Width		Type	Width	Type	Width							Type	Width		
			gal./s.y.	lbs./s.y.		gal./s.y.	c.y./s.y.	c.y./s.y.	gal./s.y.	c.y./s.y.	gal./s.y.	c.y./s.y.	gal./s.y.		c.y./s.y.	gal./s.y.	c.y./s.y.	Gals.	Tons	Gals.	Cu. Yds.	Cu. Yds.	Gals.		Gals.	Cu. Yds.	Sq. Yds.	Cu. Yds.
1	US-40	0.00 - 1.90	1.90	10,032	2	617	4	617	2	617	2	617	4	13,376										743				
		1.90 - 3.03	1.13	5,966	2	617	4					617	4	5,303										295				
		3.03 - 6.90B	3.87	20,434	2	617	4	617	2	617	2	617	4	27,245										1514				
		7.20 - 7.24	.04	211	1	617	4	617	4					188										10				
1	US-40	7.24 - 12.11	4.87	25,714	2	617	4	617	2	617	2	617	4	34,285										1905				
		TOTAL PART 1	11.81	62,357										80,397										4467				

③ ITEM 251/AL - PARTIAL DEPTH PAVEMENT REPAIR; AS PER PLAN

This item of work shall consist of partial depth removal of existing pavement in areas exhibiting deterioration at the surface, applying Tack Coat, and placing and compacting Asphalt Concrete.

The chart provided and The Engineer will designate the location and the limits of the areas to be repaired. The repair areas will be rectangular in shape with dimensions as required to envelop surface deterioration. Typical repair areas will extend the full width of a traffic lane. The depth of removal shall be as indicated on the plan.

The pavement shall be removed to the specified depth as shown or as directed by the Engineer, within the designated areas by planing. Care shall be taken so as not to loosen or otherwise damage adjacent pavement. Pavement so removed shall be disposed of in accordance with 203.05.

No pavement openings, for repair, shall be made that cannot be filled and opened to traffic within the same day working hours.

After removal of the pavement, item 407 Tack Coat, shall be applied in sufficient quantity to thoroughly coat the exposed surface and to fill cracks and joint openings.

Asphalt Concrete meeting the requirements of 402 shall then be placed and compacted in one or more lifts as necessary to finish flush with the adjacent pavement surface.

The number of cubic yards to be paid for shall be calculated using the dimensions established by the Engineer. Payment shall include all labor, equipment and materials necessary to complete the work, including tack coat, asphalt concrete and seal coat. Payment will be made under

ITEM UNIT DESCRIPTION
 Special Cubic Yard Partia Depth Pavement Repair, As per Plan

POINT TO POINT	SIDE	LIN FT.	WIDTH	SQ.YD.	DEPTH INCH	CU.YD.
0.84 - 0.92	Rt	422	12	563	3	47
0.94 - 1.00	Rt	317	12	423	3	35
1.05 - 1.12	Rt	370	12	493	3	41
1.28 - 1.33	Rt	264	12	352	3	29
1.62 - 1.72	Rt	528	12	704	3	59
1.97 - 2.08	Rt	581	12	775	3	65
2.08 - 2.12	Lt	211	12	281	3	23
2.28 - 2.38	Rt	528	12	704	3	59
2.56 - 2.67	Rt	518	12	691	3	58
2.86 - 2.90	Rt	211	12	281	3	23
2.96 - 3.00	Rt	211	12	281	3	23
3.05 - 3.08	Lt	158	12	211	3	18
3.12 - 3.24	Lt	637	12	849	3	71
3.52 - 3.63	Lt	581	12	775	3	65
3.80 - 3.84	Lt	211	12	281	3	23
3.89 - 3.94	Lt	264	12	352	3	29
3.45 - 3.55	Lt	528	12	704	3	59
5.04 - 5.22	Lt	950	12	1267	3	106
5.74 - 5.87	Lt	680	12	907	3	76
6.14 - 6.20	Lt	317	12	423	3	35
6.53 - 6.57	Lt	211	12	281	3	23
6.65 - 6.85	Lt	1056	12	1408	3	117
TOTALS		9754		12922		1084
ADDITIONAL 10% AS DIRECTED BY THE ENGINEER						108
TOTAL						1192

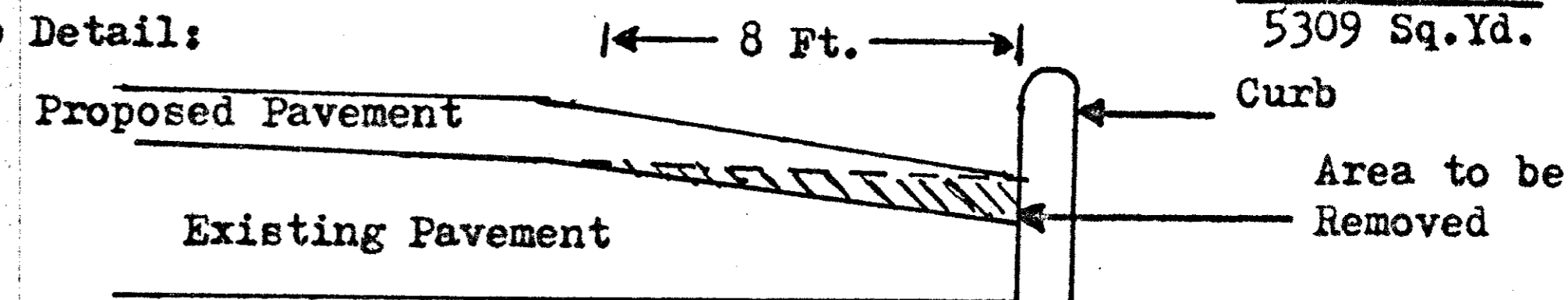
All locations are in the Right (Driving) Lane.

① ITEM 254 - PAVEMENT PLANING BITUMINOUS:

The existing wearing course shall be removed to a depth equal to the thickness of the proposed new surface course, (1 1/4"), at the following locations:

- 00.00 - Rt/Lt - Taper - Beginning of Proj. - 24' x 62.5' ÷ 9 x 2 = 333 Sq.Yd.
- 00.92 - Rt/Lt - Taper - at Structure - 24' x 62.5' ÷ 9 x 2 = 333 Sq.Yd.
- 06.66 - Rt/Lt - Taper - at Structure - 24' x 62.5' ÷ 9 x 2 = 333 Sq. Yd.
- * 06.85 - Rt/Lt - Taper - to Curb (6.85-7.16) - 1637' x 8' ÷ 9 x 2 = 2910 Sq.Yd.
- 07.45 - Rt/Lt - Under - Structure - 200' x 24' ÷ 9 x 2 = 1067 Sq.Yd.
- 12.11 - Rt/Lt - Taper - End of Project - 24' x 62.5' ÷ 9 x 2 = 333 Sq.Yd.

* Taper to Curb Detail:



The Contractor shall be totally (100%) responsible for any and all damages that may result from the planing operation: including castings (manhole, catch basin, inlet, etc.).

