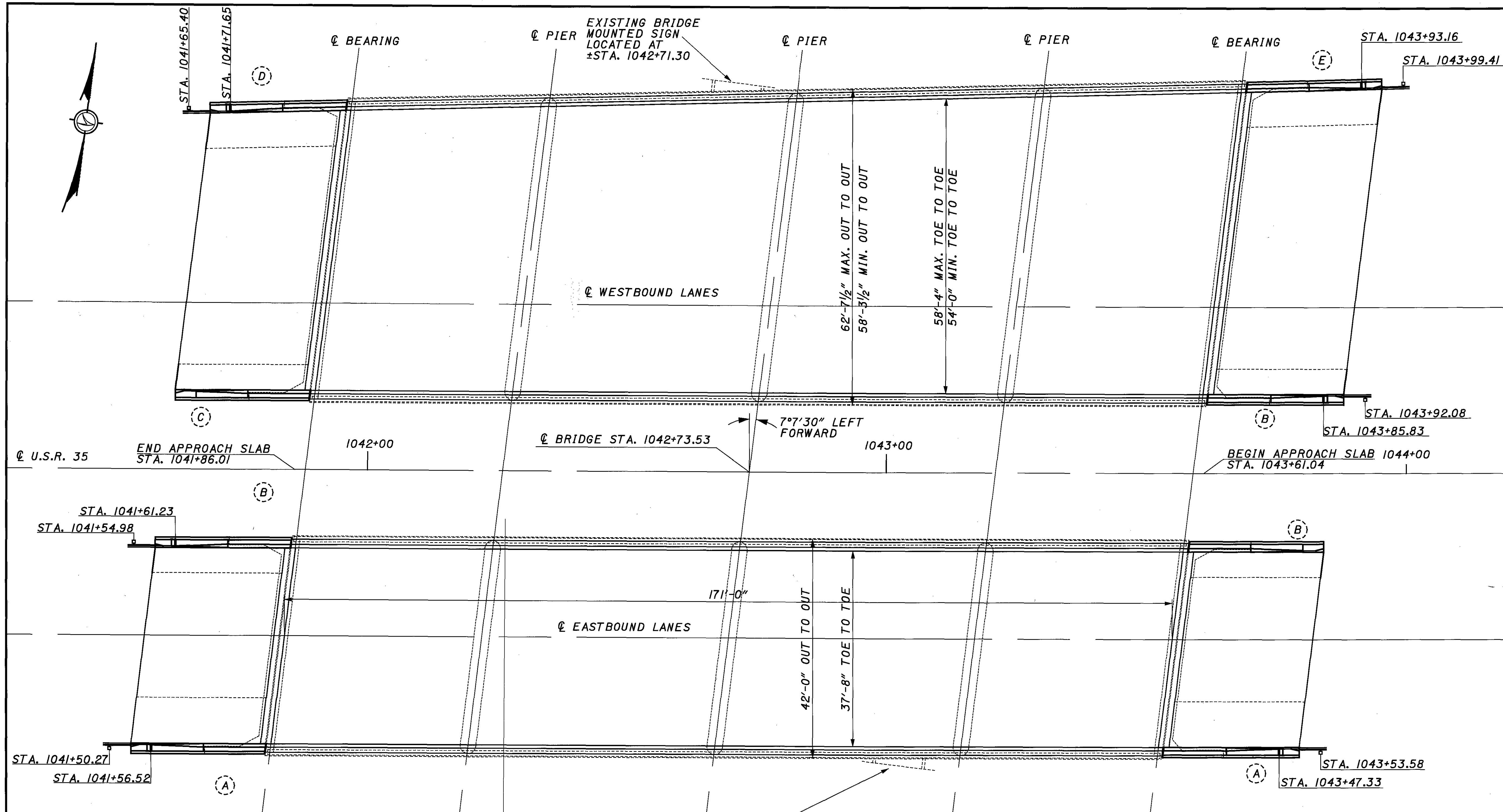




(A)
(B)
(C)
(D)
(E)

FOR DETAILS OF THESE END SECTIONS
REFER TO SHEETS 12/19 - 18/19.

PROPOSED WORK	EXISTING STRUCTURE
- REMOVE EXISTING RAILING, CONCRETE CURBS, AND THE EXISTING PARAPET TRANSITIONS - HYDRO DEMOLITION REMAINING DECK AND APPROACH SLABS TO INDICATED DEPTH - FACE EXISTING CONCRETE PARAPET - CONSTRUCT CONCRETE BARRIER END SECTIONS, TYPE D, REINFORCED - PLACE MICRO SILICA OVERLAY ON DECK AND APPROACH SLABS - PLACE ITEM SPECIAL, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM - SEAL PARAPETS AND END SECTIONS WITH EPOXY-URETHANE SEALER	TYPE: 4 SPAN CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK SPANS: 38'-0", 47'-6", 47'-6", 38'-0" ROADWAY: RIGHT STRUCTURE-42'-0" OUT TO OUT LEFT STRUCTURE - MAX. - 62'-7½" OUT TO OUT MIN. - 58'-3½" OUT TO OUT LOAD: CF = 400 SKEW: 7°7'30" LT. FORWARD WEARING SURFACE: +2½" ASPHALT CONCRETE APPROACH SLABS: 25'-0" (PARTIAL WIDTH) ALIGNMENT: TANGENT SFN: 7102046 L & 7102070 R LATITUDE: 39°20'54"N LONGITUDE: 82°58'36"W DATE BUILT: 1968

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81 REVISED 07-19-02
SBR-1-99 REVISED 07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

848 DATED 04-15-05

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE O.D.O.T BRIDGE DESIGN MANUAL

DESIGN DATA:

CONCRETE CLASS HP - COMPRESSIVE STRENGTH 4500 P.S.I.
(SUPERSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996
GRADE 60 MINIMUM YIELD STRENGTH
60,000 P.S.I.

DESIGN LOADING:

HS20 AND THE ALTERNATE MILITARY LOADING.
NO FUTURE WEARING SURFACE.

DECK PROTECTION METHOD:

3 1/2" MICRO-SILICA MODIFIED CONCRETE OVERLAY

EXISTING BRIDGE PLANS

DETAIL DRAWINGS OF THE EXISTING BRIDGES MAY BE INSPECTED AT THE DISTRICT 9 BRIDGE OFFICE AT 650 EASTERN AVENUE IN CHILLICOTHE, OHIO.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICE UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING SIGNS

BRIDGE MOUNTED SIGNS ON THE EXISTING STRUCTURE ARE NOT TO BE DISTURBED BY THE PROPOSED WORK AS INDICATED IN THESE PLANS. THE SIGNS ARE LOCATED ON THE LEFT PARAPET OF THE WESTBOUND LANES AT ±STA. 1042+71.30 AND ON THE RIGHT PARAPET OF THE EASTBOUND LANES AT ±STA. 1043+02.36.

ITEM 517 - RAILING FACED, AS PER PLAN

THIS WORK CONSISTS OF FACING CURB STYLE PARAPETS, USING CAST IN PLACE CONCRETE, TO OBTAIN THE DEFLECTOR SHAPE AS SHOWN IN THE PLANS.

CAREFULLY REMOVE THE EXISTING ALUMINUM RAILING AND THE EXISTING REINFORCED CONCRETE CURB OF THE STRUCTURE AS SHOWN ON SHEET 7719. ALSO, REMOVE THE EXISTING PARAPET ENDS AND CURB PLATES ASSOCIATED WITH THE EXISTING JOINT AS DETAILED ON SHEET 8719. REMOVE ALL LOOSE AND UNSOUND CONCRETE. REMOVE SOUND CONCRETE, AS NECESSARY, TO OBTAIN A MINIMUM 4 INCH THICKNESS OF NEW CONCRETE.

DRILL DOWEL HOLES WHERE SHOWN IN THE PLANS. INSTALL REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS AND ANY EXISTING HARDWARE ASSOCIATED WITH THE EXISTING DRAINING SYSTEM IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR OR EXISTING HARDWARE IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR OR EXISTING HARDWARE. THE DEPARTMENT WILL PAY FOR ALL REINFORCING STEEL, DOWEL HOLES, AND GROUTING WITH ITEM 517.

THOROUGHLY CLEAN THE PARAPET SURFACE IN CONTACT WITH THE REFACING WITH DETERGENT TO REMOVE SURFACE CONTAMINANTS. AFTER DETERGENT CLEANING AND WITHIN 24 HOURS OF PLACING CONCRETE, BLAST CLEAN AND AIR BROOM OR POWER SWEEP ALL SURFACES IN CONTACT WITH THE REFACING TO REMOVE ALL SPALLS, LAITANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO THE ACHIEVEMENT OF AN ADEQUATE BOND. ACCEPTABLE BLAST CLEANING METHODS ARE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN WATER, ABRASIVE BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING. USE HAND TOOLS AS NECESSARY TO REMOVE SCALE FROM ANY EXPOSED REINFORCING STEEL. MATERIALS: CONCRETE SHALL BE CLASS HP WITH A COMPRESSIVE STRENGTH OF 4500 PSI. FURNISH REINFORCING STEEL ACCORDING TO 709.00, GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.

SAWCUT 1 1/4 INCH DEEP CONTROL JOINTS ALONG THE PERIMETER OF THE PARAPET AS SOON AS THE SAW CAN BE OPERATED WITHOUT DAMAGING THE CONCRETE. PLACE THE JOINT SAW CUTS AT THE SAME LOCATION AS THE EXISTING DEFLECTION JOINTS. USE AN EDGE GUIDE, FENCE OR JIG TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. SEAL THE PERIMETER OF THE CONTROL JOINT TO A MINIMUM DEPTH OF ONE INCH WITH A POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S. LEAVE THE BOTTOM 1/2 INCH OF BOTH THE INSIDE AND OUTSIDE FACES OF THE PARAPET UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

THE DEPARTMENT WILL MEASURE THIS ITEM IN FEET BY THE ACTUAL LENGTH OF RAILING FACED BETWEEN THE ENDS OF THE EXISTING CONCRETE PARAPET.

PAYMENT FOR THIS ITEM INCLUDES ALL COSTS OF REMOVAL OF ALUMINUM RAIL, DOWEL HOLES, REINFORCING STEEL, CONCRETE, SHRINKAGE CONTROL JOINTS, EPOXY INJECTION AND INSPECTION PLATFORMS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 517, RAILING FACED, AS PER PLAN.

ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D, REINFORCED
AS PER PLAN

THIS ITEM CONSISTS OF REMOVING THE EXISTING PARAPET TRANSITIONS AND CONSTRUCTING NEW PARAPET TRANSITIONS OFF THE STRUCTURE AND WIDENING THE APPROACH SLABS. THIS ITEM SHALL BE CONSTRUCTED AS DETAILED ON SHEETS 12/19 - 18/19 AND CONFORM TO STD. DWG. SBR-I-99.

THE TRANSVERSE REINFORCING STEEL PLACED IN THE WIDENED AREA SHALL BE DOWELED INTO THE EXISTING APPROACH SLAB AS DETAILED. THE WIDENED AREA SHALL BE CONSTRUCTED AT THE SAME SKEW AS THE APPROACH SLABS.

THE VERTICAL REINFORCING STEEL PLACED IN THE PARAPET AREA SHALL BE DOWELED INTO THE EXISTING FOUNDATION AND ABUTMENT AS DETAILED.

THE CONCRETE FOR THE TRANSITIONS AND WIDENING AREA SHALL BE THE SAME CLASS AND MIX DESIGN AS THAT USED FOR THE CONCRETE PARAPETS ON THE STRUCTURE. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO 509 OF THE CMS.

THE WIDENING AREA SHALL BE CONSTRUCTED AT THE ELEVATION OF THE APPROACH SLAB AFTER THE HYDRODEMOLITION HAS BEEN PERFORMED. THE MICRO SILICA OVERLAY SHALL BE PLACED OVER THE APPROACH SLAB AND THE WIDENED AREA.

ALSO, INCLUDED IN THIS ITEM IS THE PLACEMENT OF 1/4" PREFORMED EXPANSION JOINT FILLER BETWEEN THE TOE OF THE PROPOSED TRANSITION AND THE EXISTING SLIDING PLATE JOINT AS DETAILED ON SHEET 97/19.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE EACH CONTRACT PRICE FOR ITEM 622, CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 518 - SCUPPER MODIFICATION, AS PER PLAN

THIS ITEM CONSIST OF MODIFYING THE EXISTING SCUPPER BY
REMOVING THE EXISTING 2" EXTENSION WELD TO THE SCUPPER
AS SHOWN ON SHEET 7/19.

BRIDGE CONSTRUCTION SEQUENCE:

STAGE ONE CONSTRUCTION

1. SET UP PHASE I TRAFFIC CONTROL TO CLOSE THE LEFT PASSING LANES IN ACCORDANCE WITH MAINTENANCE OF TRAFFIC PLAN FOR THE BRIDGE WORK AND USE PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED (UNANCHORED) TO PROTECT THE BRIDGE WORK AREA AS DETAILED ON SHEET 6/19.
2. REMOVE THE 1'-2" PORTION OF THE EXISTING CURB, 4" PORTION OF THE EXISTING PARAPET ENDS, AND THE, 6" PORTION OF THE BACK WALL OF BOTH STRUCTURES AS DETAILED ON SHEETS 7/19, 8/19, AND 12/19.
3. COMPLETED STAGE ONE CONSTRUCTION OF BOTH BRIDGE NO. ROS-35-1972L AND BRIDGE NO. ROS-35-1972R AND ROADWAY APPROACH WORK IN THE CONSTRUCTION AREA AS DETAILED WITH THE EXCEPTION OF PLACEMENT ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

STAGE TWO CONSTRUCTION

1. AT COMPLETION OF STAGE ONE CONSTRUCTION REVISE MAINTENANCE OF TRAFFIC DEVICES TO OPEN THE LEFT PASSING LANES AND SET UP PHASE II TRAFFIC CONTROL TO CLOSE THE RIGHT DRIVING LANES IN ACCORDANCE WITH MAINTENANCE OF TRAFFIC PLAN FOR THE BRIDGE WORK AND USE PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED (UNANCHORED) TO PROTECT THE BRIDGE WORK AREA AS DETAILED ON SHEET 6/19.
2. REMOVE THE 1'-2" PORTION OF THE EXISTING CURB, 4" PORTION OF THE EXISTING PARAPET ENDS, AND THE, 6" PORTION OF THE BACK WALL OF BOTH STRUCTURES AS DETAILED ON SHEETS 7/19, 8/19, AND 12/19.
3. COMPLETE STAGE TWO CONSTRUCTION OF BOTH BRIDGE NO. ROS-35-1972L AND BRIDGE NO. ROS-35-1972R AND ROADWAY APPROACH WORK IN THE CONSTRUCTION AREA AS DETAILED WITH THE EXCEPTION OF PLACEMENT OF ITEM 512 - SEALING OF SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

STAGE THREE CONSTRUCTION

1. AT COMPLETION OF STAGE TWO CONSTRUCTION REMOVE MAINTENANCE OF TRAFFIC DEVICES FOR PHASE II TRAFFIC CONTROL AND OPEN ALL LANES TO TRAFFIC.
2. BY THE USE OF DRUMS FOR MAINTENANCE OF TRAFFIC PREFORM ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

DESIGN AGENCY STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 9 PRODUCTION	DATE 10/23/06	REVIEWED LAW	DRAWN MRH	DESIGNED MRH
	STRUCTURE FILE NUMBER 7 102046 L	7 102070 R	REVISED	CHECKED GEC
GENERAL NOTES BRIDGE NO. ROS-35-1972 L & R OVER S.R. 159 (BRIDGE ST.)				
ROS-23-17.03 ROS-35-18.11				
3 / 19				
121 139				

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	ADDRESS	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL $\frac{1}{8}$ " OR $\frac{1}{4}$ " THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM, 8" WIDE.

