

UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG

Call...800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS
MUST BE CALLED DIRECTLY

STATE OF OHIO DEPARTMENT OF TRANSPORTATION MAH-680-07.05 CITY OF YOUNGSTOWN, IM-680-9(41) MAHONING COUNTY

BP-13-94

PAINTING OF 7 BRIDGES
PID 13438

1993 SPECIFICATIONS

The standard specification of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

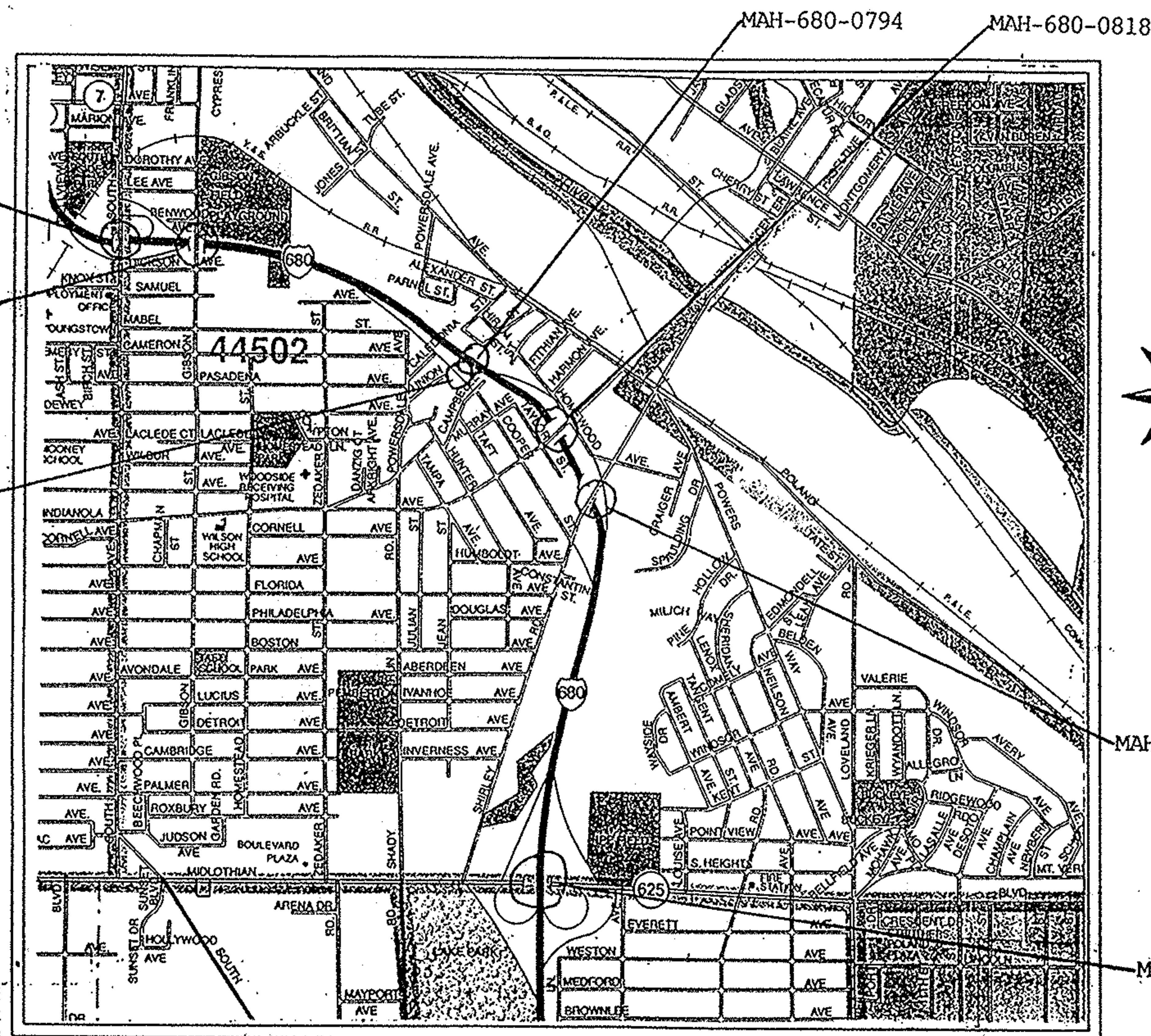
I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved Daniel R. Draper
Date 6-27-94 District Deputy Director
of Transportation

Approved _____
Date _____ Engineer, Bureau of Bridges and
Structural Design

Approved Alexander H. Hynds
Date 6-27-94 Deputy Director, Operations

Approved Jerry Wray
Date 6-27-94 Director, Department of
Transportation



LOCATION MAP

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

| | | | |
|-------------------|-------------------|--|--|
| TC-35.10.8-29-84 | MC-5 6-12-75 | | |
| TC-41.10.8-29-84 | CB-2-2-A&B 5-1-79 | | |
| TC-41.20.3-26-79 | HL-20.31 5-1-87 | | |
| TC-52.10.4-3-79 | GR-2.1 5-6-91 | | |
| TC-52.20.4-3-79 | GR-4.1 5-6-91 | | |
| MT-95.30.10-10-88 | GR-4.2 5-6-91 | | |
| MT-105.10.7-1-92 | MC-9.2 5-6-91 | | |
| MT-105.11.7-1-92 | | | |
| MT-97.10.4-29-88 | | | |
| BP-5.1 2-21-92 | | | |

PLAN PREPARED BY:
OHIO DEPARTMENT
OF
TRANSPORTATION
DISTRICT 4
BRIDGE OFFICE

Project : _____
Date of Letting _____, 19__ Contract No. _____

| SUPPLEMENTAL SPECIFICATIONS | |
|-----------------------------|--|
| 910 5-20-91 | |
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| | |

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE

GENERAL SUMMARY

COMPLETED BY TJB DATE 3-94
CHECKED BY TJM DATE 5-94
PLAN NO. _____

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|-------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05

2
28

| BRIDGE NUMBER | | | | | | | PLAN NOTE | ITEM | ITEM EXT. | GRAND TOTAL | UNIT | DESCRIPTION | | |
|---------------|--------------|---------------|--------------|--------------|--------------|--------------|-----------|------|-----------|-------------|---------|-----------------------------------|--|------------------------|
| MAH-680-0705 | MAH-680-0724 | MAH-680-0792E | MAH-680-0794 | MAH-680-0818 | MAH-680-0834 | MAH-680-0923 | | LUMP | 201 | 11001 | LUMP | CLEARING AND GRUBBING,AS PER PLAN | | |
| | | | | | | | | 925 | 202 | 38000 | 925 | LN.FT. | GUARDRAIL REMOVED | |
| | | | 2 | | | | | | 202 | 42000 | 2 | EACH | ANCHOR ASSEMBLY REMOVED,TYPE A | |
| | | 1 | | | | | | | 202 | 42206 | 1 | EACH | ANCHOR ASSEMBLY REMOVED | |
| | | | 3 | | | | | | 202 | 75507 | 3 | EACH | UNDERPASS LUMINAIRE REMOVED,AS PER PLAN | |
| | | | | | | | | | | | | | | |
| 1 | | | | | | | | | 202 | 98100 | 1 | EACH | REMOVAL MISC.: REMOVAL OF BRIDGE MOUNTED SIGN | |
| | | | | | | 583 | | | 202 | 30501 | 583 | SY. | CONCRETE MEDIAN REMOVED,AS PER PLAN | |
| | | | 0.04 | | | | | | 203 | 60500 | 0.04 | MILE | LINEAR GRADING | |
| | | | 71 | | | | | | 203 | 40000 | 71 | CY. | BORROW | |
| | | | 178 | | | | | | 301 | 10002 | 178 | CY. | BITUMINOUS AGGREGATE BASE,AC-20 | |
| | | | | | | | | | | | | | | |
| 1211 | 987 | 771 | 839 | 864 | 1596 | 1308 | | | SPECIAL | 512-67502 | 7576 | SY. | SEALING OF CONCRETE SURFACES,(EPOXY) * | |
| | 167 | | | | | | | | 513 | 16590 | 167 | LB. | STRUCTURAL STEEL,MISC.: REPLACEMENT OF INTERMEDIATE CROSSFRAMES, AS PER PLAN | |
| 17.801 | 16J63 | 20788 | 29850 | 12J25 | 40,230 | 35,272 | | | SPECIAL | 514-00050 | 172,229 | S.F. | SURFACE PREPARATION OF EXISTING STEEL,SYSTEM OZEU * | |
| 17.801 | 16J63 | 20788 | 29850 | 12J25 | 40,230 | 35,272 | | | SPECIAL | 514-00056 | 172,229 | S.F. | FIELD PAINTING OF EXISTING STEEL,PRIME COAT,SYSTEM OZEU * | |
| | | | | | | | | | | | | | | |
| 17.801 | 16J63 | 20788 | 29850 | 12J25 | 40,230 | 35,272 | | | SPECIAL | 514-00060 | 172,229 | S.F. | FIELD PAINTING OF EXISTING STEEL,INTERMEDIATE COAT, SYSTEM OZEU * | |
| 18,234 | 16J63 | 20788 | 29850 | 12J25 | 40,230 | 35,272 | | | SPECIAL | 514-00066 | 172,662 | S.F. | FIELD PAINTING OF EXISTING STEEL,FINISH COAT,SYSTEM OZEU * | |
| 62 | 60 | 50 | 108 | 46 | 96 | 124 | | | SPECIAL | 514-00504 | 546 | MAN HRS | GRINDING FINIS,TEARS,AND SLIVERS * | |
| 6220 | 3600 | 760 | 2580 | 2592 | 3682 | 5576 | | | SPECIAL | 514-00508 | 25,010 | LN.FT. | GRINDING FLANGE EDGES * | |
| | | | | | | | | | | | | | | |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | | | SPECIAL | 514-00500 | 70 | LN.FT. | CAULKING * | |
| 133 | 80 | 56 | 238 | 61 | 155 | 266 | | | 516 | 31001 | 989 | LN.FT. | JOINT SEALER (705.04),AS PER PLAN | |
| 6 | 10 | 6 | 17 | 6 | 16 | 21 | | | 518 | 62200 | 82 | EACH | STRUCTURE DRAINAGE,MISC.: SCUPPER CLEANOUT | |
| | | | 1 | | | | | | 518 | 62200 | 1 | EACH | STRUCTURE DRAINAGE,MISC.: CLEANOUT OF INLET | |
| | 8 | 3 | 20 | 6 | 15 | 20 | | | 518 | 62200 | 72 | EACH | STRUCTURE DRAINAGE,MISC.: FOOTER DRAIN REPLACEMENT | |
| | | | | | | | | | | | | | | |
| 133 | | | | | | | | | SPECIAL | 516-14110 | 133 | LN.FT. | 3/4 "CONTINUOUS SEAL IN STRUCTURAL STEEL JOINT | |
| | | | | | | 185 | | | SPECIAL | 516-14100 | 185 | LN.FT. | 2 "CONTINUOUS SEAL IN POLYMER CONCRETE JOINT | |
| 100 | 130 | | 20 | 70 | 65 | 40 | | | 519 | 11100 | 425 | S.F. | PATCHING CONCRETE STRUCTURES | |
| | | 60 | 560 | | 56 | 224 | | | 601 | 21001 | 900 | SY. | CONCRETE SLOPE PROTECTION,AS PER PLAN | |
| | | 334 | | | 103 | 2 | | | 601 | 34101 | 439 | CY. | ROCK CHANNEL PROTECTION,TYPE B WITHOUT FILTER,AS PER PLAN | |
| | | | | | | | | | | | | | | |
| | | | 176 | | | 30 | | | 601 | 38400 | 256 | LN.FT. | PAVED GUTTER,TYPE 2 | |
| | | | | | 165 | | | | 601 | 40000 | 165 | LN.FT. | PAVED GUTTER,MISC.: MODIFIED GUTTER REPLACEMENT | |
| | | 128 | | | | | | | 603 | 01500 | 128 | LN.FT. | 6" CONDUIT,TYPE F | |
| | | 1 | | | | | | | 604 | 01501 | 1 | EACH | CATCH BASIN,NO.2-2B,AS PER PLAN | |
| | | | | | | | | | 625 | 606 | 13000 | 625 | LN.FT. | GUARDRAIL,TYPE 5 |
| | | | | | | | | | 300 | 606 | 13050 | 300 | LN.FT. | GUARDRAIL,TYPE 5A |
| | | | 2 | | | | | | | 606 | 25000 | 2 | EACH | ANCHOR ASSFMRIY,TYPE A |

GENERAL SUMMARY

COMPLETED BY TB DATE 3-94

CHECKED BY TKM DATE 5-94

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |



PLAN NO.

MAH-680-07.05

[illegible]

* - SEE PROPOSAL NOTE

TJB

PAINT GENERAL SUMMARY

GENERAL NOTES

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |



MAH - 680 - 07.05

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES, AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS, CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO THE C.M.S. SECTIONS 102.05, 105.02, AND 513.02. CONTRACTOR BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD AND SUBSTANTIATED BY O.D.O.T. PROJECT PERSONNEL FOR MORE INFORMATION, THE ORIGINAL CONSTRUCTION DRAWINGS MAY BE EXAMINED IN THE DISTRICT FOUR (4) OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, 705 OAKWOOD ST., RAVENNA, OHIO AND THE CENTRAL OFFICE, 25 S. FRONT ST., COLUMBUS, OHIO.

CONTINGENCY QUANTITIES

THE CONTRACTOR WILL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE PROJECT ENGINEER/SUPERVISOR" UNLESS AUTHORIZED BY THE PROJECT ENGINEER/SUPERVISOR. (THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.)

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS WILL BE ONGOING IN AREAS IMMEDIATELY ADJACENT TO AND WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR WILL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT OR PROJECTS. IN ACCORDANCE WITH 106.07 THE CONTRACTOR WILL ARRANGE WITH THE OTHER CONTRACTORS, A MUTUALLY ACCEPTABLE WORK SCHEDULE, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR WILL RECEIVE DAILY APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION WILL BE RESOLVED BY THE PROJECT ENGINEER/SUPERVISOR. COMPENSATION FOR THE ABOVE COOPERATION WILL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN

THE INTENT OF THIS ITEM IS TO REMOVE ALL TREES, BUSHES, AND HIGH WEEDS FROM UNDERNEATH ALL STRUCTURES. TREES WILL BE CUT FLUSH WITH THE GROUND AND ALL STUMPS AND ROOTS WILL REMAIN IN PLACE. CLEARING AND GRUBBING WILL BE DONE AT ALL ABUTMENTS FOR A DISTANCE OF 20 FEET ON EACH SIDE OF ALL STRUCTURES AS WELL AS UNDERNEATH THE STRUCTURES. THIS ITEM WILL ALSO INCLUDE THE REMOVAL OF ALL TREES AND VINES SURROUNDING THE CLOGGED CATCH BASIN UNDERNEATH MAH-680-0794. THESE TREES WILL BE REMOVED COMPLETELY, INCLUDING THE 'ROOTS'.

STRUCTURE NOS. MAH-680-0705, MAH-680-0724, AND MAH-680-0923 WILL BE PAINTED FIRST AND THEN STRUCTURE NOS. MAH-680-0792E, MAH-680-0794, MAH-680-0818, AND MAH-680-0834 WILL BE PAINTED.

M680705N.DGN

ITEM 203 - LINEAR GRADING

ITEM 203 - BORROW

THE INTENT OF THESE ITEMS IS TO RESHAPE THE AREA BETWEEN THE CURB AND THE PIER COLUMNS UNDERNEATH BRIDGE NO. MAH-680-0794 AT THE SOUTH ABUTMENT. THE GRADING WILL BE DONE UNDERNEATH THE STRUCTURE AND FOR A DISTANCE OF 50 FEET ON EACH SIDE OF THE STRUCTURE. THE AREA WILL BE GRADED AND SHAPED AS PER THE TYPICAL SECTION SHOWN ON SHEET NO. 11.

ITEM 202 - REMOVAL, MISC.: REMOVAL OF BRIDGE MOUNTED SIGN

THE INTENT OF THIS ITEM IS TO REMOVE A BRIDGE MOUNTED SPEED LIMIT SIGN THAT IS ATTACHED TO THE SOUTH FACIA BEAM OVER THE NORTHBOUND LANES OF INTERSTATE 680. THE SIGN IS ATTACHED TO STRUCTURE NO. MAH-680-0705. THE CONTRACTOR WILL REMOVE THE SIGN, AS WELL AS ALL BRACKETS AND WELDS. THE SIGN AND BRACKETS WILL BECOME THE PROPERTY OF THE CONTRACTOR. ALL WELDS WILL BE GROUND SMOOTH WITH THE SURFACE OF THE BEAM WEB. THE REMOVAL OF BRACKETS AND WELDS AND ANY NECESSARY GRINDING WILL BE CONSIDERED INCIDENTAL TO ITEM 202 - REMOVAL, MISC.: REMOVAL OF BRIDGE MOUNTED SIGN.

ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

THE INTENT OF THIS ITEM IS TO REMOVE THE ENTIRE LENGTH OF THE CONCRETE MEDIAN ON MIDLOTHIAN BLVD. FOR THE PURPOSE OF MAINTAINING TRAFFIC. THIS ITEM WILL INCLUDE REMOVAL OF THE MEDIAN AS WELL AS ALL SAWCUTTING NECESSARY TO REMOVE THE MEDIAN AND COMPACTION OF THE EXISTING SUBBASE TO THE SATISFACTION OF THE PROJECT ENGINEER/SUPERVISOR. REFER TO SHEET NO. 19 FOR DETAILS. THE CONCRETE MEDIAN WILL BE REMOVED PRIOR TO THE START OF ANY WORK ON STRUCTURE NO. MAH-680-0923.

ITEM 301 - BITUMINOUS AGGREGATE BASE, AC-20

THE PURPOSE OF THIS ITEM IS TO PLACE THE AGGREGATE BASE WHERE THE CONCRETE MEDIAN ON MIDLOTHIAN BLVD. HAS BEEN REMOVED FOR THE PURPOSE OF MAINTAINING TRAFFIC. THIS ITEM WILL ALSO INCLUDE REMOVAL OF THE 301 MATERIAL AFTER ALL REPAIRS HAVE BEEN MADE ON STRUCTURE NO. MAH-680-0923. REFER TO SHEET NO. 19 FOR DETAILS.

ITEM 513 - STRUCTURAL STEEL, MISC.: REPLACEMENT OF INTERMEDIATE CROSSFRAMES, AS PER PLAN

ON BRIDGE NO. MAH-680-0724, THERE IS ONE (1) SET OF DAMAGED INTERMEDIATE CROSSFRAMES OVER THE NORTHBOUND LANES, IN THE CENTER BAY. SECOND SET OF CROSSFRAMES FROM CENTERLINE PIER NO. 2. THE CROSSFRAMES ARE THREE (3) ANGLES 3" X 3" X $\frac{3}{16}$ " AND ARE TO BE REPLACED IN KIND. STEEL WILL BE AISC CATEGORY 1, A36 STEEL, MADE IN THE U.S.A. THE REQUIREMENTS OF 501.04 APPROVAL OF FABRICATOR AND 501.05 SHOP DRAWINGS ARE NOT REQUIRED. CROSSFRAMES WILL BE PLACED BACK IN THEIR ORIGINAL POSITIONS. OLD CROSSFRAME WELDS WILL BE GROUND SMOOTH AND BE PREPARED FOR WELDING AFTER THE MAGNETIC PARTICLE TEST HAS BEEN PERFORMED.

ITEM SPECIAL - SURFACE PREPARATION OF EXISTING STEEL SYSTEM OZEU

ITEM SPECIAL - FIELD PAINTING OF EXISTING STEEL PRIME COAT, SYSTEM OZEU

ITEM SPECIAL - FIELD PAINTING OF EXISTING STEEL INTERMEDIATE COAT, SYSTEM OZEU

ITEM SPECIAL - FIELD PAINTING OF EXISTING STEEL FINISH COAT, SYSTEM OZEU

THE URETHANE FINISH COAT ON ALL BRIDGES PAINTED ON THIS PROJECT SHALL BE BLUE FS-595A-15450.

THE SURFACE AREA HAS BEEN INCREASED BY A PERCENTAGE DESCRIBED BELOW TO ACCOUNT FOR ALL INCIDENTALS SUCH AS: CROSS FRAMES, GUSSET PLATES, BOLTS, MOMENT PLATES, BEARING ASSEMBLIES, EXPANSION JOINTS, SCUPPERS, CURB PLATES, ETC.

ONE (1) UTILITY LINE WILL BE PAINTED, WITH A FINISH COAT ONLY. THAT LINE IS ON MAH-680-0705. ALL OTHER UTILITY LINES ON ALL OTHER BRIDGES ON THIS CONTRACT WILL NOT BE PAINTED. THE CONTRACTOR WILL PROTECT ALL OTHER UTILITIES FROM BLASTING AND PAINTING OPERATIONS. ALL UTILITY SUPPORT ANGLES WILL BE ADEQUATELY CLEANED AND PAINTED WITH ALL THREE (3) COATS OF SYSTEM OZEU. THE CONTRACTOR WILL ALSO PROTECT A UTILITY WIRE THAT IS ATTACHED TO THE BEAMS ON MAH-680-0923.

| BRIDGE NO. | STRUCTURAL FILE NO. | PERCENTAGE |
|---------------|---------------------|------------|
| MAH-680-0705 | 5003350 | 20% |
| MAH-680-0724 | 5007291 | 20% |
| MAH-680-0792E | 5007348 | 25% |
| MAH-680-0794 | 5007380 | 20% |
| MAH-680-0818 | 5007429 | 20% |
| MAH-680-0834 | 5007534 | 25% |
| MAH-680-0923 | 5007577 | 20% |

SOLVENT CLEANING

PRIOR TO ABRASIVE BLASTING, THE SURFACES TO BE PAINTED ON ALL STRUCTURES SHALL BE SOLVENT CLEANED TO REMOVE ALL TRACES OF ASPHALTIC CEMENT, OIL, GREASE, DIESEL FUEL DEPOSITS, AND OTHER SOLUBLE CONTAMINANTS AS DIRECTED BY THE PROJECT ENGINEER/SUPERVISOR. SEE PROPOSAL NOTE FOR SPECIFICATIONS.

ITEM SPECIAL - CAULKING

THIS ITEM SHALL BE SET UP FOR EACH BRIDGE ON THIS PROJECT TO BE USED AS DIRECTED BY THE PROJECT ENGINEER/SUPERVISOR. SEE PROPOSAL NOTE FOR SPECIFICATIONS.