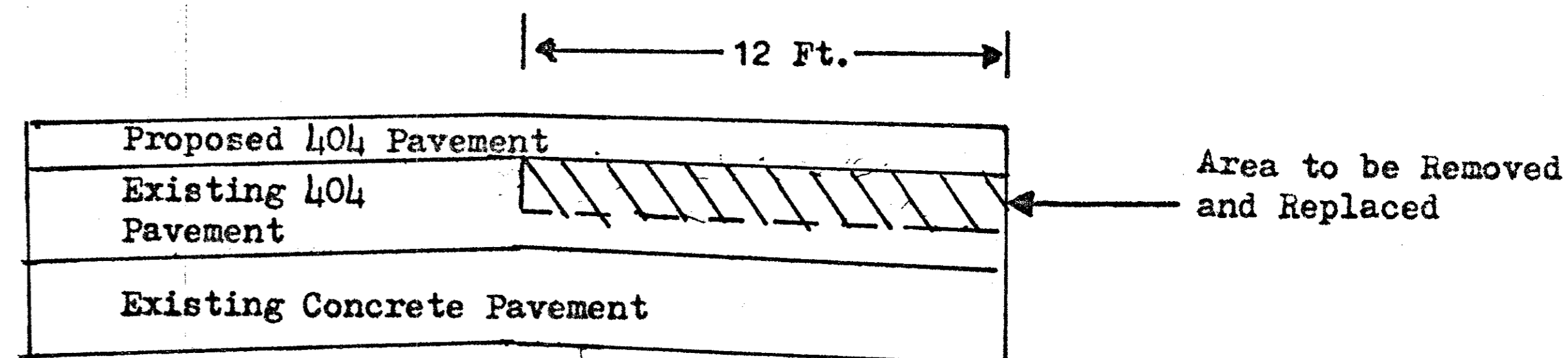
It is not the intent of this plan to adjust the castings in the pavement planing areas. The depth of planing close to these castings shall be adjusted as directed to achieve a smooth riding finished pavement.

② ITEM 254 - PAVEMENT PLANING BITUMINOUS, JOINTS:

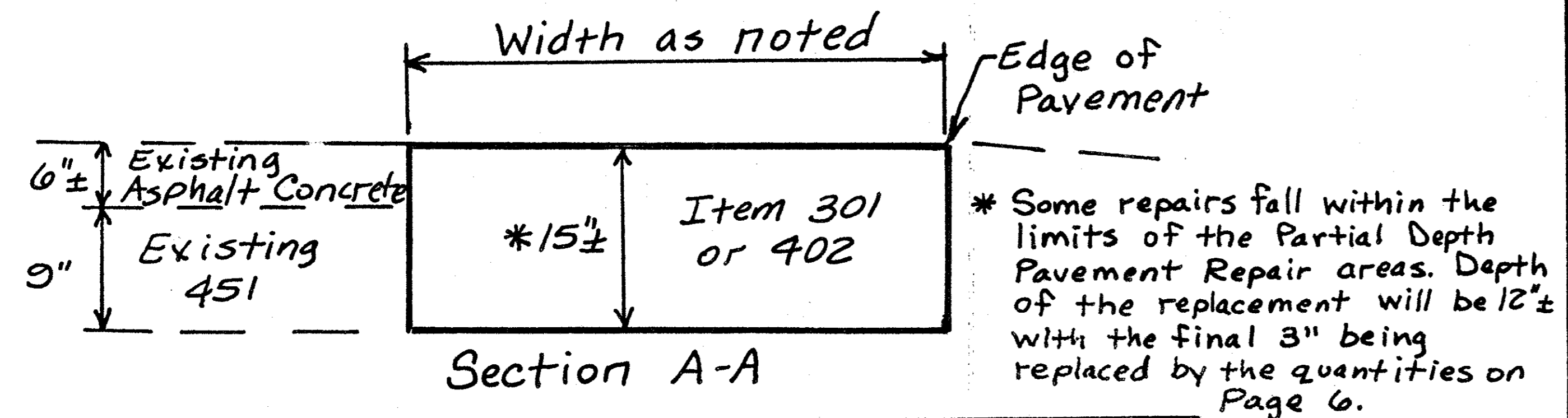
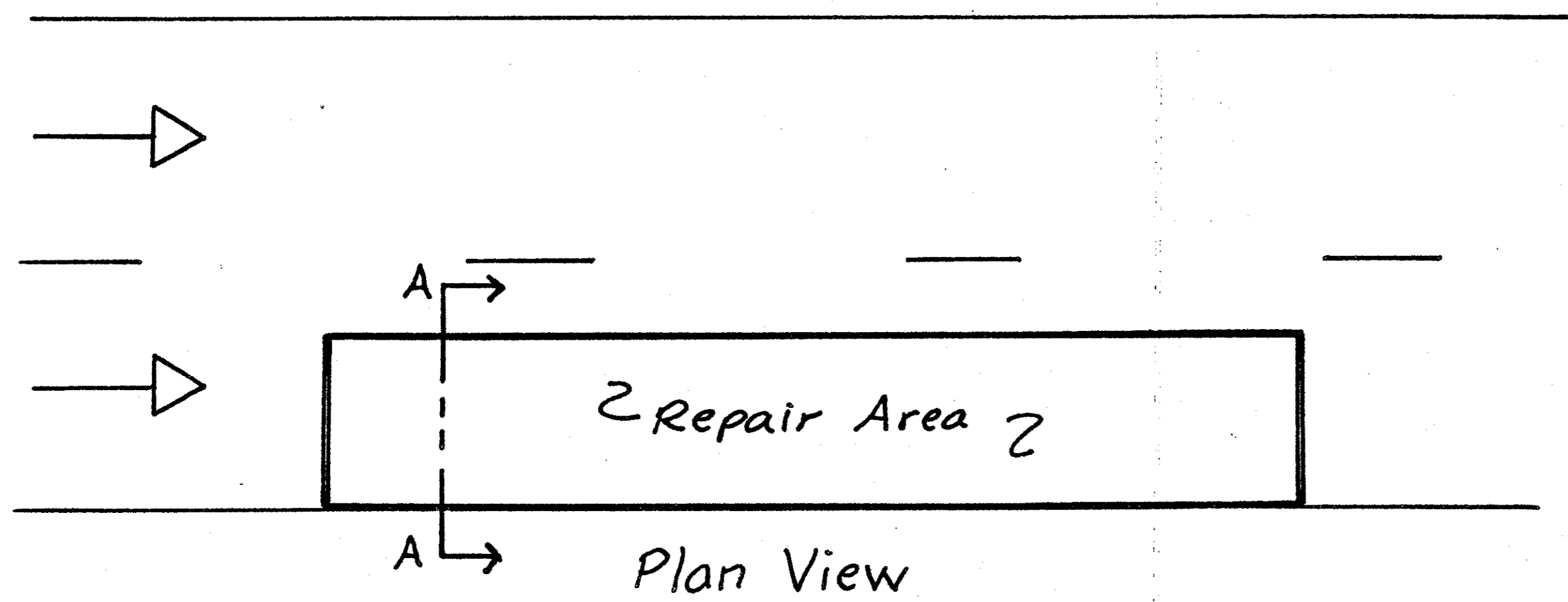
The following quantities are provided for the planing of joints at various locations, as directed by the Engineer, to achieve a smooth riding finished pavement.

- 215 each - Joints - 24' x 4' ÷ 9 = 2293 Sq. Yd.
- 20% additional for use as directed by the Engineer = 458
- Total to Sheet 2 = 2751 Sq. Yd.