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 mm. MAX. AT 140 DEGREES F.
PENETRATION: 9 mm. MAX. AT 77 DEGREES F.
1 mm. MIN AT 0 DEGREES F.
ASTM D 3407
DUCTILITY: 40 cm. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSILE ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 * 0.05
POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT

GRADATION

THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF $\frac{1}{8}$ " OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN $\frac{1}{8}$ " AND 1-1/8" BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SET UP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF $\frac{1}{2}$ " THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

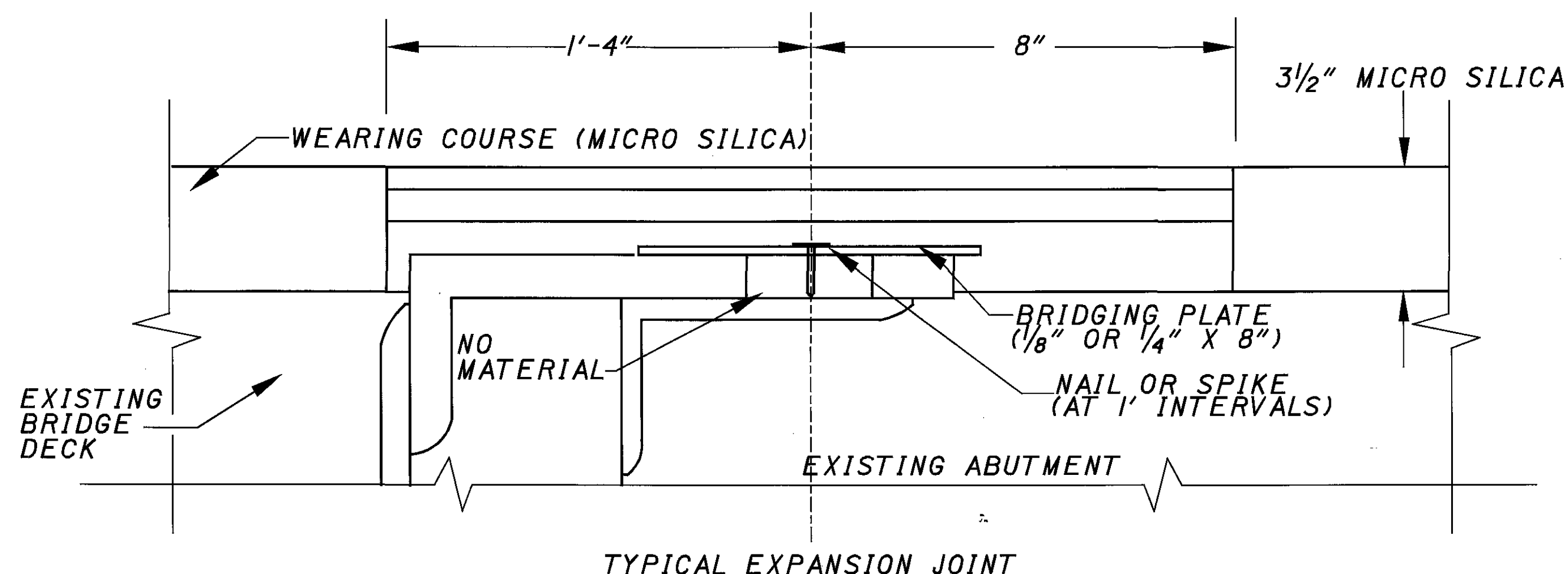
AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN $\frac{3}{4}$ OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN $\frac{1}{2}$ INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, FEET, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.



ESTIMATED QUANTITIES FOR ROS-35-1972 L S.F.N. 7102046								
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	GENERAL	SUPERSTRUCTURE	PARAPETS	SEE SHEET NO.
202	23500	1336	SQ. YD.	WEARING COURSE REMOVED	258	1078		
512	10100	562	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)*	120		442	
SPECIAL	51631300	113	FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT		113		4/19
517	76201	346	FT.	RAILING FACED, AS PER PLAN			346	2/19
518	12801	36	EACH	SCUPPPER MODIFICATION, AS PER PLAN		36		2/19
622	25011	4	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN	4			2/19
848	10000	1380	SQ. YD.	MICRO SILICA CONCRETE OVERLAY USING HYDRODEMOLITION (3½" THICK)	312	1068		
848	20000	1336	SQ. YD.	SURFACE PREPARATION USING HYDRODEMOLITION	258	1078		
848	30000	174	CU. YD.	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	27	147		
848	50000	66	SQ. YD.	HAND CHIPPING	8	58		
848	50100	LUMP		TEST SLAB	LUMP			
				* LIGHT NEUTRAL (FEDERAL COLOR NO. 17778)				

ESTIMATED QUANTITIES FOR ROS-35-1972 R S.F.N. 7102070								
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	GENERAL	SUPERSTRUCTURE	PARAPETS	SEE SHEET NO.
202	23500	862	SQ. YD.	WEARING COURSE REMOVED	139	723		
512	10100	562	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)*	120		442	
SPECIAL	51631300	76	FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT		76		4/19
517	76201	346	FT.	RAILING FACED, AS PER PLAN			346	2/19
518	12801	36	EACH	SCUPPPER MODIFICATION, AS PER PLAN		36		2/19
622	25011	4	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN	4			2/19
848	10000	926	SQ. YD.	MICRO SILICA CONCRETE OVERLAY USING HYDRODEMOLITION (3½" THICK)	210	716		
848	20000	862	SQ. YD.	SURFACE PREPARATION USING HYDRODEMOLITION	139	723		
848	30000	113	CU. YD.	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	15	98		
848	50000	44	SQ. YD.	HAND CHIPPING	6	38		
848	50100	LUMP		TEST SLAB	LUMP			
				* LIGHT NEUTRAL (FEDERAL COLOR NO. 17778)				

DESIGN AGENCY

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

DISTRICT 9 PRODUCTION

DATE

10/23/06

FILE NUMBER

7102046 L

7102070 R

REVIEWED

LAW

STRUCTURE

7102046 L

7102070 R

DRAWN

MRH

REVISOR

DESIGNED

MRH

CHECKED

GEC

ESTIMATED QUANTITIES

BRIDGE NO. ROS-35-1972 L & R

OVER S.R. 159 (BRIDGE ST.)

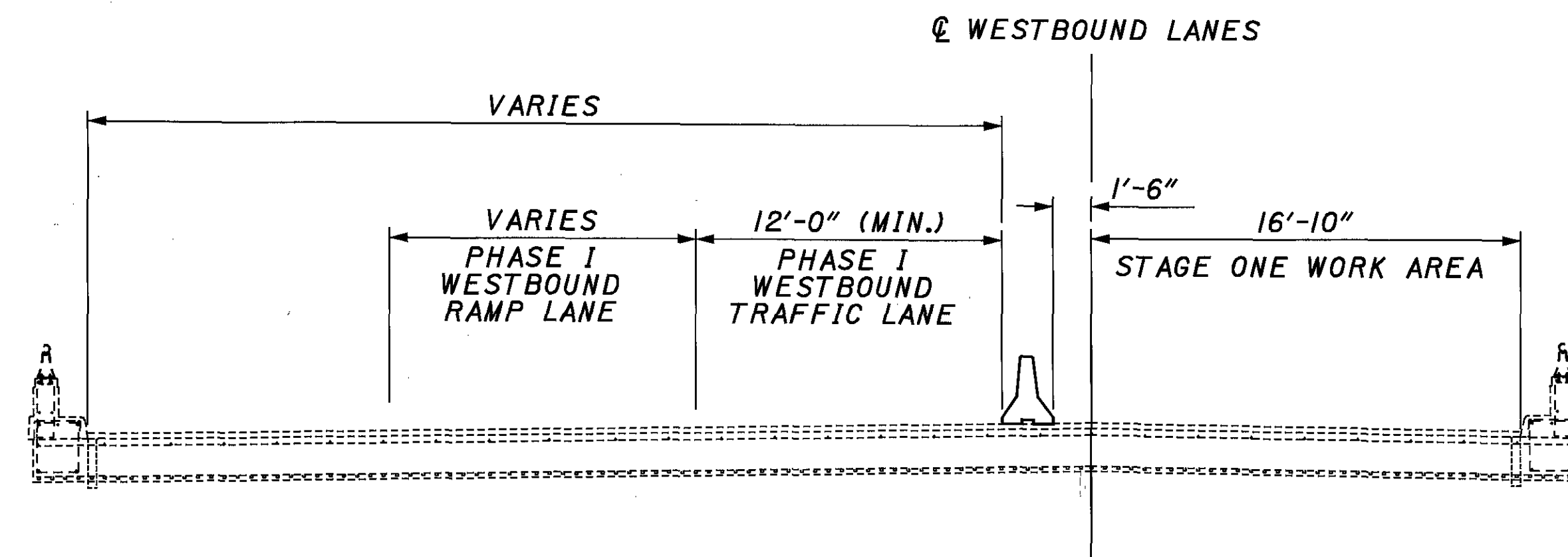
ROS-23-17.03

ROS-35-18.11

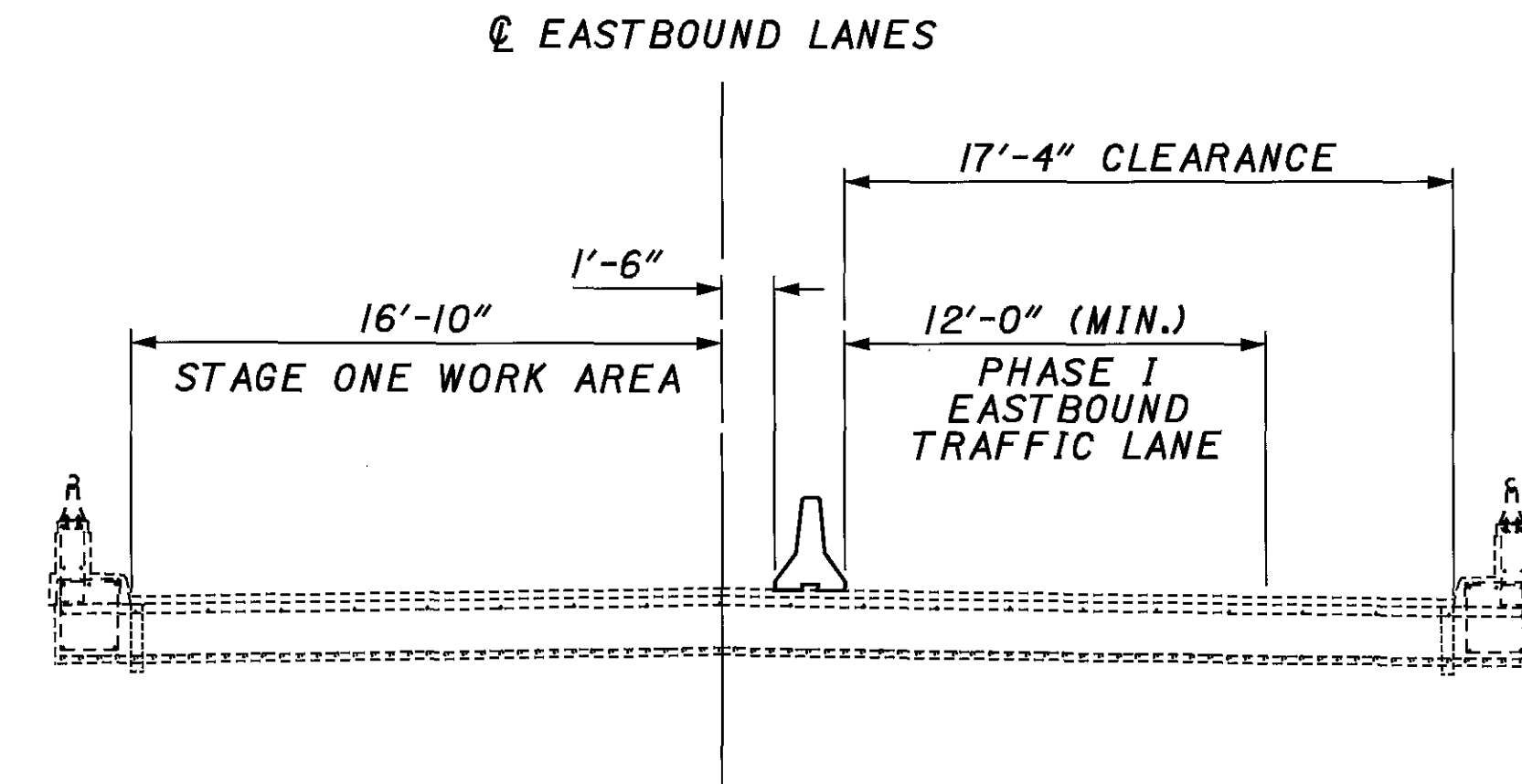
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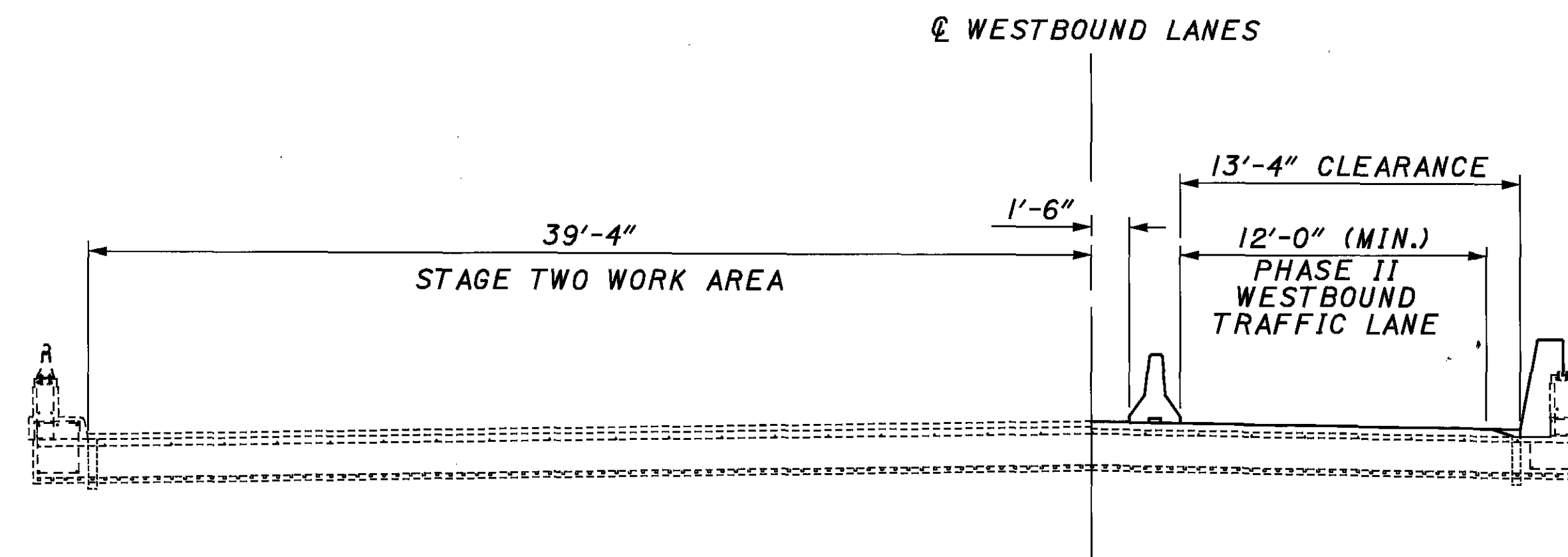
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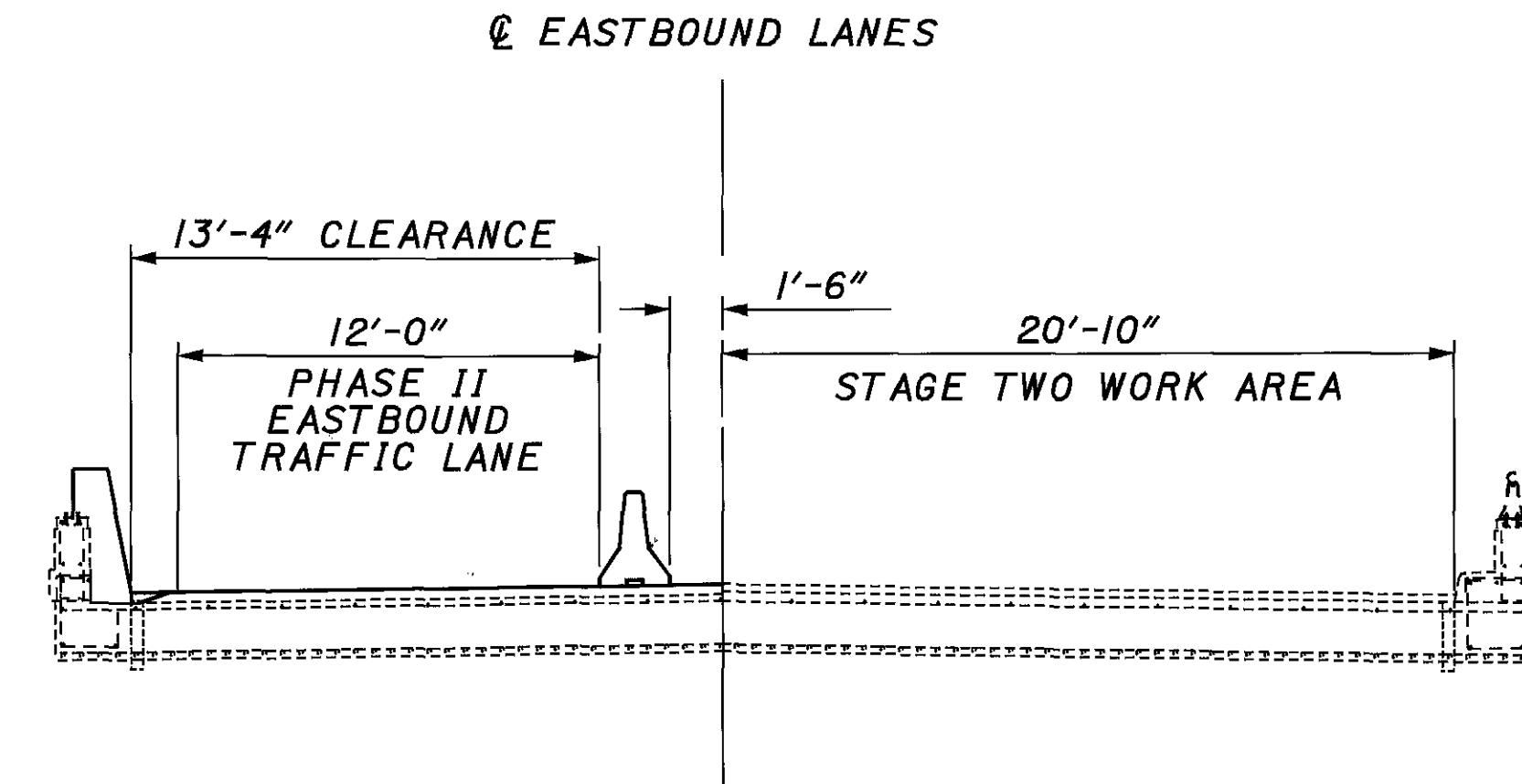
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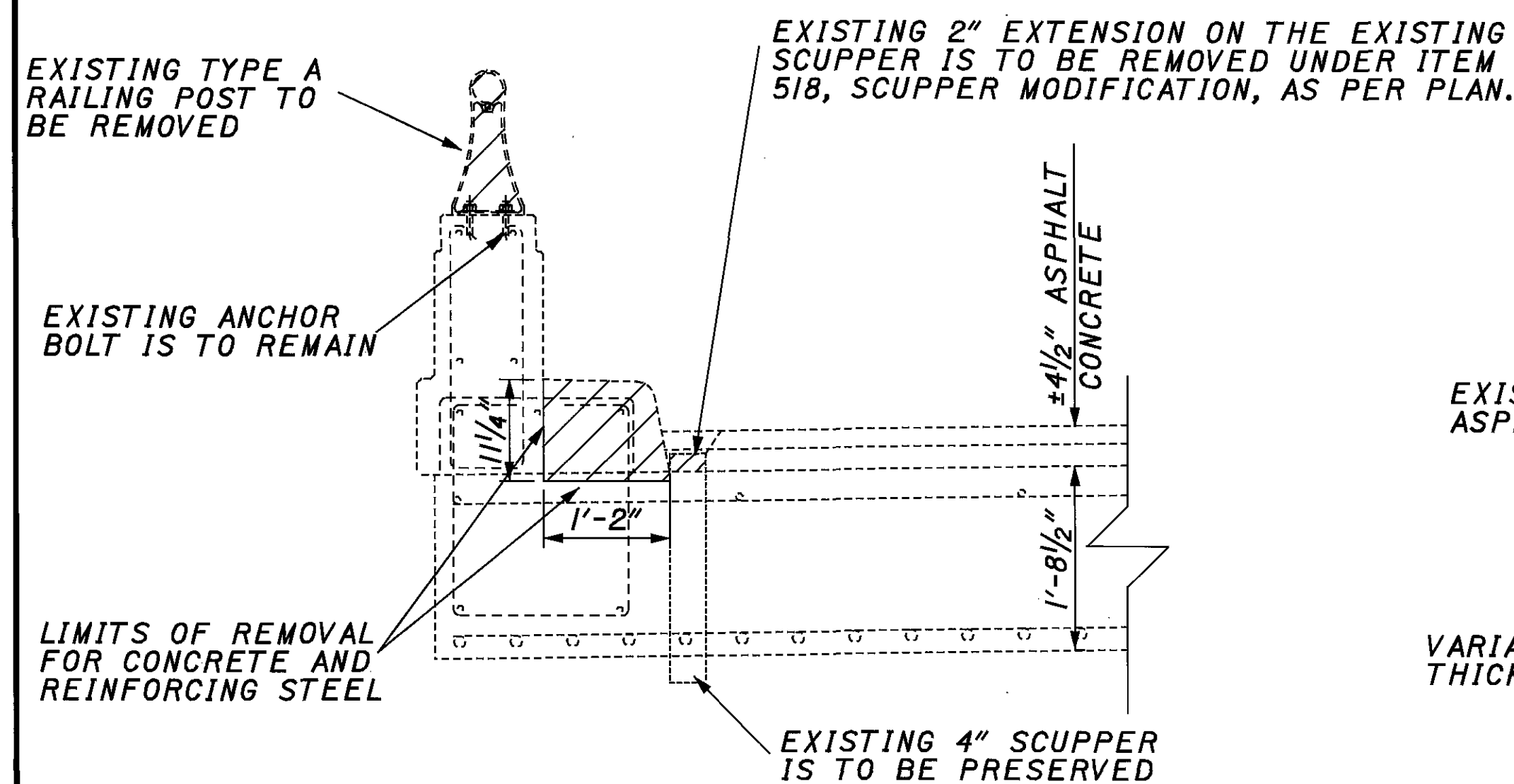
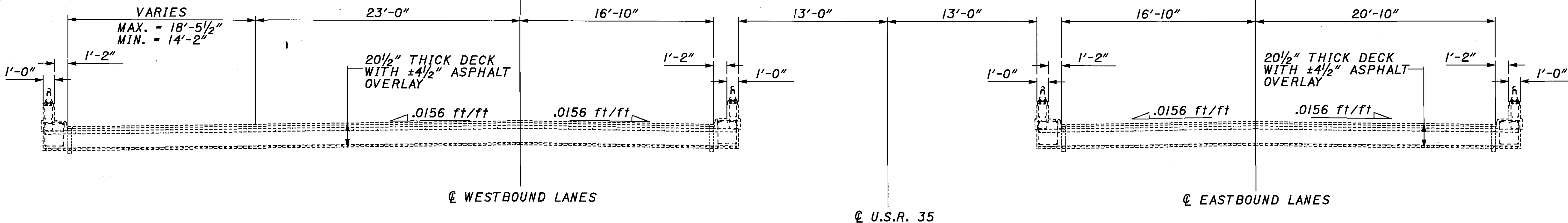
PROPOSED PHASE I MAINTENANCE OF TRAFFIC