ITEM 518 - STRUCTURE DRAINAGE, MISC.: CLEANOUT OF INLET

THIS ITEM OF WORK SHALL CONSIST OF UNCLOGGING THE INLET UNDERNEATH BRIDGE NO. MAH-680-0794 AT THE SOUTH ABUTMENT. ALL DIRT AND DEBRIS WILL BE REMOVED FROM THE INLET AND FREE FLOW OF WATER THROUGH THE DRAINAGE PIPE WILL BE RESTORED.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR OPERATIONS
BRIDGE SECTION

GENERAL NOTES

| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
|----------|-------|---------|----------|------|---------|
| TB | TB | TB | TB | 3-94 | |

GENERAL NOTES

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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MAH - 680 - 07.05

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ITEM 519 - PATCHING CONCRETE STRUCTURES

THIS ITEM HAS BEEN SET UP FOR USE AT THE DISCRETION OF THE PROJECT ENGINEER/SUPERVISOR FOR THE PURPOSE OF PATCHING ABUTMENTS, BACKWALLS, WINGWALLS, CURBS, MEDIANS, PARAPETS, PIERS, ETC.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)

THE CONCRETE SURFACES SHOWN ON PLAN SHEETS 158-116 SHALL BE SEALED WITH EPOXY SEALER IN ACCORDANCE WITH THE PROPOSAL NOTE. THE COLOR OF THE EPOXY SEALER WILL BE GRAY, PER FEDERAL STD. 26231. THIS WORK SHALL BE COORDINATED WITH THE PAINTING IN ORDER TO PREVENT OVERSPRAY.

ITEM 516 - JOINT SEALER (705.04), AS PER PLAN

THIS ITEM WILL INCLUDE PLACING THE NEW JOINT SEALER AS WELL AS REMOVING THE EXISTING JOINT SEALER AND WILL ALSO INCLUDE CLEANING OF THE JOINT PRIOR TO PLACING THE NEW JOINT SEALER.

ITEM SPECIAL - 3/4" CONTINUOUS SEAL IN STRUCTURAL STEEL JOINT

ON BRIDGE NO. MAH-680-0705, THERE IS A STRUCTURAL STEEL JOINT ALONG THE CENTERLINE OF THE STRUCTURE. THE CONTINUOUS SEAL WILL BE PLACED IN THIS LOCATION ALONG THE ENTIRE LENGTH OF THE STRUCTURE, FROM EXPANSION JOINT TO EXPANSION JOINT. THE CONTINUOUS SEAL WILL BE A JEENE SEAL AS PER T.L. SOLOMON ENTERPRISES, INC. 9540 MIDWEST AVE., GARFIELD HTS., OHIO 44147, (216) 475-2837. THERE MAY BE TWO RETAINER BARS 3/16" X 1/2" REMAINING IN THE STRUCTURAL STEEL JOINT. THESE WILL BE REMOVED AT THE PROJECT ENGINEER/SUPERVISOR'S DISCRETION AND THE REMOVAL OF THESE BARS WILL BE INCLUDED IN THE COST OF THIS ITEM. THE CONTINUOUS SEAL WILL BE INSTALLED AS PER PROPOSAL NOTE.

ITEM SPECIAL - 2" CONTINUOUS SEAL IN POLYMER CONCRETE JOINT

ON BRIDGE NO. MAH-680-0923, THERE IS A 2" LONGITUDINAL JOINT ALONG THE CENTERLINE OF THE STRUCTURE. THE CONTINUOUS SEAL WILL BE PLACED IN THIS LOCATION ALONG THE ENTIRE LENGTH OF THE STRUCTURE, FROM EXPANSION JOINT TO EXPANSION JOINT. THE CONTINUOUS SEAL WILL BE A JEENE SEAL AS PER T.L. SOLOMON ENTERPRISES, INC. 9540 MIDWEST AVE., GARFIELD HTS., OHIO 44147, (216) 475-2837. THE CONTINUOUS SEAL WILL BE INSTALLED AS PER PROPOSAL NOTE.

ITEM 518 - STRUCTURE DRAINAGE, MISC.: SCUPPER CLEANOUT

ALL SCUPPERS DEEMED BY THE PROJECT ENGINEER/SUPERVISOR TO BE CLOGGED WILL BE CLEANED FREE OF ANY DEBRIS. THIS ITEM WILL ALSO INCLUDE THE CLEANING OUT OF THE SCUPPER COLLECTION SYSTEMS ON MAH-680-0705 AND MAH-680-0792E.

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER, AS PER PLAN

THE PURPOSE OF THIS ITEM IS TO PROTECT THE SLOPE AT THE SOUTH ABUTMENT OF BRIDGE NO. MAH-680-0792E. THE ROCK CHANNEL PROTECTION WILL BE 1'-6" THICK AND BE PLACED ON A BED OF NO. 3 CRUSHED GRAVEL, STONE, OR SLAG, 6" THICK. THE ROCK WILL BE PLACED FROM TOP OF SLOPE TO THE TOE OF THE SLOPE. THE NO. 3 STONE WILL ALSO BE USED TO FILL IN ANY VOIDS ON THE SLOPE AND WILL BE INCLUDED IN PAYMENT FOR ITEM 601 - ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER, AS PER PLAN.

ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN

A QUANTITY OF 900 SQ.YD. HAS BEEN ALLOTTED FOR BRIDGE NOS. MAH-680-0792E, MAH-680-0794, MAH-680-0834, AND MAH-680-0923 FOR THE PURPOSE OF REPLACING ALL HEAVED OR SEVERELY CRACKED CONCRETE SLOPE PROTECTION PANELS. THE PROJECT ENGINEER/SUPERVISOR WILL DETERMINE WHICH PANELS ARE TO BE REPLACED. PAYMENT FOR THIS ITEM WILL INCLUDE REMOVAL OF THE EXISTING SLOPE PROTECTION PANELS AND ANY INCIDENTALS SUCH AS SAWCUTTING, OR ANY SUBGRADE MATERIAL NEEDED TO FILL IN VOIDS UNDER THE SLOPE PROTECTION IN THE REMOVAL AREA, REINFORCING STEEL, CONCRETE, AND PREFORMED FILLER. IF THE PROJECT ENGINEER/SUPERVISOR DEEMS THAT IT IS NECESSARY TO REPLACE ANY SLOPE PROTECTION PANELS AT THE TOE OF THE SLOPE, THEY SHALL BE PLACED AS PER THE DETAIL ON SHEET NO. 8. ALSO, ALL PANELS AT THE TOE OF THE SLOPE AT THE SOUTH ABUTMENT OF MAH-680-0923 WILL BE REPLACED WITH NEW PANELS. AT THE NORTH ABUTMENT OF BRIDGE NO. MAH-680-0794, CONCRETE SLOPE PROTECTION WILL BE PLACED AT THE TOE OF THE SLOPE BETWEEN THE PIER COLUMNS. REMOVAL OF ROCKS AND DEBRIS WILL BE PAID UNDER THIS ITEM. ALL SLOPE PROTECTION PANELS AT THE TOP OF THE SLOPE, BY THE ABUTMENTS AT BRIDGE NOS. MAH-680-0792E AND MAH-680-0794 WILL BE REPLACED WITH NEW PANELS.

ITEM 604 - CATCH BASIN, NO. 2-2B, AS PER PLAN

A CATCH BASIN, TYPE 2-2B WILL BE PLACED AT THE TOP OF THE SLOPE AT THE SOUTH ABUTMENT OF BRIDGE NO. MAH-680-0792E ACCORDING TO THE DETAILS ON SHEET NOS. 170-111. THE CATCH BASIN WILL BE PREFABRICATED ACCORDING TO STANDARD DRAWING CB-2-2-A&B WITH THE FOLLOWING EXCEPTIONS: THE HOLES FOR THE PIPES WILL BE PREFABRICATED AT THE PLANT AND THE CATCH BASIN WILL HAVE A PREFABRICATED SOLID LID WITH LOCKING GROOVES, 8" THICK, AND THE JOINT BETWEEN THE LID AND THE CATCH BASIN WILL BE SEALED WITH A MASTIC SEALER TO PREVENT SEEPAGE. THE COST OF THE MODIFIED LID AND ANY INCIDENTALS SUCH AS MASTIC SEALER SHALL BE INCLUDED IN THE COST OF ITEM 604 - CATCH BASIN, NO. 2-2B, AS PER PLAN.

ITEM 606 - GUARDRAIL, TYPE 5

ITEM 606 - GUARDRAIL, TYPE 5A

ITEM 606 - ANCHOR ASSEMBLY, TYPE A

ITEM 606 - ANCHOR ASSEMBLY, TYPE T

THE PURPOSE OF THESE ITEMS ARE TO REPLACE THE EXISTING GUARDRAIL UNDERNEATH BRIDGE NOS. MAH-680-0792E AND MAH-680-0794 AS WELL AS THE EXISTING ANCHOR ASSEMBLIES. THE GUARDRAIL TYPE 5A WILL BE PLACED IN FRONT OF THE BRIDGE PIERS. THE NEW ANCHOR ASSEMBLIES WILL BE PLACED IN APPROXIMATELY THE SAME LOCATION AS THE EXISTING ANCHORS.

ITEM 609 - CURB, TYPE 6

THE PURPOSE OF THIS ITEM IS TO REPLACE THE EXISTING CURB AT THE SOUTH ABUTMENT OF BRIDGE NO. MAH-680-0923, ON MIDLOTHIAN BLVD.

ITEM 612 - CONCRETE MEDIAN, AS PER PLAN

THE PURPOSE OF THIS ITEM IS TO REPLACE THE CONCRETE MEDIAN ON MIDLOTHIAN BLVD. THIS WILL NOT BE PERFORMED UNTIL ALL OTHER WORK ON STRUCTURE NO. MAH-680-0923 IS COMPLETED. REFER TO SHEET NO. 19 FOR DETAILS.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

THE CONTRACTOR SHALL PROVIDE THE SERVICE OF LAW ENFORCEMENT OFFICERS (L.E.O.) WITH A PATROL CAR, AT THE PROJECT ENGINEER/SUPERVISOR'S REQUEST, FOR THE PURPOSE OF CONTROLLING THROUGH TRAFFIC. THE L.E.O. WITH A PATROL CAR WILL BE UTILIZED DURING INSTALLATION OF TRAFFIC CONTROL DEVICES FOR LANE CLOSURES AND AS AUTHORIZED BY THE PROJECT ENGINEER/SUPERVISOR.

INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR THE L.E.O. MAY BE OBTAINED BY CONTACTING OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO, TELEPHONE 614-466-2300. IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE L.E.O., THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER EQUIPPED WITH A MARKED AND FLASHER LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR WILL BE PROVIDED. THIS REQUIREMENT DOES NOT PRECLUDE THE CONTRACTOR'S USE OF AN L.E.O. FOR OTHER PURPOSES OF CONTROLLING TRAFFIC AS APPROVED BY THE PROJECT ENGINEER/SUPERVISOR. THE L.E.O. SHALL BE CONSIDERED AN EMPLOYEE OF THE CONTRACTOR AND THE CONTRACTOR WILL BE RESPONSIBLE FOR HIS/HER ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER/SUPERVISOR WILL HAVE CONTROL OVER THE L.E.O. PLACEMENT AND HIS/HER ACTIVITIES. PAYMENT SHALL BE AT THE UNIT PRICE BID FOR THE ACTUAL NUMBER OF HOURS FOR ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR.

ITEM 614 - MAINTAINING TRAFFIC

SEE SHEETS 20-28 FOR MAINTENANCE OF TRAFFIC DETAILS. ALSO REFER TO STANDARD DRAWINGS AND PLAN INSERT SHEETS. MINOR VARIATIONS OF THESE DETAILS MAY BE NECESSARY TO ACCOMMODATE VARIOUS ROADWAY GEOMETRICS AND TRAFFIC DISRUPTIONS. ALL VARIATIONS OF THESE TRAFFIC DETAILS SHALL BE APPROVED BY THE PROJECT ENGINEER/SUPERVISOR. IMPROPER TRAFFIC CONTROL WILL NOT BE PERMITTED AND THE WORK WILL BE HALTED UNTIL THE SITUATION IS CORRECTED. THE SAFETY OF THE TRAVELING PUBLIC, WORKERS, AND INSPECTORS WILL NOT BE JEOPARDIZED. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS, FLAGGERS, WATCHERS, DRUMS, CONES, BARRICADES, SIGNS, SIGN SUPPORTS, AND INCIDENTALS RELATED THERETO. THE ABOVE ITEMS WILL BE UTILIZED IN CONFORMANCE TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION. ALL BARRICADES AND SIGNS WILL BE NEW OR LIKE NEW AT THE BEGINNING OF THE PROJECT, SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER/SUPERVISOR. ANY REPAIRS TO THE TRAFFIC CONTROL DEVICES SHALL BE PERFORMED WITHIN 24 HOURS OF NOTIFICATION.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR OPERATIONS
BRIDGE SECTION

GENERAL NOTES

11680705N.DGN

| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
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| TB | TB | MCN | | 3-94 | |

GENERAL NOTES

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |

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LANE WIDTH RESTRICTION NOTIFICATION

THE CONTRACTOR WILL NOTIFY THE DISTRICT TRAFFIC ENGINEER 18 DAYS PRIOR TO THE RESTRICTION. (216) 297-0801 EXT. 388 DOUG YARD.

CONES WILL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUN-SET OR ONE-HALF HOUR BEFORE SUNRISE. ALL NIGHT TIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM NUMBER OF FIFTY (50) FEET.

A FLASHING ARROW BOARD WILL BE USED FOR TRAFFIC CONTROL WHENEVER THERE IS A LANE RESTRICTION, LANE REDUCTION OR LANE SHIFT OF ALL THROUGH TRAFFIC.

TRAFFIC WILL NOT CROSS OVER THE MEDIAN AT ANY TIME.

THE CONTRACTOR WILL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER/SUPERVISOR, TO CONTINUOUSLY INSPECT TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL WILL ALSO INSPECT ALL TRAFFIC CONTROL DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE, SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS NAMES AND PHONE NUMBERS WILL BE GIVEN TO THE PROJECT ENGINEER/SUPERVISOR AT THE PRECONSTRUCTION MEETING. THE DESIGNATED INDIVIDUALS WILL HAVE NO OTHER CONSTRUCTION RELATED DUTIES. THE TRAFFIC CONTROL INSPECTOR WILL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ON BRIDGE NO. MAH-680-0923, THE CONTRACTOR SHALL PROVIDE ADDITIONAL ROAD CONSTRUCTION AHEAD SIGNS (OW-128-48) ON I-680 EXIT RAMPS AS WELL AS ON SHIRLEY RD. AND LEMOYNE AVE. WHILE PAINTING OPERATIONS ARE BEING PERFORMED.

NO WORK SHALL BE PERFORMED OVER AN OPEN LANE OF TRAFFIC.

THE MAINTENANCE OF TRAFFIC PLAN FOR EACH LOCATION WILL BE SUBMITTED TO THE PROJECT ENGINEER/SUPERVISOR FOR APPROVAL 7 DAYS PRIOR TO IMPLEMENTING.

CONTRACTOR'S EQUIPMENT OPERATION AND STORAGE: THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC, WHERE PRACTICAL. A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT WILL BE EQUIPPED WITH AT LEAST ONE (1) AMBER LIGHT. PAINTING EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN OPERATIONS ARE IN PROGRESS, THE LOCATIONS OF WHICH WILL HAVE PRIOR APPROVAL OF THE PROJECT ENGINEER/SUPERVISOR. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, WILL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. WHEN PARKING EQUIPMENT OVERNIGHT TO BE USED THE FOLLOWING DAY, SUCH EQUIPMENT WILL BE PARKED EITHER FIFTY (50) FEET FROM THE EDGE OF THE PAVEMENT OR SIX (6) FEET BEHIND THE GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ADEQUATE BARRICADES AND LIGHTS WILL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT.

STAGING AND STORAGE: NO PRIVATE VEHICLES (BELONGING TO THE CONTRACTOR'S EMPLOYEES) WILL BE PARKED WITHIN THE L/A LIMITS OF THE HIGHWAY PROJECT. ALL PARKING WILL BE DONE AT THE APPROVED CONTRACTOR'S STAGING AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SHUTTLE VEHICLES TO TRANSPORT HIS PERSONNEL FROM AND TO THE STAGING AREA AND THE WORK SITE.

METHOD OF PAYMENT

PAYMENT FOR THE MAINTENANCE OF TRAFFIC ITEMS, UNLESS SPECIFIED SEPARATELY, WILL BE AT THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS TO COMPLETE THE WORK AS DETAILED IN THE PLANS.

ITEM 622 - PORTABLE CONCRETE BARRIER, 32', AS PER PLAN

DURING PHASE 4 OF THE PAINTING OPERATION FOR MAH-680-0923, PORTABLE CONCRETE BARRIERS WILL BE PLACED ON MIDLOTHIAN BLVD. FOR THE PURPOSE OF TRAFFIC CONTROL. THE PORTABLE BARRIERS WILL BE PLACED AS PER PLAN PAGES 31 & 32. PLACEMENT OF BARRIERS MAY BE ADJUSTED AT THE DISCRETION OF THE PROJECT ENGINEER/SUPERVISOR.

ITEM 614 - TEMPORARY LANE LINES, CLASS 1

ITEM 614 - TEMPORARY CENTER LINES, CLASS 1

ITEM 614 - TEMPORARY STOP LINE, CLASS 1

ITEM 642 - STOP LINE, TYPE 2

ITEM 642 - CENTER LINE, TYPE 2

ITEM 642 - LANE LINE, TYPE 2

THE INTENT OF THESE ITEMS IS TO REMOVE THE EXISTING PAVEMENT MARKINGS AS NEEDED AND REPLACE THEM WITH TEMPORARY MARKINGS DURING THE PAINTING PHASES. AFTER ALL PAINTING PHASES ARE COMPLETED, ALL PAVEMENT MARKINGS WILL BE REPLACED IN THEIR ORIGINAL POSITIONS.

M680705N.DGN

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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | |
| GENERAL NOTES | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE REVISED |
| TB | TB | 7/17/11 | | 3-94 |

GENERAL NOTES

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |

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ITEM 619 - FIELD OFFICE

A FIELD OFFICE, TYPE A, SHALL BE PROVIDED BY THE CONTRACTOR. THE OFFICE WILL PROVIDED WITH POTABLE HOT AND COLD WATER. THE OFFICE SHALL ALSO HAVE NEAT, SANITARY, ENCLOSED TOILET ACCOMMODATIONS; ASSOCIATED LAVATORY AND SANITARY SUPPLIES SHALL BE FURNISHED.

THE FOLLOWING PHONE NUMBERS CAN BE USED IN CASE OF AN EMERGENCY. THESE AGENCIES WILL PROVIDE INFORMATION RELATING TO CHEMICALS: CHEMICAL TRANSPORTATION EMERGENCY CENTER 1-800-424-9300 ENVIRONMENTAL PROTECTION AGENCY HOTLINE 1-800-282-0272

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO GIVE THE UTILITY OWNER SUFFICIENT TIME TO PROTECT THE UTILITY IN WHATEVER FASHION THE OWNER DEEMS NECESSARY.

THE UTILITY CONTACTS ARE:

EAST OHIO GAS CO.
1165 W. RAYEN AVE.
YOUNGSTOWN, OHIO 44502-1394
ATTN: GENE MONAGO
216-746-7611

OHIO EDISON
730 SOUTH AVE.
YOUNGSTOWN, OHIO 44502
ATTN: ROBERT TEREK, DIV. ENGR.
216-747-2071

OHIO BELL
CITY CENTER ONE, P.O. BOX 1587
YOUNGSTOWN, OHIO 44501
ATTN: LYNN A. KAVAN
ENGINEERING MANAGER
216-744-6268

O.D.O.T. - DISTRICT 4
705 OAKWOOD ST.
RAVENNA, OHIO 44268
ATTN: JOHN URSU
216-297-0801

CITY OF YOUNGSTOWN
TRAFFIC ENGR. DIV.
CITY BUILDING
YOUNGSTOWN, OHIO 44503
ATTN: CARMEN CONGLOSE
216-742-8816

CITY OF YOUNGSTOWN
DEPT. OF WATER
CITY BUILDING
YOUNGSTOWN, OHIO 44503
ATTN: EUGENE LESEM
216-742-8755

LIGHTING

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

ITEM 202 - UNDERPASS LUMINAIRE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE THREE EXISTING LUMINAIRES AND ASSOCIATED HARDWARE ON THE NORTH PIER OF BRIDGE NO. MAH-680-0794. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 - UNDERPASS LUMINAIRE REMOVED, AS PER PLAN.

ITEM 625 - CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF CLEANING THE EXISTING CONDUIT FOR THE LUMINAIRES ON THE NORTH PIER OF BRIDGE NO. MAH-680-0794 OF ALL EXISTING CABLES, MUD, AND DEBRIS SO THAT NEW CABLES MAY BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF THE EXISTING CONDUIT AS REQUIRED. BRIDGE JUNCTION BOXES AND THEIR RESPECTIVE DRAIN OUTLETS SHALL BE FREE OF ALL OBSTRUCTIONS. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LINEAR FOOT OF ITEM 625 - CONDUIT CLEANED AND CABLES REMOVED AND SHALL BE FULL COMPENSATION INCLUDING LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY, WORKMANLIKE MANNER.

ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR AN UNDERPASS LIGHTING SYSTEM ON BRIDGE NO. MAH-680-0794 OVER DEWEY AVE. MOUNTINGS, FITTINGS, JUNCTION BOX, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

625 - LUMINAIRE, UNDERPASS, HIGH PRESSURE SODIUM, 713J3, AS PER PLAN

UNDERPASS LUMINAIRES SHALL BE HOLOPHANE UNDERPASS WALLPACK, CROUSE-HINDS WA, OR GENERAL ELECTRIC WL-250 UNDERPASS UNIT OR EQUAL AS APPROVED BY THE ENGINEER, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR 480 VOLTS, 100 WATTS. THE GRILLES COVERING THE LUMINAIRES WILL BE REPLACED IN KIND, AND THE OLD GRILLES WILL BECOME THE PROPERTY OF THE CONTRACTOR. PAYMENT FOR REPLACEMENT OF THE GRILLES WILL BE INCLUDED IN THE BID PRICE FOR ITEM 625 - LUMINAIRE, UNDERPASS, HIGH PRESSURE SODIUM, 713J3.