③ ITEM 251/AL - PARTIAL DEPTH PAVEMENT REPAIR DETAIL; AS PER PLAN



FULL DEPTH REPAIR



Full Depth Repair Locations & Quantities					
S.L.M. (approx.)	Side	Width (Ft.)	Length (Ft.)	252	252
				Full Depth Rigid Pavt. Removal and Flexible Replacement	Full Depth Pavement Sawing
				Sq. Yd.	Lin. Ft.
0.66 EB	Rt.	12	15	20	39
* 2.61 EB	Rt.	6	50	33	62
* 3.16 WB	Lt.	6	20	13	32
* 3.20 WB	Lt.	6	20	13	32
3.78 WB	Lt.	8	30	27	46
* 5.13 WB	Lt.	6	30	20	42
5.91 WB	Lt.	10	15	17	35
* 6.17 WB	Lt.	6	25	17	37
* 6.53 WB	Lt.	6	20	13	32
Sub-Total				173	357
10% additional to be used ^{as} directed				17	36
Total				190	393

621 PAVEMENT MARKING SUB-SUMMARY

FED RD DIVISION	STATE	PROJECT	
5	OHIO		

19
 8
 14

PART	ROUTE	S.L.M.		QUANTITIES			CENTER LINE REMARKS
		FROM	TO	CENTER LINES MILES			
				TOTAL	DASHED	SOLID	
1	US-40 to US-42 NB			.28	.28		
1	US-40 to US-42 SB			.93	.42	.51	
CENTER LINE TOTAL				1.21	.70	.51	

PART	ROUTE	S.L.M.		WHITE EDGE LINE QUANTITIES			YELLOW EDGE LINE QUANTITIES			EDGE LINE REMARKS
		FROM	TO	TOTAL MILES	HIGHWAY MILES	RAMP MILES	TOTAL MILES	HIGHWAY MILES	RAMP MILES	
	US-42	0.00	12.11	24.34	24.34		24.34	24.34		
1	US-40 & US-42 Interchange			2.00		2.00	2.00		2.00	4 ramps & 2 service rds.
EDGE LINE TOTAL				26.34	24.34	2.00	26.34	24.34	2.00	

PART	ROUTE	S.L.M.		QUANTITIES			LANE LINE REMARKS
		FROM	TO	4" LANE LINES MILES			
				TOTAL	DASHED	SOLID	
1	US-40	0.00	12.11	24.34	24.34		
1	Turn Lanes (See Pg. 3 for Locations)			.77	.77		
LANE LINE TOTAL				25.11			

PART	ROUTE	S.L.M.		QUANTITIES					REMARKS
		FROM	TO	Channelizing Line	Stop Line	Lt. Turn Arrow	Rt. Turn Arrow	Word on Pav't. "ONLY"	
				LIN. FT.	LIN. FT.	EACH	EACH	EACH	
1	SR-56 Intersection				120	2	2	4	
1	SR-38 Intersection				108	2	1	3	
1	US-40 to US-42 NB				12				
1	US-40 to US-42 SB				23				
1	US-40 EB to US-42 NB				10				
1	US-40 WB to US-42 SB				10				
TOTAL					283	4	3	7	

INITIAL PAVEMENT MARKINGS FOR RESURFACED SECTIONS

GENERAL NOTES

In addition to the requirements of 821 and 847 the following shall apply:

821 and 847 Materials

The materials used on this project shall either be 821 fast dry traffic paint or 847 thermoplastic material approved by prequalification.

The Contractor shall provide storage for all materials and shall transport materials to the site where used. Glass beads shall be kept dry during storage and prior to use.

The Laboratory will furnish the names of manufacturers and code numbers from its approved list of prequalified white and yellow paint upon request.

821 and 847 Special Equipment

The Contractor's striper shall be equipped with an odometer graduated to 1/100 of a mile. The Engineer shall determine the degree of accuracy of the Contractor's odometer and establish an adjustment factor as may be required to accurately determine the pay item quantities. The Engineer shall periodically check the odometer's operation to assure maintenance to accurate measurements.

Failure of the odometer to function properly shall be cause to stop the work until the odometer is made to function properly. On short projects the Engineer may approve alternate methods to accurately measure the length of the various types of markings applied. If measurement of the work has to be done by the Department, the cost of the Department labor and equipment plus 10 percent shall be deducted from payment due the Contractor for the work. When measuring lane, edge and/or center line marking, the odometer shall be started at the first marked line and remain in operation, until the end of the section being marked, where it shall be shut off and the reading of the odometer recorded.

Electrical foot counters shall be provided and installed in the application equipment used to apply long line markings. The counters shall individually tabulate the amount of footage applied for each line, whether solid or dashed. The counters shall be a six digit type with a reset feature.

The Contractor shall use an accurate dashing mechanism, capable of being easily adjusted, to place lane or center line markings as specified in the plans or as directed by the Engineer.

Provision for the described special equipment by the Contractor shall be incidental to the application.

821 Material Quantity Measurement

The quantity of marking material or glass beads per unit of measurement will be computed by the Engineer at the end of each day's work. A day's applied mileage of less than 2 miles may be included in the next day's applied markings for the purpose of computing marking material and bead application rates.

The Contractor shall provide a calibrated measuring device acceptable to the Engineer for measuring material in the striper tanks.

The quantity of marking material used shall be determined by measuring the marking material in the tanks before and after marking material is applied. The Contractor shall cooperate with the Engineer in providing measurements whenever requested. The marking material application rate shall be determined by dividing the total gallons used by the appropriate marking length as determined from the foot counter as described within the Special Equipment Section of these notes. Any determination of pay deduction resulting from shortages in marking quantities shall be based on the measurements obtained by this method. The amount of glass beads applied will be ascertained by the Engineer by observation and from information supplied by the Contractor as to the quantity used.

847 Material Quantity Measurement

The quantity of marking material or glass beads per unit of measurement will be computed by the Engineer at the end of each day's work. A day's applied quantity of less than 100 pounds of marking material may be included in the next day's applied markings for the purpose of computing marking material and bead application rates.

The Contractor shall provide a calibrated measuring device acceptable to the Engineer for measuring material in the striper tanks.

The quantity of marking material used shall be determined by measuring the marking material before and after marking material is applied. The Contractor shall provide measurements whenever requested by the Engineer. The marking material application rate shall be determined by dividing the total pounds of thermoplastic material used by the appropriate marking length as determined from the foot counter as described within the Special Equipment Section of these notes. Any determination of pay deduction resulting from shortages in marking quantities shall be based on the measurements obtained by this method. The amount of glass beads applied shall be ascertained by the Engineer by observation and from information supplied by the Contractor as to quantity used.

INITIAL PAVEMENT MARKINGS FOR RESURFACED SECTIONS GENERAL NOTES

821 Layout and Premarking

In accordance with 821.05 the Contractor shall "T" no-passing zones in accordance with a no-passing zone log provided by the Engineer.

847 Layout and Premarking

In addition to the requirements of 847.04, premarking for auxiliary markings shall be located from schematic forms provided by the Engineer.

Markings shall not be applied over existing markings except when applying initial permanent markings over temporary markings of fast-dry paint. Temporary markings other than fast-dry paint shall be removed and the surface prepared to the satisfaction of the Engineer before permanent markings are applied.

821 and 847 Auxiliary Pavement Marking

For this project, auxiliary markings shall be defined as: Stop lines, crosswalk lines, transverse lines, railroad and school symbol markings, lane arrows, word on pavement, curb and island markings, parking lot stall markings and dotted lines except when used to extend edge lines.