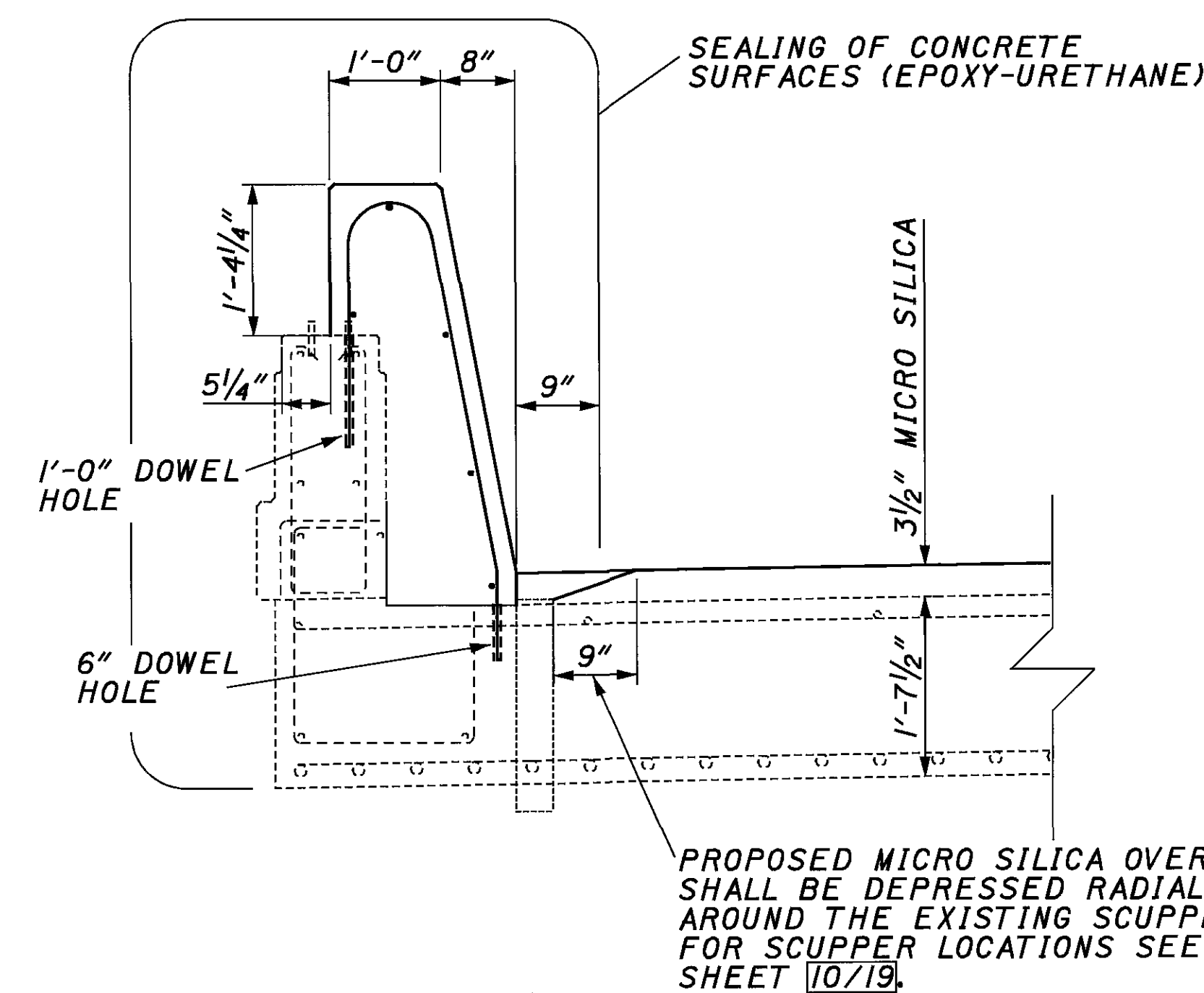
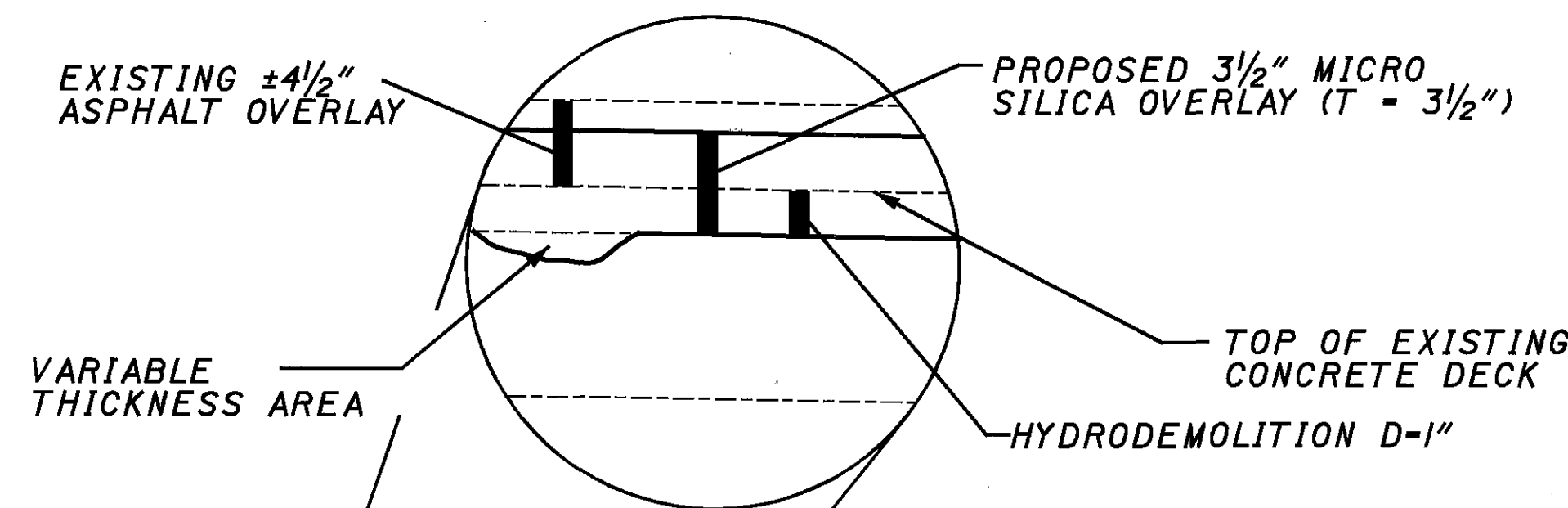
CL U.S.R. 35



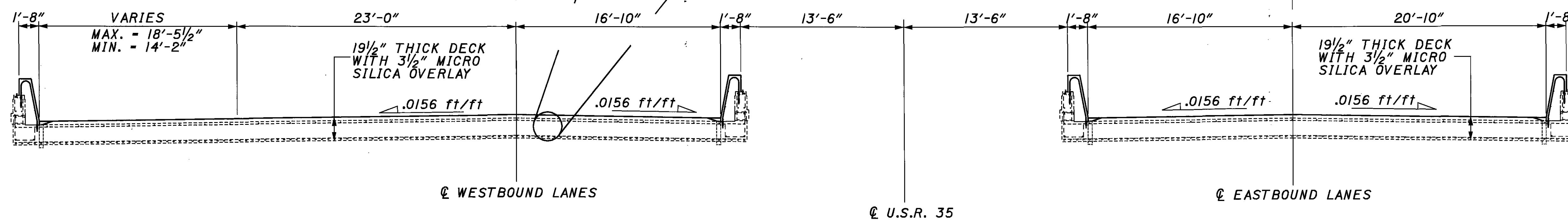
PROPOSED PHASE II MAINTENANCE OF TRAFFIC



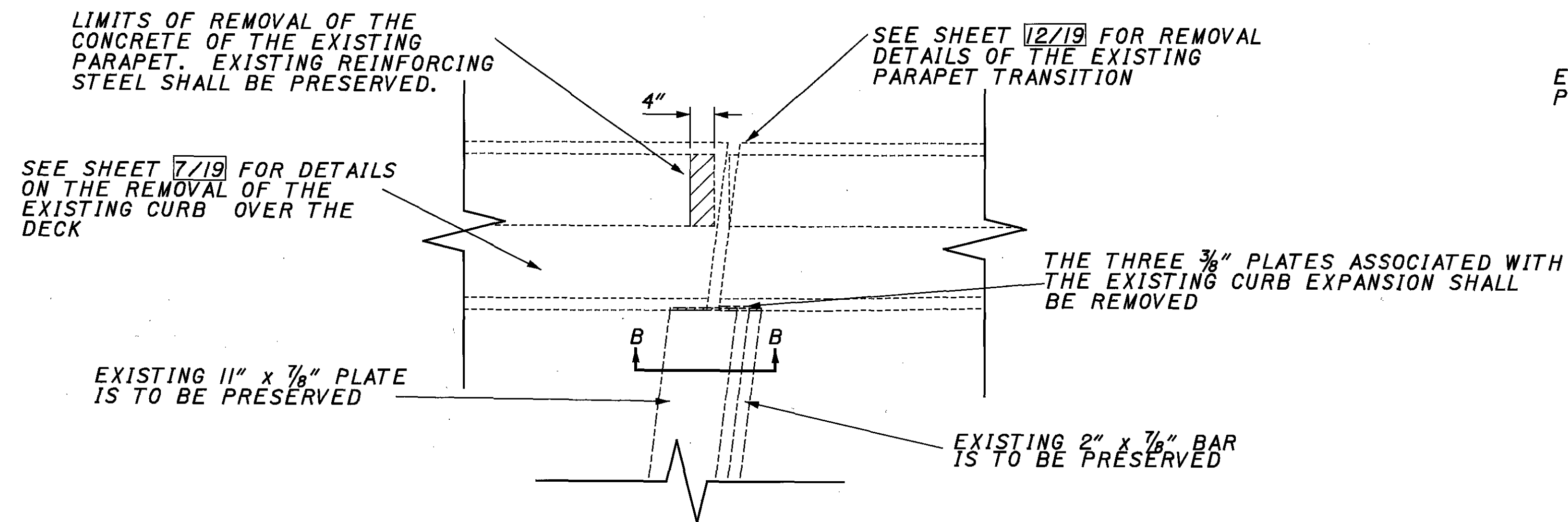
REMOVAL DETAILS
APPLIES TO: BOTH THE LEFT AND RIGHT PARAPET OF BOTH THE EASTBOUND AND WESTBOUND STRUCTURES.