NOTE: THE CONTROL CENTER FOR THE UNDERPASS LUMINAIRES IS ON RAMP E ON SERVICE POLE 'CS' 45 FEET LT. AT STA. 716+32.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR OPERATIONS
BRIDGE SECTION

GENERAL NOTES

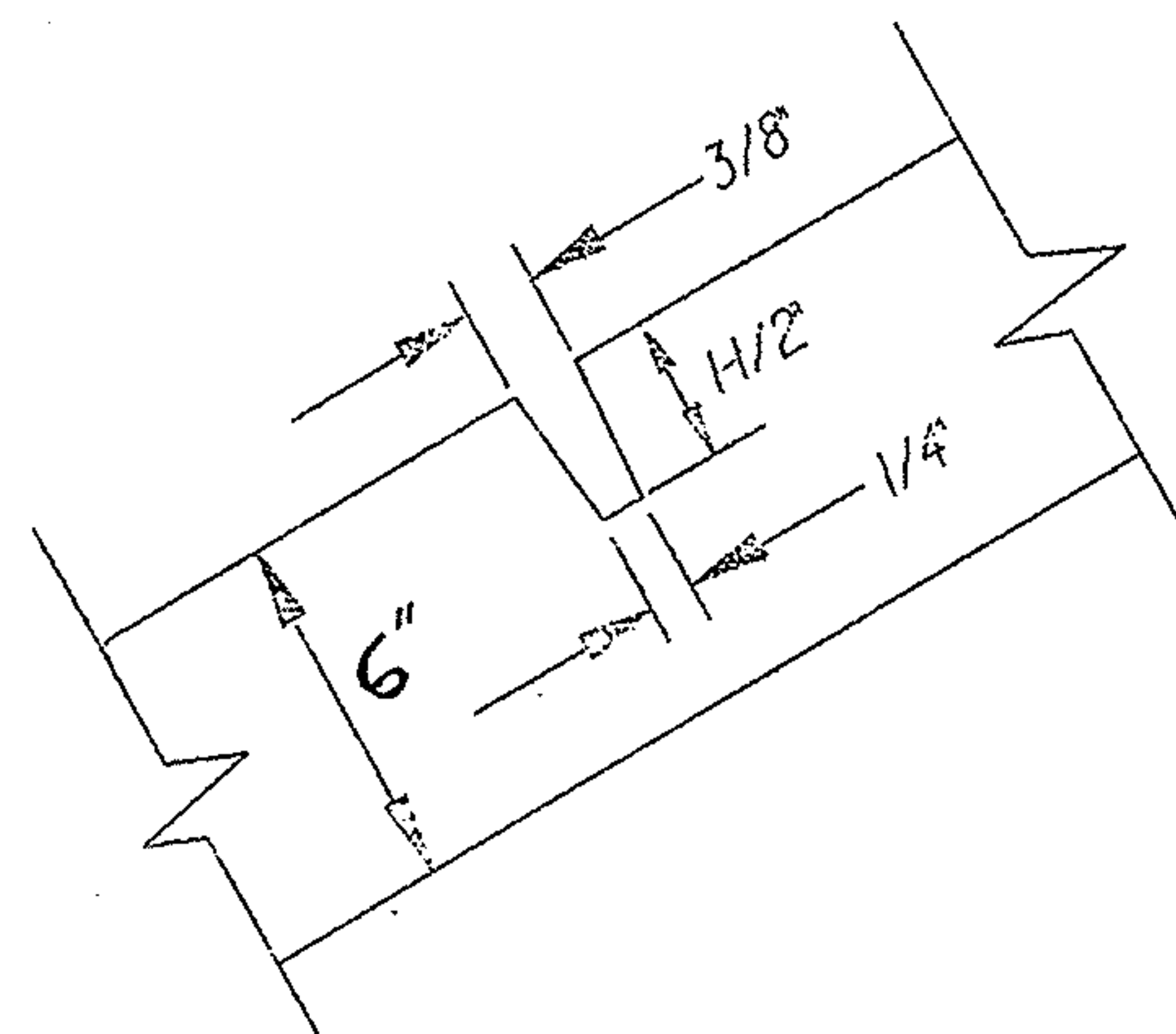
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| TB | TB | RTM | | 3-94 | |

CONCRETE SLOPE PROTECTION DETAILS

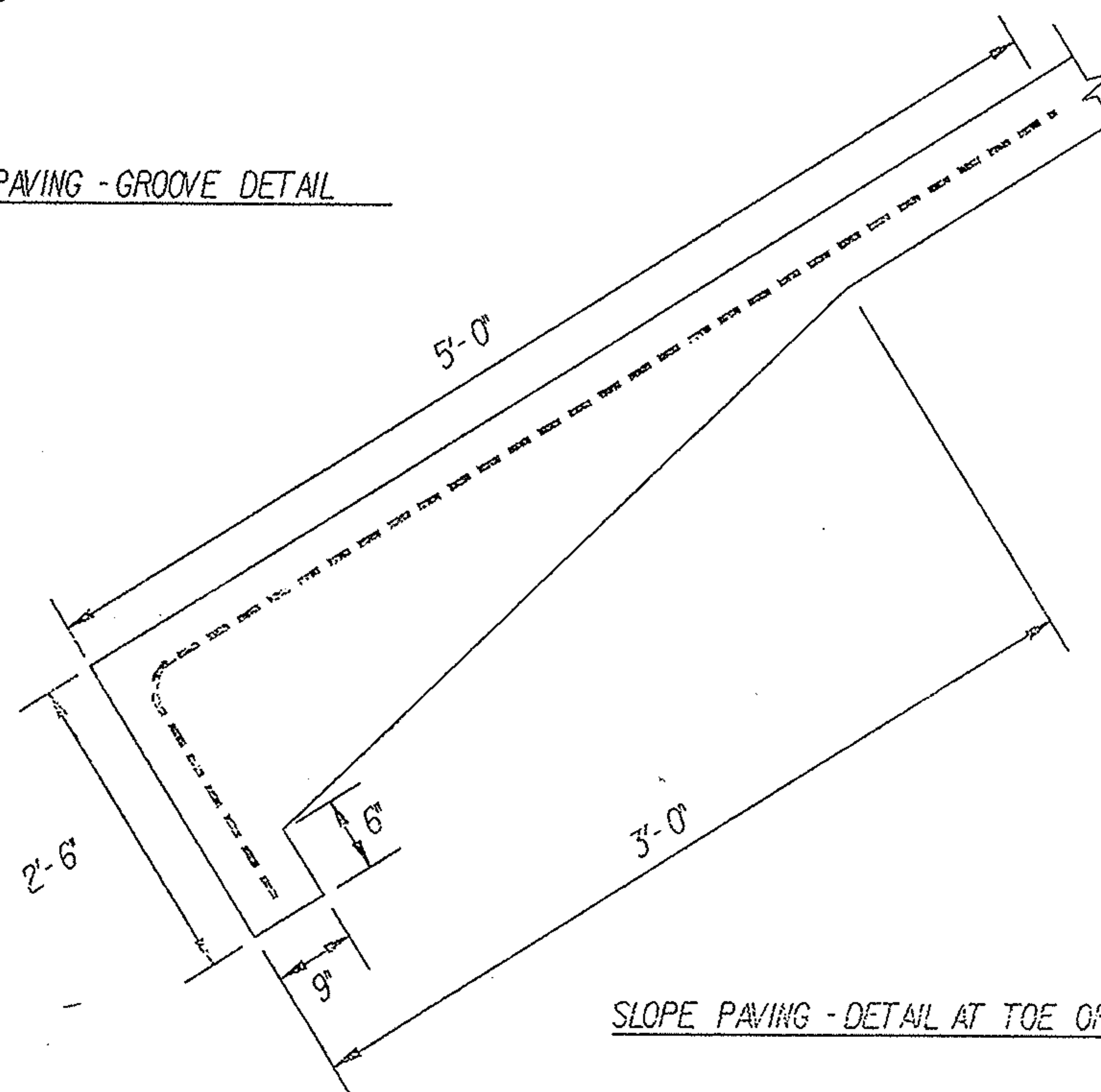
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MAH-680-07.05



SLOPE PAVING - GROOVE DETAIL



SLOPE PAVING - DETAIL AT TOE OF SLOPE

SLOPE PROTECTION SHALL BE SPECIFIED AS ITEM 601.06 CONCRETE SLOPE PROTECTION, 8" CONCRETE SLAB, WITH CHANGES AS NOTED. IT SHALL BE PROVIDED WITH GROOVES AT APPROX. 5 FEET CENTERS, RUNNING PARALLEL TO THE FACE OF THE ABUTMENT IN ONE DIRECTION AND NORMAL TO THE FACE OF THE ABUTMENT IN THE OTHER DIRECTION, EXCEPT THAT AT THE OUTER EDGES OF THE PAVING, GROOVES SHALL BE SO PLACED THAT FIGURES FORMED BY GROOVES WILL BE TRAPEZOIDAL RATHER THAN TRIANGULAR IN SHAPE. THE GROOVES SHALL BE 1 1/2" DEEP, 3/8" WIDE AT THE TOP, AND 1/4" WIDE AT THE BOTTOM. AT THE LOWER EDGE THE PAVEMENT SHALL BE THICKENED AND REINFORCED AS SHOWN TO THE LEFT, TO PROVIDE RESISTANCE TO SLIDING. THE REINFORCEMENT SHALL CONSIST OF DEFORMED STEEL BARS 3/8" ROUND, SPACED AT 24" CENTERS IN TWO DIRECTIONS, PLACED APPROX. MIDWAY BETWEEN THE TOP AND BOTTOM OF THE SLAB. PAYMENT FOR EXCAVATION, REINFORCING STEEL, CONCRETE, AND PREFORMED FILLER SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE SLOPE PROTECTION, AS PER PLAN.

| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
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| CONCRETE SLOPE PROTECTION DETAILS | | | | | |
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| TB | TB | TCM | | 3-94 | |

FOOTER DRAIN REPLACEMENT DETAILS

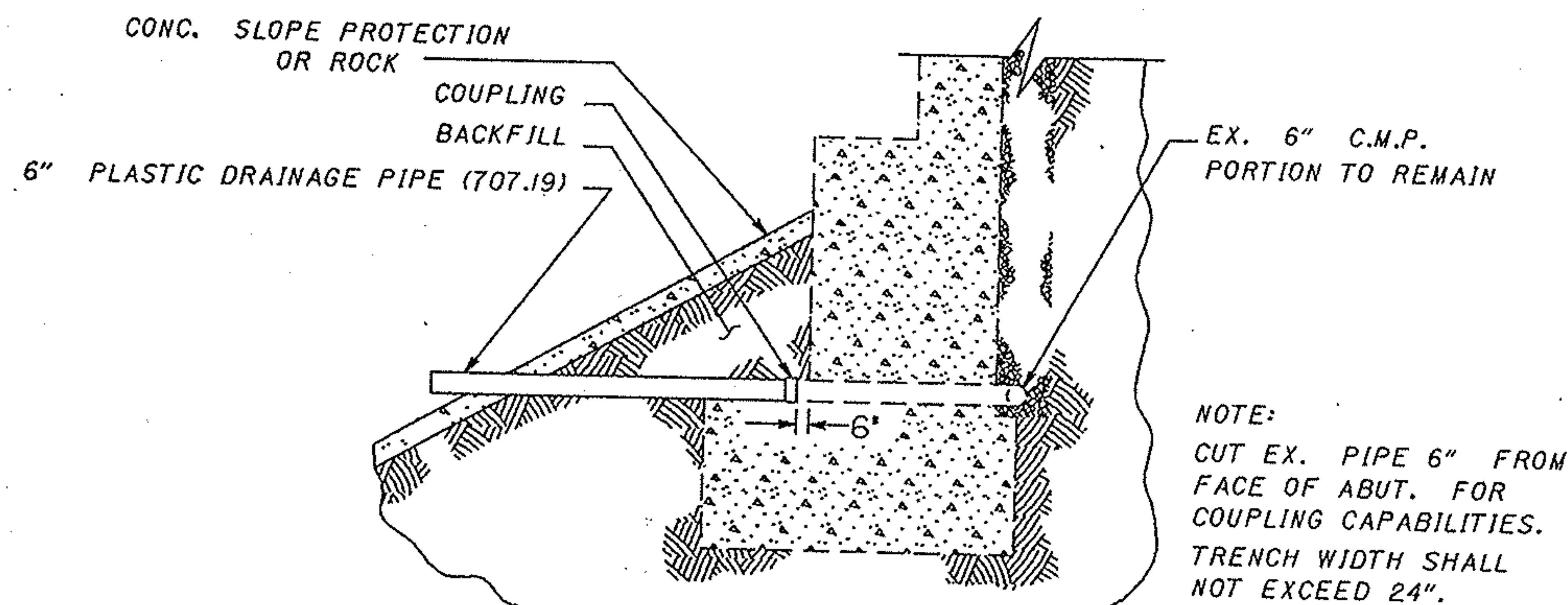
| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |



MAH - 680 - 07.05

ITEM 518 - STRUCTURE DRAINAGE, MISC.: FOOTER DRAIN REPLACEMENT

THIS ITEM SHALL BE PERFORMED AT THE ABUTMENTS OF ALL STRUCTURES ON THIS PROJECT EXCEPT MAH-680-0792E. THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING PIPE, PLACEMENT OF A NEW 6" PLASTIC DRAINAGE PIPE (707.19), COUPLING, BACKFILL AND ALL EQUIPMENT, MATERIALS AND LABOR TO COMPLETE THIS ITEM AS DETAILED. PAYMENT SHALL BE MADE UNDER ITEM 518 - STRUCTURE DRAINAGE, MISC.: FOOTER DRAIN REPLACEMENT, EACH. SAWING, REMOVAL AND REPLACEMENT OF CONCRETE SLOPE PROTECTION OR CRUSHED AGGREGATE SLOPE PROTECTION NECESSARY TO COMPLETE THE PIPE REPLACEMENT OPERATION WILL BE PAID FOR UNDER THIS ITEM.



FOOTER DRAIN REPLACEMENT DETAIL

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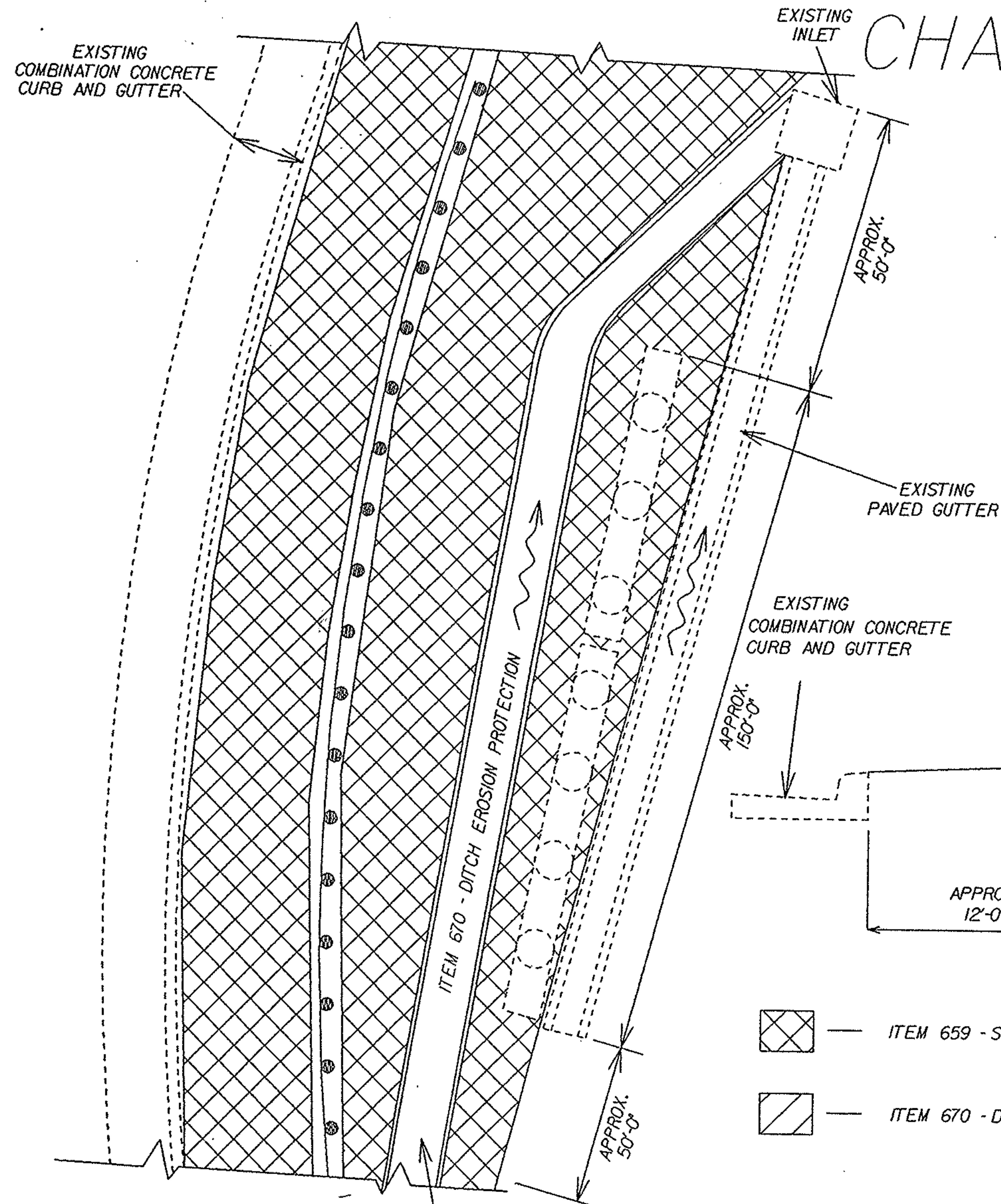
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| FOOTER DRAIN REPLACEMENT DETAILS | | | | | |
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CHANNEL DETAILS

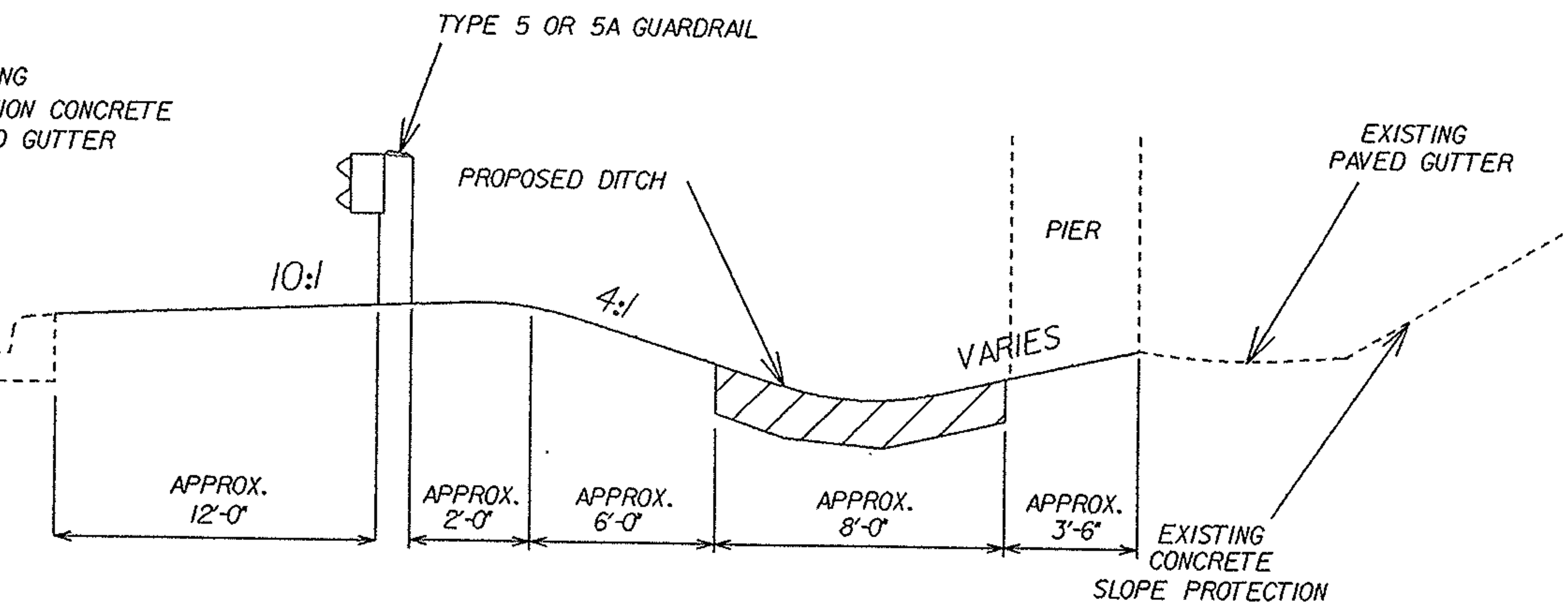
| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |



MAH - 690 - 07.05



-  — ITEM 659 - SEEDING AND MULCHING
-  — ITEM 670 - DITCH EROSION PROTECTION



TYPICAL SECTION

:DEWPLAN.DGN

PLAN VIEW

NOTE: DRAWING NOT TO SCALE

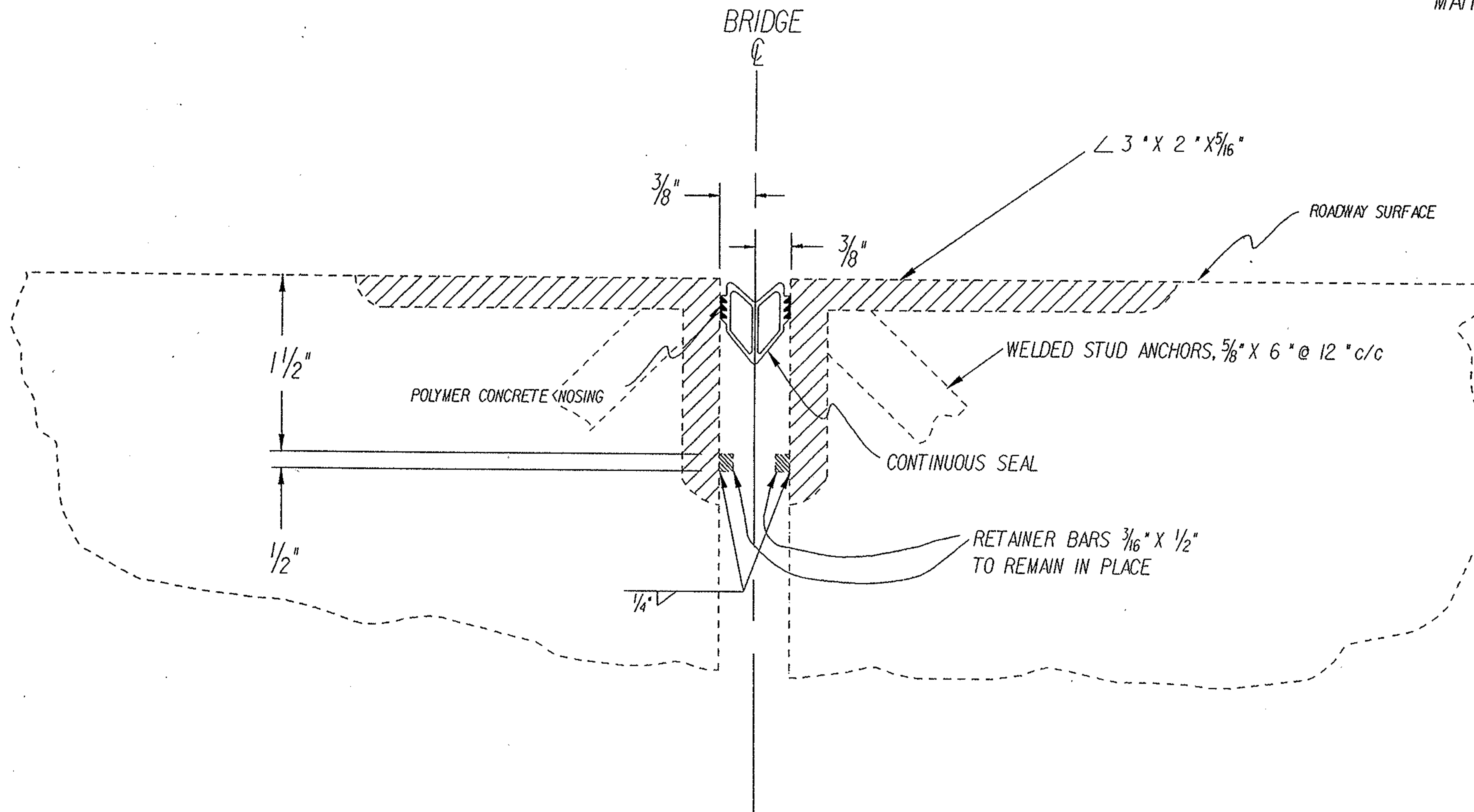
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | |
| CHANNEL DETAILS MAH-680-0794 (OVER DEWEY AVE.) | | | | |
| DESIGNED TB | DRAWN TB | CHECKED NCTM | REVIEWED | DATE 3-94 |

CONTINUOUS SEAL DETAIL

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
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MAH-680-07.05



MAH-680-0705

LONGTITUDINAL JOINT SEAL DETAIL (AT 60°F.) AS PER ITEM SPECIAL
3/4" INCH CONTINUOUS SEAL IN STRUCTURAL STEEL JOINT.

