PID# 20896 01/24/01

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# OHIO DEPARTMENT OF TRANSPORTATION

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SAW AND SEAL DETAILS

DROPOFFS IN WORK ZONES

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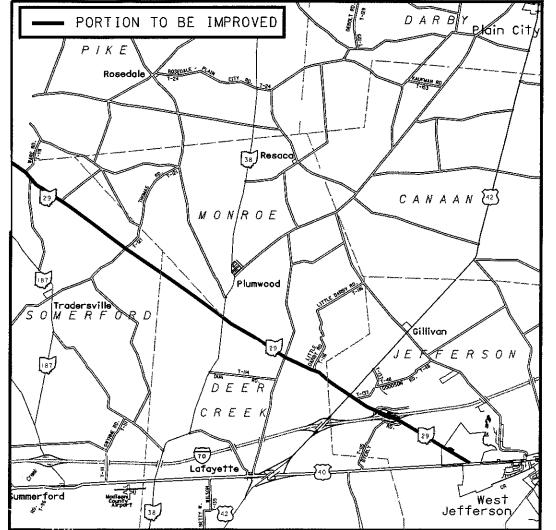
PAVEMENT MARKING TYPICAL DETAILS

PAVEMENT MARKING SUBSUMMARY

GENERAL SUMMARY

GENERAL NOTES

TITLE



PART	COUNTY	ROUTE	SECTIONS	PROJECT	TERMINII	NET LENGTH	VILLAGE
FARI	COUNTI	ROUTE	SECTIONS	BEGIN	END	MI	VILLAGE
	MAD	29	(0.00 - 12.19)	0.00	12.98	12.98	WEST JEFFERSON

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## PROJECT DESCRIPTION

RESURFACING OF 12.98 MI OF SR-29 FROM THE CHAMPAIGN COUNTY LINE TO THE INTERSECTION OF US-40.

# 1997 SPECIFICATIONS

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGH-WAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT.

LAT: 39° 59' 20" N LONG: 83° 24' 45" W

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TC-65.11M 11	1/01/95			SS-906	01/06/99	P. 11
TC-71.10M 09	9/01/93			SS-908	01/06/99	POLING 5
MT-97.10M 04	4/25/94					56872
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MT-99.20M 01	1/30/95					
MT-105.10M 04	4/25/94					$0 \cdot (0)$
	4/25/94					SIGNED David Orlow
	4/29/99					DATE 6-28-00
- A.A.A.						
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UNDERGROUND UTILITIES TWO WORKING DAYS BEFORE YOU DIG CALL 1-800-362-2764 (TOLL FREE) OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY

> PLAN PREPARED BY: O.D.O.T. DISTRICT SIX IN-HOUSE DESIGN

PLANS CERTIFIED BY: DATE 6/16/00 DISTRICT 6

OHIO DEPT. OF TRANSPORTATION

Date 6.16.00 istrict Deputy Director of Yransportation"

Date 10/12/00 Director, Department of Transportation

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#### CONSTRUCTION INITIATION:

THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS AT 740-363-1251, EXT. 469 OR BY FAX AT 740-369-7437 AND THE DISTRICT TRAFFIC MANAGEMENT ENGINEER AT 740-363-1251, EXT. 323, FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT TRAFFIC MANAGEMENT ENGINEER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION PROJECT. THE PROJECT ENGINEER WILL PROVIDE CLARIFICATION FOR ANY QUESTIONS ABOUT THIS NOTIFICATION REQUIREMENT.

### COORDINATION WITH O.D.O.T.'S CENTRAL OHIO TRAFFIC MANAGEMENT PROGRAM (COTMP):

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. WHEN DETOURS ARE PLANNED, THIS NOTIFICATION SHALL BE AT THE PRE CONSTRUCTION MEETING OR 30 DAYS IN ADVANCE ONCE CONSTRUCTION HAS BEGUN. LANE AND RAMP CLOSURES FOR 2 OR MORE WEEKS SHALL BE REPORTED 2 WEEKS IN ADVANCE OF CLOSURE. LANE AND RAMP CLOSURES OF LESS THAN 2 WEEKS DURATION AND MORE THAN 2 DAYS SHALL BE REPORTED AT LEAST 3 WORKING DAYS IN ADVANCE. FOR SHORT TERM LANE OR RAMP CLOSURES (2 DAYS OR LESS) NOTIFICATION SHALL BE MADE AT LEAST 1 WORKING DAY IN ADVANCE. INFORMATION SHALL INCLUDE BUT NOT BE LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT TRAFFIC AT PRESENT AND IN THE NEXT 30 DAYS. THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL WHO WILL BE RESPONSIBLE FOR PREPARING THIS REPORT AT THE PRE -CONSTRUCTION MEETING. ANY UNFORESEEN IMPACTS TO TRAFFIC SHALL BE REPORTED TO THE PROJECT ENGINEER AS SOON AS POSSIBLE. THE PROJECT ENGINEER SHALL PROVIDE THIS INFORMATION TO COTMP. ALL CONSTRUCTION ACTIVITIES THAT INTERFERE WITH TRAFFIC SHALL BE REPORTED TO COTMP. THIS INFORMATION SHALL BE PROVIDED TO COTMP AT (740) 363-1251 (EXT. 323), OR BY FAX AT (740) 363-6831.CONSTRUCTION INITIATION: THE

#### GENERAL:

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. 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.

#### UNDERGROUND UTILITIES:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ANY UNDERGROUND UTILITIES MARKED.

OHIO UTILITY PROTECTION SERVICE 1-800-362-2764 NON-MEMBERS MUST BE CALLED DIRECTLY.

#### ALIGNMENT AND PROFILE:

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 MAY BE RAISED AN AMOUNT EQUAL TO THE THICKNESS OF THE RESURFACING COURSE OR COURSES SPECIFIED IN THESE PLANS.

#### CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

#### CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

#### ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR:

THIS ITEM IS A CONTINGENCY QUANTITY AND SHALL BE USED WHERE DIRECTED BY THE ENGINEER. REPAIRS SHALL BE LOCATED BY THE ENGINEER AND PERFORMED PRIOR TO THE PLACEMENT OF THE 448 ASPHALT CONCRETE SURFACE COURSE TYPE 1. REPAIR AREAS SHALL BE A MINIMUM OF 3 FEET IN WIDTH AND A VARIABLE LENGTH, WHICH SHALL BE DETERMINED BY THE ENGINEER. THE DEPTH OF REPAIRS SHALL BE APPROXIMATELY 6 INCHES IN DEPTH. THE FOLLOWING QUANTITY HAS BEEN PROVIDED:

# ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR: = 250 CU. YD.

#### ITEM 254 - PAVEMENT PLANING, BITUMINOUS:

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED, TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT.

NO PLANED PAVEMENT SHALL BE LEFT EXPOSED TO TRAFFIC FOR MORE THAN 5 CONSECUTIVE DAYS PRIOR TO THE PLACEMENT OF ITEM 448 - ASPHALT CONCRETE SURFACE COURSE TYPE 1. FAILURE TO COMPLY SHALL SUBJECT THE CONTRACTOR TO LIQUIDATED DAMAGES AS PER SECTION 108.07 OF CMS

### DISPOSAL OF DEBRIS:

ALL ASPHALT GRINDINGS, EXCESS ASPHALTIC MATERIAL OR ANY OTHER DEBRIS GENERATED DURING THE RESURFACING SHALL BE REMOVED FROM WITHIN 1,000 FEET OF THE SCENIC RIVER (LITTLE DARBY) AND DISPOSED OF AT AN APPROPRIATE FACILITY ABOVE THE 100 YEAR FLOOD ELEVATION OF THAT RIVER.

#### ITEM 407 - TACK COAT:

THE TACK COAT OPERATION SHALL BE AS DETERMINED AT A PRE-CONSTRUCTION CONFERENCE AS PER 407.05 AND APPLICATION RATES SHALL NOT EXCEED 0.075 GALLON PER SQ. YARD. A COVER AGGREGATE SHALL BE USED IF HEAVY TRACKING OF THE TACK COAT ON TO THE EXISTING PAVEMENT SHOULD ACCURE DURING THE PAVING OPERATIONS. THE COST OF THE COVER AGGREGATE SHALL BE INCLUDED IN THE COST OF THIS ITEM.

# ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 PG

THIS MATERIAL IS TO BE USED, WHERE SPECIFIED IN THE PLANS, TO FILL RUTS AND IMPERFECTIONS, AND TO LEVEL AND RE-ESTABLISH THE ORIGINAL ALIGNMENT AND PROFILE OF THE PAVEMENT, PRIOR TO THE PLACEMENT OF THE SURFACE COURSE. THIS MAY RESULT IN A PORTION OF THE ORIGINAL SURFACE BEING EXPOSED BEFORE THE OVERLAY IS PLACED.

ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1: 6,916 X 10%

#### ITEM 604 - MONUMENT ASSEMBLY:

THIS WORK SHALL CONSIST OF FURNISHING AND PLACING CENTERLINE MONUMENTS AT THE FOLLOWING INTERSECTIONS:

- 1.) S.R. 29 AND COUNTY LINE OF MADISON -CHAMPAIGN COUNTY'S
- 2.) S.R. 29 AND TWP. RD. 121 (THOMAS RD.)
- 3.) S.R. 29 AND S.R.38
- 4.) S.R. 29 AND CO. RD. 5 (LAFAYETTE PLAIN CITY RD.)
- 5.) S.R. 29 AND S.R. 42

A REGISTERED SURVEYOR FROM DISTRICT 6 SURVEY DEPARTMENT SHALL BE RESPONSIBLE FOR REFERENCING AND VERIFYING THE LOCATIONS OF THE CENTERLINE MONUMENTS. THE CONTRACTOR SHALL NOTIFY THE SURVEY DEPARTMENT (614-363-1251) 48 HOURS PRIOR TO START OF MONUMENT WORK. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MISCELLANEOUS HARDWARE, AND EQUIPMENT REQUIRED FOR PLACEMENT. PAYMENT WILL BE AT CONTRACT BID PRICE PER EACH. THE FOLLOWING QUANTITY HAS BEEN PROVIDED:

ITEM 604 - MONUMENT ASSEMBLY:

## ITEM 614 - WORK ZONE MARKING SIGN:

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED:

OW-167-36 "NO EDGE LINES" = 24 EACH R-33-30 "DO NOT PASS" = 21 EACH R-34-30 "PASS WITH CARE" = 27 EACH ITEM 614 - WORK ZONE MARKING SIGN = 72 EACH

#### ITEM 614 - TEMPORARY CENTER LINE CLASS II:

THE FOLLOWING QUANTITY HAS BEEN PROVIDED

SLM 0.00 - 12.98 = 12.98 MI (SURFACE COURSE) = 12.98 MI $SLM \ 0.00 - 5.97 = 12.98 \ MI \ (INTERMED. COURSE)$ ≖ 5.97 MI ITEM 614 - TEMPORARY CENTER LINE, CLASS II = 18.95 MI

ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING AND COMPLETED PAVEMENT. WORK ZONES SHALL BE LIMITED IN LENGTH TO THE AMOUNT OF WORK THAT CAN BE PERFORMED THAT DAY.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN, WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, TO THE DISTRICT SIX MAINTENANCE OF TRAFFIC COORDINATOR, THE CONTRACTOR'S MAINTENANCE OF TRAFFIC PLAN WITH CONSTRUCTION PHASING DESCRIPTIONS, PRIOR TO BEGINNING WORK.

#### ITEM 617 WATER:

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER. THIS IS AN ESTIMATED QUANTITY OF 3 M/GAL ITEM 617 WATER: = 3 M/GAL

### ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN:

THIS ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES. THE STAKES SHALL BE SPACED AT 100 FT INTERVALS AND SHALL EXTEND THROUGHOUT THE LENGTH OF THE PROJECT AND THROUGHOUT THE LENGTH OF ALL RAMPS. PLACEMENT OF THE STAKES SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED OR MISSING STAKES.