PROPOSED PARAPET
APPLIES TO: BOTH THE LEFT AND RIGHT PARAPET OF BOTH THE EASTBOUND AND WESTBOUND STRUCTURES.

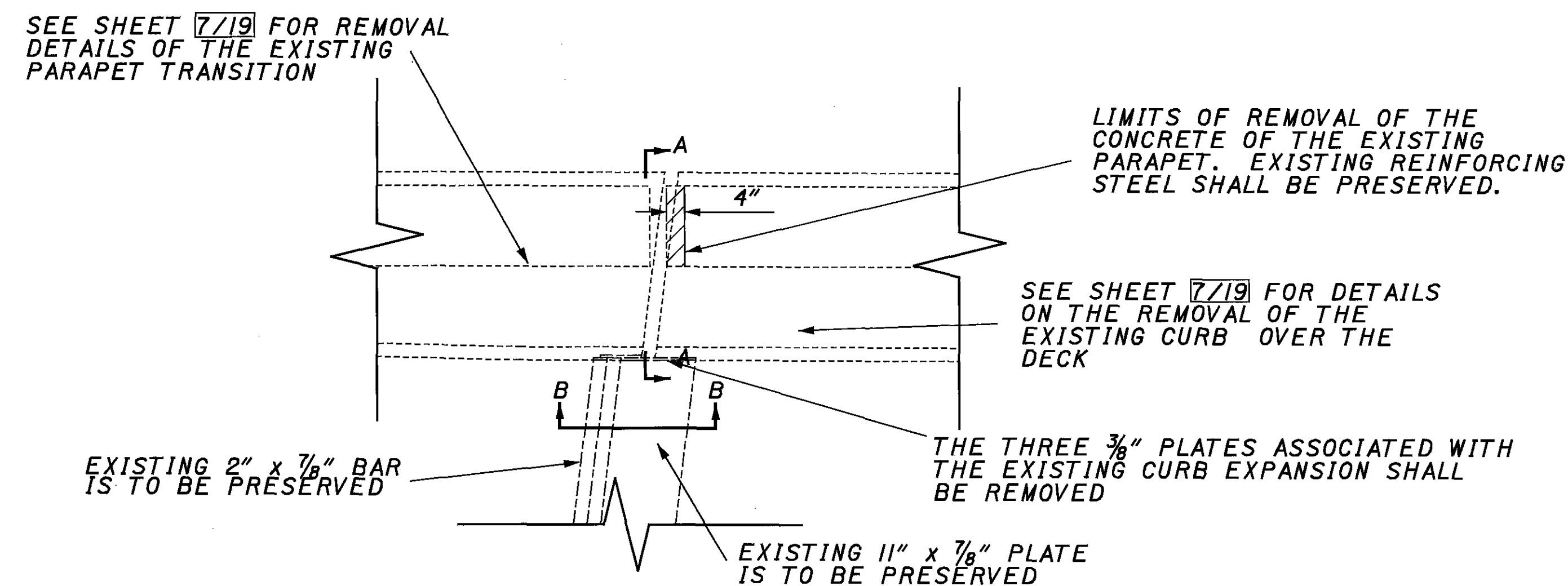


PROPOSED TRANSVERSE SECTION



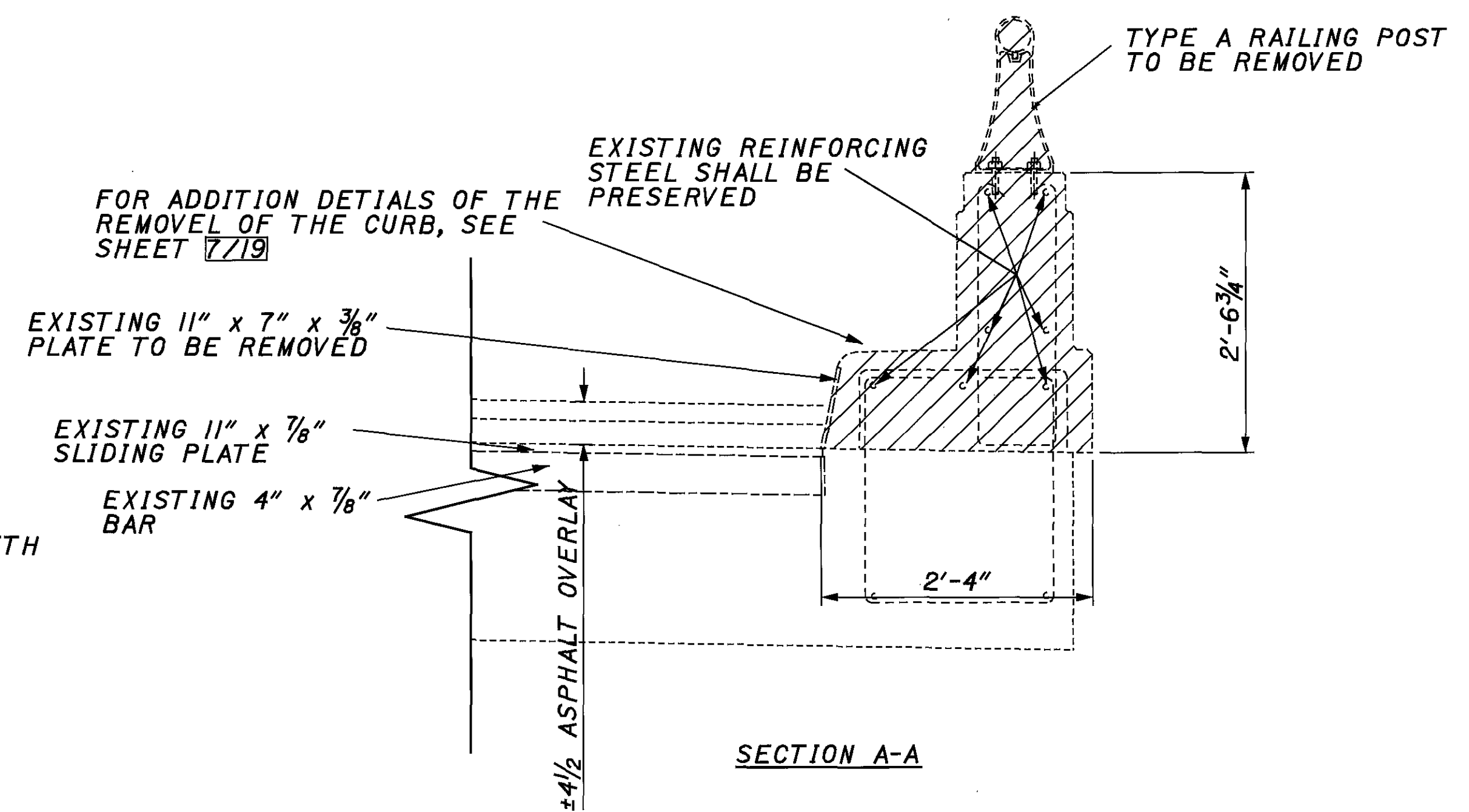
EXISTING PLAN VIEW

APPLIES TO THE FOLLOWING DECK ENDS:
 REAR ABUTMENTS - RIGHT SIDE OF THE EASTBOUND AND WESTBOUND LANES
 FORWARD ABUTMENTS - LEFT SIDE OF THE EASTBOUND AND WESTBOUND LANES

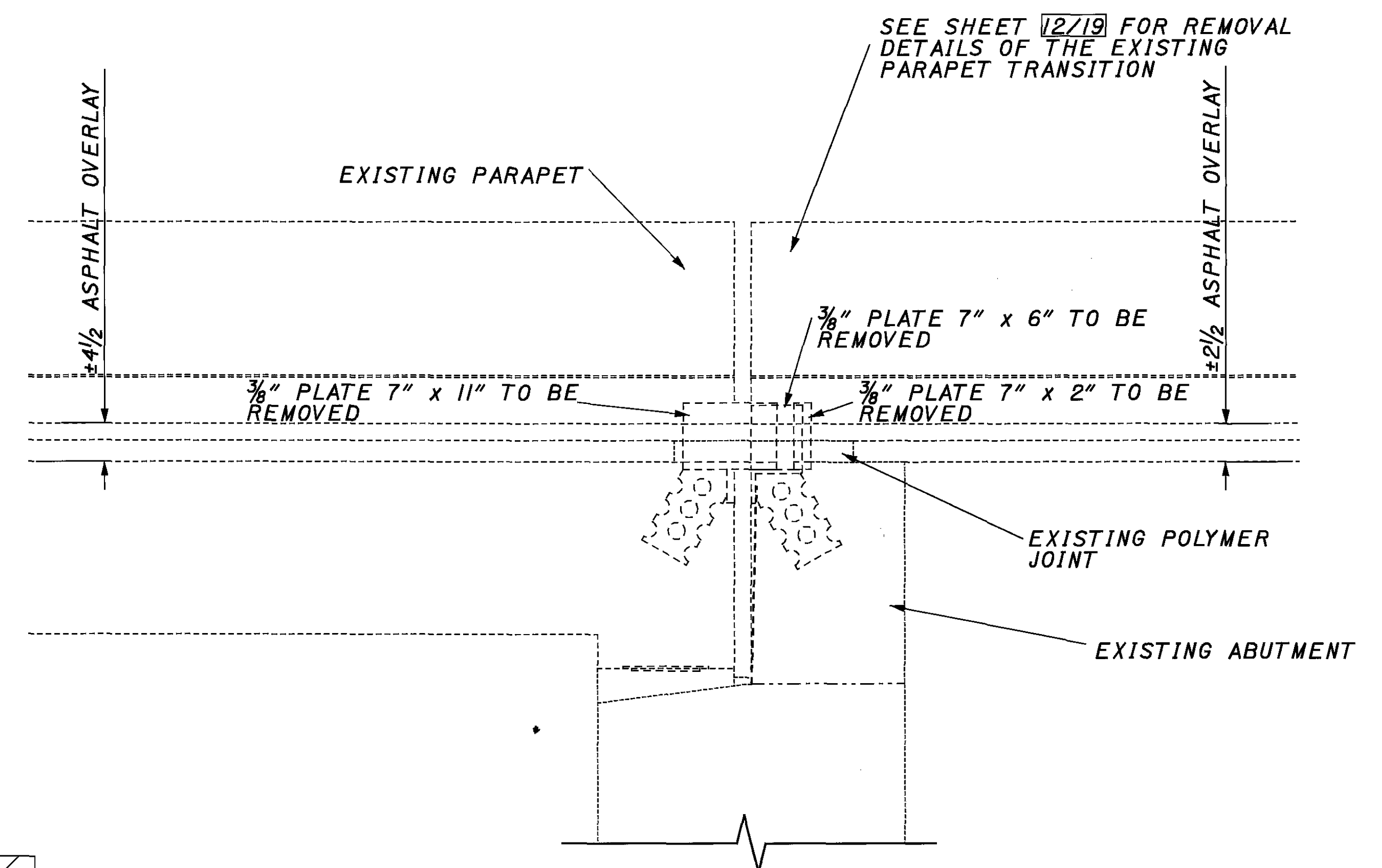


EXISTING PLAN VIEW

APPLIES TO THE FOLLOWING DECK ENDS:
 REAR ABUTMENTS - LEFT SIDE OF THE EASTBOUND AND WESTBOUND LANES
 FORWARD ABUTMENTS - RIGHT SIDE OF THE EASTBOUND AND WESTBOUND LANES