847 Material Application Temperature

The Contractor shall provide a calibrated temperature sensing device which will accurately measure the temperature of the extruded thermoplastic material when it makes contact with the pavement. A temperature of 400°F to 440°F at point of application to road surface must be maintained at all times.

847 Material Application Rates

In addition to the requirements of 847 the minimum application rates shall be as follows:

Pounds Per Mile of Line	Width of Line (Inches)			
	4	8	12	24
Solid Line	2340	4680	7020	14040
Dashed Line	505	1170	1755	3510

133 Pounds Per 100 Square Feet

947.02 Thermoplastic Pavement Markings

Glass beads intermixed or dropped on 947.02 thermoplastic pavement marking material shall meet the following specification:

Sieve No.	% Retained
18	3 Max
20	5 to 20
40	65 to 95
50	0 to 5
Refractive Index:	1.50 to 1.60
Roundness:	80% Min
Coating:	Adhesion Promoting

The application rate of drop-on beads shall be a uniform 25 pounds of beads for each 100 square feet of thermoplastic material surface area.

862 Raised Pavement Markers

This Contract may include sections of roadway where plowable prismatic raised pavement markers are to be installed in the pavement. Raised pavement marker placement for a resurfaced section shall begin after the permanent pavement marking for that resurfaced section is completed and dry.

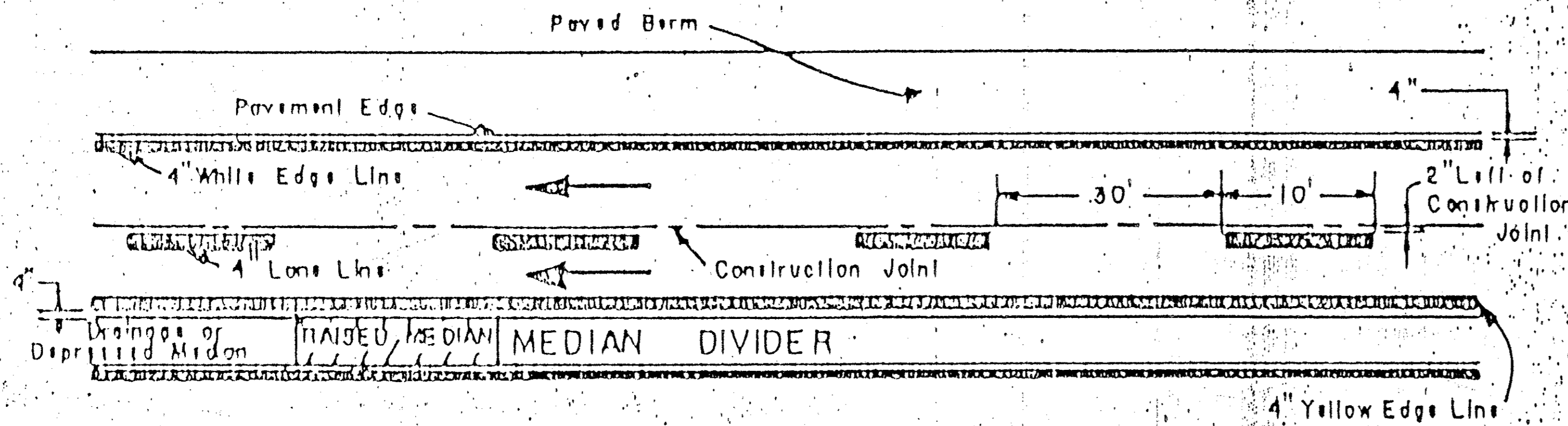
PAVEMENT MARKING TYPICAL DETAILS

FED. AID DIV. 5	STATE OHIO	PROJECT	
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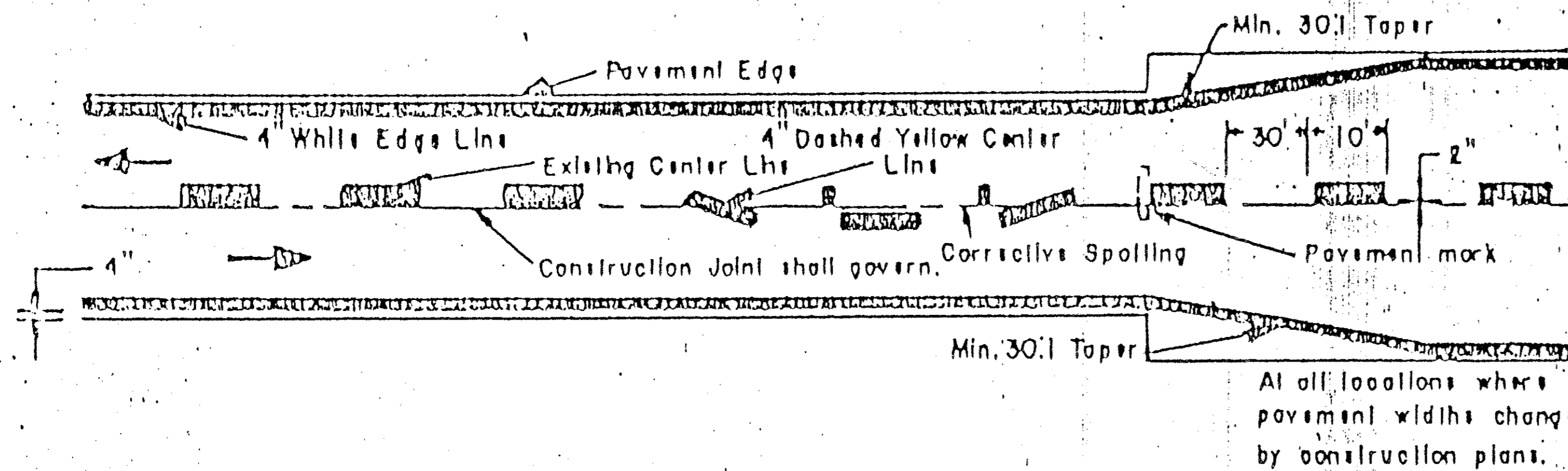
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PLAN NO. 19