CONSTRUCTION LAYOUT STAKES, AS PER PLAN WILL BE PAID FOR AT THE CONTRACT LUMP SUM BID, WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING THE REMOVAL, NECESSARY TO COMPLETE THIS ITEM.

### ITEM 626 BARRIER REFLECTOR TYPE A:

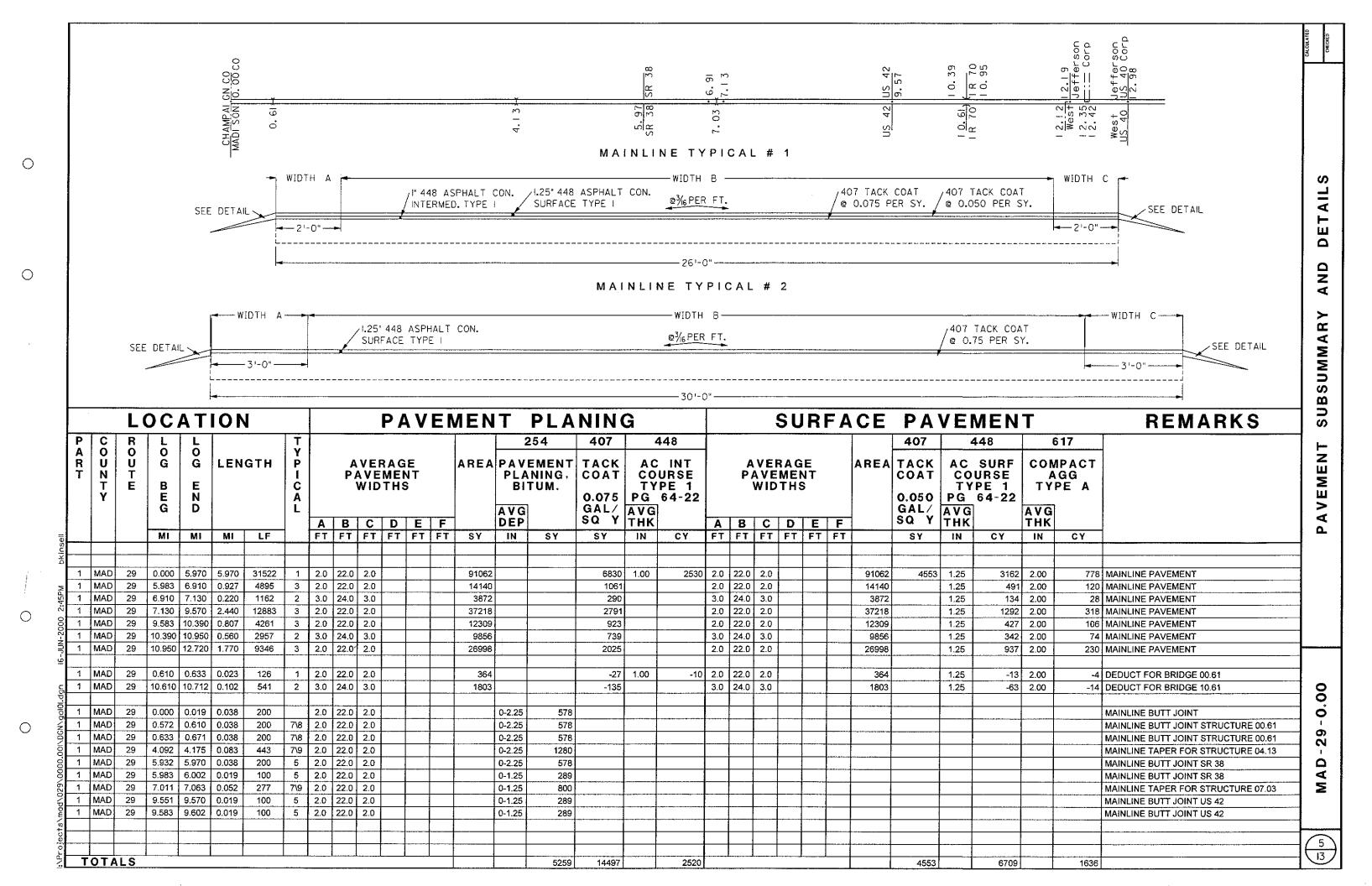
THIS QUANTITY SHALL BE USED TO REPLACE THE BARRIER REFLECTORS, WHICH ARE MISSING FROM THE EXISTING GUARDRAIL AND AS DIRECTED BY THE ENGINEER. ITEM 626 BARRIER REFLECTOR TYPE A:

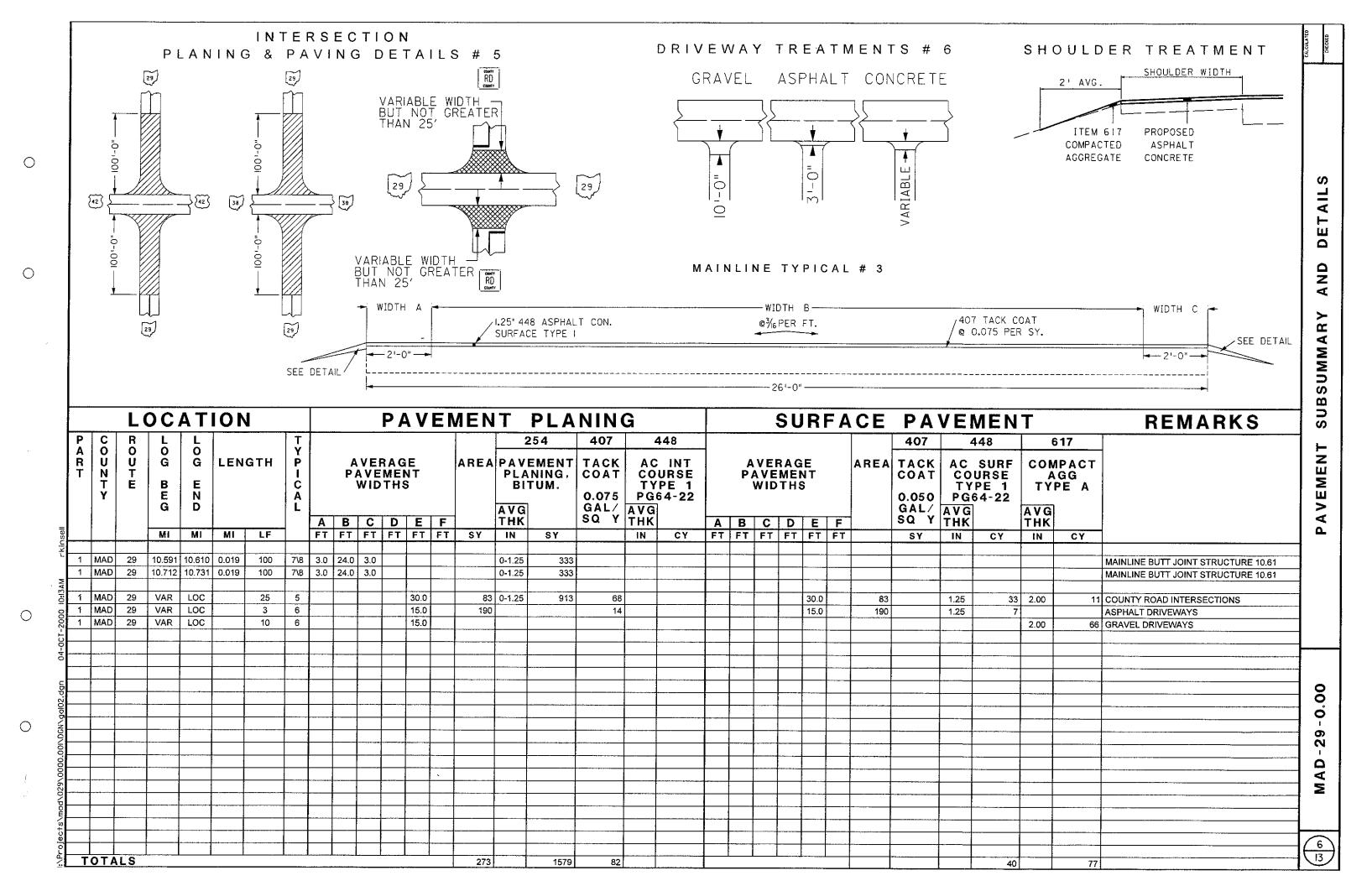
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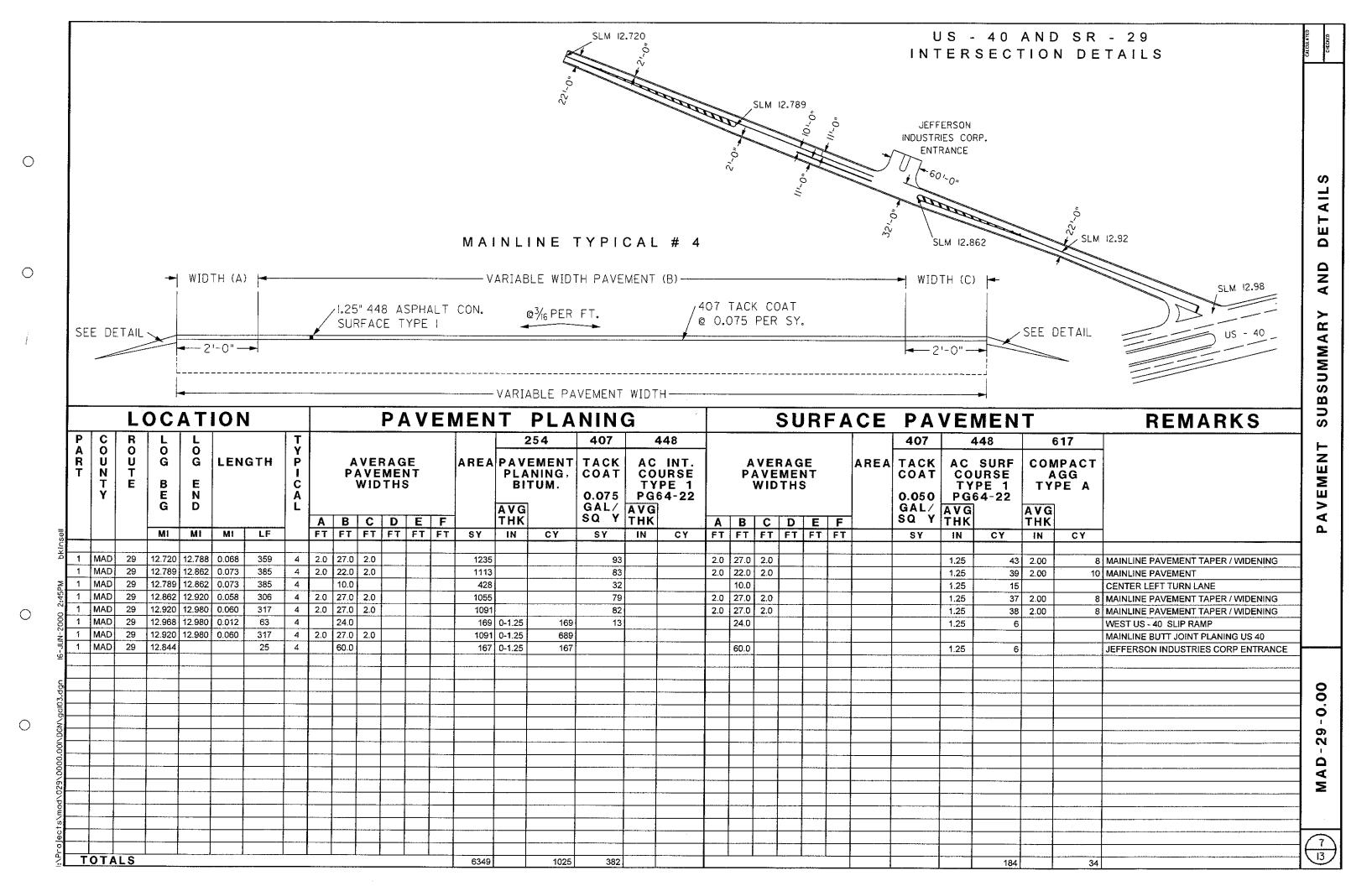
ITEM 806 - FIELD OFFICE, TYPE A, AS PER PLAN:

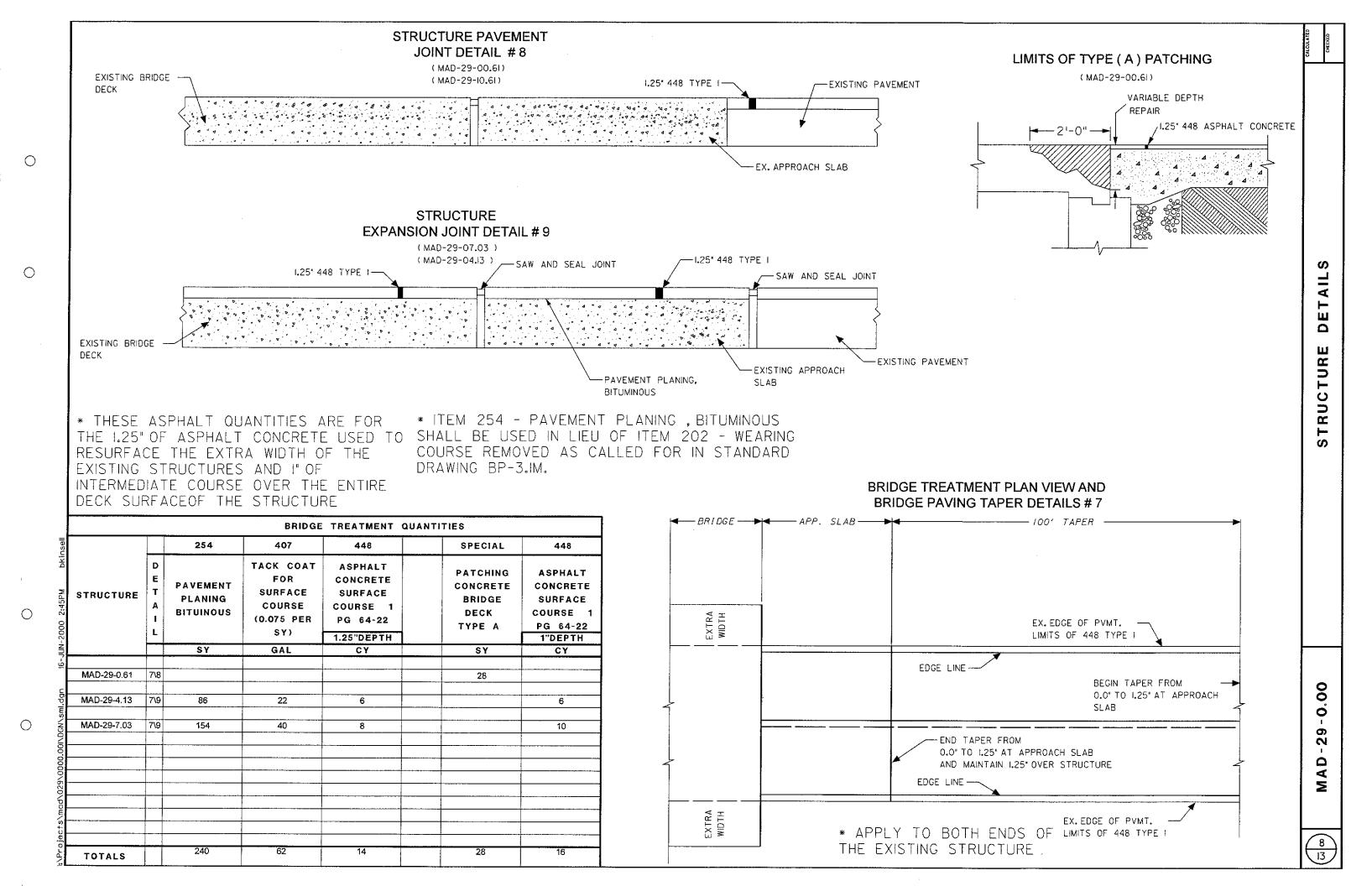
UNDER THIS ITEM, THE CONTRACTOR SHALL PROVIDE A FIELD OFFICE MEETING ALL REQUIREMENTS OF ITEM 806 - FIELD OFFICE, TYPE A, WITH THE FOLLOWING MODIFICATION. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO SEPARATE PHONE LINES FOR THE FIELD OFFICE ON THIS PROJECT. THE FOLLOWING **OUANTITY HAS BEEN PROVIDED:** 

ITEM 806 - FIELD OFFICE, TYPE A, AS PER PLAN = 3 MONTHS









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# ITEM SPECIAL-SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

#### 1) DESCRIPTION:

THIS WORK SHALL CONSIST OF CUTTING AND SEALING TRANSVERSE JOINTS IN THE NEW BITUMINOUS CONCRETE OVERLAY OF BRIDGES. BITUMINOUS CONCRETE JOINTS SHALL BE CONSTRUCTED DIRECTLY OVER, AND IN LINE WITH, THE EXISTING UNDERLYING TRANSVERSE ABUTMENT AND APPROACH SLAB JOINTS.