SEE PROPOSAL NOTE
FOR ADDITIONAL INFORMATION

NOTE: DRAWING NOT TO SCALE

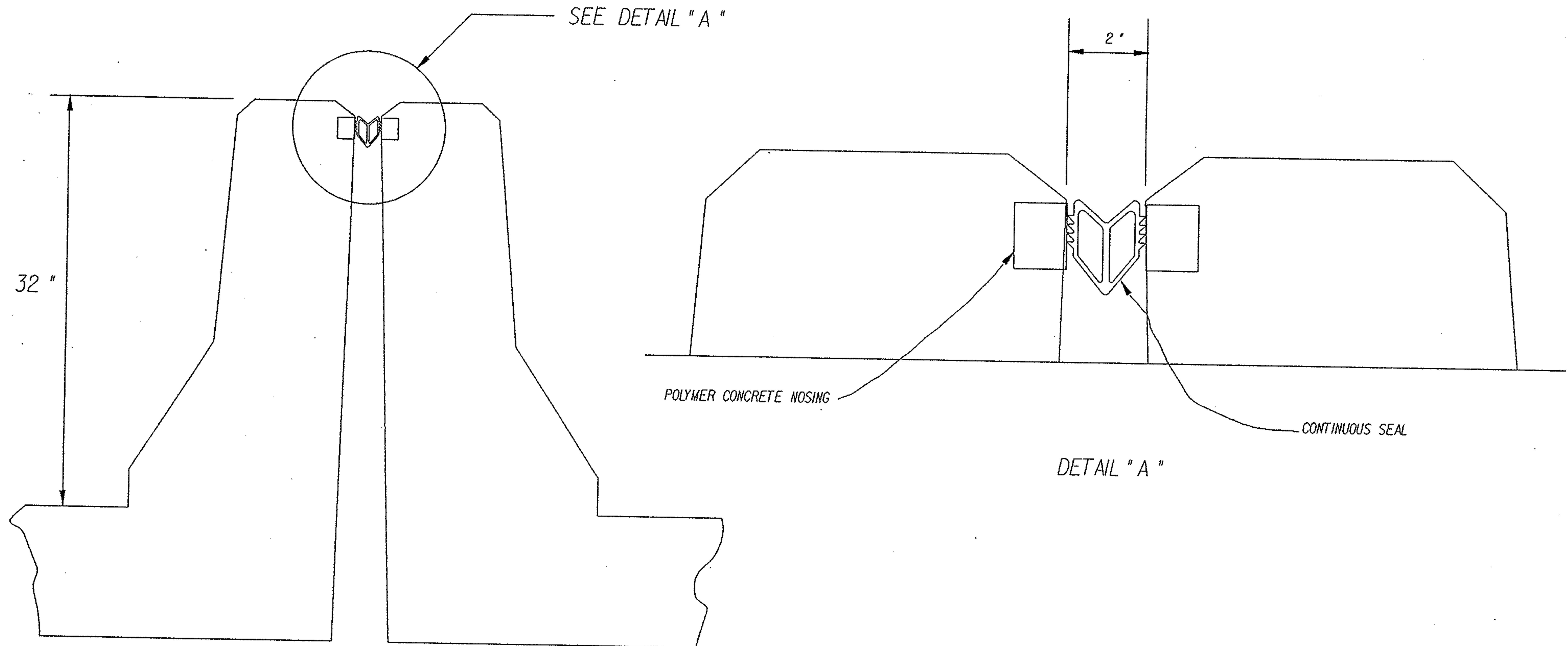
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| CONTINUOUS SEAL DETAIL | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED RMM | REVIEWED | DATE 3-94 | REVISED |

CONTINUOUS SEAL DETAIL

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
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MAH-680-0923

LONGTITUDINAL JOINT SEAL DETAIL AS PER ITEM SPECIAL
2" INCH CONTINUOUS SEAL IN POLYMER CONCRETE JOINT.

SEE PROPOSAL NOTE
FOR ADDITIONAL INFORMATION

| | | | | | |
|---|-------------|----------------|----------|--------------|---------|
| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| CONTINUOUS SEAL DETAIL | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED TCT | REVIEWED | DATE 3-94 | REVISED |

PAVED GUTTER DETAIL

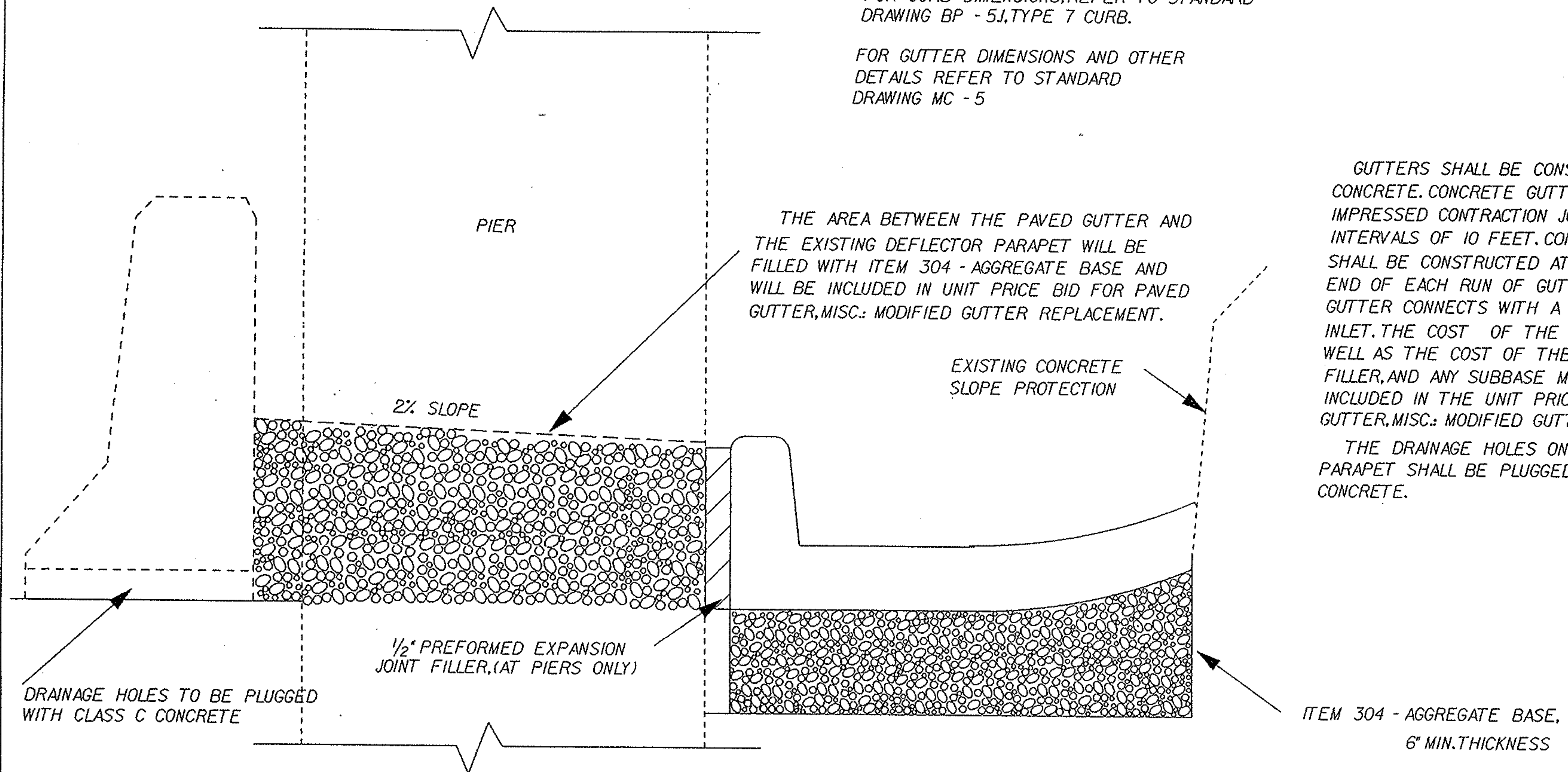
| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |



MAH - 680 - 07.05

FOR CURB DIMENSIONS, REFER TO STANDARD
DRAWING BP - 5J, TYPE 7 CURB.

FOR GUTTER DIMENSIONS AND OTHER
DETAILS REFER TO STANDARD
DRAWING MC - 5



GUTTERS SHALL BE CONSTRUCTED OF CLASS C
CONCRETE. CONCRETE GUTTERS SHALL HAVE
IMPRESSED CONTRACTION JOINTS SPACED AT
INTERVALS OF 10 FEET. CONCRETE CUT-OFF WALLS
SHALL BE CONSTRUCTED AT THE BEGINNING AND
END OF EACH RUN OF GUTTER EXCEPT WHERE THE
GUTTER CONNECTS WITH A CATCH BASIN OR
INLET. THE COST OF THE CUT-OFF WALLS, AS
WELL AS THE COST OF THE EXPANSION JOINT
FILLER, AND ANY SUBBASE MATERIAL NEEDED IS
INCLUDED IN THE UNIT PRICE BID FOR PAVED
GUTTER, MISC.: MODIFIED GUTTER REPLACEMENT.

THE DRAINAGE HOLES ON THE DEFLECTOR
PARAPET SHALL BE PLUGGED WITH CLASS C
CONCRETE.

680GUTTR.DGN

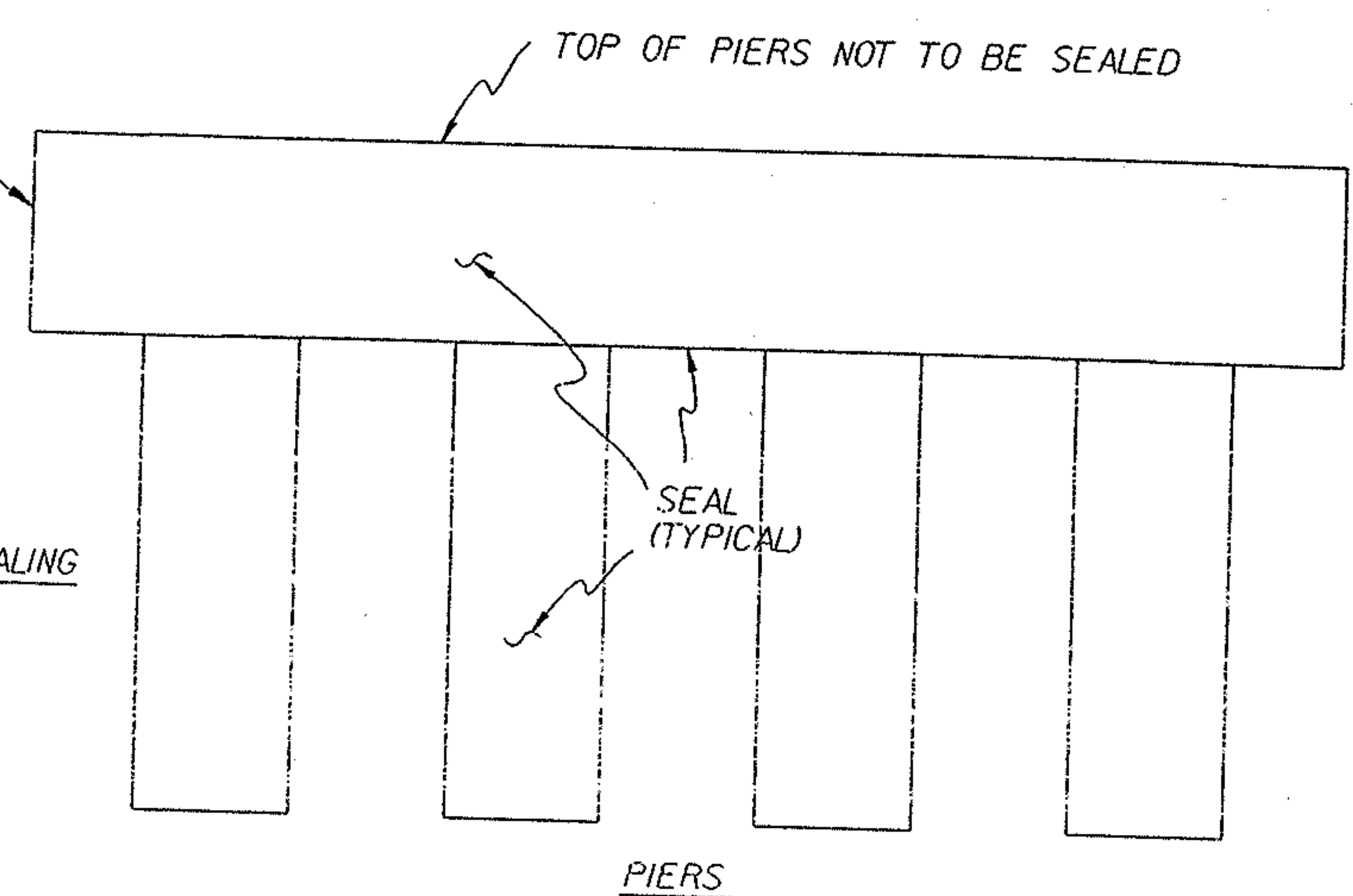
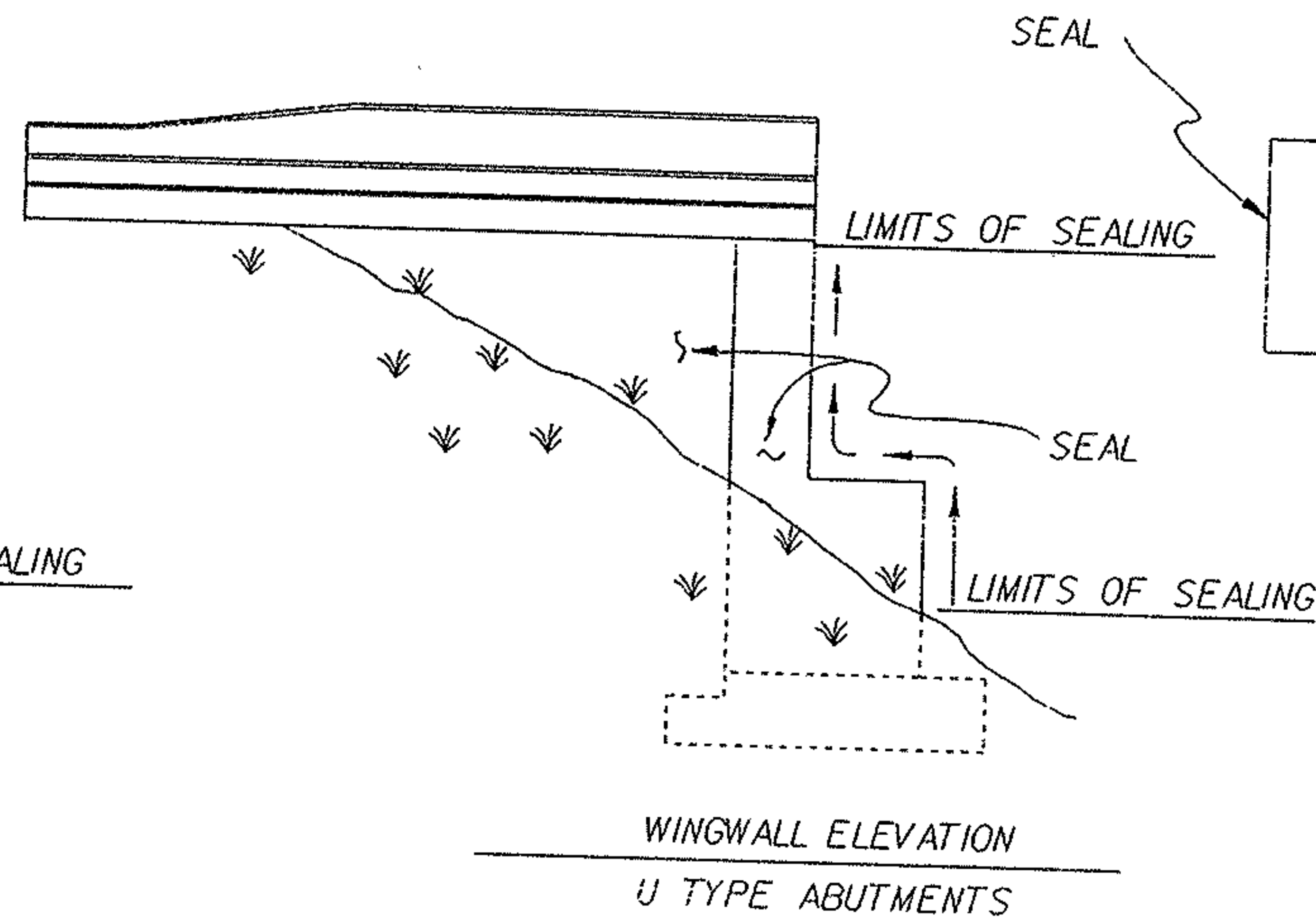
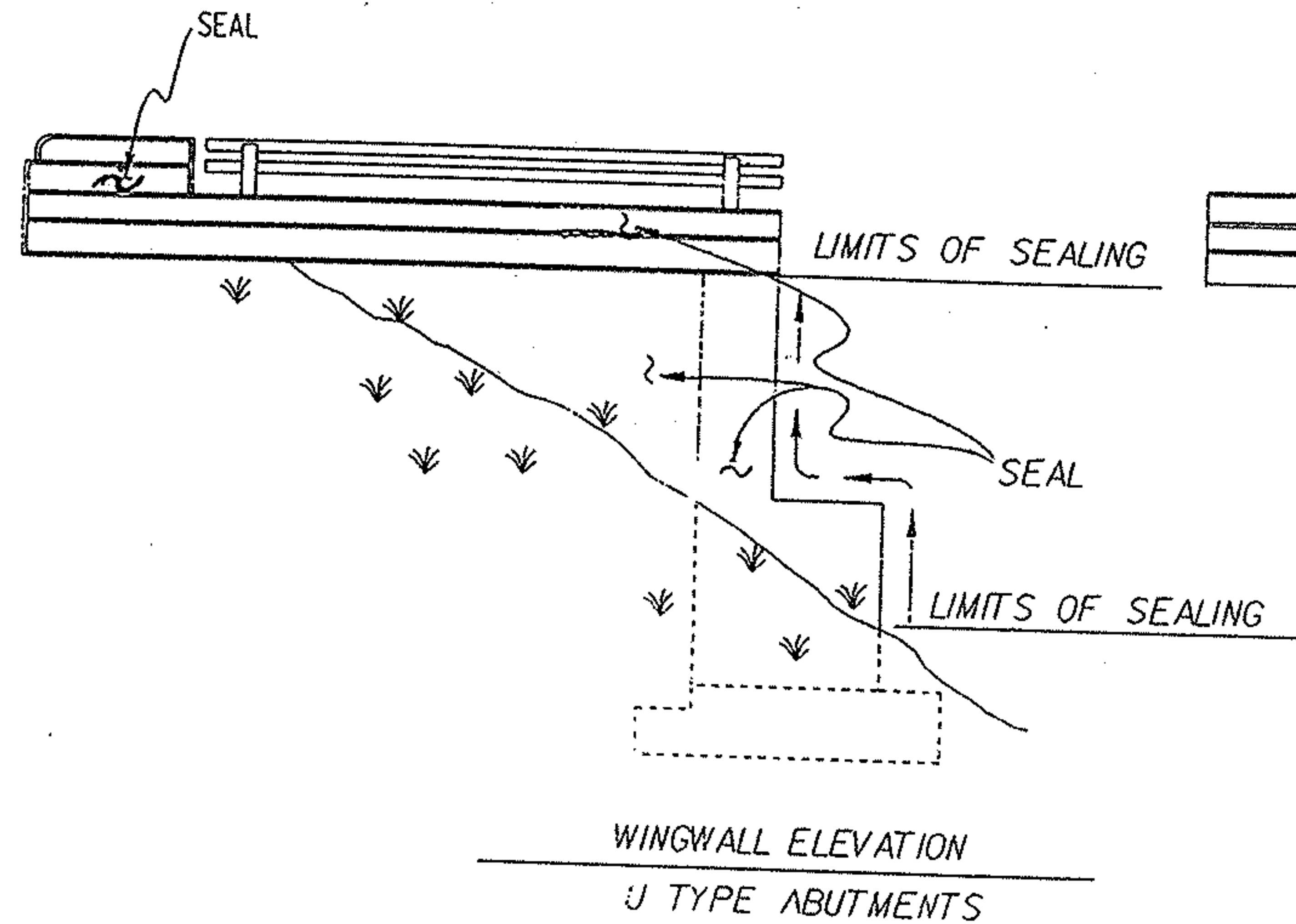
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| PAVED GUTTER DETAIL MAH-680-0834 (UNDER SHIRLEY RD.) | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED NEM | REVIEWED | DATE 3-94 | REVISED |