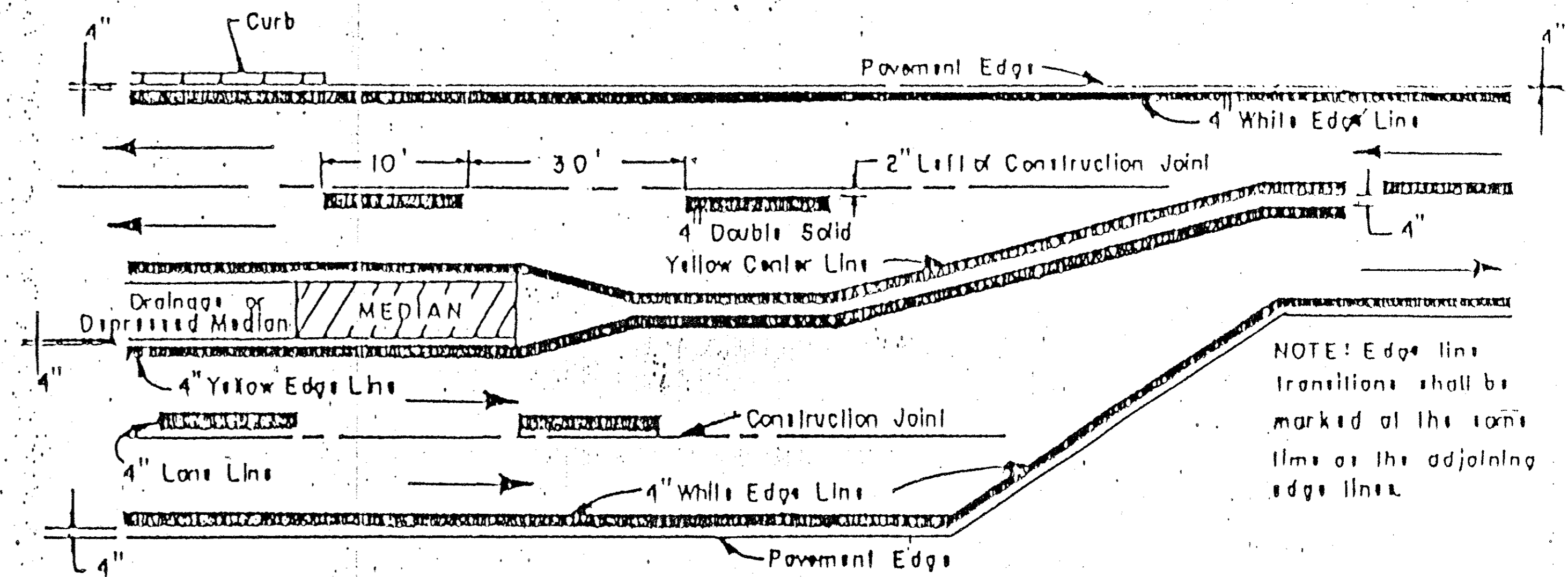
FREEWAY OR EXPRESSWAY MAINLINE MARKINGS



TWO LANE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTE: Edge line transitions shall be marked at the same time as the adjoining edge lines.

NOTES:

1. THE DISTANCE FROM THE PAVEMENT EDGE TO THE NEAR-SIDE EDGE OF THE EDGELINE MAY BE INCREASED WITH THE APPROVAL OF THE ENGINEER IN ORDER TO MAINTAIN UNIFORM LANE WIDTH.
2. SEE TC 72.20 FOR ENTRANCE AND EXIT RAMP MARKINGS.
3. The cycle length for dashed lines shall be 40 feet plus or minus 6 inches. The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.

OHIO DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING TYPICAL DETAILS	DATE 11/80
JULIUS CORI	

9/86

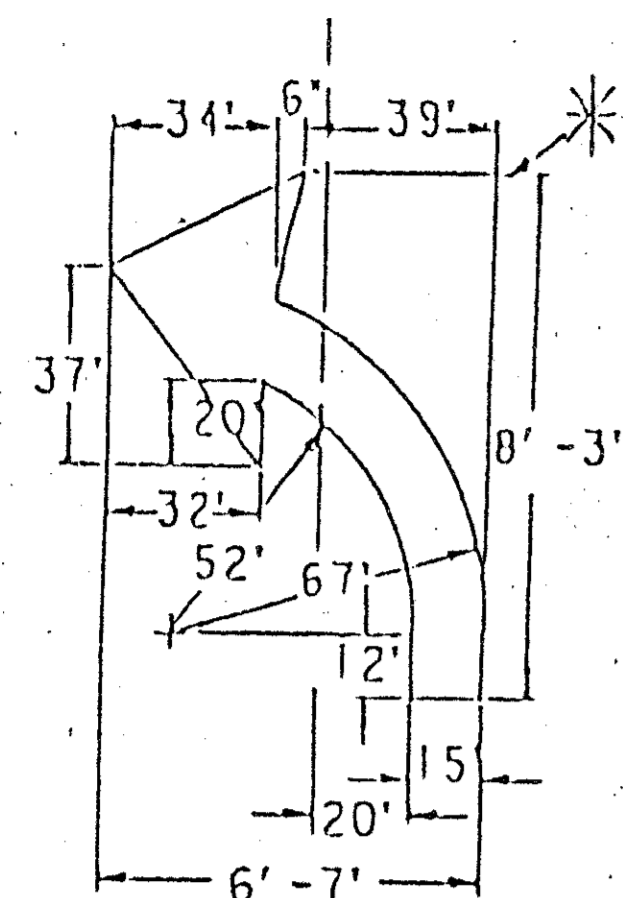
WORD AND SYMBOL MARKING DETAILS

FED RD DIVISION	STATE	PROJECT	
5	OHIO		

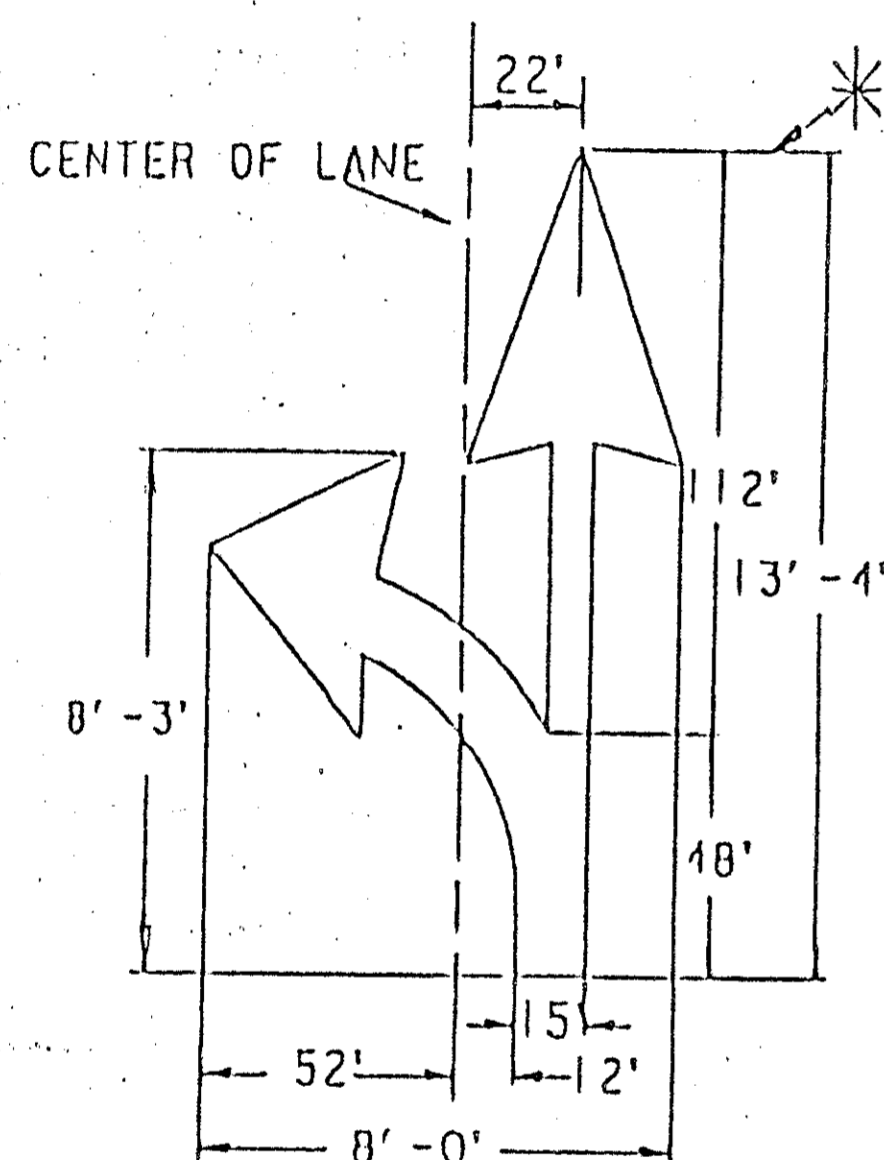
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PLAN NO. 19