#### 2) MATERIALS:

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THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ITEM 705.04, JOINT SEALANTS, HOT-POURED, FOR CONCRETE AND ASPHALT PAVEMENTS. ACCEPTABLE ALTERNATE MATERIALS ARE:

A SILICONE SEALANT MEETING FEDERAL SPECIFICATIONS TT-S-001543A CLASS A (ONE-PART SILICONE SEALANTS) AND TT-S-00230C CLASS A (ONE-COMPONENT SEALANTS), SUCH AS THOSE MANUFACTURED BY GENERAL ELECTRIC, SILICONE PRODUCTS DIVISION, 4015 EXECUTIVE PARK DRIVE, CINCINNATI, OHIO 45242 (513-243-1953)OR DOW CORNING, 400 TECHNE CENTER, SUITE 103, MILFORD, OHIO 45150 (513-831-3586); OR SOF-SEAL, A COLD-APPLIED, LOW-MODULUS, TWO-COMPONENT POLY-MERIC COMPOUND HORIZONTAL SEALANT AS MANUFACTURED BY W.R.MEADOWS, INC., P.O. BOX 543, ELGIN, ILLINOIS 60121 (800-342-5976).

#### 3) CONSTRUCTION DETAILS:

A) GENERAL: THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO THAT THE CUTTING, CLEANING AND SEALING OF TRANSVERSE JOINTS IS A CONTINUOUS OPERATION THAT WILL BE PERFORMED AS SOON AS PRACTICAL AFTER THE PAVING, BUT NO LATER THAN FOUR (4) DAYS AFTER PLACEMENT OF THE ASPHALT CONCRETE SURFACE COURSE. TRAFFIC SHALL NOT BE ALLOWED TO KNEAD TOGETHER OR DAMAGE JOINT CUT PRIOR TO SEALING.

B) CUTTING OF TRANSVERSE JOINTS: THE CONTRACTOR SHALL SAW OR ROUT TRANSVERSE JOINTS TO THE DIMENSIONS SHOWN IN THE DETAILS ON THIS SHEET. THE CUT JOINTS SHALL LIE DIRECTLY ABOVE EACH TRANSVERSE JOINT.

THE BLADE OR BLADES SHALL BE OF SUCH SIZE THAT THE FULL WIDTH AND DEPTH OF THE CUT CAN BE MADE WITH ONE PASS. DRY OR WET CUTTING WILL BE ALLOWED. JOINTS SHALL EXTEND THE FULL WIDTH OF THE BRIDGE.

C) CLEANING JOINTS: DRY SAWED JOINTS SHALL BE THOROUGHLY CLEANED WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT, DUST, OR DELETERIOUS MATTER. WET SAWED JOINTS SHALL BE WASHED CLEAN OF ALL CUTTINGS BY FLUSHING WITH A JET OF WATER AND WITH OTHER TOOLS AS NECESSARY. AFTER FLUSHING, THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR. WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 PSI SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST.

IN THE EVENT FRESHLY CUT JOINTS BECOME CONTAMINATED BEFORE THEY ARE SEALED, THEY SHALL BE RE-CLEANED OF ALL FOREIGN MATERIAL BY HIGH PRESSURE WATER JET.

D) SEALING JOINTS: THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE GROOVE.

HOT-POURED JOINT SEALANT MATERIAL SHALL BE HEATED IN A KETTLE OR MELTER CONSTRUCTED AS A DOUBLE BOILER, WITH THE SPACE BETWEEN THE INNER AND OUTER SHELLS FILLED WITH OIL OR OTHER HEAT TRANSFER MEDIUM. POSITIVE TEMPERATURE CONTROL AND MECHANICAL AGITATION SHALL BE PROVIDED. HEATING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. JOINT SEALER MATERIAL SHALL NEVER BE KEPT HEATED AT THE POURING TEMPERATURE FOR MORE THAN FOUR (4) HOURS AND SHALL NEVER BE REHEATED. SEALER LEFT IN THE APPLICATOR AT THE END OF A DAY'S WORK SHALL NOT BE USED.

HOT-POURED SEALANT SHALL BE APPLIED IMMEDIATELY THROUGH A NOZZLE, WHICH MUST PROJECT INTO THE SAWED JOINT, FILLING FROM THE BOTTOM UP. THE SEALANT SHALL COMPLETELY FILL THE JOINT IN SUCH A MANNER THAT, AFTER COOLING, THE LEVEL OF THE SEALANT WILL NOT BE HIGHER THAN 1/8" BELOW THE PAVEMENT SURFACE. ANY DEPRESSION IN THE COOLED SEAL GREATER THAN 1/4" SHALL BE BROUGHT UP TO THE SPECIFIED LIMIT BY FURTHER ADDITION OF HOT-POURED SEALANT. CARE SHALL BE TAKEN IN THE SEALING OF THE JOINTS SO THAT THE FINAL APPEARANCE WILL PRESENT A NEAT FINE LINE.

THE COLD APPLIED SEALANT MATERIALS (POLYURETHANE, SILICONE, AND POLYMERIC COMPOUNDS) SHALL BE INSTALLED AS PER MANUFACTURERS' RECOMMENDATIONS, EXCEPT AS MODIFIED BY THIS DRAWING. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

#### 4) METHOD OF MEASUREMENT:

THE QUANTITY TO BE PAID FOR UNDER THIS ITEM WILL BE THE NUMBER OF LINEAR FEET OF JOINTS SAWED AND SEALED AS PER THE ABOVE REQUIREMENTS.

#### 5) BASIS OF PAYMENT:

THE UNIT PRICE PER LINEAR FOOT FOR ITEM SPECIAL - "SAWING AND SEALING BITUMINOUS CONCRETE JOINTS" SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK, INCLUDING THE FURNISHING AND PLACING OF THE JOINT SEALER MATERIAL.