SEALING DETAILS

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |

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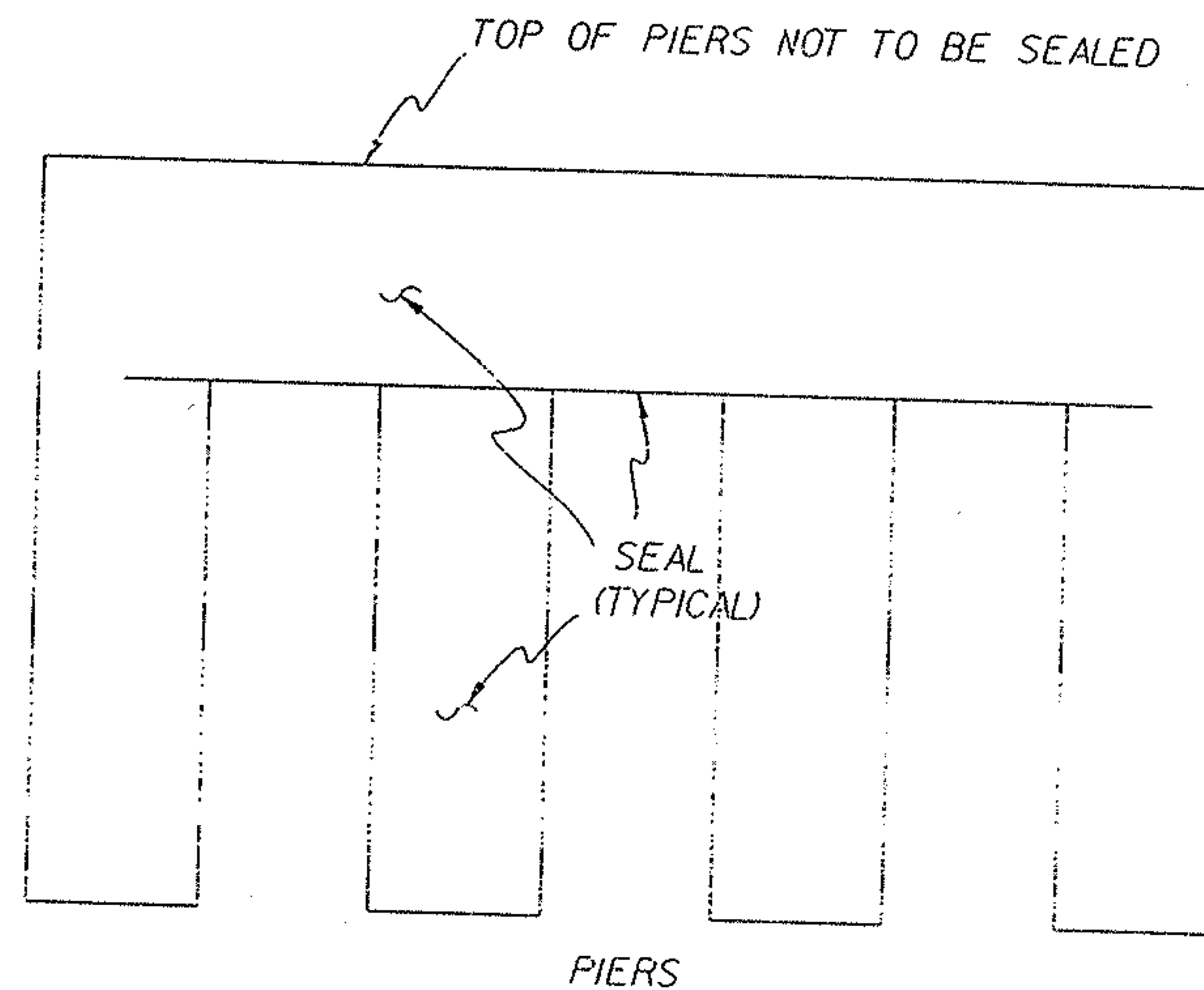
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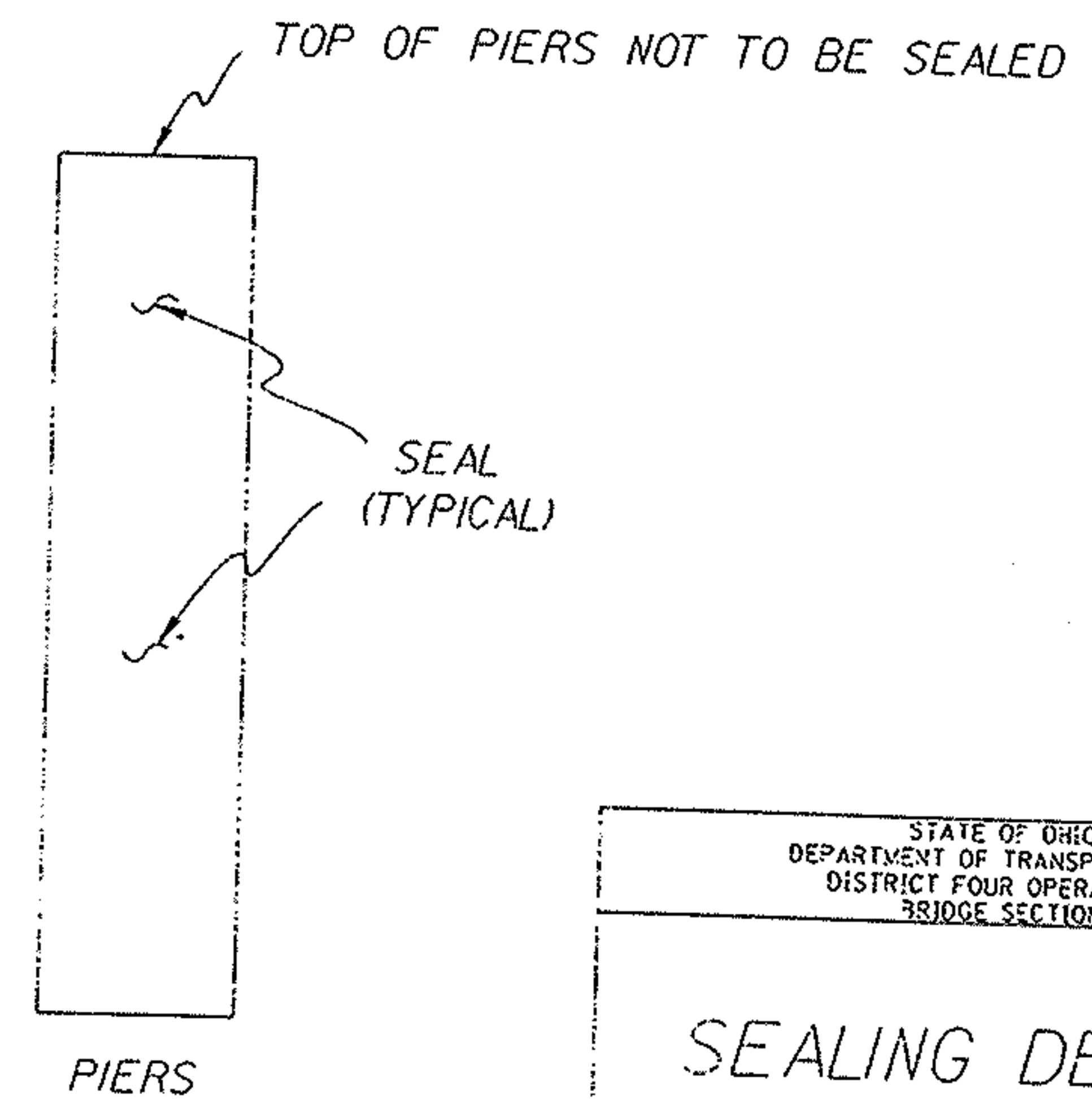
BRIDGES: MAH-680-0705 AND MAH-680-0794.

| SEALING SUMMARY | | | | |
|-----------------|-----------------------|-------------------|-----------------------------|--------------------|
| BRIDGE NUMBER | BACKWALL/ WINGWALL | PIER/ PIERCAPS | PARAPETS/ RAISED MEDIANS | STRUCTURE TOTAL |
| | SO.YDS. | SO.YDS. | SO.YDS. | SO.YDS. |
| MAH-680-0705 | 624 | 169 | 418 | 1211 |
| MAH-680-0724 | 96 | 350 | 541 | 987 |
| MAH-680-0792E | 98 | 396 | 277 | 771 |
| MAH-680-0794 | 232 | 399 | 208 | 839 |
| MAH-680-0818 | 148 | 270 | 446 | 864 |
| MAH-680-0834 | 243 | 573 | 780 | 1596 |
| MAH-680-0923 | 255 | 835 | 218 | 1308 |

NOTE: SEALING TO BE COMPLETED AFTER
SUBSTRUCTURE PATCHING



BRIDGES: MAH-680-0724, MAH-680-0792E, MAH-680-0818,
MAH-680-0834, AND MAH-680-0923.



BRIDGE: MAH-680-0834

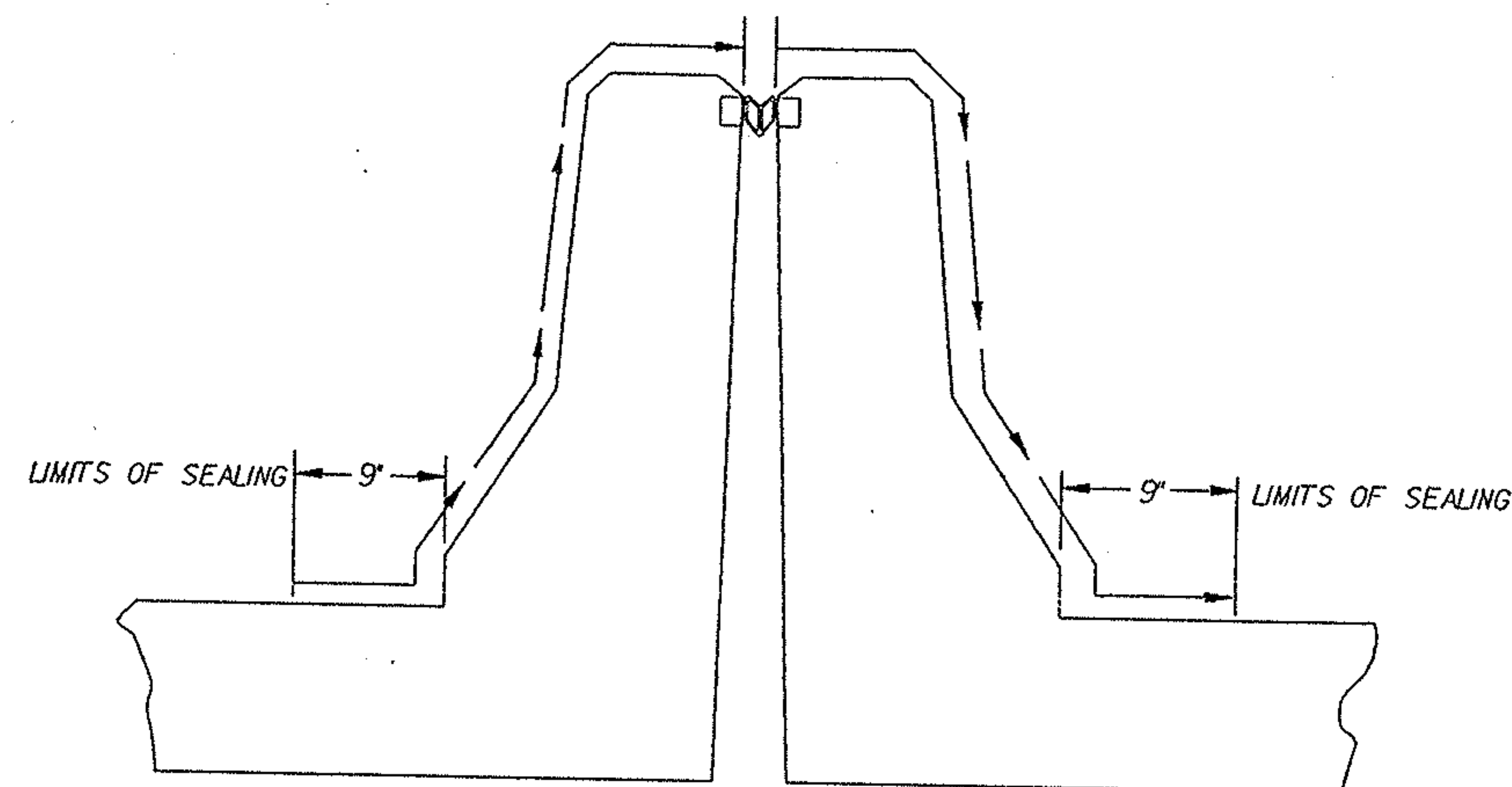
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| SEALING DETAILS | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED TKM | REVIEWED | DATE 3-94 | REVISED |

SEALING DETAILS

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|----------------|-------|-------------|-------|
| 5 | OHIO | | |

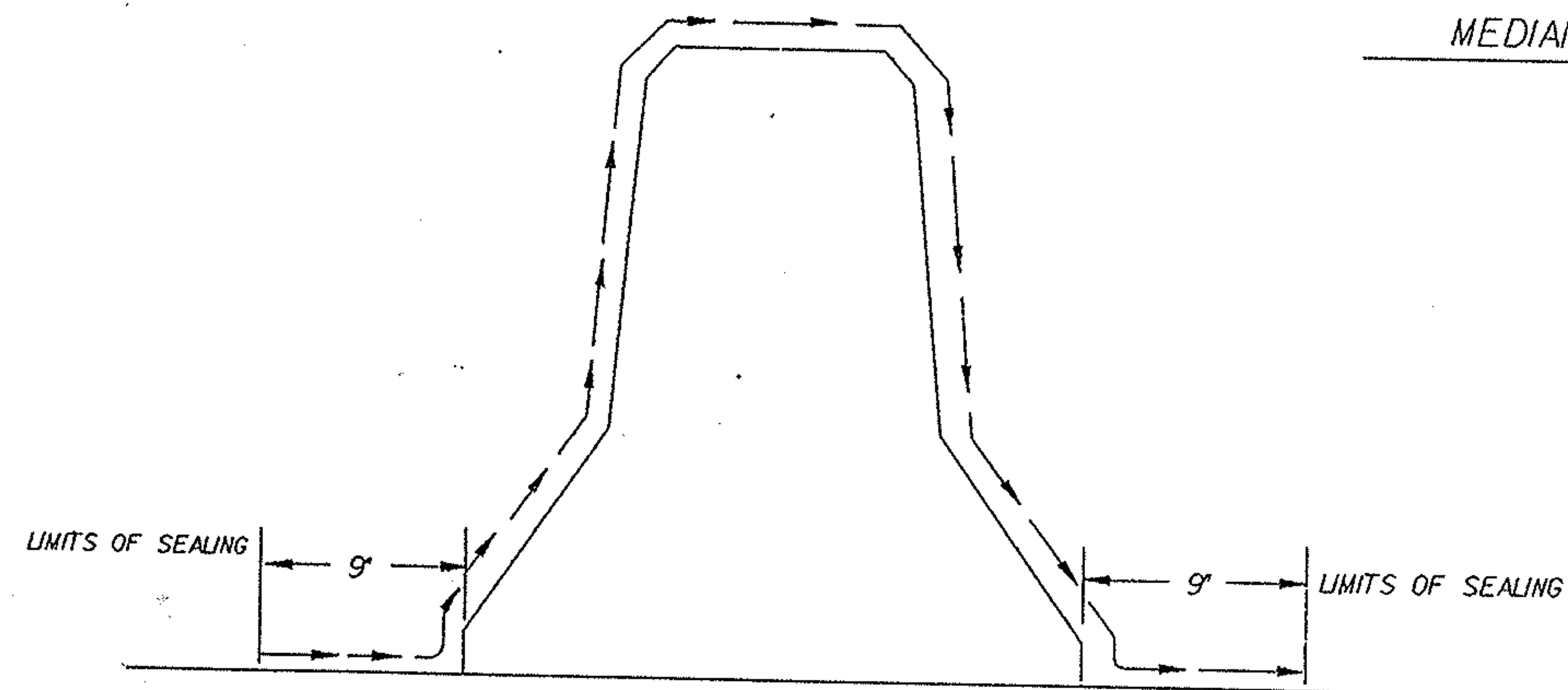
MAH-680-07.05

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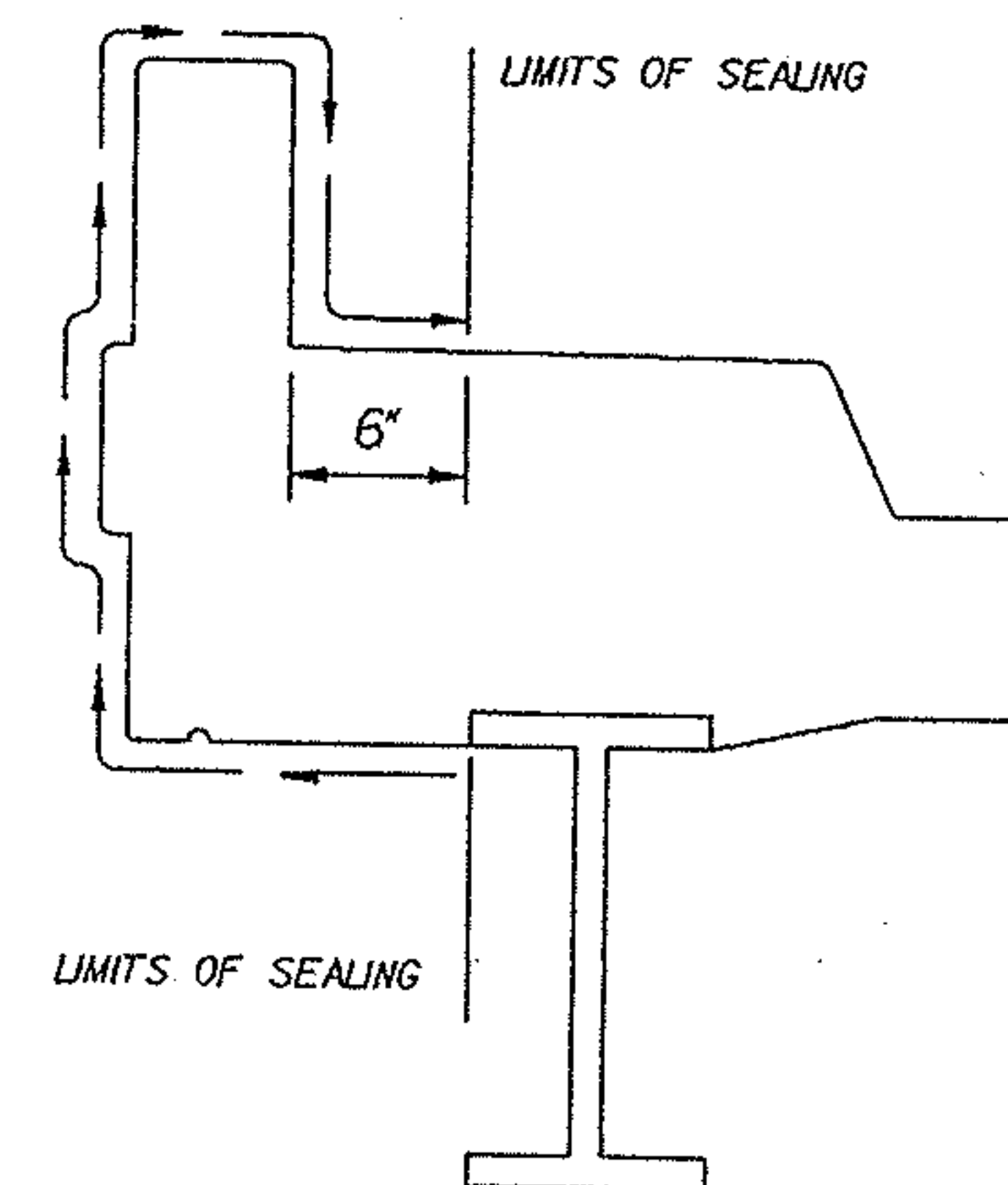
MEDIAN PARAPET SECTION

MAH-680-0923



MEDIAN PARAPET SECTION

MAH-680-0794



PARAPET SECTION

MAH-680-0705, MAH-680-0724, MAH-680-0818, MAH-680-0834,
AND MAH-680-0792E (RT. SIDE ONLY).

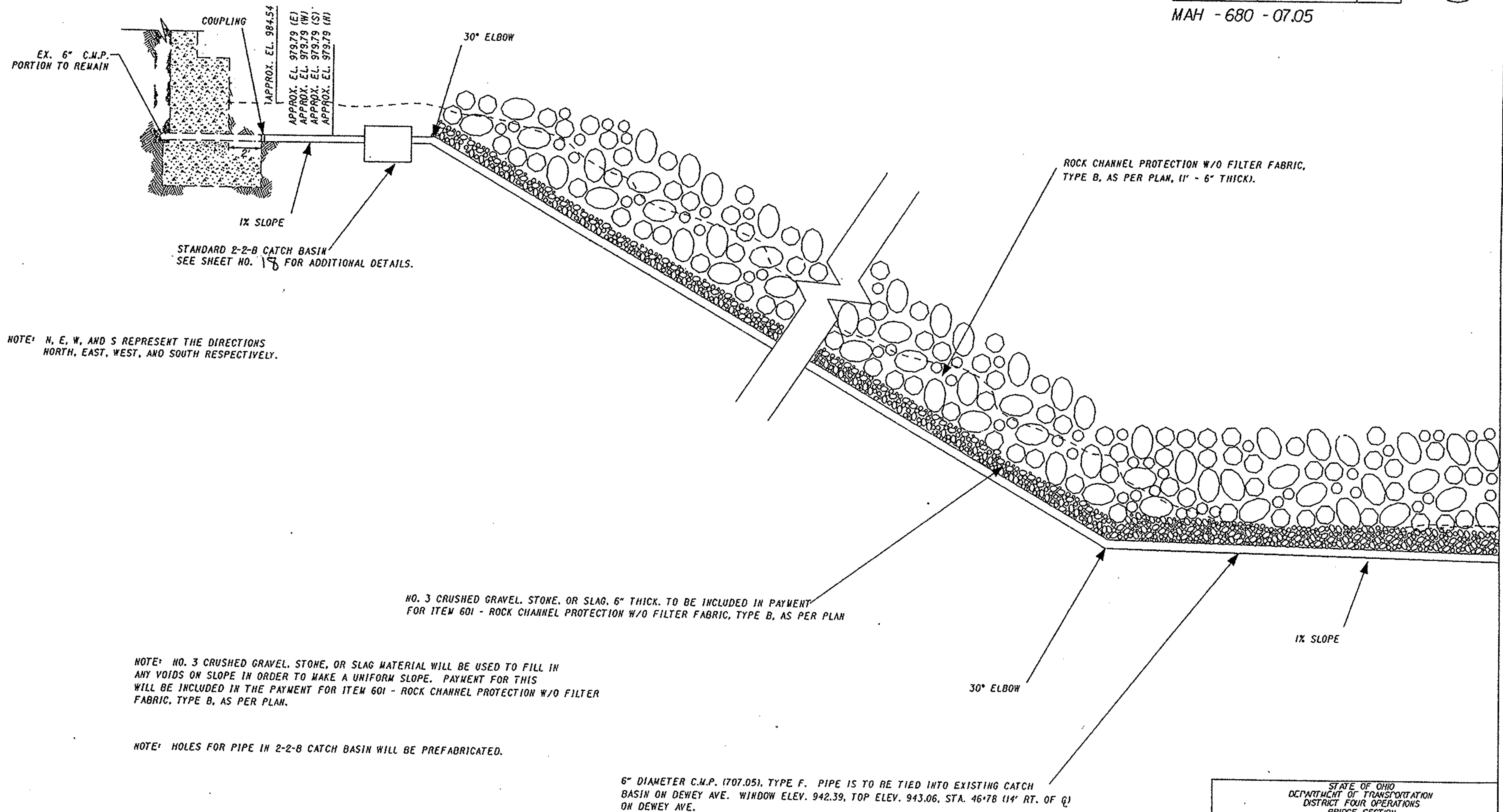
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| SEALING DETAILS | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED MEM | REVIEWED | DATE 3-94 | REVISED |