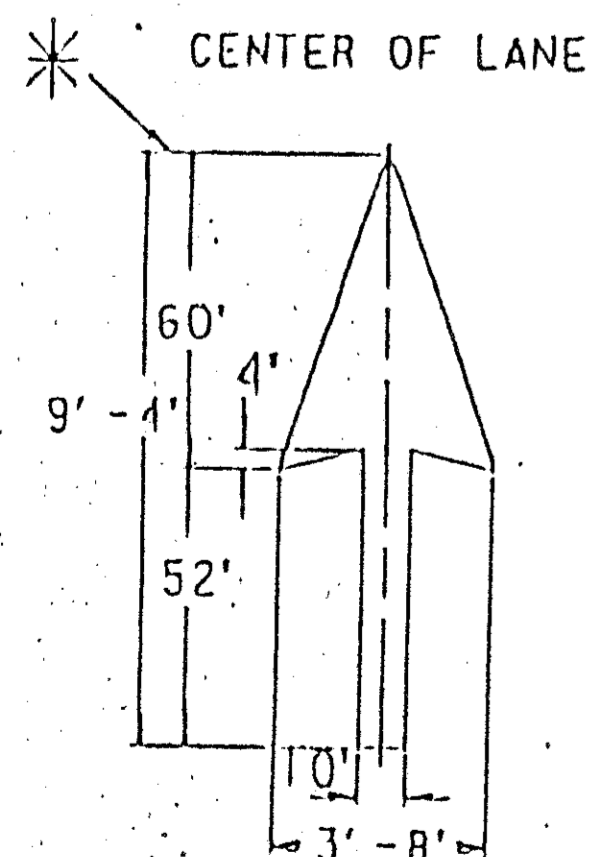
CENTER OF LANE



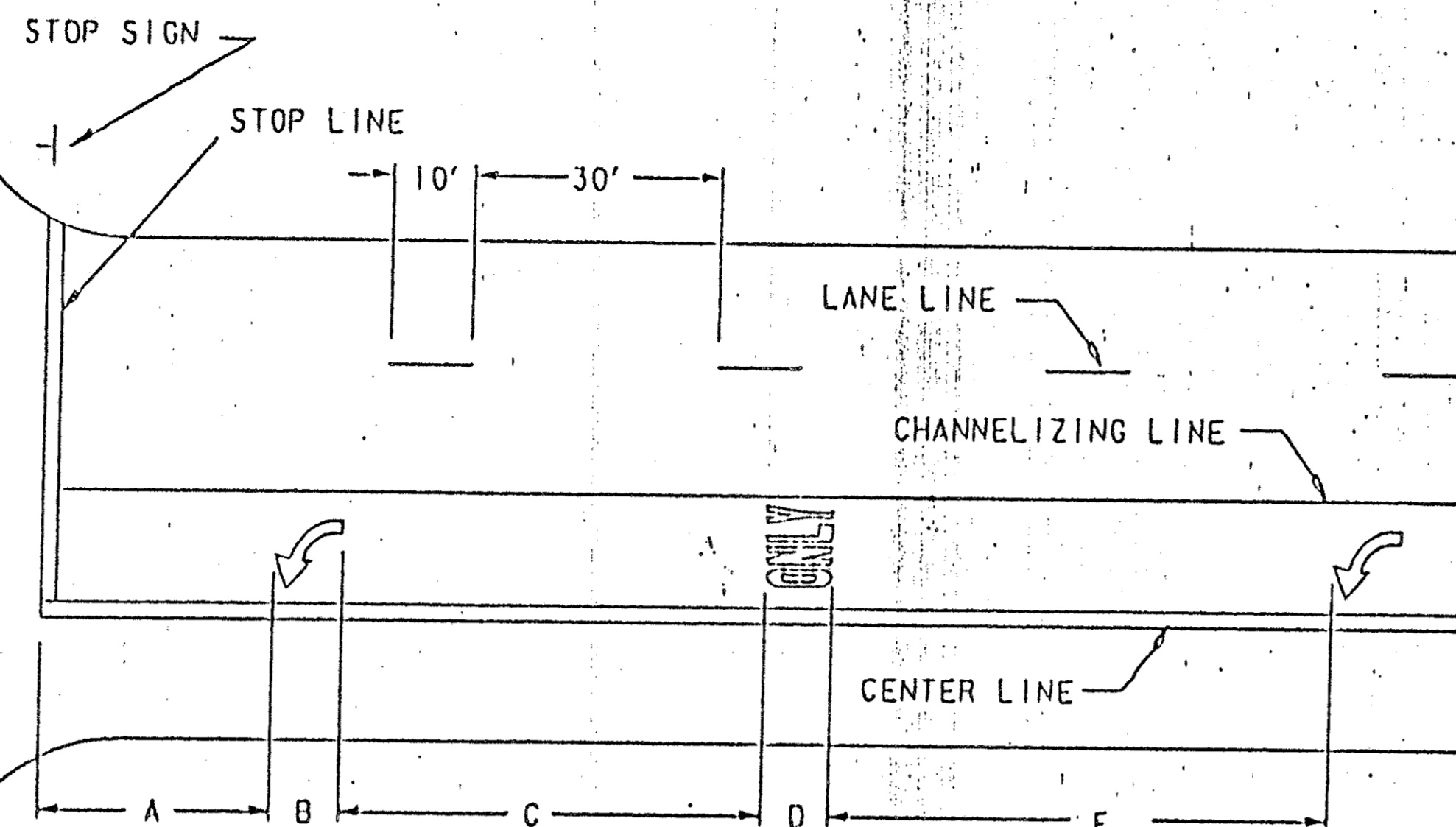
TURN ARROW
(LEFT ARROW SHOWN
RIGHT ARROW OPPOSITE)



COMBINED ARROW
THREE HEAD DIRECTIONAL ARROWS
CAN BE ACHIEVED BY THE COMBINATION
OF TURN ARROWS.