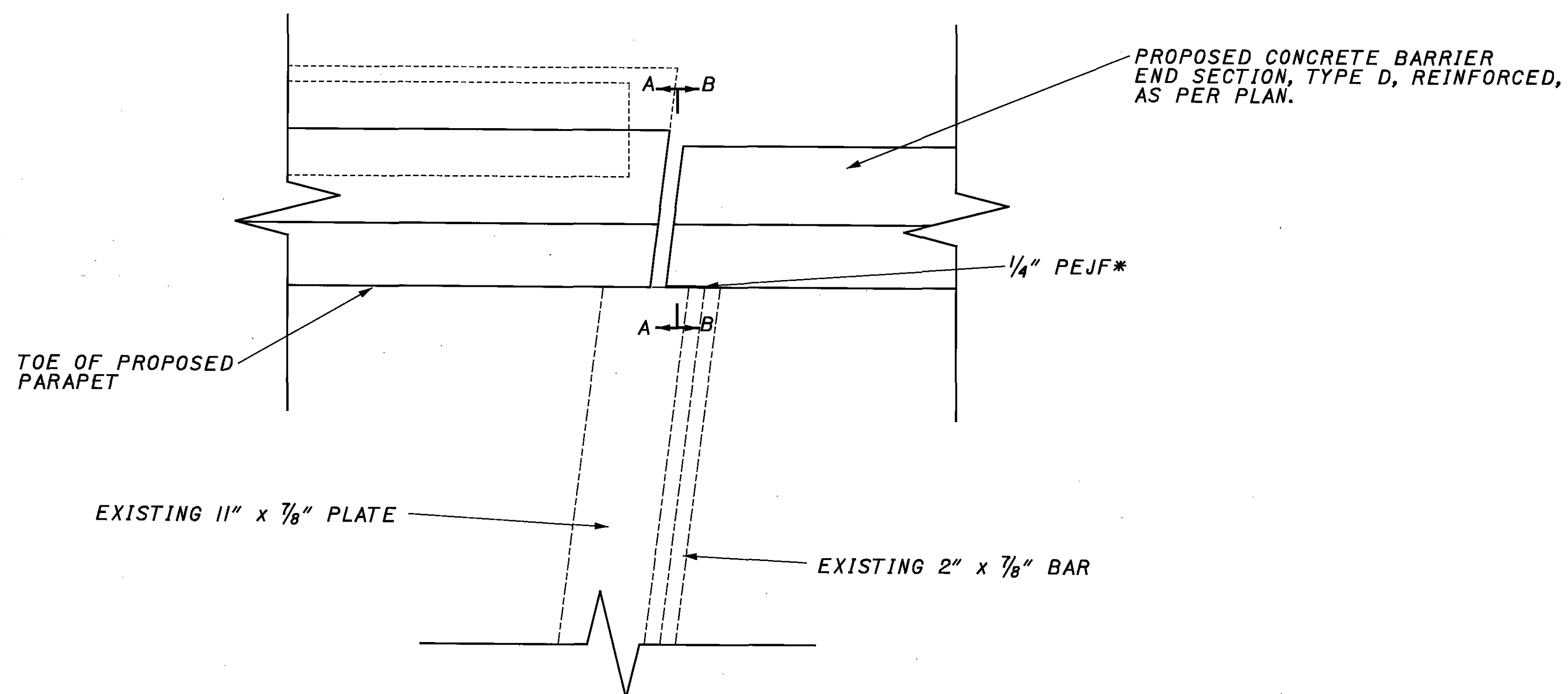


SECTION A-A

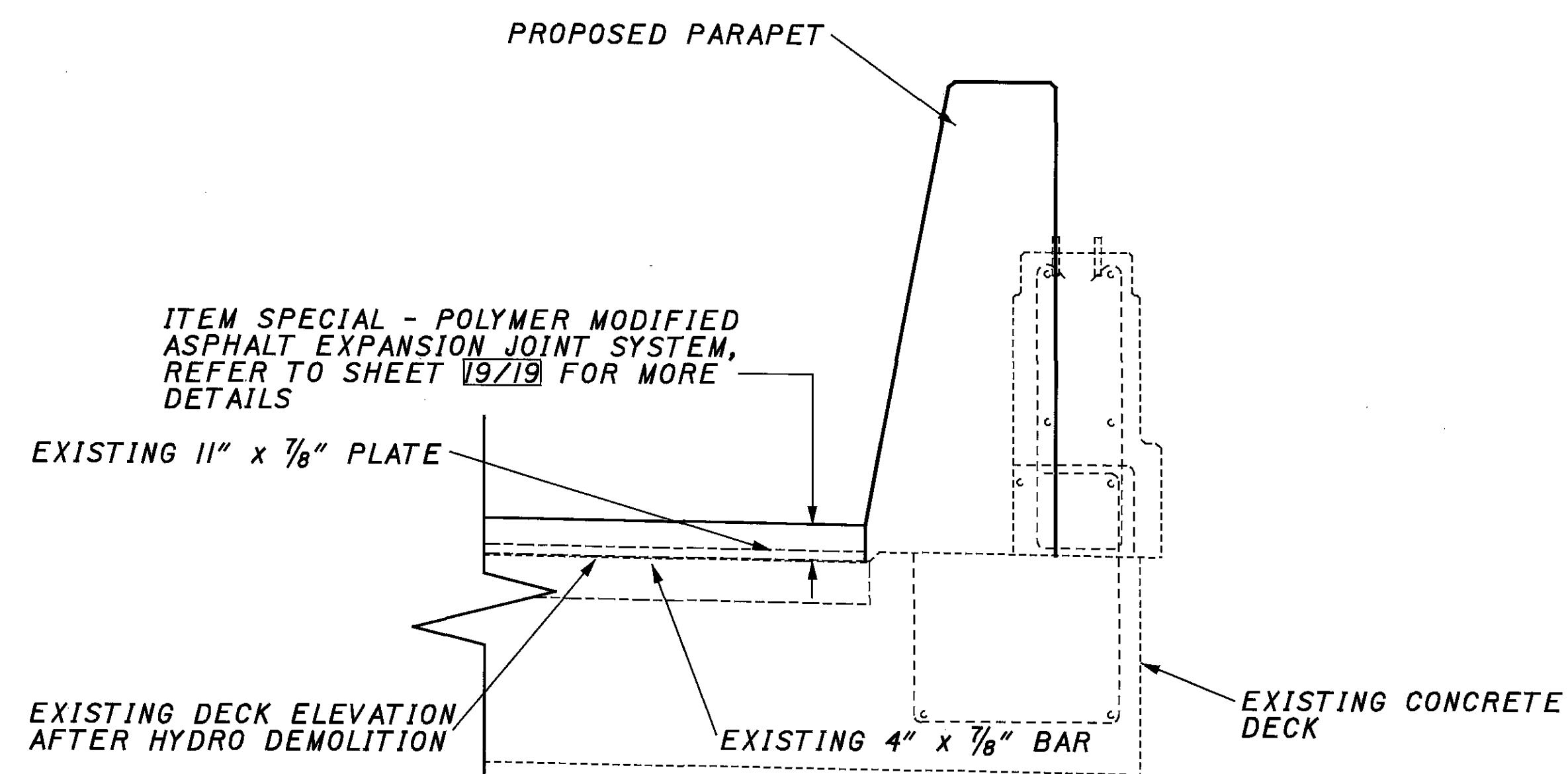


SECTION B-B

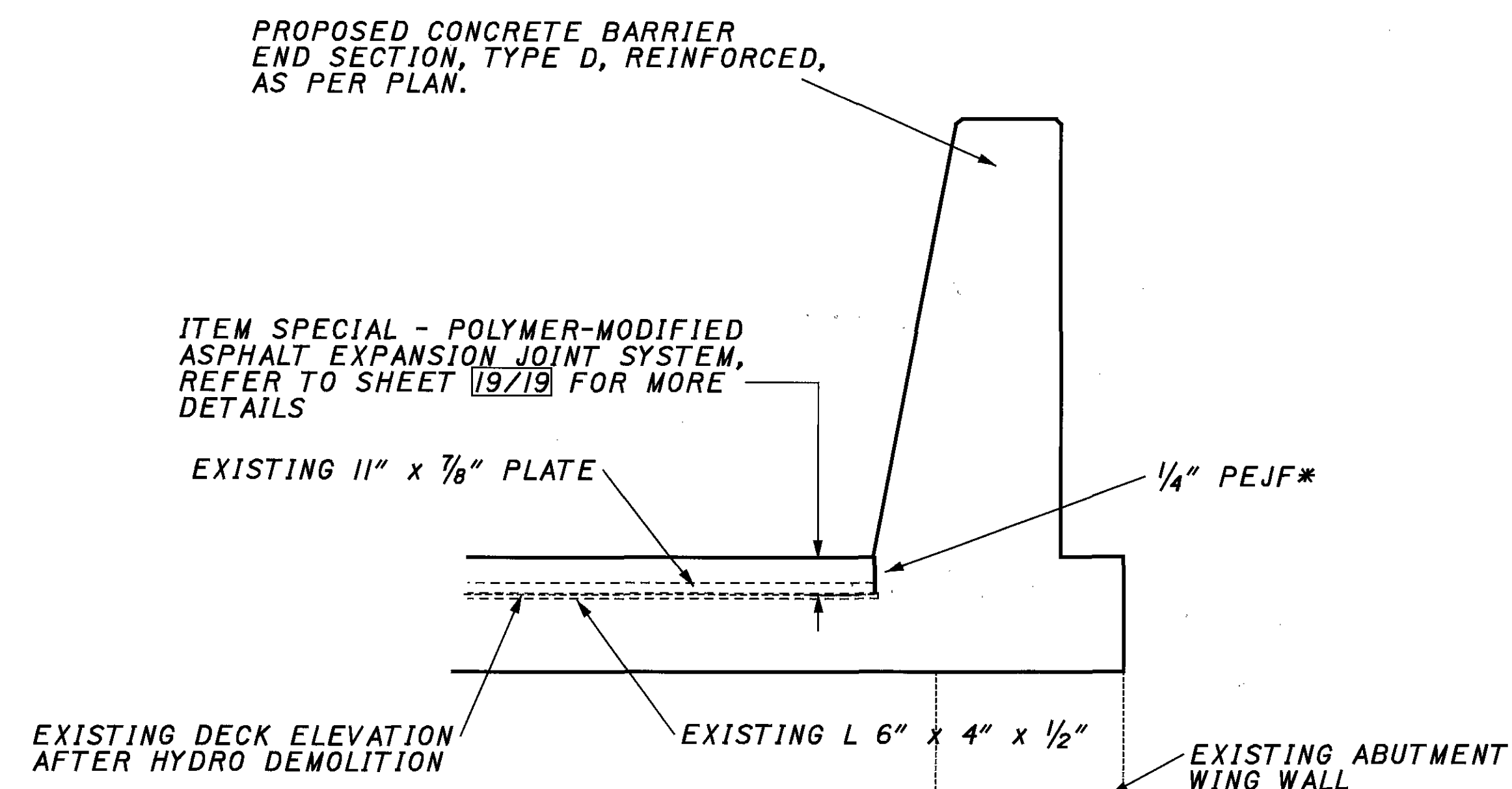




EXISTING PLAN VIEW
APPLIES TO: THE DECK ENDS OF BOTH THE
EASTBOUND AND WESTBOUND LANES



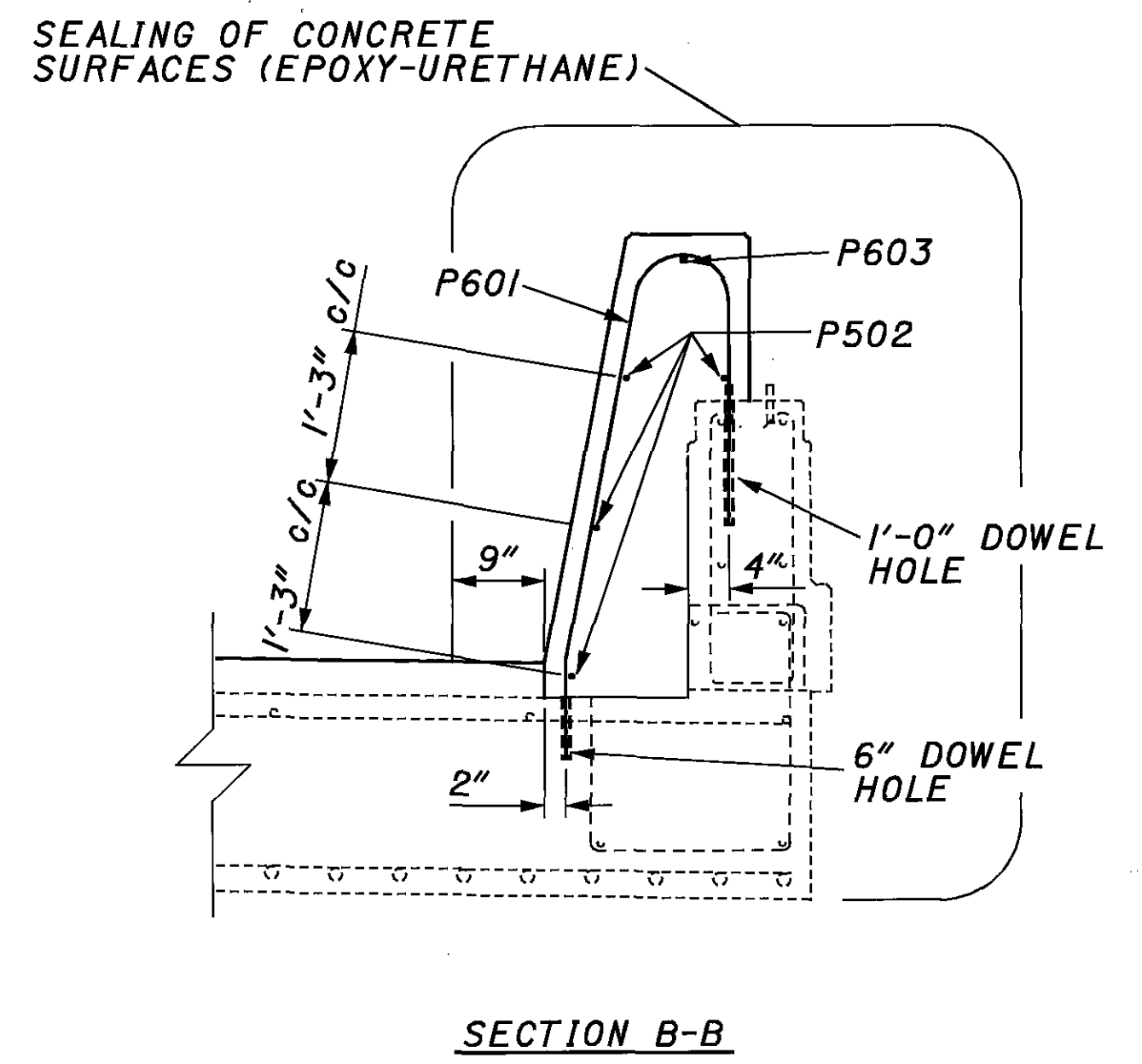
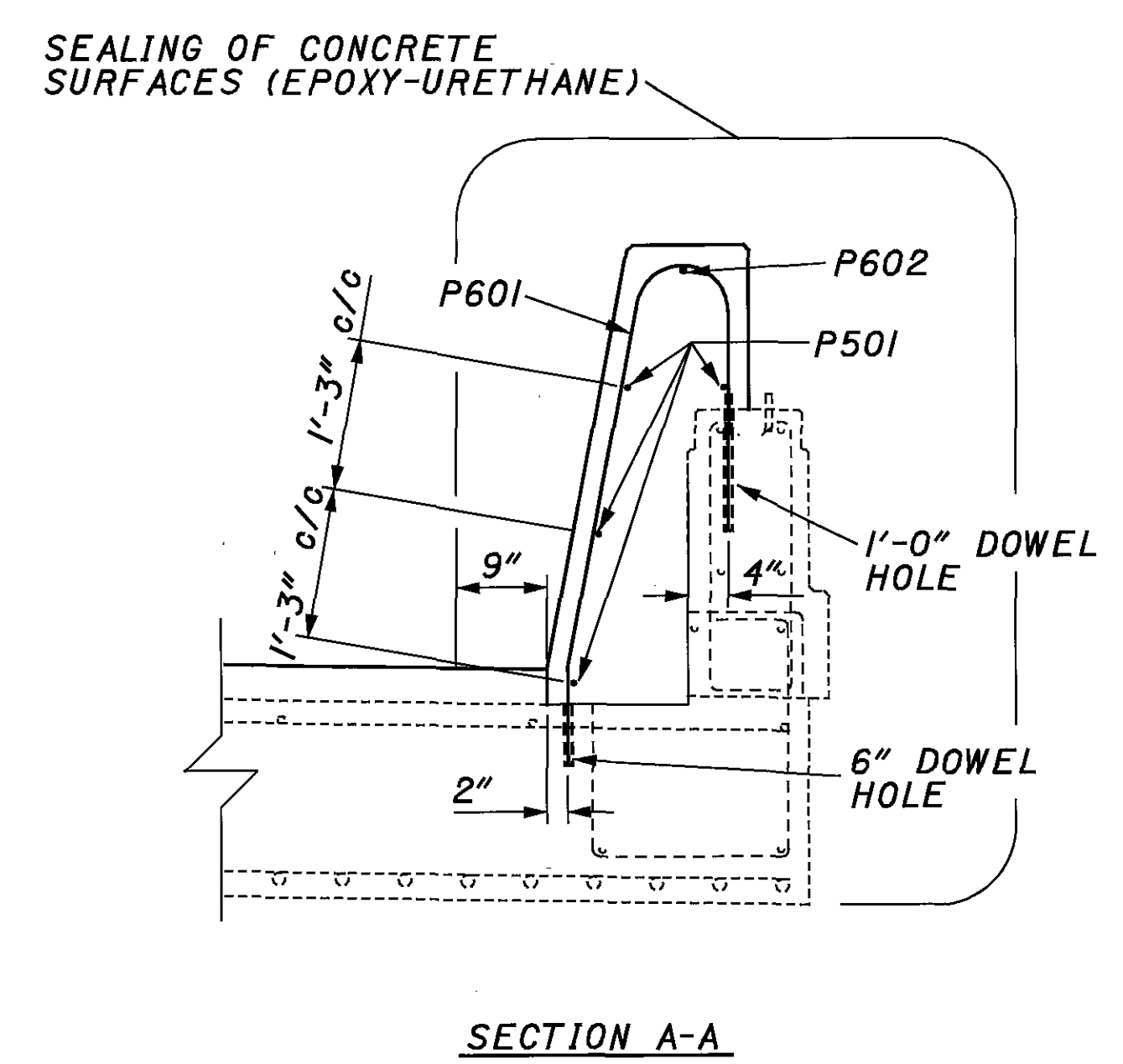
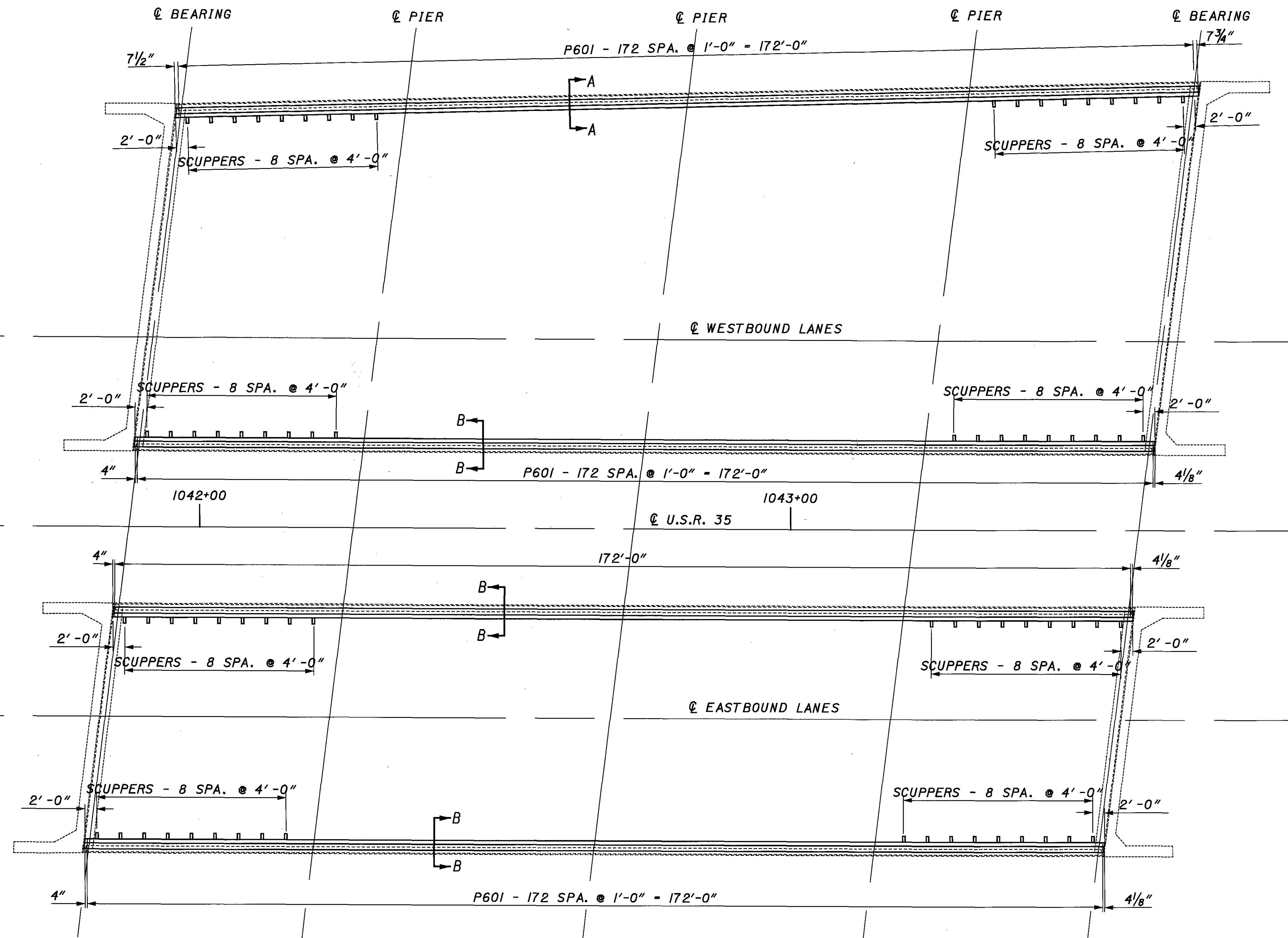
SECTION A-A