STRUCTURE DRAINAGE DETAILS

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |

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COOPSTRP.DGN

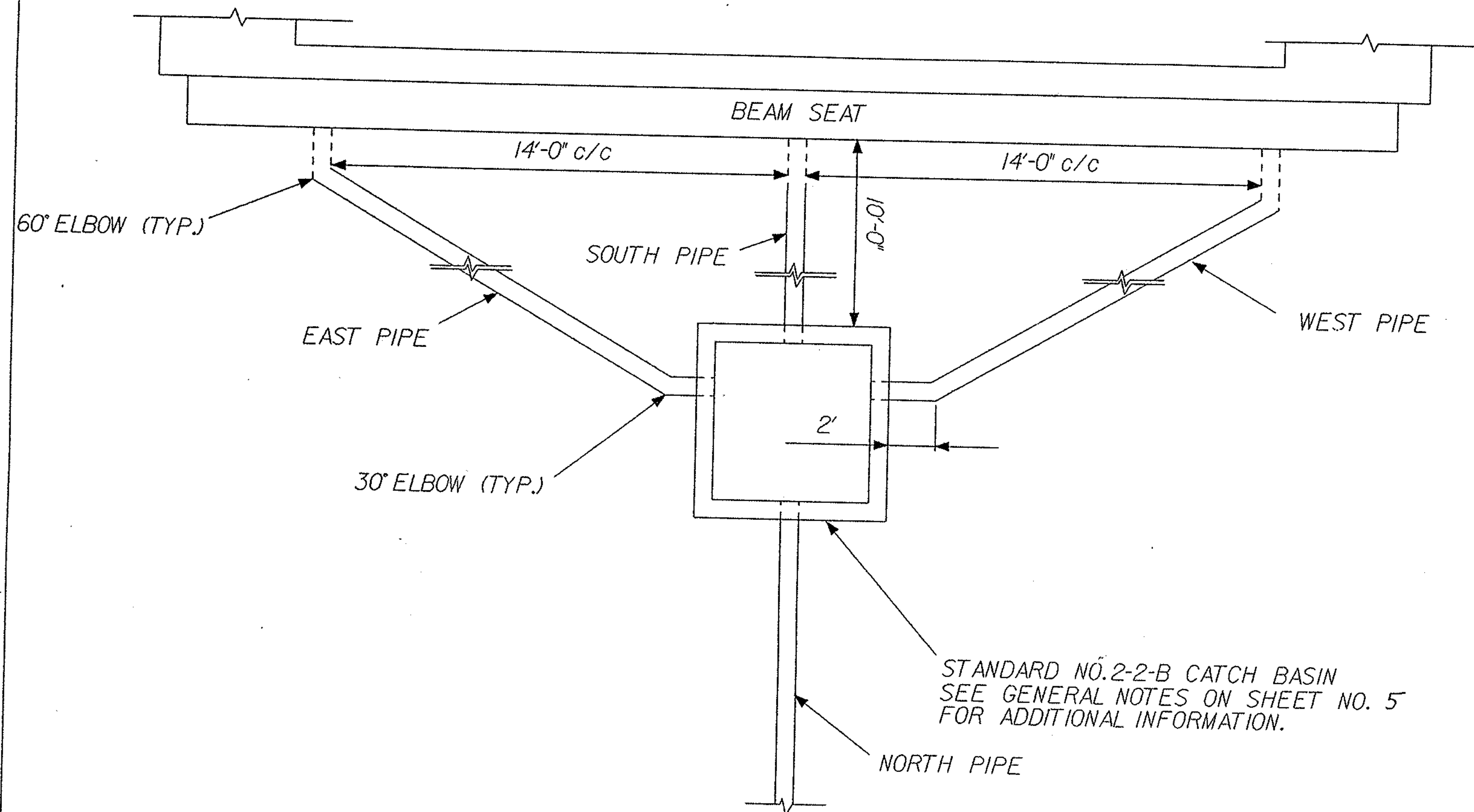
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|---|-------|---------|----------|------|---------|
| STRUCTURE DRAINAGE DETAILS MAH-680-0792E (OVER DEWEY AVE.) | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| TB | TB | MM | | 3-94 | |

STRUCTURE DRAINAGE DETAILS

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
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| 5 | OHIO | | |

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COOPSTRP.DGN

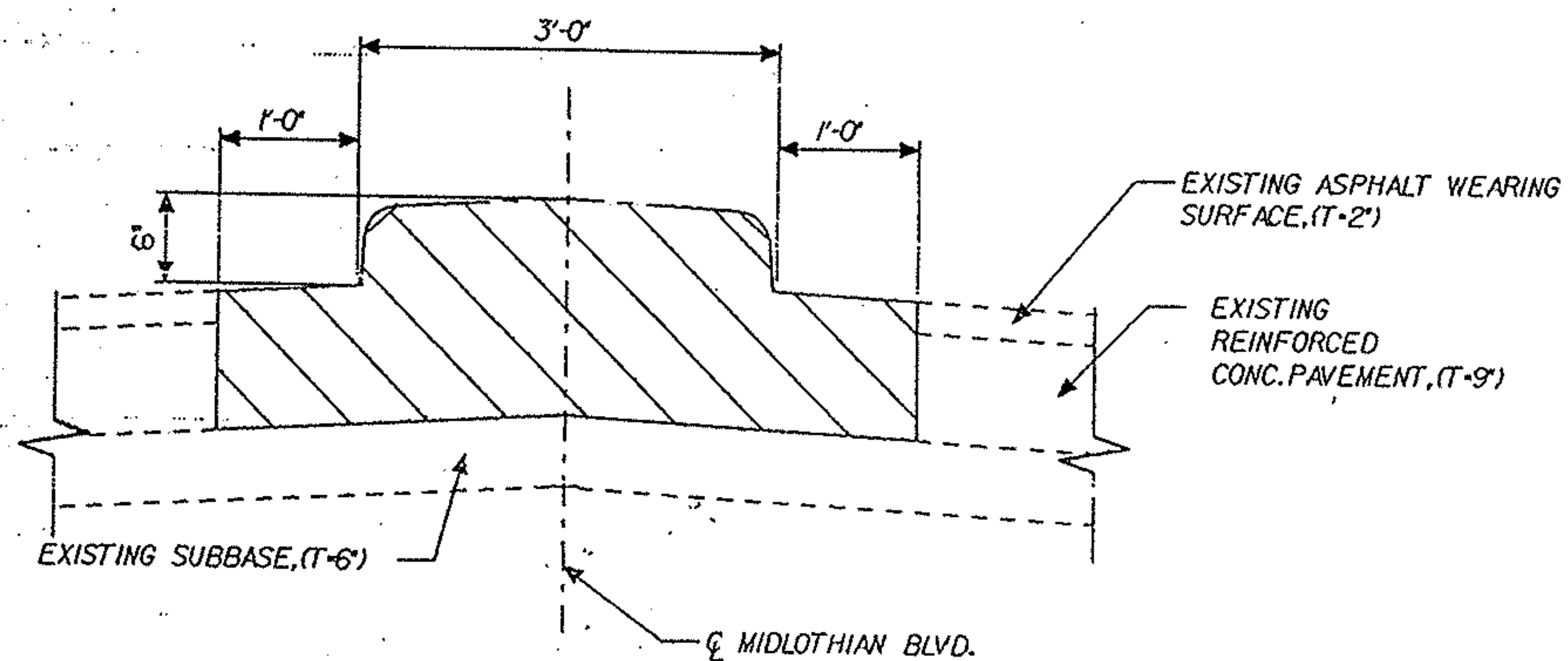
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| STRUCTURE DRAINAGE DETAILS MAH-680-0792E (OVER DEWEY AVE.) | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| TB | TB | ACM | | 3-94 | |

CONCRETE MEDIAN DETAILS (MIDLOTHIAN BLVD.)

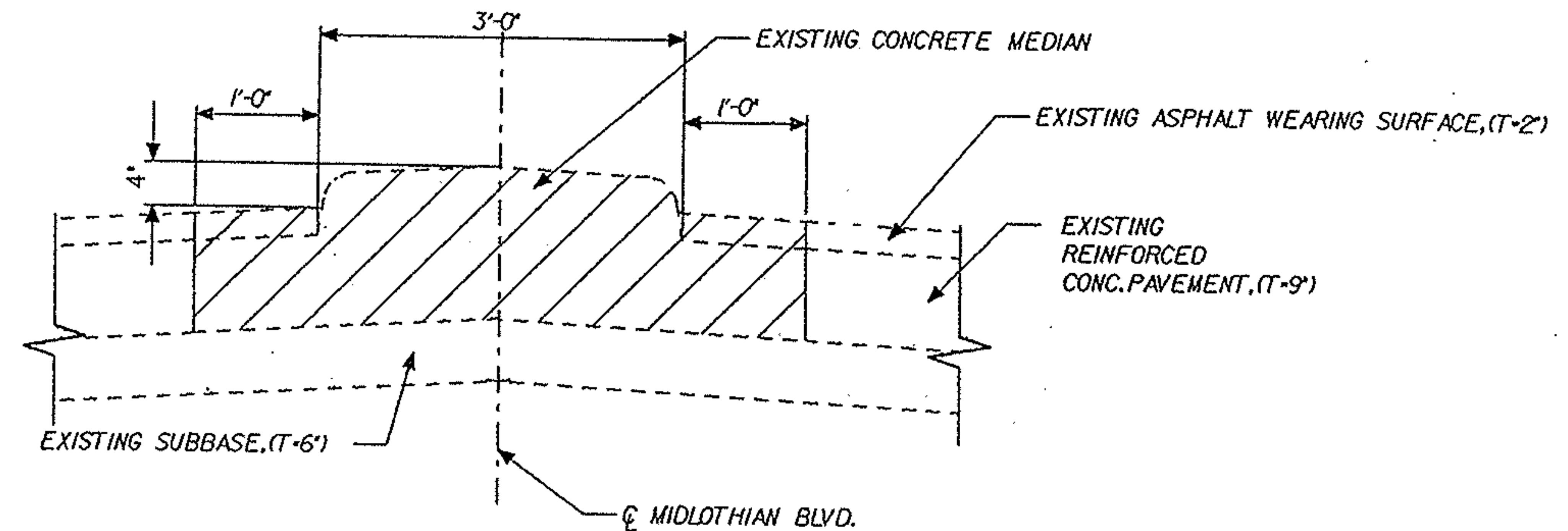
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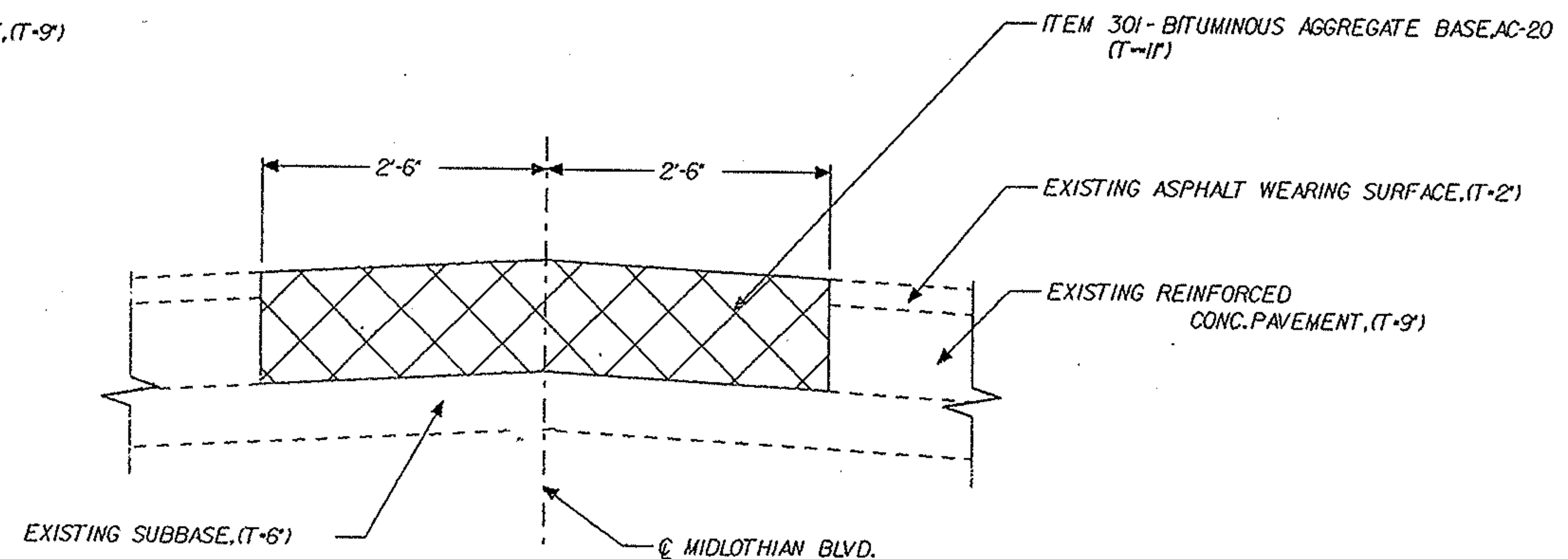
MAH - 680 - 7.05



 - ITEM 612 - CONCRETE MEDIAN, AS PER PLAN



 - TO BE REMOVED



 - ITEM 301 - BITUMINOUS AGGREGATE BASE, AC-20

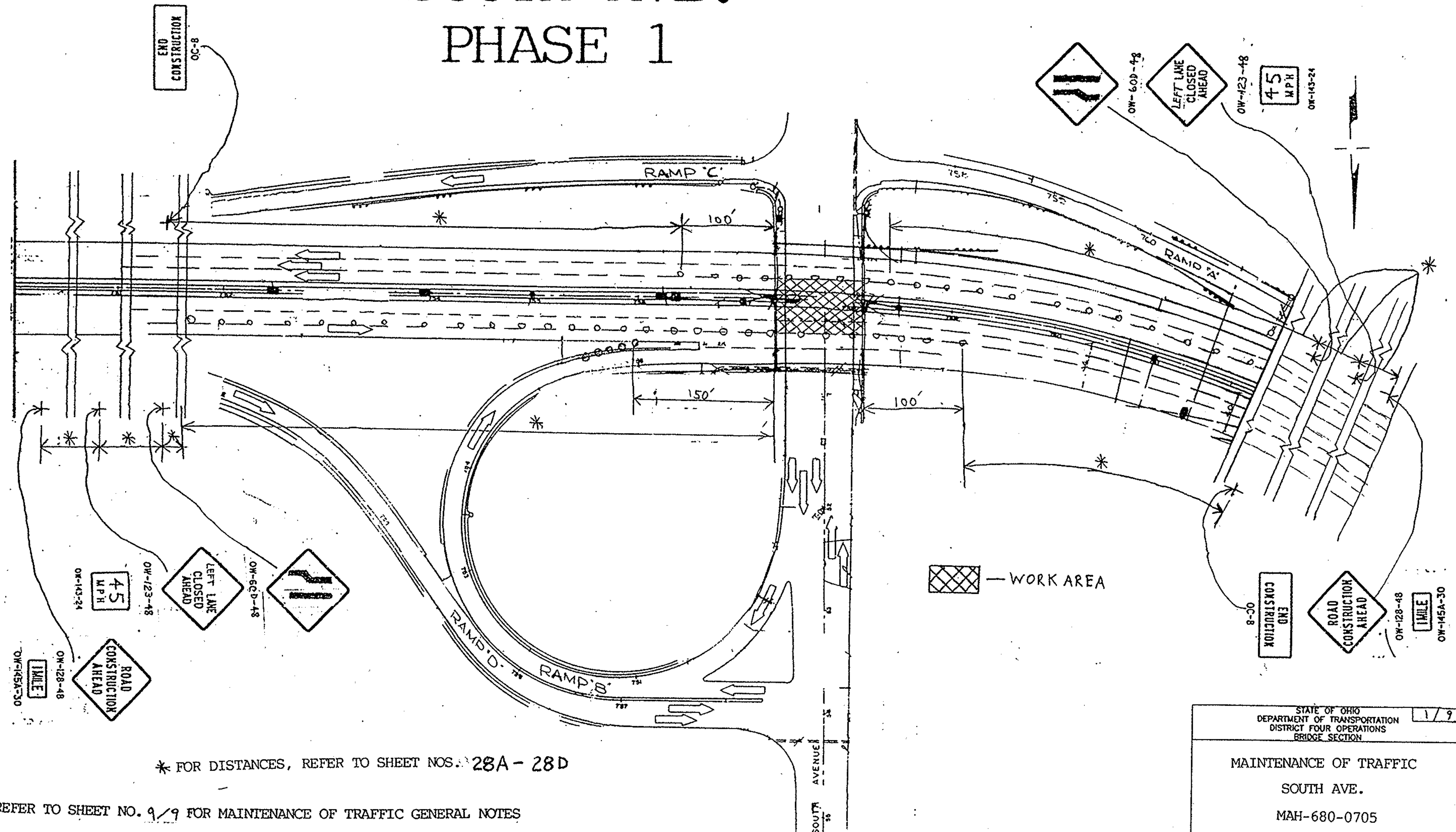
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| CONCRETE MEDIAN DETAILS | | | | | |
| MAH - 680 - 0705 | | | | | |
| DESIGNED | DRAWN | CHECKED | REVIEWED | DATE | REVISED |
| TB | TB | TCM | | 3-94 | |

MAINTENANCE OF TRAFFIC SOUTH AVE. PHASE 1

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNOS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |

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28

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* FOR DISTANCES, REFER TO SHEET NOS. 28A - 28D

REFER TO SHEET NO. 9/9 FOR MAINTENANCE OF TRAFFIC GENERAL NOTES

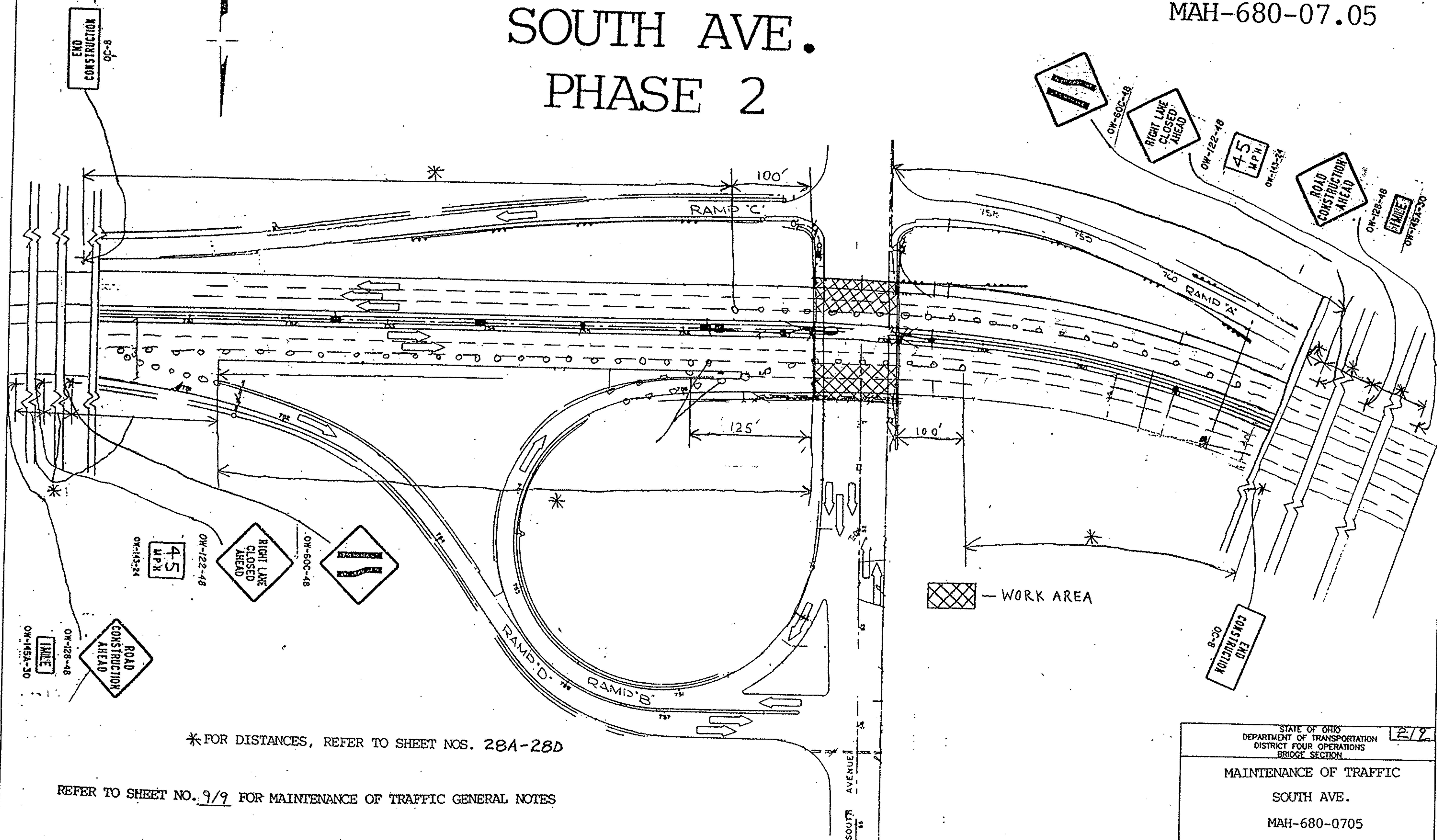
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | | 1 / 9 |
| MAINTENANCE OF TRAFFIC SOUTH AVE. MAH-680-0705 | | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED mcm | REVIEWED | DATE 3-94 | REVISED | |

MAINTENANCE OF TRAFFIC SOUTH AVE. PHASE 2

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |

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*FOR DISTANCES, REFER TO SHEET NOS. 28A-28D

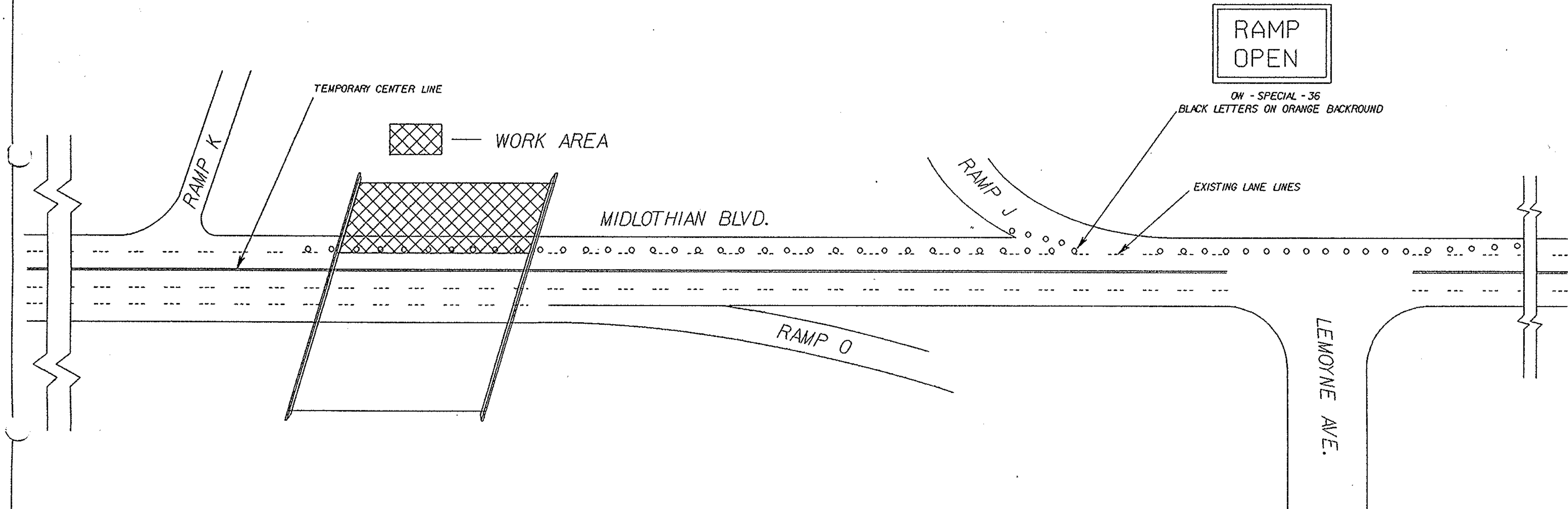
REFER TO SHEET NO. 9/9 FOR MAINTENANCE OF TRAFFIC GENERAL NOTES

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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | |
| MAINTENANCE OF TRAFFIC SOUTH AVE. MAH-680-0705 | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. PHASE I

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|----------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05



NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
PLAN INSERT SHEETS.