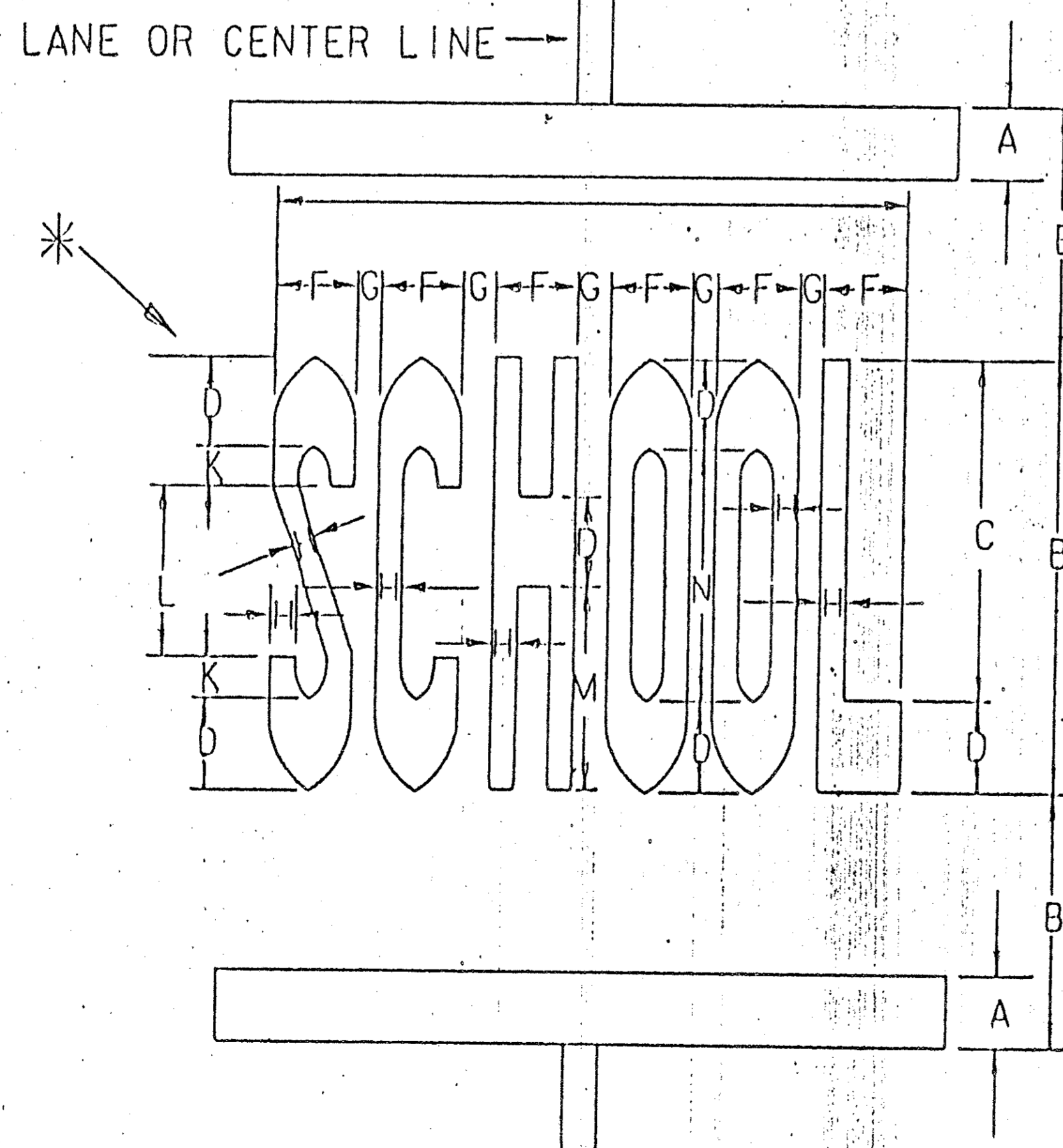
THROUGH ARROW



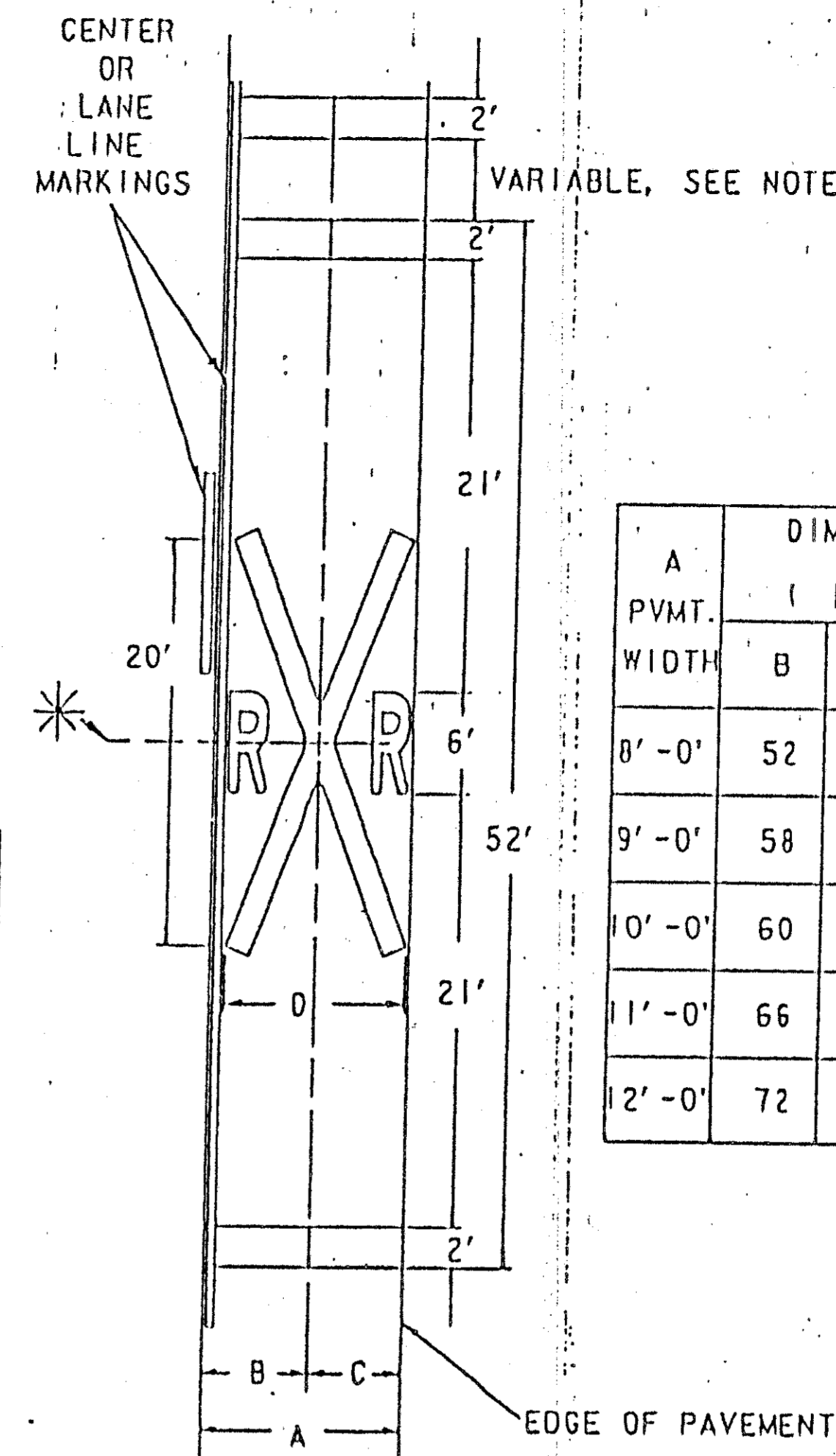
NOTE:
STOP BAR LOCATED MIN. 40' FROM
AT LEAST ONE SIGNAL HEAD WHICH APPLIES
TO THAT APPROACH

TYPE	DIMENSIONS (FEET)				
	A	B	C	D	E
RURAL	30 MIN.	0.25	32-80	8	32-60
URBAN	10 MIN.	0.25	32-80	6	24-60

TYPE	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
RURAL	16	96	76	20	150	20	6	6	8	9	38	45	56
URBAN	16	72	57	15	140	18	8	4.50	9	6.75	28.50	33.75	42



TYPE	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	
RURAL	96	94	20	6	2	6	20	56	45	76	32	36	
URBAN	72	90	18	8	2	4.50	15	42	33.75	57	24	27	