SECTION B-B

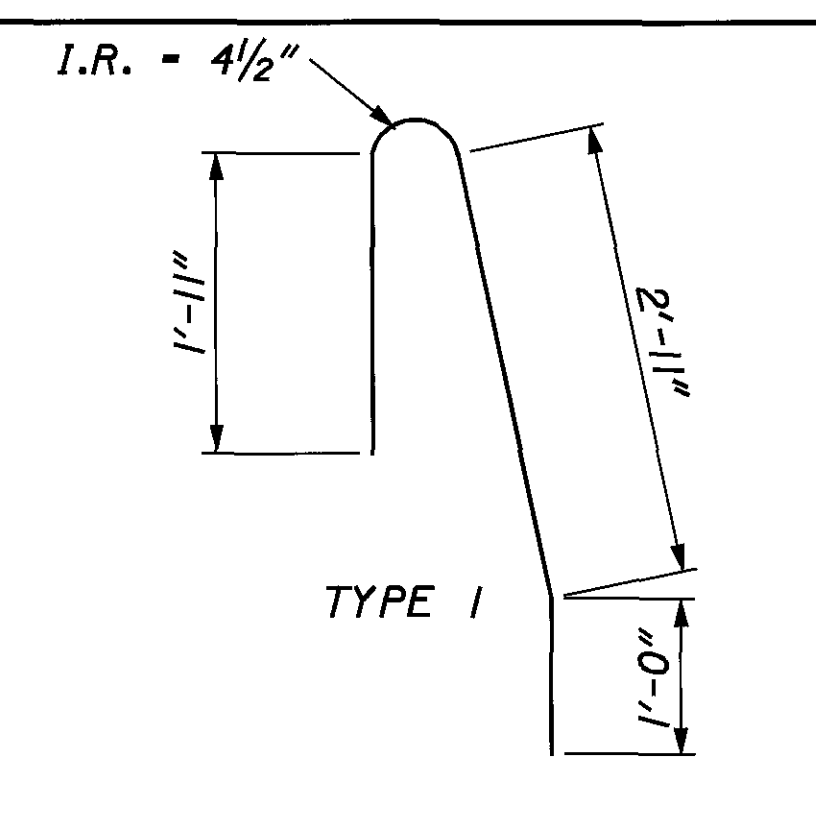
* PEJF = PREFORMED ELASTOMERIC JOINT FILLER

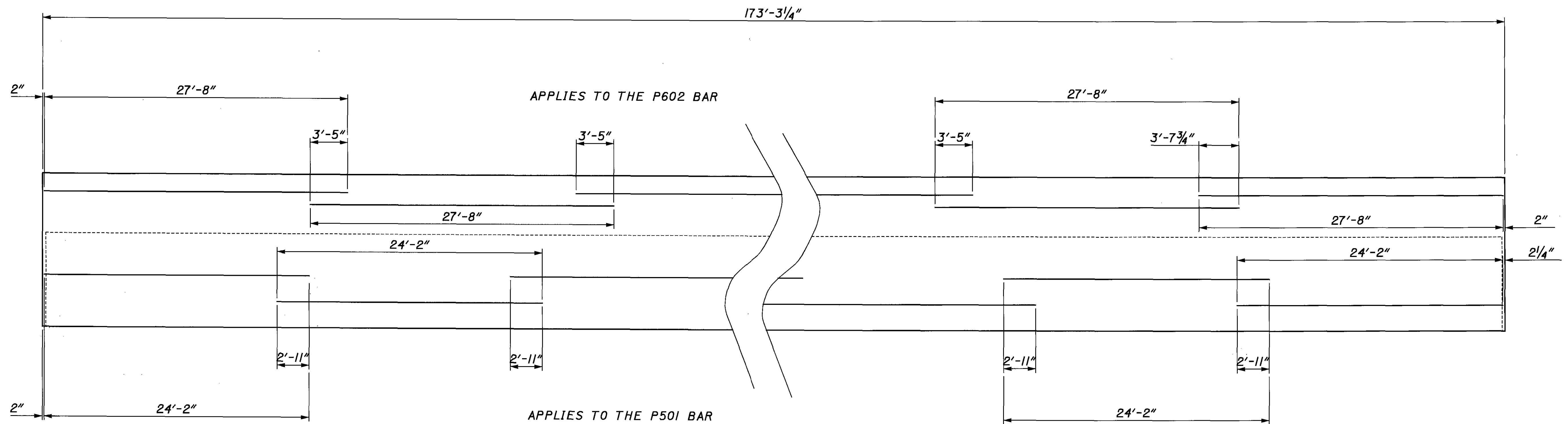
9 / 19		R0S-23-17.03 R0S-35-18.11		PROPOSED DECK ENDS BRIDGE NO. R0S-35-1972 L & R OVER S.R. 159 (BRIDGE ST.)		DESIGNED MRH CHECKED GEC		DRAWN MRH REVISED		REVIEWED LAW STRUCTURE FILE NUMBER 7 102046 L 7 102070 R		DATE 10/23/06		DESIGN AGENCY STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 9 PRODUCTION	
--------	--	------------------------------	--	--	--	-----------------------------------	--	-------------------------	--	--	--	------------------	--	---	--



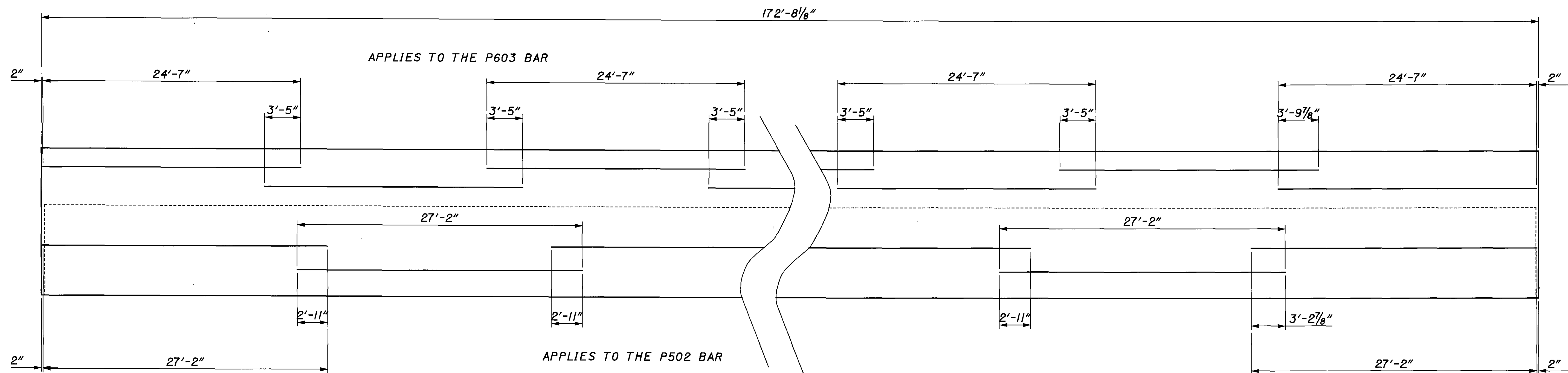
REINFORCING STEEL LIST

ROS-35-1972 L				ROS-35-1972 R			
MARK	NUMBER	LENGTH	SHAPE	MARK	NUMBER	LENGTH	SHAPE
PARAPET				PARAPET			
P501	32	24'-2"	STR.				
P502	28	27'-2"	STR.	P502	56	27'-2"	STR.
P601	346	6'-8"	TYPE I	P601	346	6'-8"	TYPE I
P602	7	27'-8"	STR.				
P603	8	24'-7"	STR.	P603	16	24'-7"	STR.

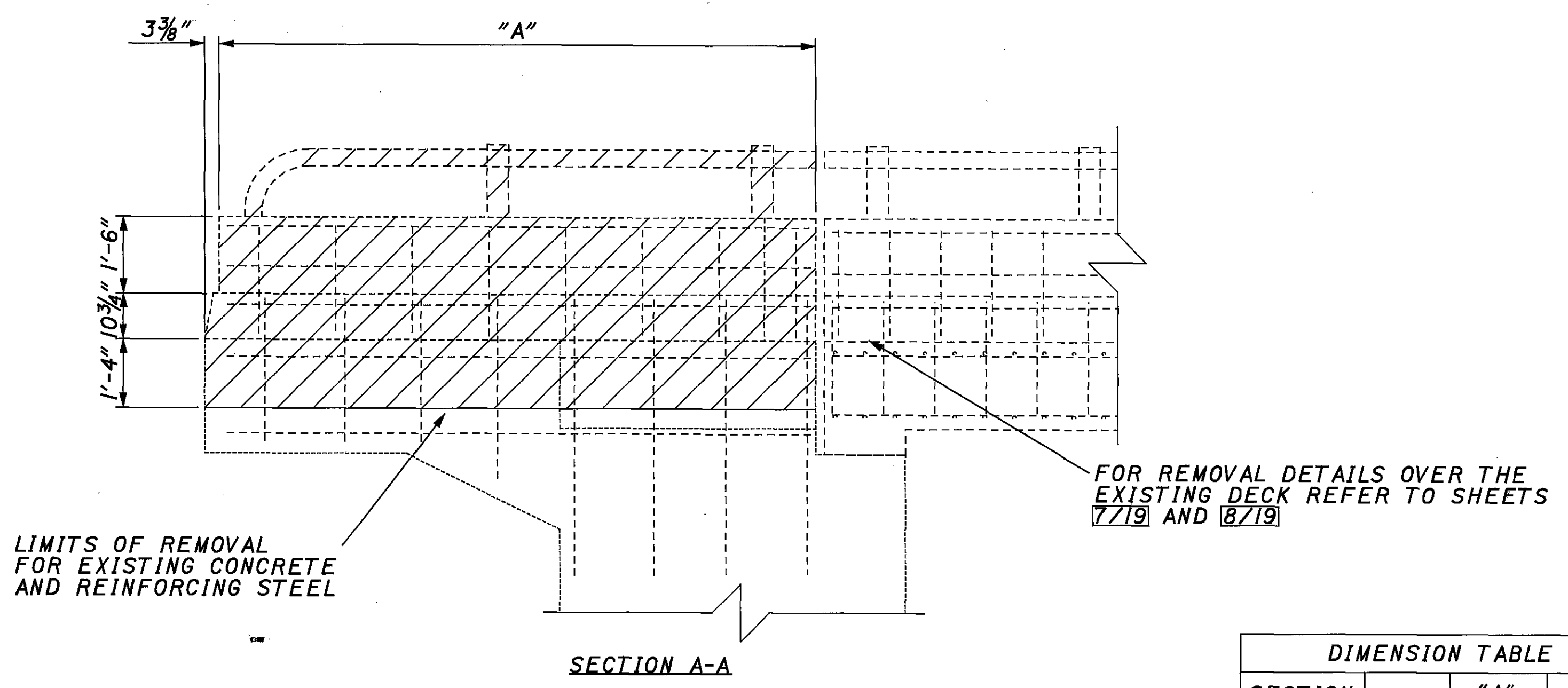
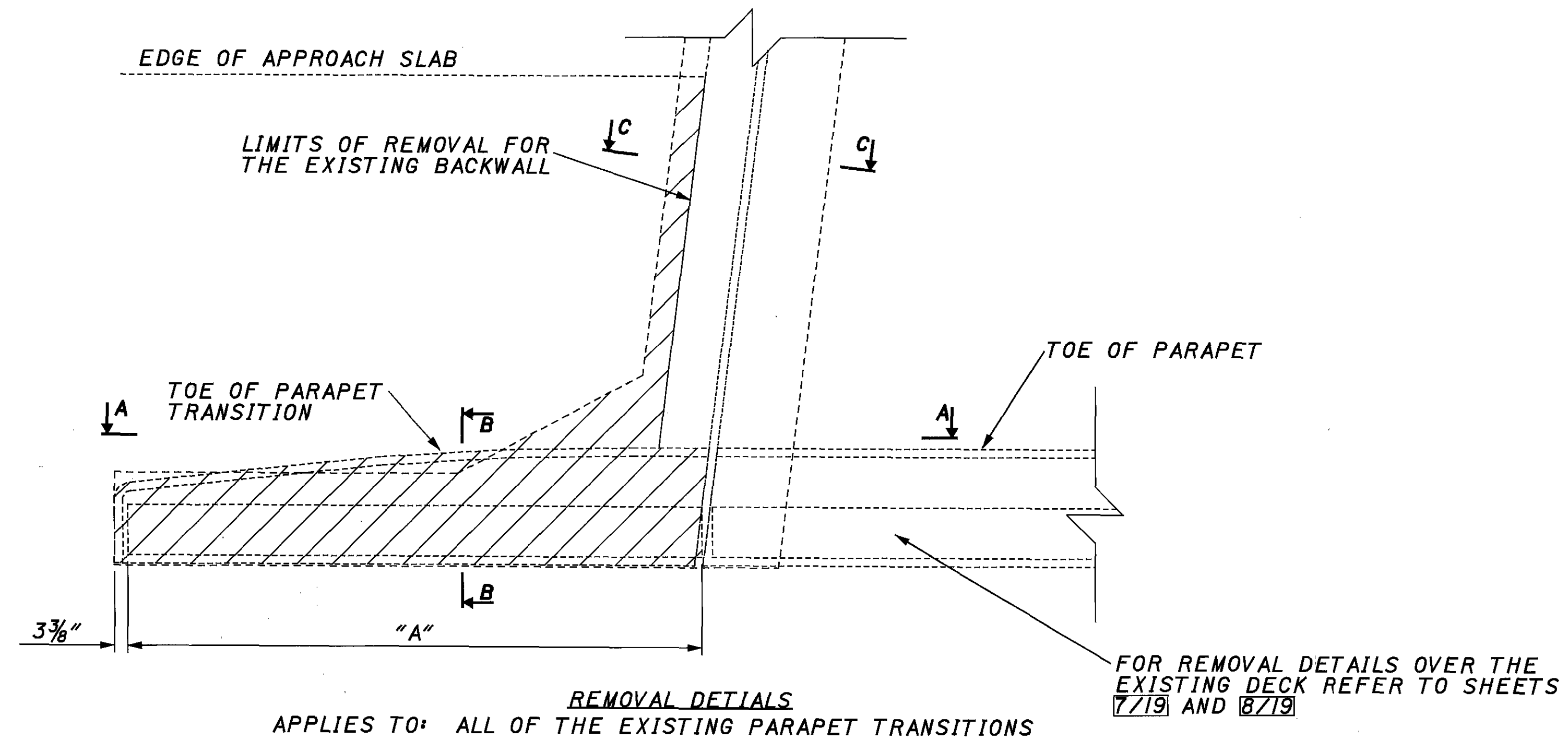