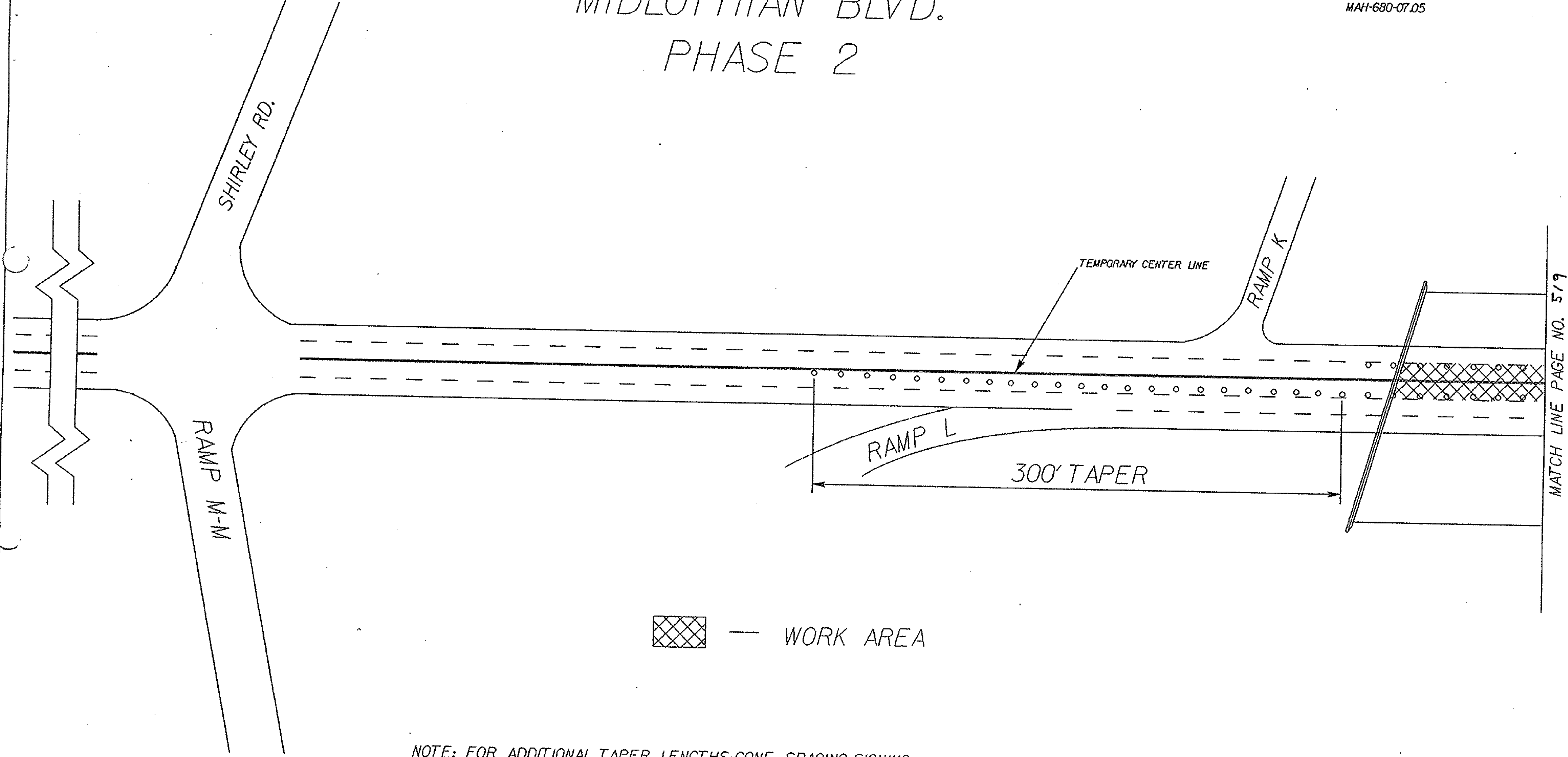
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | 3/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | | |
| DESIGNED JB | DRAWN JB | CHECKED JCM | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC
MIDLOTHIAN BLVD.
PHASE 2

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |

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NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
PLAN INSERT SHEETS.

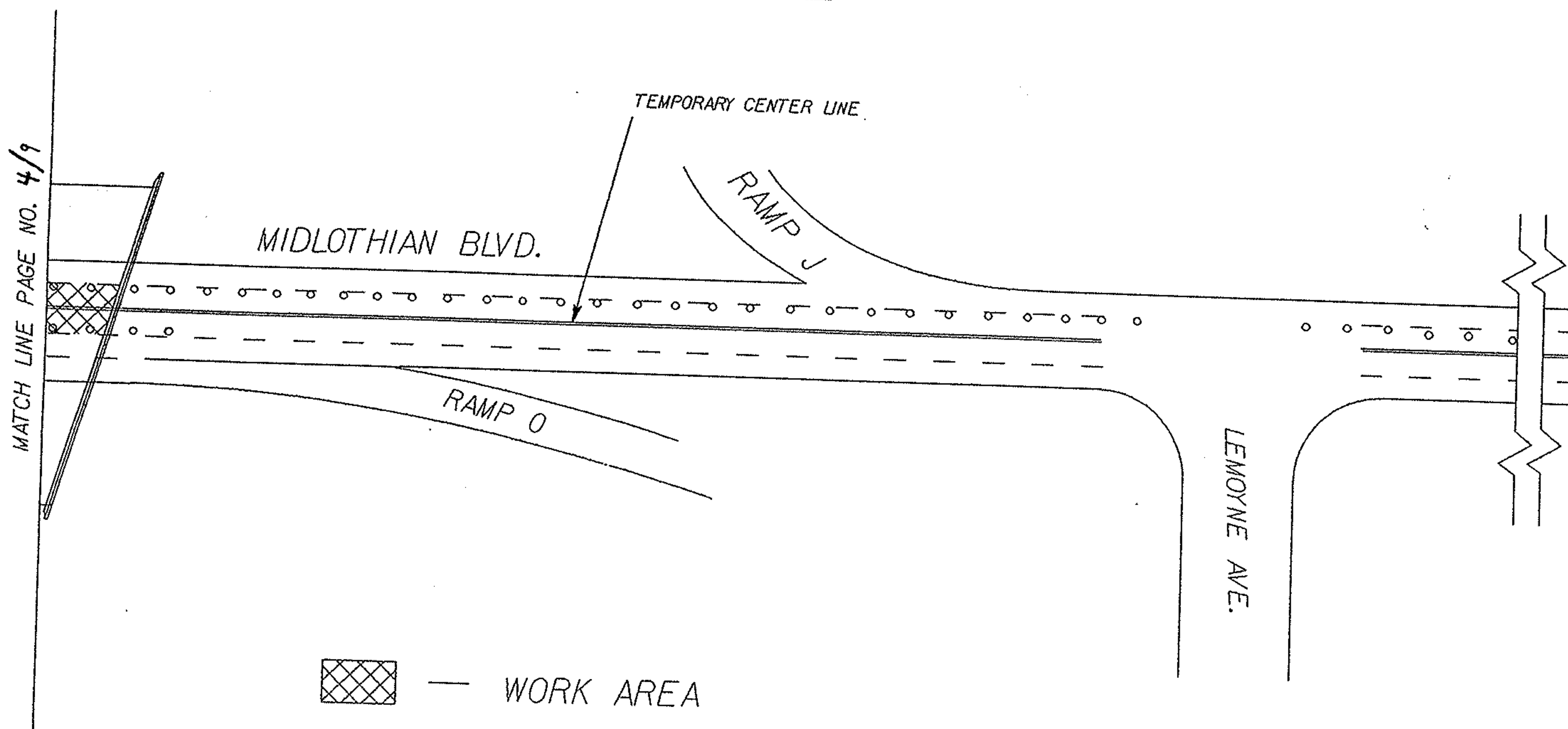
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | 4/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED TLM | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. PHASE 2

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05

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NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
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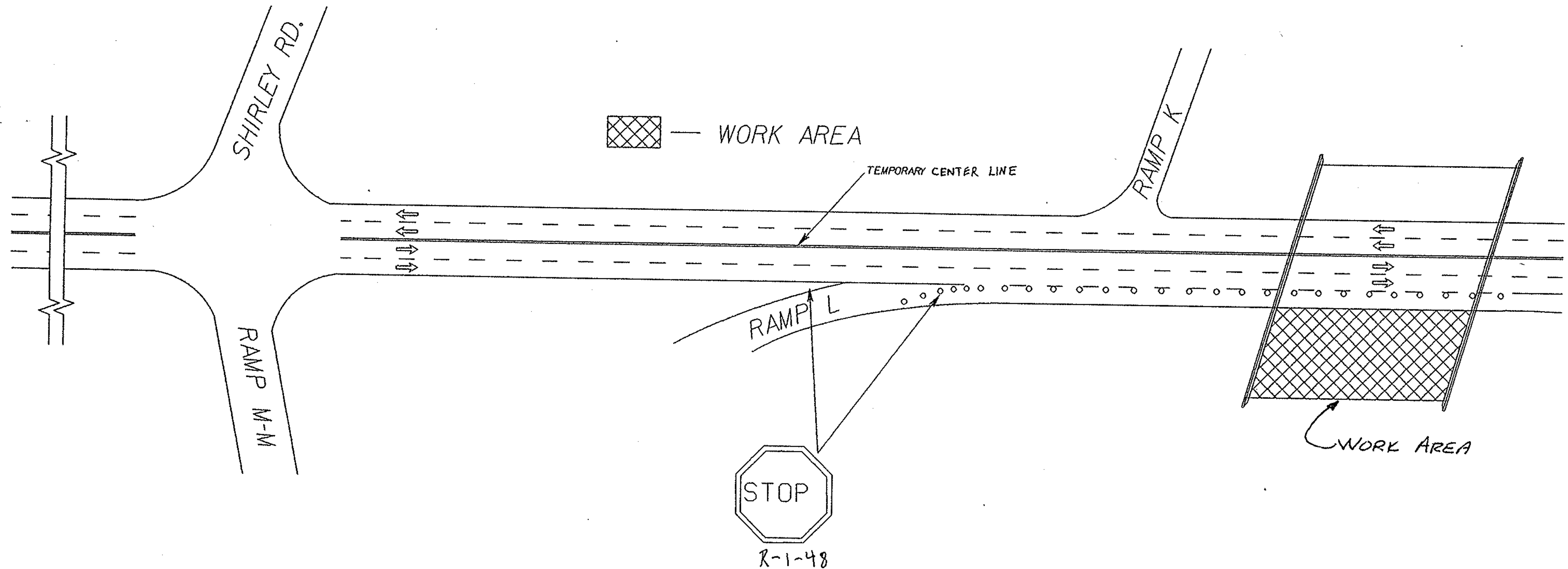
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | 5/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED TLM | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. PHASE 3

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|----------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05

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NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
PLAN INSERT SHEETS.

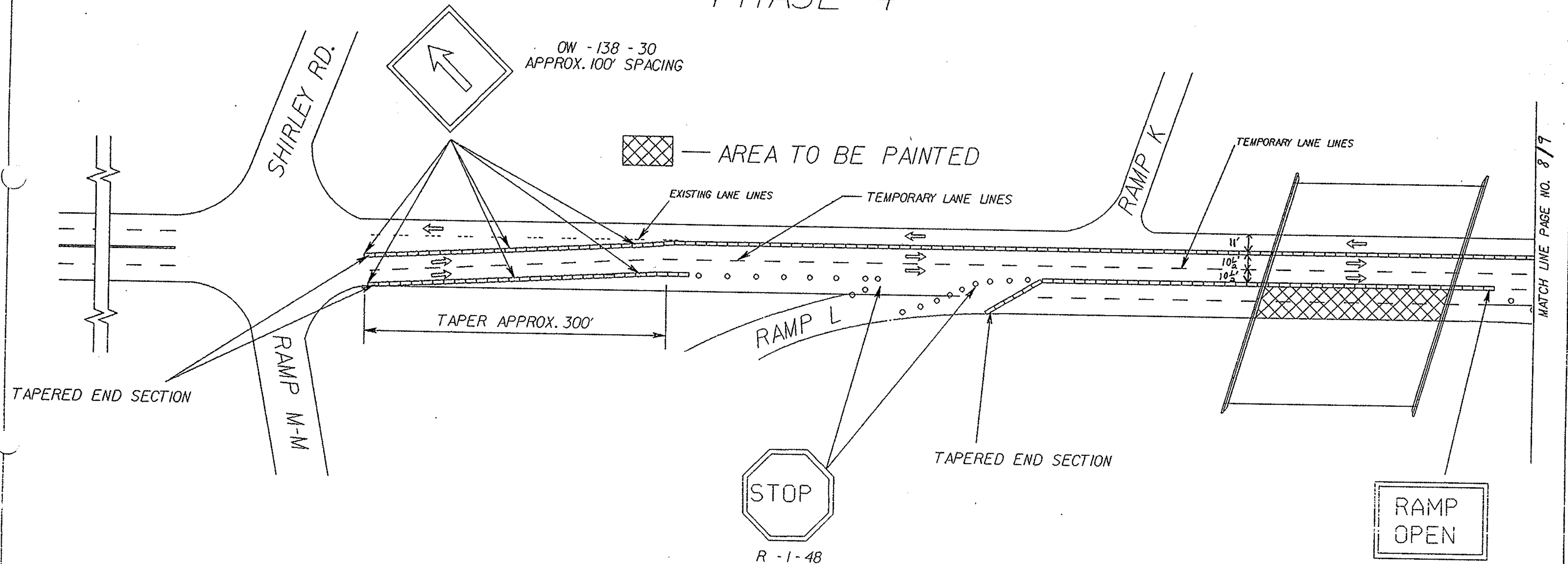
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | 6/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED MEM | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. PHASE 4

| F.H.W.A. REGION | STATE | PROJECT NO. | FUNDS |
|--------------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05

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NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
PLAN INSERT SHEETS.

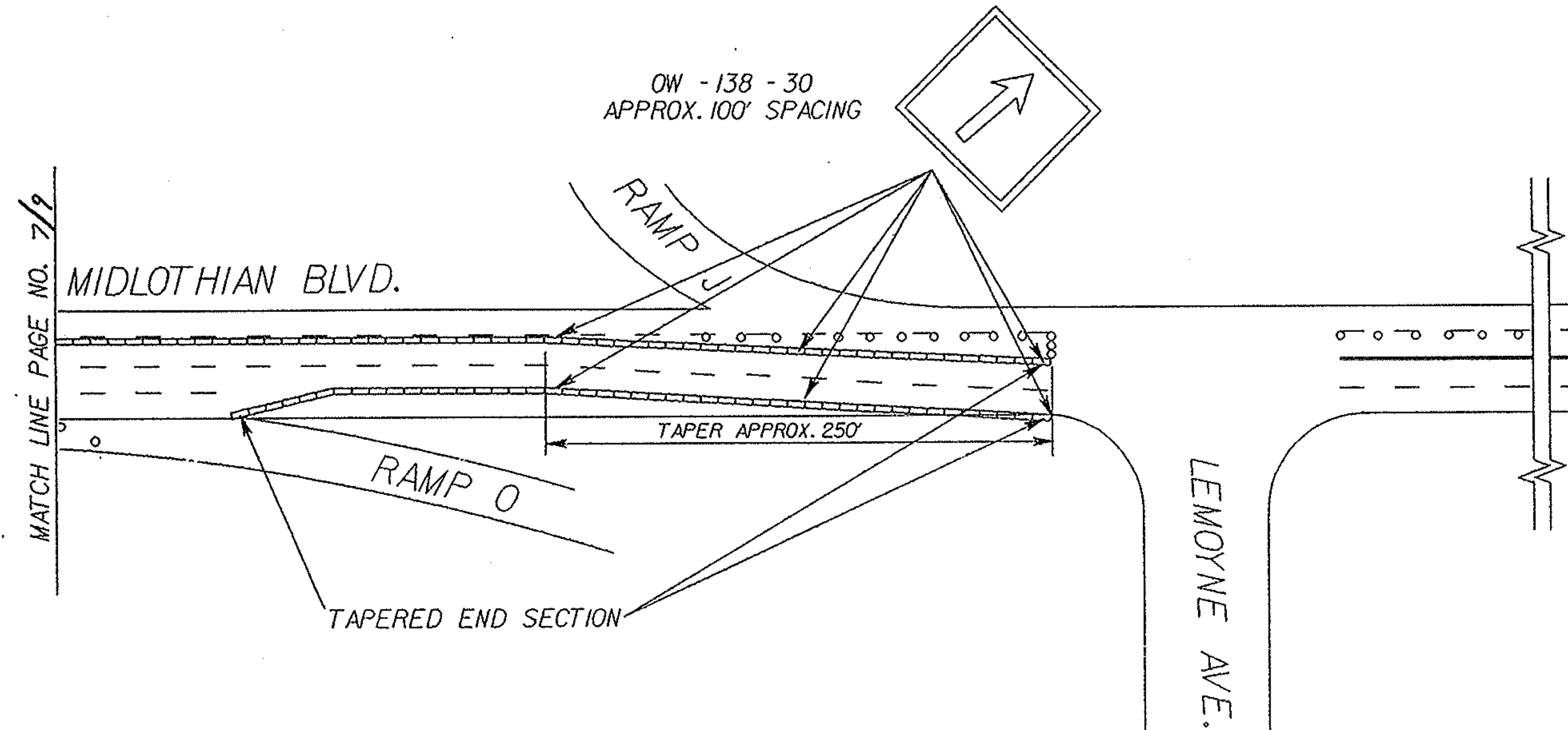
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| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | | 7/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | | |
| DESIGNED TB | DRAWN TB | CHECKED NEM | REVIEWED | DATE 3-94 | REVISED |

MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. PHASE 4

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|----------------|-------|-------------|-------|
| 5 | OHIO | | |

MAH-680-07.05

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29



NOTE: FOR ADDITIONAL TAPER LENGTHS, CONE SPACING, SIGNING,
ETC., REFER TO GENERAL NOTES, STANDARD DRAWINGS, AND
PLAN INSERT SHEETS.

| | | | | |
|---|-------------|---------------|----------|--------------|
| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | 8/9 |
| MAINTENANCE OF TRAFFIC MIDLOTHIAN BLVD. MAH-680-0923 | | | | |
| DESIGNED TB | DRAWN TB | CHECKED MM | REVIEWED | DATE 3-94 |

MAINTENANCE OF TRAFFIC

| FHWA REGION | STATE | PROJECT NO. | FUNDS |
|----------------|-------|-------------|-------|
| 5 | OHIO | | |



MAH - 680 - 0705

MIDLOTHIAN BLVD.

1. PRIOR TO ANY PAINTING OR BLASTING OPERATIONS, THE RAISED CENTER MEDIAN ON MIDLOTHIAN BLVD. WILL BE REMOVED. REFER TO PAGE NO. 18 FOR DETAILS. THE CENTER MEDIAN WILL BE REPLACED WHEN ALL PAINTING, BLASTING, AND CONCRETE WORK IS COMPLETE.
2. THE LOCATION OF THE TRANSITION TAPERS AND THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT.
3. THE SPACING BETWEEN THE PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS.
4. THE TAPER LENGTHS, NUMBER, AND SPACING OF DRUMS SHALL BE AS SHOWN ON PLAN INSERT SHEETS. DRUM SPACING WILL BE 10 FEET CENTER TO CENTER ON THE TAPERS AND 20 FEET CENTER TO CENTER FOR THE WORK AREA.
5. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS WILL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS WILL BE USED.
6. THE ADVISORY SPEED SIGN OW-143-24 WILL BE USED AS SHOWN ON THE PLAN INSERT SHEETS WITH THE ADVISORY SPEED SHOWN.
7. THE DISTANCE PLATE OW-145A-30 WILL INDICATE THE DISTANCE TO THE BEGINNING OF THE PAVEMENT TAPER. DISTANCES WILL BE EXPRESSED IN FEET. THE PLAQUE MAY BE OMITTED IF EXTRA SIGN GROUPS ARE NOT USED. ADDITIONAL ROAD CONSTRUCTION AHEAD SIGNS (OW-128-48) WILL BE PLACED ON SHIRLEY RD., LEMOYNE AVE., RAMP "O", AND RAMP "L".
8. THE FLASHING ARROW PANEL WILL MEET THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING TC-35J0.
9. 36" WARNING SIGN SIZES MAY BE USED ON DIVIDED ROADWAYS THAT ARE NOT CLASSIFIED AS FREEWAYS OR EXPRESSWAYS.
10. THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.
11. EXTRA ADVANCE WARNING SIGN GROUPS CONSISTING OF OW-128, OW-122, AND OW-166 SIGNS PLUS DISTANCE PLATES MAY BE REQUIRED TO BE ERECTED AT THE DIRECTION OF THE PROJECT ENGINEER/SUPERVISOR.