A PVMT. WIDTH	DIMENSIONS (INCHES)		
	B	C	D
8'-0"	52	44	84
9'-0"	58	50	96
10'-0"	60	60	96
11'-0"	66	66	96
12'-0"	72	72	120

NOTES

- PAVEMENT MARKING FOR WORDS, SYMBOLS, ARROWS AND TRANSVERSE LINES FOR WORD 'SCHOOL' OR THE RAILROAD SYMBOL SHALL BE WHITE REFLECTIVE MATERIAL.
- TWO TRANSVERSE LINES SHALL BE INCLUDED IN THE PAYMENT FOR EACH WORD 'SCHOOL'. THREE TRANSVERSE LINES SHALL BE INCLUDED IN THE PAYMENT FOR EACH RAILROAD SYMBOL.
- ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.
- FOR THE RAILROAD SYMBOL, NO PORTION OF ONE TRANSVERSE LINE SHALL BE CLOSER THAN 30 FEET FROM THE NEAREST RAILROAD TRACK RAIL AND THE LINE MAY BE EITHER PARALLEL TO THE TRACK OR PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY. THE OTHER TWO TRANSVERSE LINES AND THE RAILROAD SYMBOL SHALL BE LOCATED FROM THE STATION REFERENCE POINT SHOWN IN THE PLANS.
- ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE WORD 'SCHOOL' SHALL EXTEND ACROSS ALL APPROACH LANES WITH A SINGLE WORD 'SCHOOL' CENTERED ACROSS THE APPROACH LANES. ON TWO LANE ROADWAYS, THE TRANSVERSE LINES SHALL EXTEND ACROSS THE ROADWAY WITH THE WORD 'SCHOOL' CENTERED ACROSS THE ROADWAY. CENTER OR LANE LINES SHALL NOT PASS THROUGH THE 'SCHOOL' MARKING.
- THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTERSECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.
- IF A MARKED CROSSWALK IS PRESENT THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.
- ANY OF THE FOLLOWING STANDARDS FOR LETTER (EXCEPT 'R'), NUMERAL OR SYMBOL DIMENSIONING MAY BE USED:

- A.) STANDARD DIMENSIONS SHOWN ON THIS DETAIL (NOMINAL)
- B.) STANDARD DIMENSIONS IN ACCORDANCE WITH THE 1977 METRIC EDITION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING WITH ERRATA.
- C.) STANDARD DIMENSIONS CONFORMING TO REQUIREMENTS OF SECTION 3B-17 OR AS SHOWN IN FIGURES 3-17, 3-18, 7-2, 7-3, 8-2 OR 9-6 OF THE 1978 NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

** THE LETTER 'R' DIMENSIONS SHALL BE AS SHOWN ON THIS SHEET AND IN THE NMUTCO SECTION 8-2.

* INDICATES STATION REFERENCE POINT

MAINTAINING TRAFFIC GENERAL NOTES

GENERAL

In addition to the requirements for maintaining traffic as indicated in the Ohio Manual of Uniform Traffic Control Devices and pertinent items of specifications, the following requirements shall apply:

When work is being performed or equipment is on berms or shoulders and is within 12' of a traveled lane, that lane shall be closed.

The Contractor shall arrange his operations so as to prevent any interference to the continuous flow of traffic. All vehicles, equipment, men, and their activities are restricted at all times to one side of the pavement unless otherwise approved by the Engineer.

Before work begins, the Contractor shall submit to the Engineer the names and telephone numbers of a person or persons who can be contacted 24 hours a day by the Ohio Department of Transportation and all interested police agencies. This person or persons shall be responsible for replacing necessary traffic control devices.

Floodlighting

Floodlighting for the work site for operations during night time periods shall be accomplished so that the lights do not cause glare to the drivers on the highway. To insure the adequacy of the floodlight placement, the Contractor and the Engineer shall drive through the work site each night when the lighting is in place and operative prior to commencing any work. If glare is detected, the light placement and shielding shall be adjusted to the satisfaction of the Engineer before work proceeds.

Alternate Methods

If the Contractor so elects, he may submit alternate methods for the maintenance of traffic, provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results therefrom. No alternate plan shall be placed into effect until approval has been granted, in writing, by the Director.

ITEM 614 - Work Zone Marking Signs

A quantity of 32 each Work Zone Marking Signs (32 Each "NO EDGE LINES" OW-167) are carried to the General Summary to be used as directed by the Engineer.

Supports for Temporary Signs

Temporary signs not protected by guardrail, shall be mounted on yielding or breakaway supports such as those specified for permanent signs on Standard Drawing TC-41.10 and TC-41.20 or they shall be mounted on lightweight portable sign support standards or trailer type sign support standards weighing less than 100 pounds, including sign.

Where ballasting is necessary for stability it shall consist of sandbags mounted not more than 1 foot above the pavement surface. Temporary signs shall not be mounted on automotive differential assemblies or other similar heavy supports devices.

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GENERAL NOTES

GENERAL

Description of work

This project shall consist of spot planing, pavement repair, and resurfacing US-40 and resurfacing the ramps and service roads at US-42.

The Contractor shall submit in writing a schedule of operations to the Engineer (see 101.18) and receive approval in writing before work is started on this project.

The 407 tack coat shall be applied just ahead of the paving operation.

All intermediate course joints shall be governed by Sec. 401.15 of the C.M.S. and the cost of sealing these joints shall be included in the unit price bid for the asphalt course.

All work shall be performed within the existing right-of-way.

All Traffic Control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the Ohio Manual of Uniform Traffic Control Devices.

Contingency Quantities

The contractor shall not order materials or perform work listed in the General Summary for items designated by plan note to be used "as directed by the Engineer" unless authorized by the Engineer.

Alignment and Profile Note

The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans.

GENERAL SUMMARY

Part 1

14
14

ITEM	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
407	407	10000	39,322	Gal.	Tack Coat
404	404	20000	13,654	Cu.Yd.	Asphalt Concrete, AC-20
617	617	25000	10	M. Gal.	Water
617	617	10100	4,941	Cu.Yd.	Compacted Aggregate, Type A
202	202	54100	1,015	Each	Raised Pavement Marker, Removed for Storage
252	252	01000	190	Sq.Yd.	Full Depth Rigid Pavement Removal and Flexible Replacement
252	252	01500	393	Lin.Ft.	Full Depth Pavement Sawing
254	254	01000	5,309	Sq.Yd.	Pavement Planing, Bituminous
254	254	01000	2,751	Sq.Yd.	Pavement Planing, Bituminous (Joints)
251	251	01003	1,192	Cu.Yd.	Partial Depth Pavement Repair, As per Plan
604	604	09000	2	Each	Catch Basin Adjusted to Grade
604	604	20600	4	Each	Inlet Adjusted to Grade
604	604	34500	4	Each	Manhole Adjusted to Grade
614	614	12460	32	Each	Work Zone Marking Sign
614	614	20400	25.11	Mile	Temporary Lane Line, Class II
614	614	21400	1.26	Mile	Temporary Center Line, Class II
621	621	20100	1.21	Mile	Center Line
621	621	00100	52.68	Mile	Edge Line
621	621	10008	25.11	Mile	Lane Line
621	621	40100	283	Lin.Ft.	Stop Line
621	621	76500	7	Each	Lane Arrow
621	621	80100	7	Each	Word on Pavement, "Only", 96"
614	614	11000	Lump		Maintaining Traffic
624	624	10000	Lump		Mobilization

PLAN NO.
19