PARAPET DETAILS
APPLIES TO: THE LEFT PARAPET OF THE WESTBOUND LANES

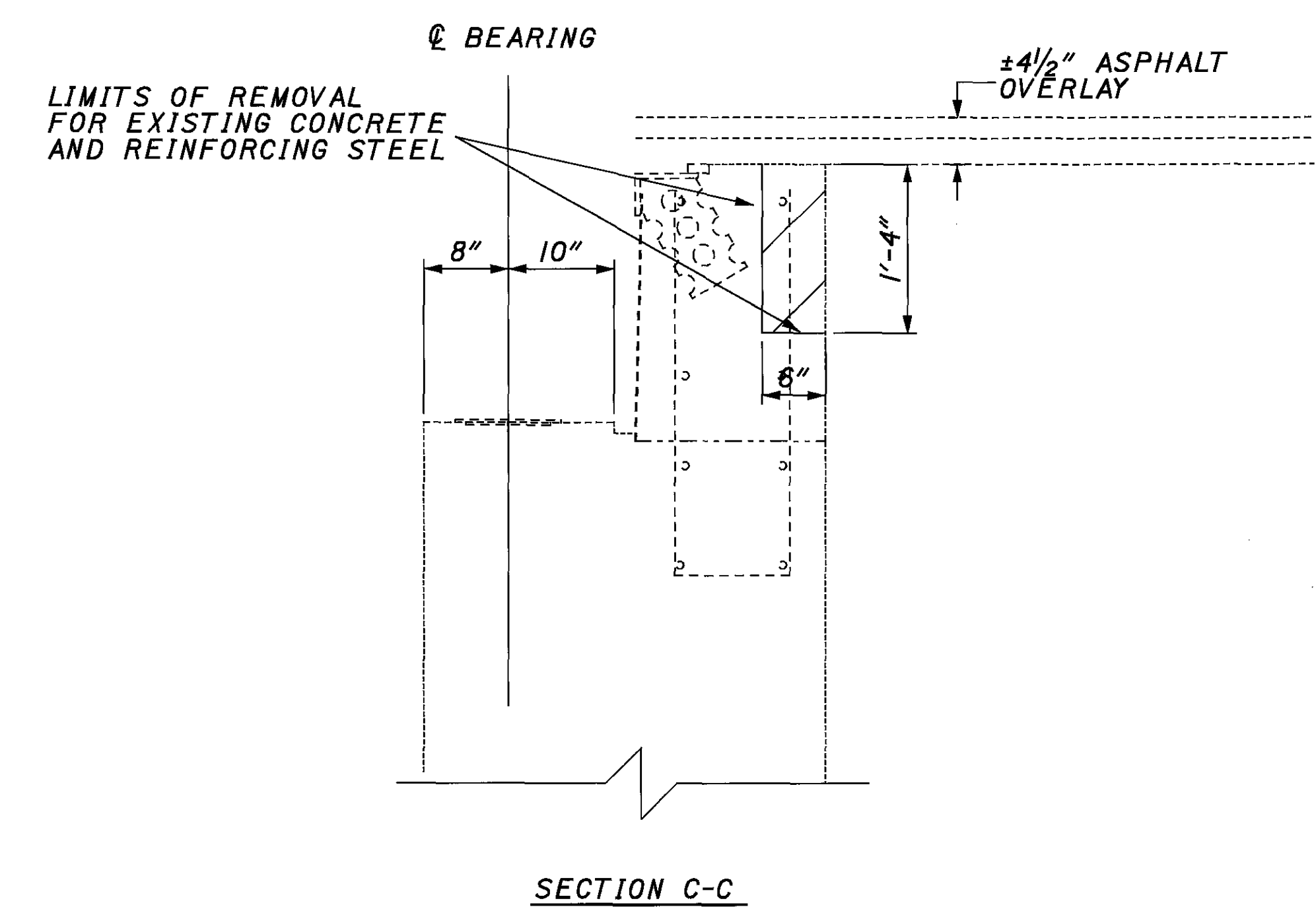
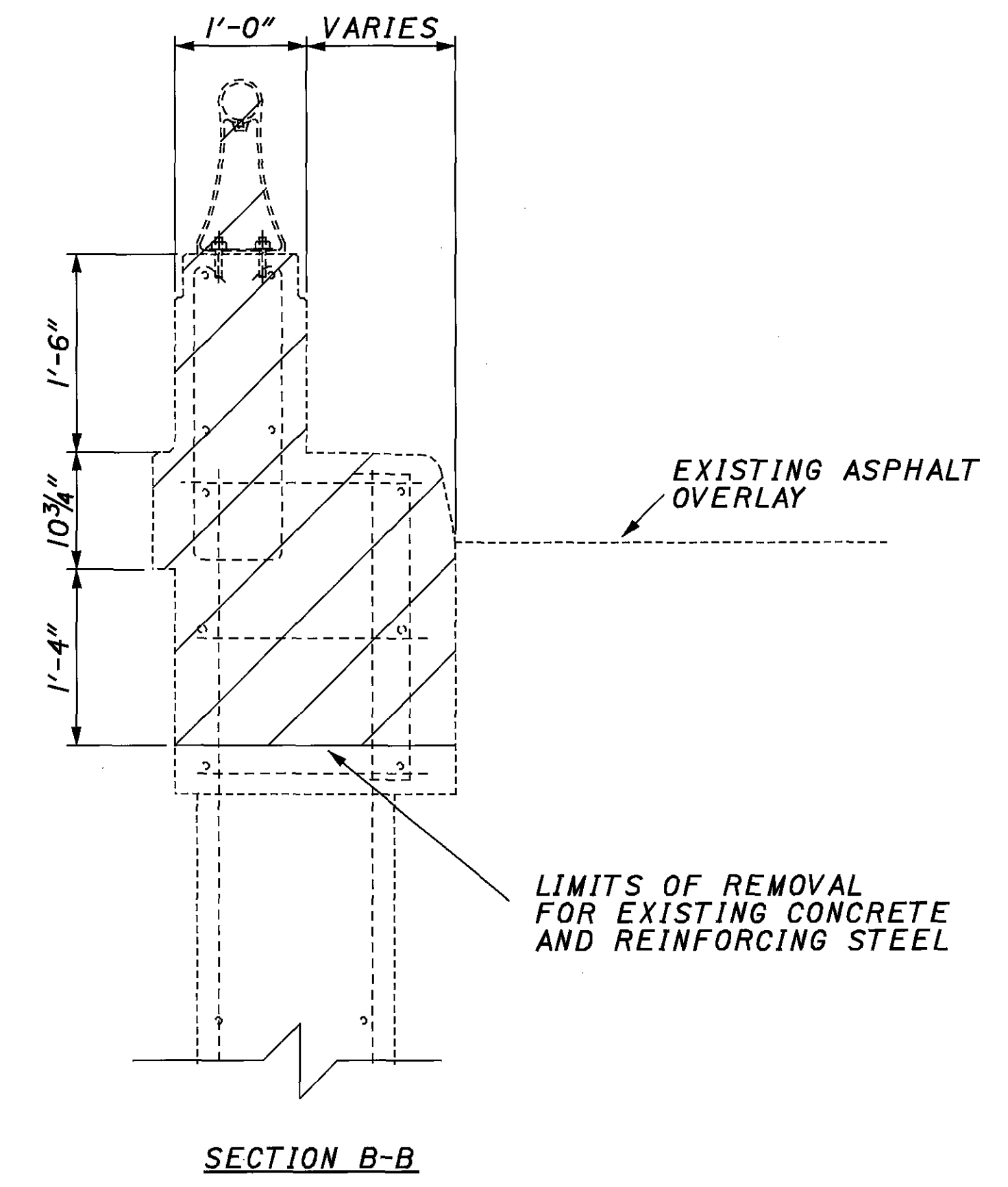


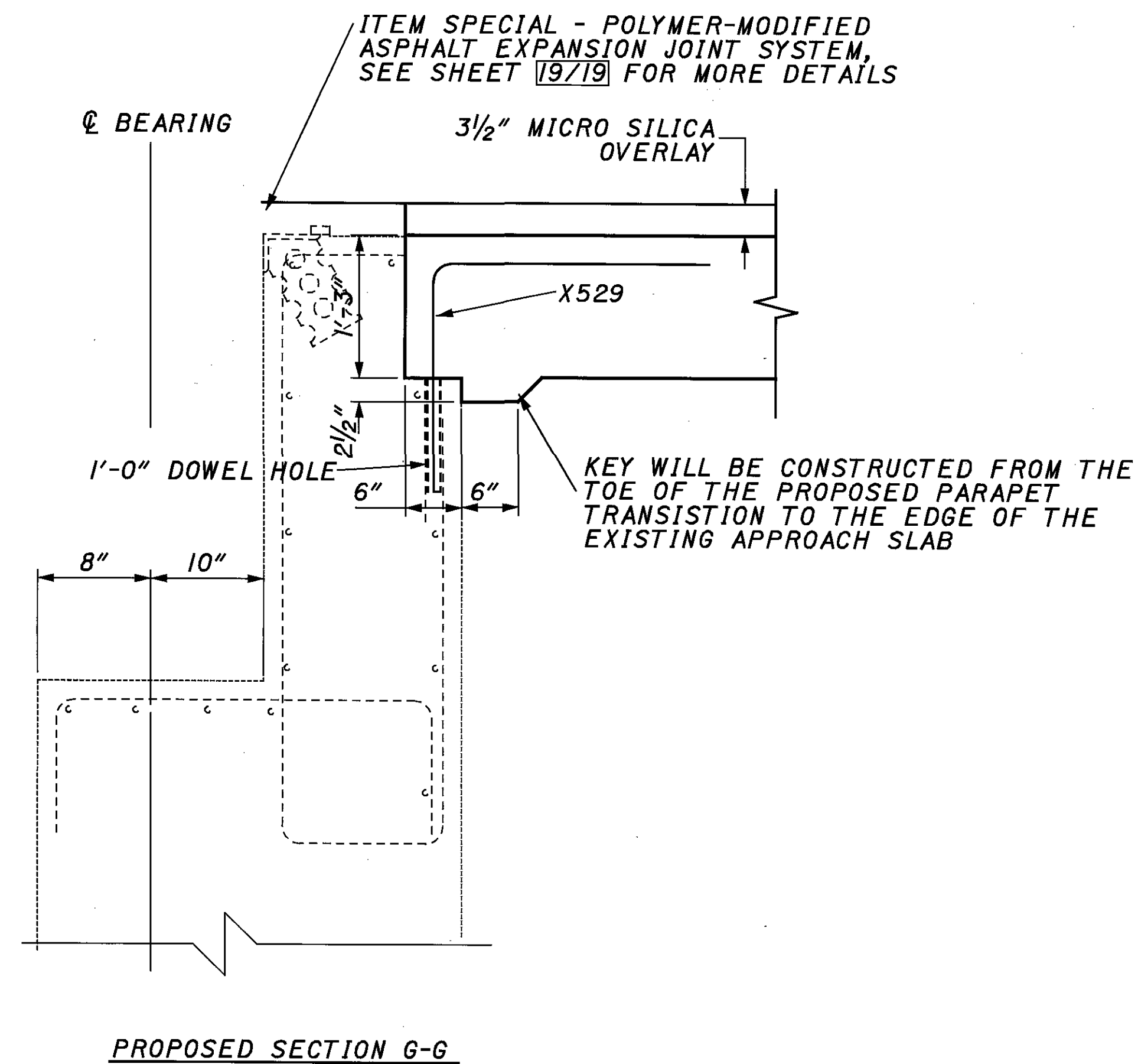
PARAPET DETAILS
APPLIES TO: THE RIGHT PARAPET OF THE WESTBOUND LANES
AND BOTH THE LEFT AND RIGHT PARAPET OF THE
EASTBOUND LANES



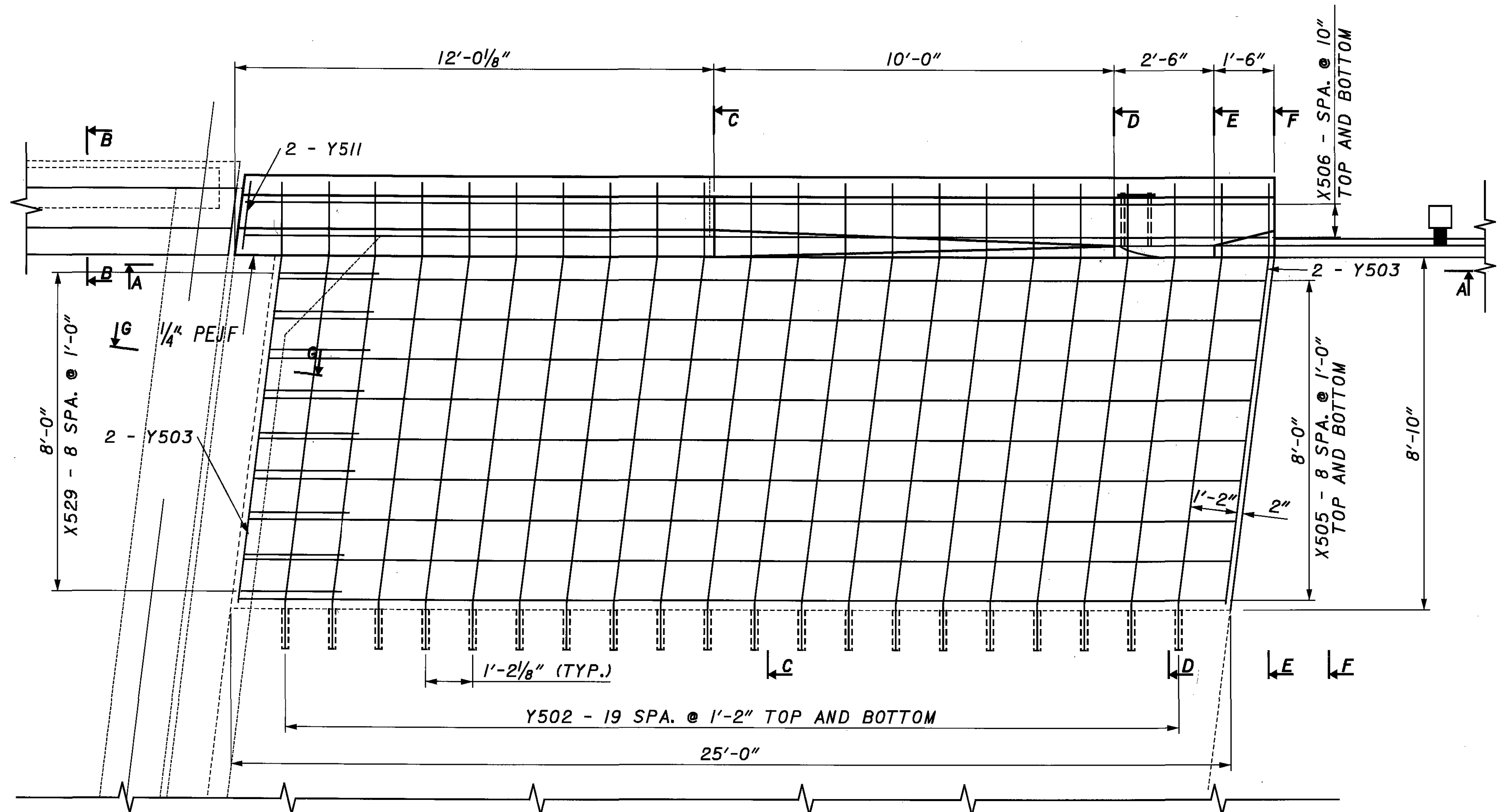
DIMENSION TABLE		
SECTION	"A"	
(A)	11'-4 1/4"	
(B)	11'-7 7/8"	
(C)	11'-4 1/4"	
(D)	11'-8 3/8"	
(E)	11'-4 1/8"	