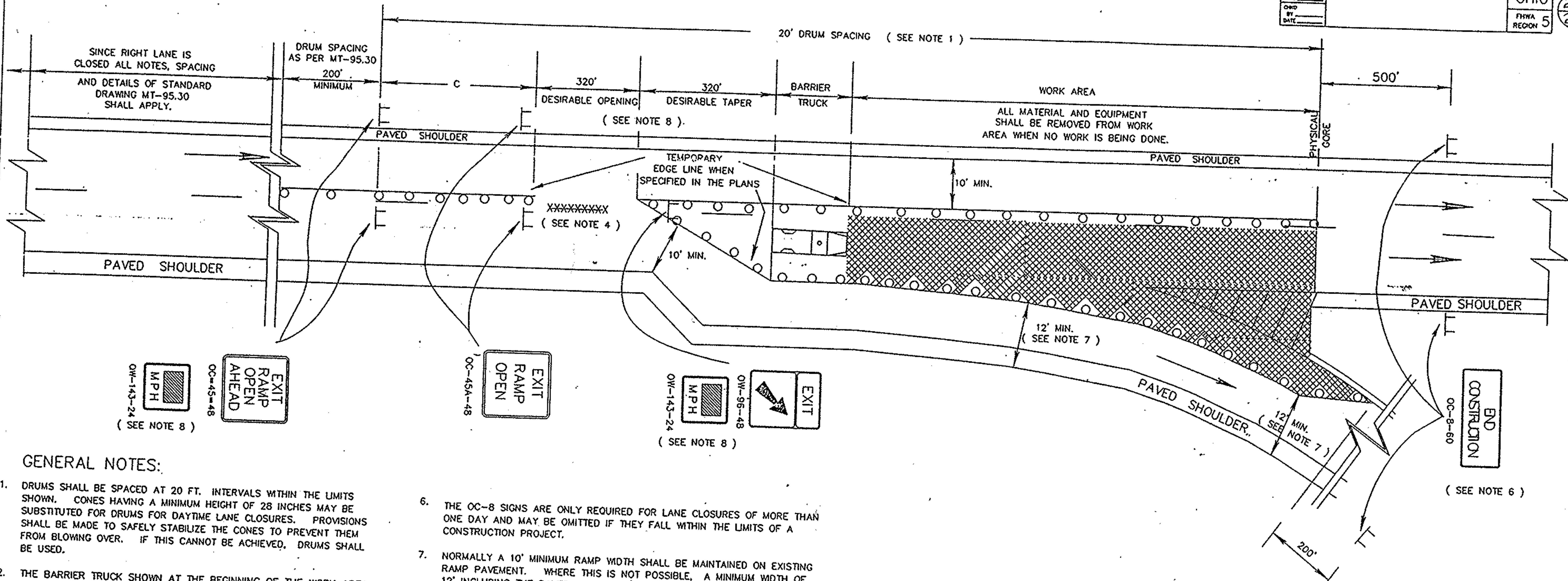
SOUTH AVE.

1. THE LOCATION OF THE TRANSITION TAPERS AND THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT.
2. THE SPACING BETWEEN THE PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS.
3. THE TAPER LENGTHS, NUMBER, AND SPACING OF DRUMS SHALL BE AS SHOWN ON PLAN INSERT SHEETS. DRUM SPACING WILL BE 20 FEET CENTER TO CENTER ON THE TAPERS AND 40 FEET CENTER TO CENTER FOR THE WORK AREA.
4. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS WILL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS WILL BE USED.
5. THE ADVISORY SPEED SIGN OW-143-24 WILL BE USED AS SHOWN ON THE PLAN INSERT SHEETS WITH THE ADVISORY SPEED SHOWN.
6. THE DISTANCE PLATE OW-145A-30 WILL INDICATE THE DISTANCE TO THE BEGINNING OF THE PAVEMENT TAPER. DISTANCES WILL BE EXPRESSED IN FEET. THE PLAQUE MAY BE OMITTED IF EXTRA SIGN GROUPS ARE NOT USED. ADDITIONAL ROAD CONSTRUCTION AHEAD SIGNS (OW-128-48) WILL BE PLACED ON RAMPS "B" AND "C".
7. THE FLASHING ARROW PANELS WILL MEET THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING TC-35J0.
8. 36" WARNING SIGN SIZES MAY BE USED ON DIVIDED ROADWAYS THAT ARE NOT CLASSIFIED AS FREEWAYS OR EXPRESSWAYS.
9. THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.
10. EXTRA ADVANCE WARNING SIGN GROUPS CONSISTING OF OW-128, OW-122, AND OW-166 SIGNS PLUS DISTANCE PLATES MAY BE REQUIRED TO BE ERECTED AT THE DIRECTION OF THE PROJECT ENGINEER/SUPERVISOR.

ALL WORK AND TRAFFIC CONTROL DEVICES WILL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL WILL BE INCIDENTAL TO THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

M680705N.DGN

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|---|-------------|----------------|----------|-----------------------|
| STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION | | | | |
| MAINTENANCE OF TRAFFIC MAH-680-0705 MAH-680-0923 | | | | |
| DESIGNED TB | DRAWN TB | CHECKED NEM | REVIEWED | DATE REVISION 3-94 |



GENERAL NOTES:

- DRUMS SHALL BE SPACED AT 20 FT. INTERVALS WITHIN THE LIMITS SHOWN. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS SHALL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS SHALL BE USED.
- THE BARRIER TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER WORKERS ARE IN THE WORK AREA. THIS VEHICLE SHALL BE REMOVED FROM THE PAVEMENT WHENEVER WORKERS ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE BARRIER TRUCK SHOWN WHEN APPROVED BY THE ENGINEER. THE VEHICLE SHALL BE EQUIPPED WITH A 360 DEGREE ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE A MINIMUM OF 1/4 MILE.
- TYPE C STEADY BURNING WARNING LIGHTS SHALL BE ERECTED ON EACH DRUM FOR NIGHT LANE CLOSURES.
- IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS (RPMs) SHALL BE REMOVED. THE APPROPRIATE COLOR TEMPORARY EDGE LINE SHALL BE APPLIED WHEN SPECIFIED IN THE PLANS. TEMPORARY EDGE LINES WHICH WOULD CONFLICT WITH FINAL TRAFFIC LANES SHALL BE REMOVABLE (947.03 TYPE-C) TAPE OR TEMPORARY RPM'S UNLESS THE AREA WILL BE RESURFACED IN THE NEXT WORK PHASE AFTER COMPLETION OF THE WORK. TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND PAVEMENT MARKER REFLECTORS SHALL BE RESTORED.
- 36" CONSTRUCTION SIGN SIZES MAY BE USED ON DIVIDED ROADWAYS THAT ARE NOT CLASSIFIED AS FREEWAYS OR EXPRESSWAYS.
- THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.
- NORMALLY A 10' MINIMUM RAMP WIDTH SHALL BE MAINTAINED ON EXISTING RAMP PAVEMENT. WHERE THIS IS NOT POSSIBLE, A MINIMUM WIDTH OF 12' INCLUDING THE PAVED SHOULDER MAY BE USED ONLY: (1) IF THE TRAFFIC WILL BE ON THE SHOULDER LESS THAN ONE DAY AND THE SHOULDER IS IN GOOD CONDITION, OR (2) IF THE SHOULDER PAVEMENT IS STRENGTHENED TO HOLD THE ANTICIPATED LOAD.
- THE OPENING TO THE RAMP AND THE TAPER IN ADVANCE OF THE CLOSED LANE SHALL EACH BE 320 FT. OR MORE WHENEVER POSSIBLE. A LESSER OPENING AND/OR TAPER LENGTH MAY BE PROVIDED IF NO OTHER ALTERNATIVE IS AVAILABLE. THE OPENING SHALL NEVER BE LESS THAN THE TAPER, BUT MAY BE MORE. WHEN LESSER OPENING AND/OR TAPER LENGTHS ARE PROVIDED, ADVISORY SPEED PLAQUES (OW-143) SHALL BE ADDED TO THE OW-96 AND OC-45 SIGNS AS FOLLOWS:

| OPENING/TAPER | ADVISORY SPEED |
|---------------|----------------|
| 290 FT. | 50 MPH |
| 260 FT. | 45 MPH |
| 230 FT. | 40 MPH |
| 200 FT. | 35 MPH |

IF 200 FT. MINIMUM DIMENSION CANNOT BE PROVIDED, THE RAMP SHOULD BE CLOSED.

THE ADVISORY SPEED DISPLAYED SHALL NOT BE GREATER THAN WOULD OTHERWISE BE REQUIRED TO ACCOMMODATE THE PERMANENT RAMP GEOMETRY NEAR THE EXIT.

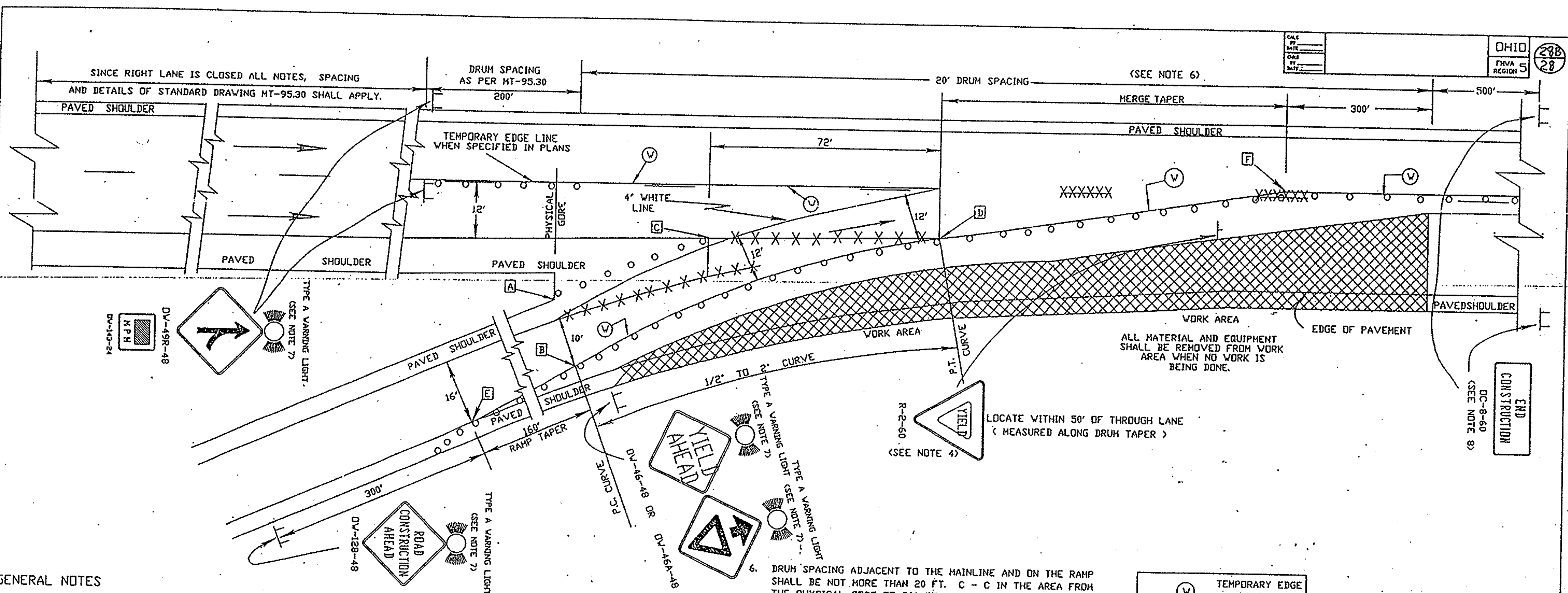
ADVISORY SPEEDS WITHIN 10 MPH OF THE LEGAL SPEED LIMIT NEED NOT BE DISPLAYED.

TABLE 1

| MINIMUM DISTANCE | |
|--------------------------|---------------|
| | C |
| MAJOR STANDARD | 500' |
| URBAN FREEWAY EXPRESSWAY | 500' TO 1000' |
| RURAL FREEWAY EXPRESSWAY | 1000' |

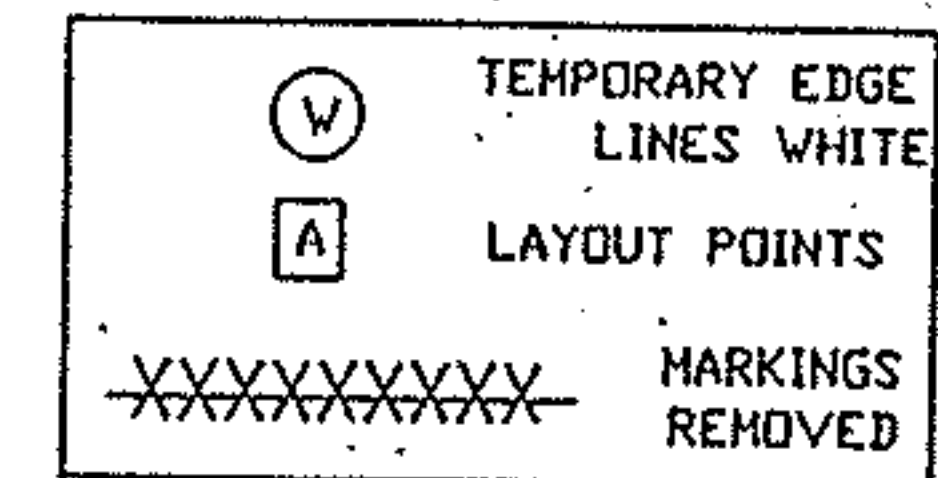
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

| | |
|---------------------------|----------|
| REVISED BY: | DATE: |
| 209814 | DATE |
| LANE CLOSURE AT EXIT GORE | 05/15/65 |
| PLAN INSERT SHEET | |



GENERAL NOTES

- THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL BE EMPLOYED WHEN: (1) THE LATERAL CLEARANCE BETWEEN CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND THE EDGE OF PAVEMENT IS LESS THAN 10 FT. (12 FT. IF THE SHOULDER PAVEMENT IS USED) AS SHOWN ON DRAWING MT-98.15, AND (2) THE REQUIRED RAMP TAPERS AND CURVES CAN BE PROVIDED AS SHOWN. IN THE EVENT THE WORK ZONE CONDITION WOULD PERMIT THE USE OF EITHER HT-98.15 OR HT-98.16, HT-98.15 SHALL BE USED. THIS TRAFFIC CONTROL MEASURE SHALL NOT BE PLACED IN EFFECT UNTIL IMMEDIATELY BEFORE THE CONTRACTOR IS FULLY PREPARED TO PERFORM THE WORK ON THE RAMP OR LANE ADJACENT TO IT. ONCE THIS MEASURE IS PLACED INTO EFFECT, THE CONTRACTOR SHALL EXPEDITIOUSLY PURSUE THE WORK (WORKING CONTINUOUSLY WITH FULL CREW IN THE RAMP AREA ON ALL NORMAL WORKING DAYS) UNTIL IT IS COMPLETED AND SHALL IMMEDIATELY OPEN THE AREA TO NORMAL TRAFFIC OR, AS A MINIMUM, REVERT TO THE METHODS SHOWN ON MT-98.15. IT IS THE INTENT THAT THE LONGEST MERGING TAPER LENGTH POSSIBLE SHALL BE CHOSEN, COMMENSURATE WITH THE REQUIREMENTS OF CONSTRUCTION.
- THE RAMP TAPER SHALL DESIRABLY BE LOCATED TO PROVIDE A 10' MINIMUM PATH BETWEEN DRUMS AND THE PAVED SHOULDER IN THE GORE. THE RAMP TRAFFIC MAY BE PLACED ON THE PAVED GORE AS SHOWN ABOVE ONLY IF (1) THE TRAFFIC WILL USE THE PAVED SHOULDER PAVEMENT LESS THAN ONE DAY AND THE SHOULDER PAVEMENT IS IN GOOD CONDITION AND IS LEVEL AND SMOOTH OR (2) IF THE SHOULDER PAVEMENT IS ADEQUATELY STRENGTHENED, LEVELED AND SMOOTHED TO CARRY THE ANTICIPATED LOAD. A MINIMUM OF 3 DRUMS SHALL BE USED IN THE RAMP SHOULDER TAPER.
- WHEN THE RAMP IS NOT LONG ENOUGH TO ALLOW PLACEMENT AS SPECIFIED ABOVE, THE SIGNS MAY BE SPACED PROPORTIONATELY WITHIN THE SPACE AVAILABLE AS DETERMINED BY THE ENGINEER (A 200 FOOT MINIMUM SPACING MUST BE MAINTAINED).
- IT WILL BE NECESSARY TO MOVE THE LOCATION OF ANY EXISTING YIELD CONDITION. IN THESE CASES, THE PERMANENT R-2 SIGN INSTALLATION SHALL BE COVERED AND THE TEMPORARY INSTALLATION SHALL BE MOUNTED APPROPRIATELY. IF THE REQUIRED DISTANCES (RAMP TAPER, CURVE AND MERGE TAPER) CANNOT BE OBTAINED, THE ENGINEER MAY APPROVE SLIGHTLY LOWER VALUES FOR A SHORT TIME, IN WHICH CASE THE YIELD SIGN SHALL BE REMOVED AND A 36" STOP SIGN PLACED APPROPRIATELY TO BE VISIBLE TO RAMP TRAFFIC BUT NOT BE OBTRUSIVE TO MAINLINE TRAFFIC.
- IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS (RPM'S) SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED ALONG THE TAPER. TEMPORARY EDGE LINES WHICH WOULD CONFLICT WITH FINAL TRAFFIC LANES SHALL BE REMOVABLE (945.03 TYPE-C) TAPE UNLESS THE AREA WILL BE RESURFACED IN THE NEXT WORK PHASE. AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 641.10 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS SHALL BE RESTORED.
- DRUM SPACING ADJACENT TO THE MAINLINE AND ON THE RAMP SHALL BE NOT MORE THAN 20 FT. C - C IN THE AREA FROM THE PHYSICAL GORE TO 300 FT. BEYOND THE MERGE TAPER. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS SHALL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS SHALL BE USED. TYPE C STEADY BURNING WARNING LIGHTS SHALL BE ERCTED ON EACH DRUM FOR NIGHT LANE CLOSURE.
- TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE ROAD CONSTRUCTION AHEAD (DW-128-48), MERGE (DW-49R-48), AND THE YIELD AHEAD (DW-46-48) SIGNS WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.
- THE DC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.
- FROM THE END OF THE GORE AREA GRADED SHOULDER (POINT A), LOCATE THE PC OF THE CURVE BY MEASURING PERPENDICULAR TO THE RAMP CENTERLINE 10' OF RAMP PAVEMENT, NOT INCLUDING PAVED SHOULDER WIDTH (POINT B). FROM THE END OF THE GORE AREA PAVED SHOULDER (POINT C), LOCATE THE PT OF THE CURVE BY MEASURING 72' FROM POINT C ALONG THE EDGE OF PAVEMENT EXTENDED (POINT D).
- PLACEMENT OF DRUMS SHALL BEGIN AT (POINT E) 160' UPSTREAM FROM THE PREVIOUSLY LOCATED PC (POINT B) AND AT THE RIGHT EDGE OF RAMP PAVEMENT. FROM THIS POINT A DRUM TAPER SHALL BE PLACED TO THE PC (POINT B) AND THEN ALONG A CURVE AS SHOWN TO THE PT (POINT D) WHERE A 491 (MIN.) MERGE TAPER SHALL MEET MAINLINE TRAFFIC CONTROL (POINT F).



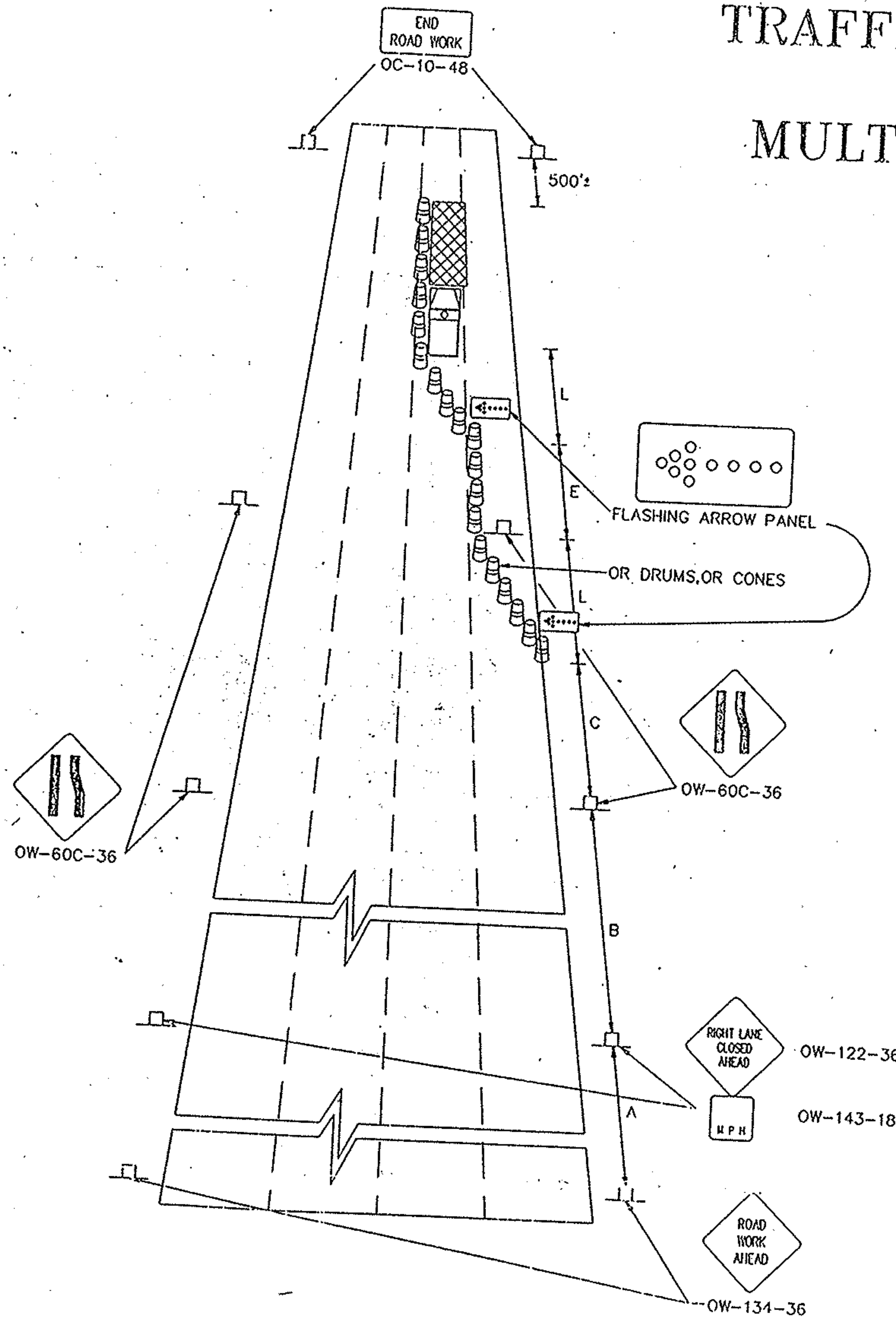
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE DMUCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

| | |
|--|----------------|
| REVISED BY: LAJ | DATE: 8/13/91 |
| 209816 | DATE: 05/07/90 |
| LANE CLOSURE AT ENTRANCE RAMP PLAN B | 8/13/91 |
| PLAN INSERT SHEET | |

TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR MULTIPLE LANE CLOSING

28
28

| F.H.W.A. REGION | STATE | PROJECT |
|--------------------|-------|---------|
| 5 | OHIO | |



| DISTANCE | A | B | C | E |
|----------------------|-------|-------|-------|-------|
| URBAN | 200' | 200' | 200' | 200' |
| MAJOR STANDARD | 500' | 500' | 500' | 1200' |
| EXPRESSWAY & FREEWAY | 2600' | 1600' | 1000' | 1680' |

L = (TAPER LENGTH) = W X S
W = WIDTH OF THE CLOSED LANE IN FEET
S = POSTED SPEED