### 6) QUANTITY PROVIDED:

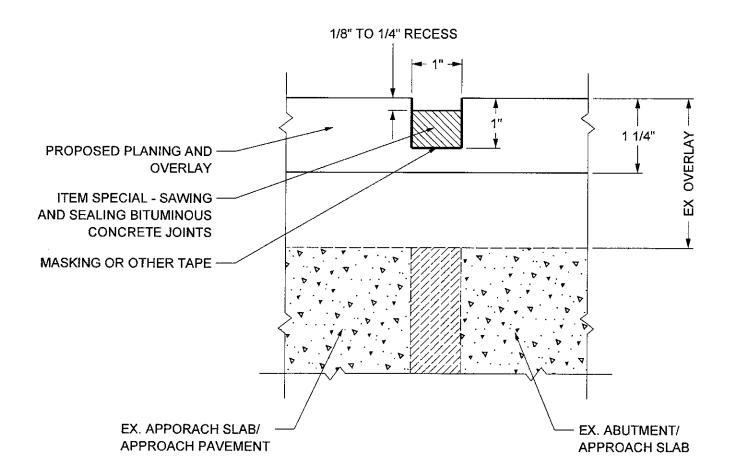
MAD-29-04.13

NUMBER OF JOINTS = 4 (BOTH ABUTMENTS AND APPROACH SLABS)
44' X 4 JOINTS = 176 LF
MAD-29-07.03

NUMBER OF JOINTS = 4 44' X 4 JOINTS = 176 LF

ITEM SPECIAL - "SAWING AND SEALING BITUMINOUS CONCRETE JOINTS"

= 352 LF



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ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RPM MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR, PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY". THE QUANTITY AND TYPE OF DEPARTMENT SUPPLIED MATERIALS ARE SHOWN ON THIS SHEET.

MATERIALS AT THE OPI WAREHOUSE, 315 PHILLIPI ROAD, COLUMBUS, OHIO 43228, FOR SOME PROJECTS HAVING QUANTITIES OF LESS THAN 20 RPMS, THE CONTRACTOR MAY PICK UP RPM MATERIALS AT THE DISTRICT OFFICES. QUANTITIES OVER 20 RPMS WILL BE PICKED UP AT THE RECYCLER'S WAREHOUSE OR AS ARRANGED WITH THE DISTRICT, THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED RPM MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO PICK UP OF THE RPMS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

RETURN OF NON-PERFORMED RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT: RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE THE CONTRACTOR SHALL PICK UP THE DEPARTMENT SUPPLIED RPM OUTSIDE OF EACH CONTAINER, THE COLOR OF THE PRISMATIC RETRO-REFLECTOR, THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORISED OR NON REFLECTORISED) AND NO MORE THAN 420 RPMS (OR 21 BOXES) ON ONE SKID.

> ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE.

NON PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK, SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPMS CORRECTLY. THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

LOADING OF MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE:

TRUCKS SHALL HAVE A LOADING HEIGHT OF 48 INCHES AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK. TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK.

SEMI TRUCKS OR 20 FOOT COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (ONE PALLET = 21 BOXES = 2100 LBS).

STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS THAN 4 PALLETS, PROVIDED THE TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED.

PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT.

THE RECYCLERS WAREHOUSE WILL NOT LOAD DUMP TRUCKS, TILT BED TRUCKS, AND NON COMMERCIAL MOVING VANS. THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OR UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK.

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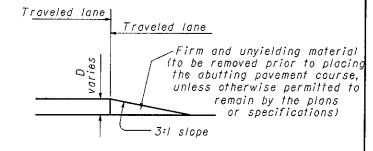
DETAIL		DETAIL	
1	TYPICAL CENTER LINE	7	ONE LANE BRIDGE
2	ACCELERATION LANE	8	STOP APPROACH
3	DECELERATION LANE	9	TWO WAY LEFT TURN LANE
4	4 LANE DIVIDED TO 2 LANE TRANSITION	10	APPROACH W/LEFT TURN LANE
5	4 LANE UNIDIVIDED TO 2 LANE TRANSITION	11	HORIZONTAL CURVE W/RADIUS LESS THAN 1250'
6	MULTILANE DIVIDED-CONTROLLED ACCESS	12	HORIZONTAL CURVE W/RADIUS LESS THAN 820'

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	Y		G	N D	L	E	GHT DGE INE	LANE	LEFT EDGE LINE	RIGHT EDGE LINE	RIGHT EDGE LINE		ELIZING NE	LANE LINE	LEFT EDGE LINE		CENTER LINE		RMVD FOR Storage	INSTALL ONLY	RETRO-		4
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1	MAD	29	0.00	0.37	1					] ]					:			24	897	24	24	CENTER LINE 29	
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1	MAD	29	0.43	6.19	1						<u> </u>							380		380	380	CENTER LINE 29	
1	MAD	29	6.19	6.22	11					1							4		1	4	4	CENTER LINE 29	
1	VIAD	29	6.22	12.72	1	Ţ												429		429	429	CENTER LINE 29	
1	MAD	29	9.57		8	32			1								1	12		44	44	INTERSECTION SR.42	
1	MAD	29	12.72	12.92	10							3		.,				24		27	27	JEFFERSON IND. CORP. ENTRANCE	
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- 2. While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- 3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- 4. The drop-off treatment selected for use at any given location shall be as appropriate for the <u>prevailing</u> conditions at the site.
- 5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing MC-9.2 and Item 622.
- 6. When drums are specified for a dropoff condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- 7. When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
- 8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- 9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
- 10. Pavement Repairs (or similar work):
  - a. Lengths greater than 60 feet utilize appropriate treatment from Condition I.
  - b. Lengths of 60 feet or less repairs shall be effected in accordance with 255.08. Drums may be used as a separator adiacent to the traveled lane.

# OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)

- I. This treatment may be used when permitted for Condition I only.
- 2. OW-171 and OWP-171 signs required.

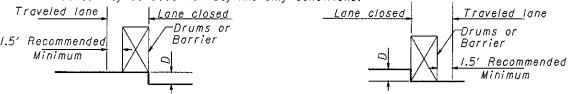


## CONDITION I DROPOFFS BETWEEN TRAVELED LANES

I. These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D (In.)	Treatment
≤11/2	Erect OW-171 and OWP-171 signs.
>11/2-3	<ol> <li>Lane closure utilizing drums*as shown below</li> <li>OR 2) Optional Wedge Treatment</li> </ol>
>3-5	Lane closure utilizing drums as shown below.
>5	Lane closure utilizing portable concrete barrier as shown below.

\*Cones may be used for daytime only conditions.

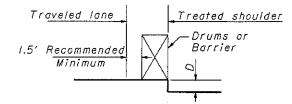


# CONDITION II DROPOFFS WITHIN GRADED SHOULDER AREA

- I. The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- 2. The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials, or concrete). For the purposes herein, its maximum width shall be considered to be twelve (12) feet.

D (In.)	Treatment
≤1½	<ul><li>If edgelines are present, no treatment necessary</li><li>OR 2) Erect OW-I7I and OWP-I7I signs.</li></ul>
<i>\\\</i> 2−5	<ol> <li>If min. lane width*requirements can be met, maintain lanes utilizing drums as shown below</li> <li>OR 2) If min. lane width*requirements cannot be met, close adjacent lane utilizing drums</li> <li>OR 3) Optional Shoulder Treatment.</li> </ol>
>5-12 Daylight only	lf min. lane width*requirements can be met, maintain lanes utilizing drums as shown below.
>5-24	<ol> <li>If min. lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below.</li> <li>OR 2) If min. lane width*requirements cannot be met, close adjacent lane utilizing drums.</li> </ol>
>24	Lane closure utilizing portable concrete barrier as shown below.

\*Minimum lane widths shall be 10' unless otherwise specified in the plans.



# OPTIONAL SHOULDER TREATMENT

- I. This treatment may not be used within a bituminous shoulder where a hot longitudnal joint per 401.15 is required.
- 2. OW-I5I signs required.



# CONDITION III

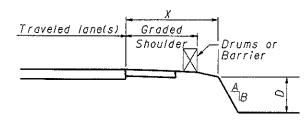
DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB

- I. See Note 2 under Condition II.
- 2. Use Chart A or B below, as applicable.

## CHART A

USE FOR: I. Uncurbed Facilities.

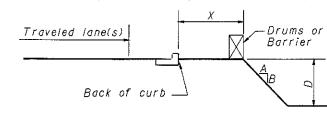
- 2. Curbed Facilities, where:
  - a. Curbs are less than 6" in height.
  - b. Curbs are 6" or greater in height and the legal speed is greater than 40 mph.



Χ	D	4.70	Treatment F	Required
(Ft.)	(In.)	A/B	Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:/ or Flatter	None	None
4-12	<u>≤</u> 3	Steeper than 3:1	None	None
4-12	<i>&gt;3-<u>≤</u>12</i>	Steeper than 3:/	Drums	Drums
4-12	>12	Steeper than 3:1	Drums	Barrier
>12-20	<u><!--2</u--></u>	Steeper_than 3:1	None	None
>12-20	>12-524	Steeper than 3:1	Drums	Drums
>12-20	>24	Steeper than 3:1	Drums	Barrier
20-30	₹24	Steeper than 3:1	None	Drums
20-30	>24	Steeper than 3:1	Drums	Barrier
>30	Any	Any	None	None

# CHART B

USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



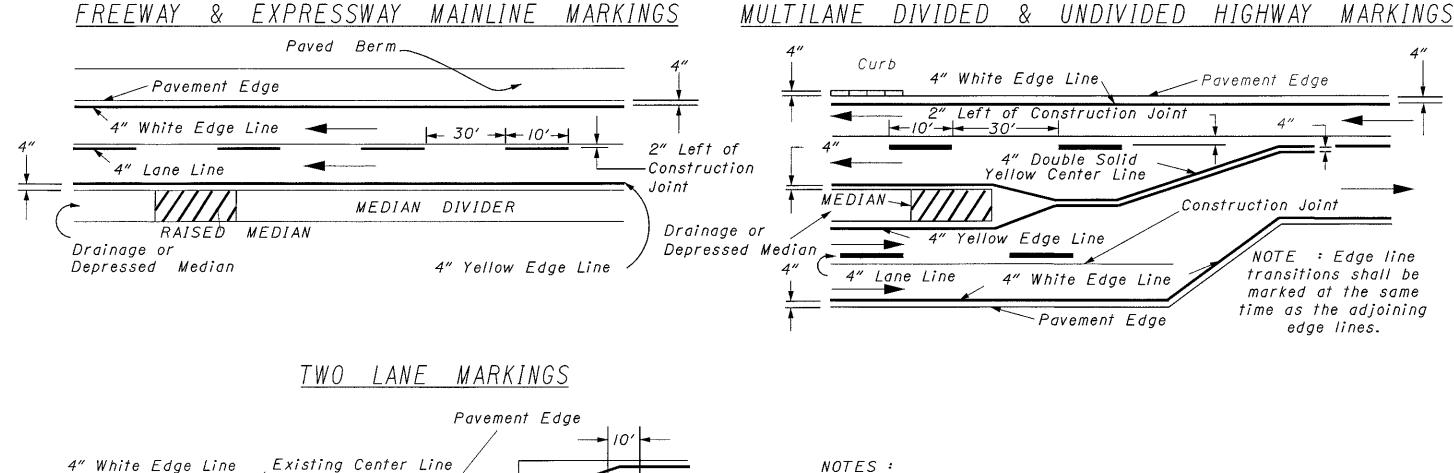
χ	D	A (D	Treatment A	Required
(Ft.)	(In.)	A/B	Day	Night
0-10	<12	Any	None	Drums
0-10	>12	Any	Drums	Drums
<i>→10</i>	Any	Any	None	None

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Pavement Mark

4" Dashed Yellow Center Line

Construction Joint shall govern.

Corrective Spotting

Min. 30:1 Taper Both Sides

At all locations where pavement widths change by construction plans.

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- I. The distance from the pavement edge to the nearside edge of the edgeline may be increased with the approval of the engineer in order to maintain uniform lane width.
- 2. See TC-72.20M for entrance and exit ramp markings.
- 3. The cycle length for dashed lines shall be 10 feet plus or minus 6". The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.