SECTIONS FROM SHEET 1/19

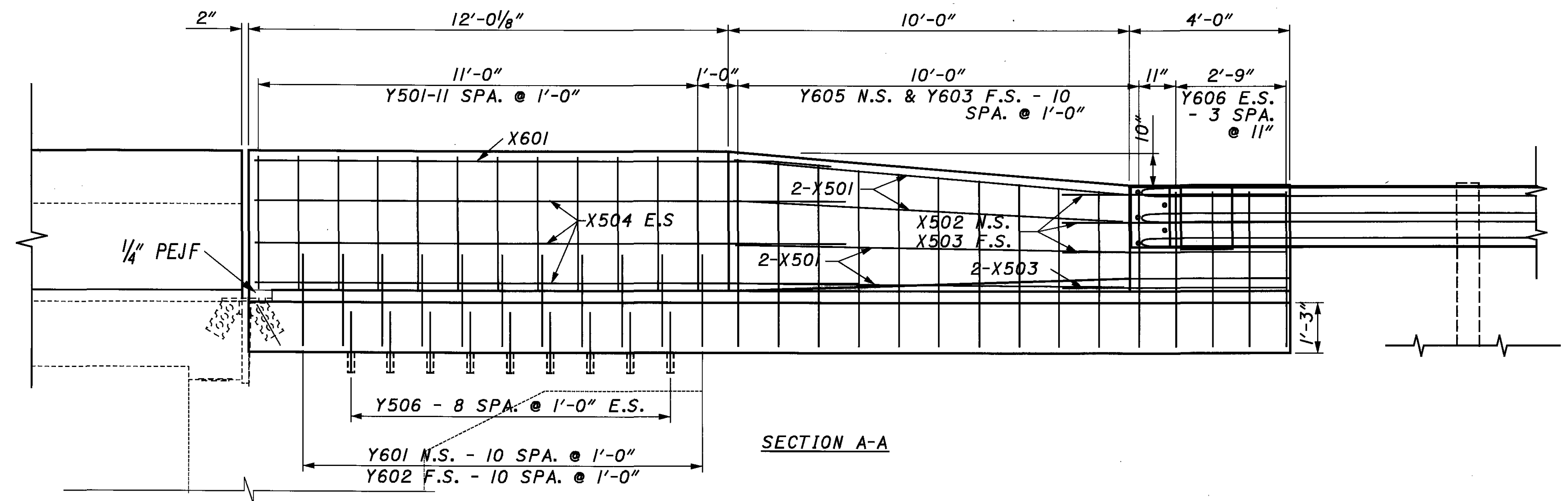


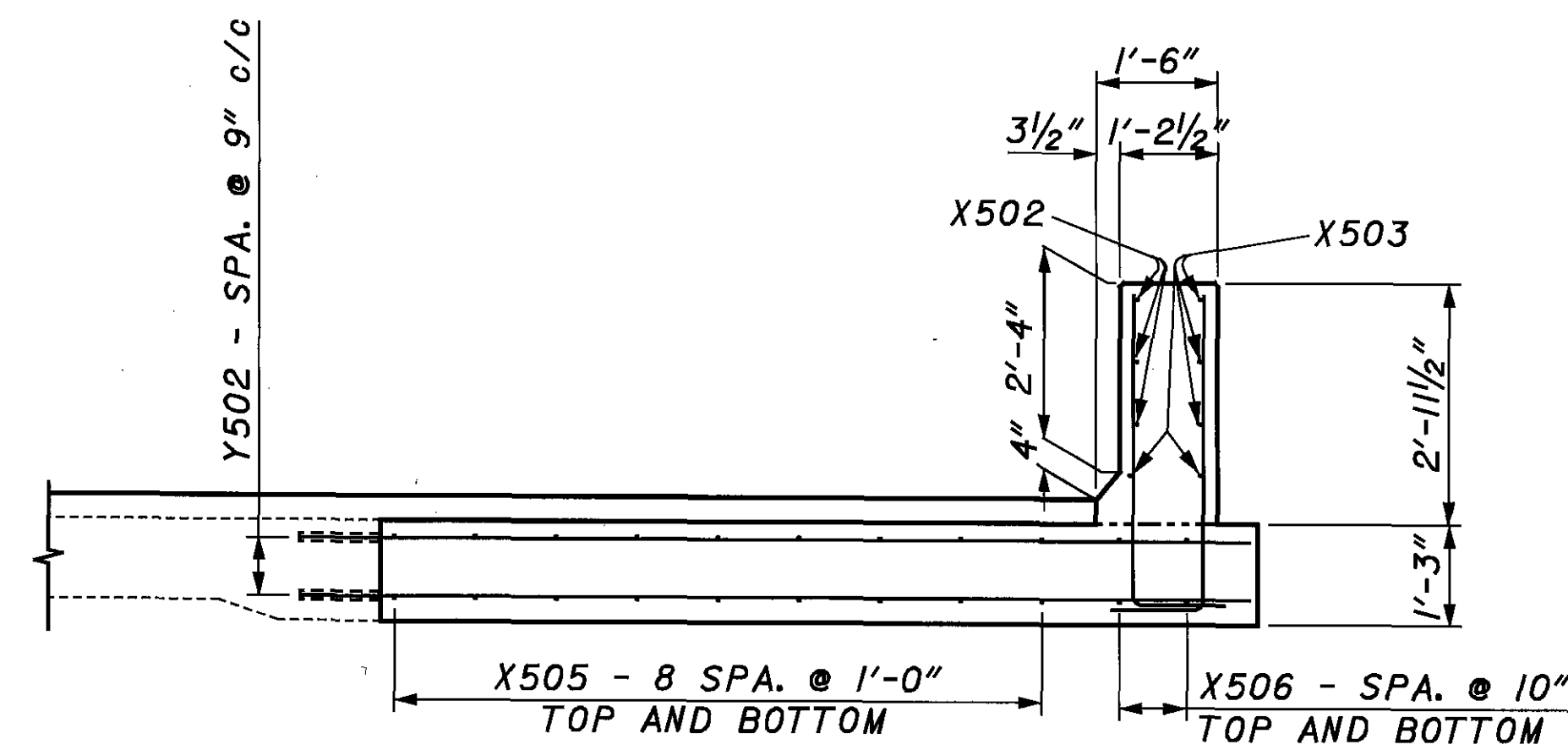


NOTE: E.S. - EACH SIDE
F.S. - FAR SIDE
N.S. - NEAR SIDE
PEJF - PREFORMED ELASTOMERIC JOINT FILLER

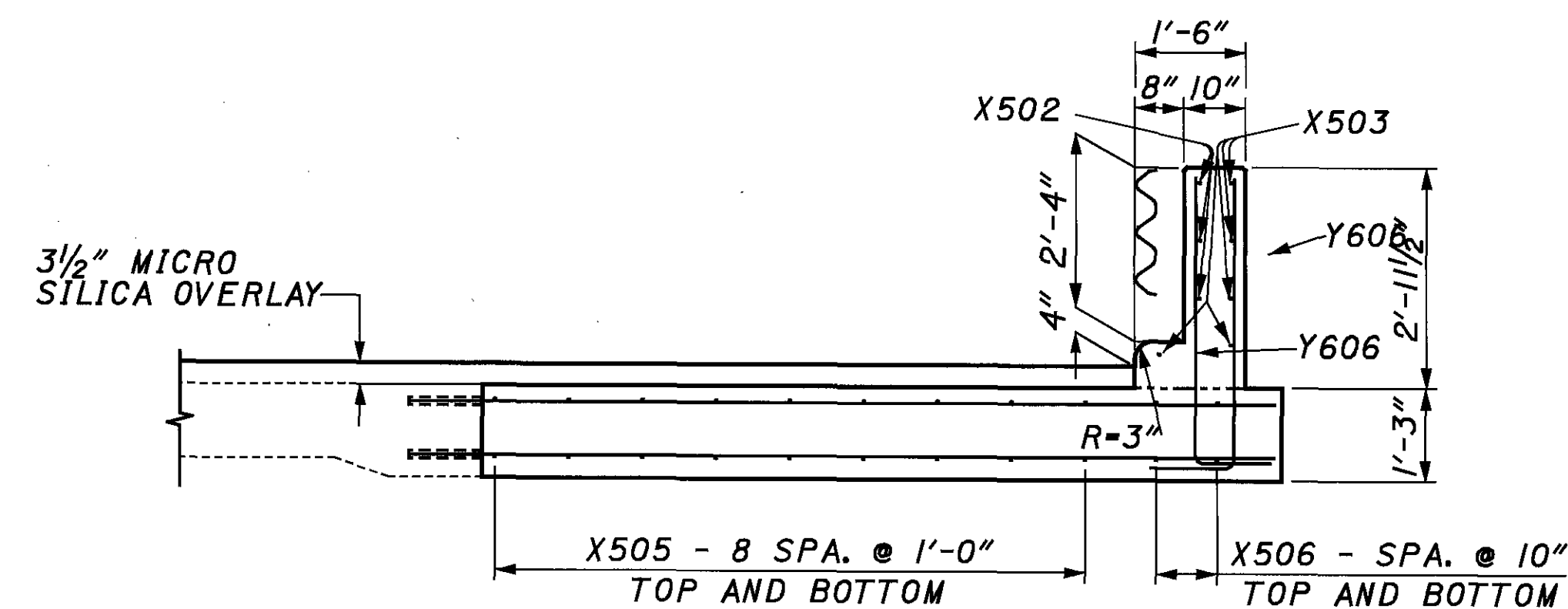


TYPICAL CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN
FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 14/19

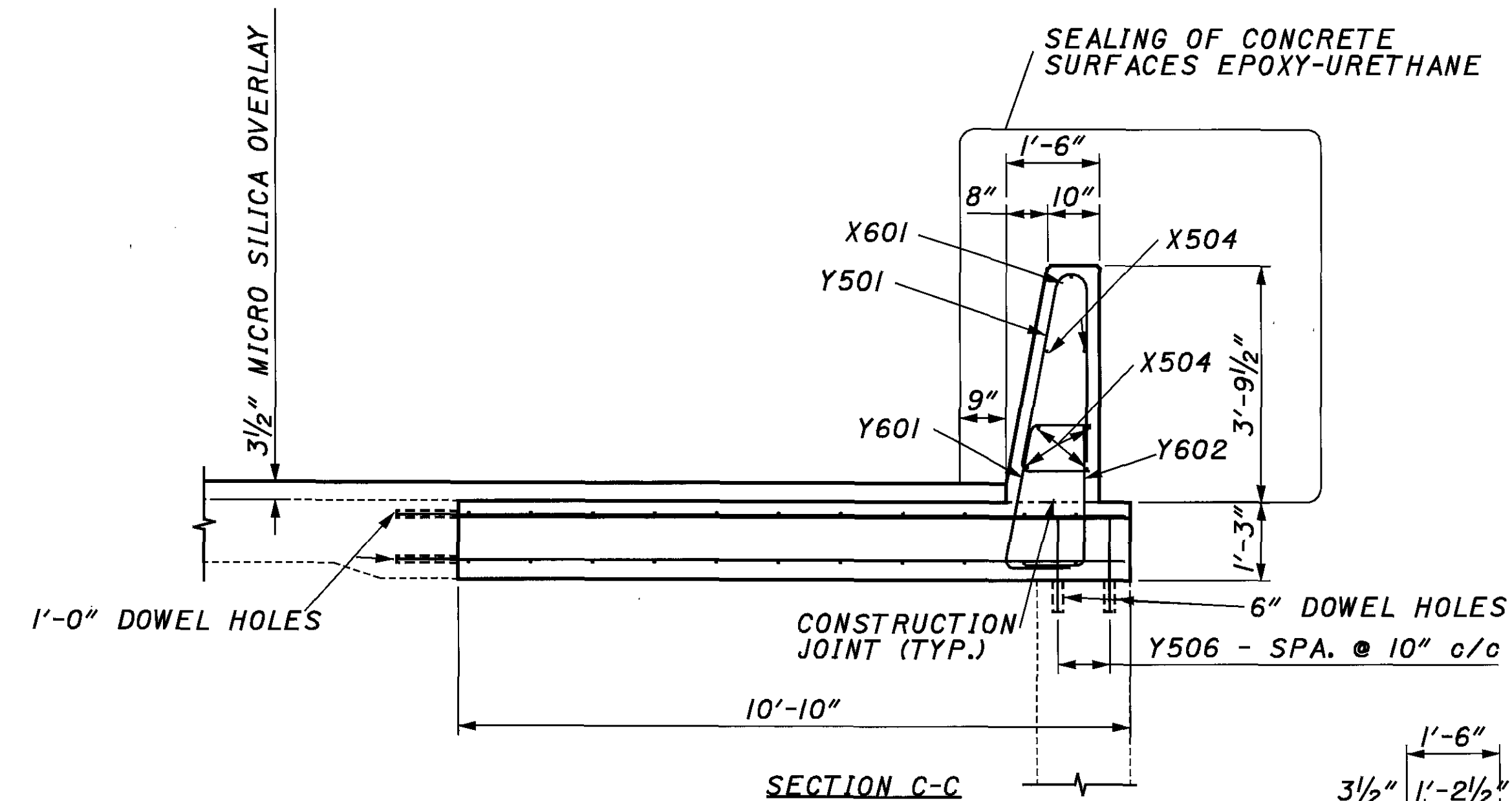




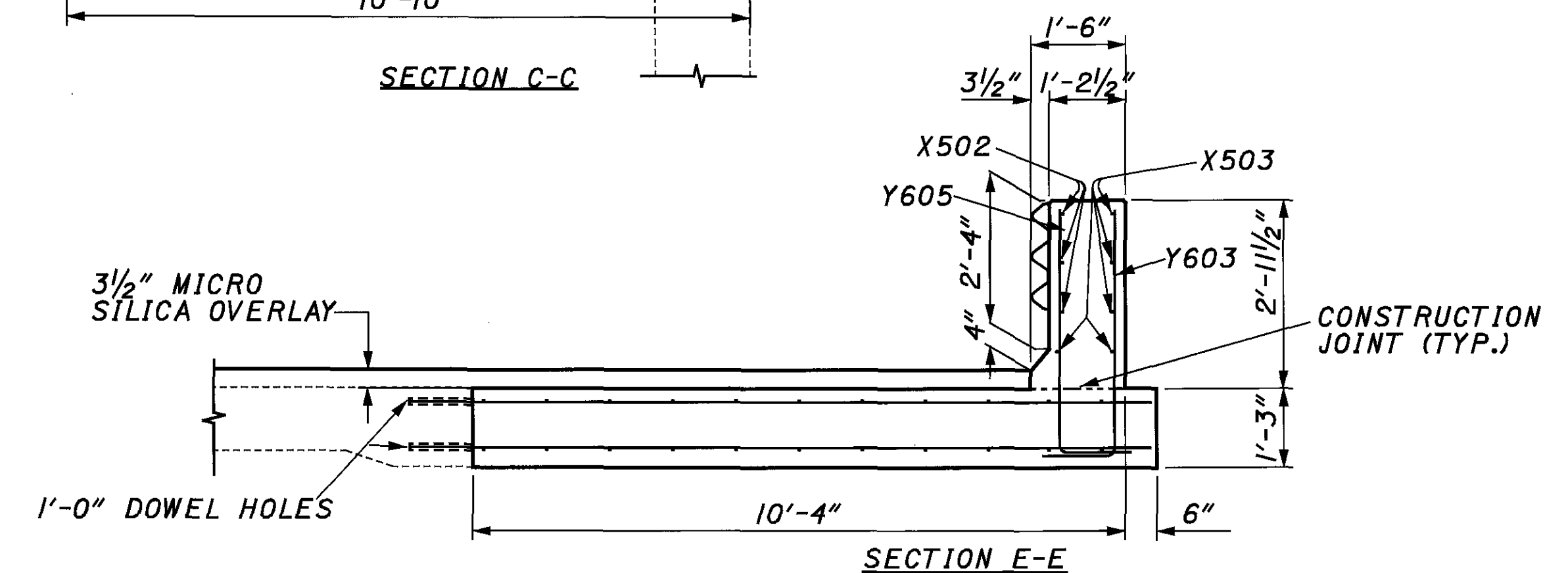
SECTION D-D



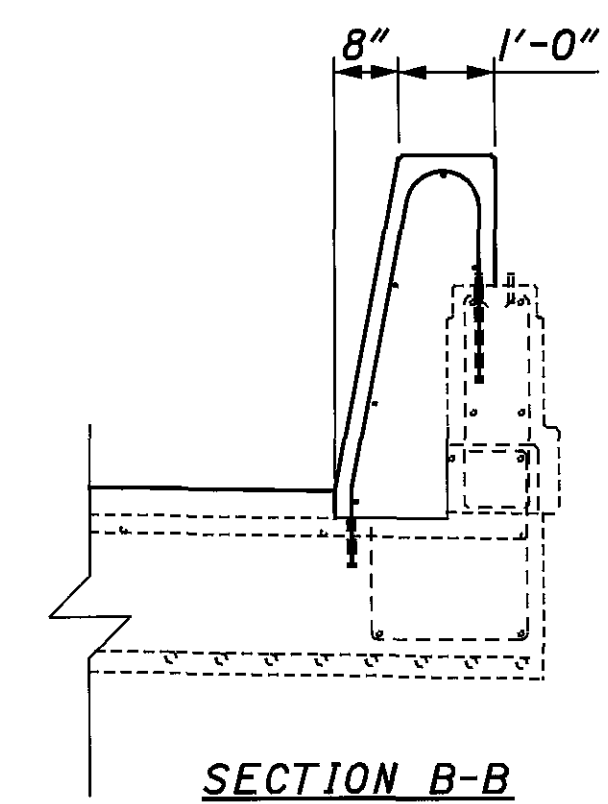
SECTION F-F



SECTION C-C

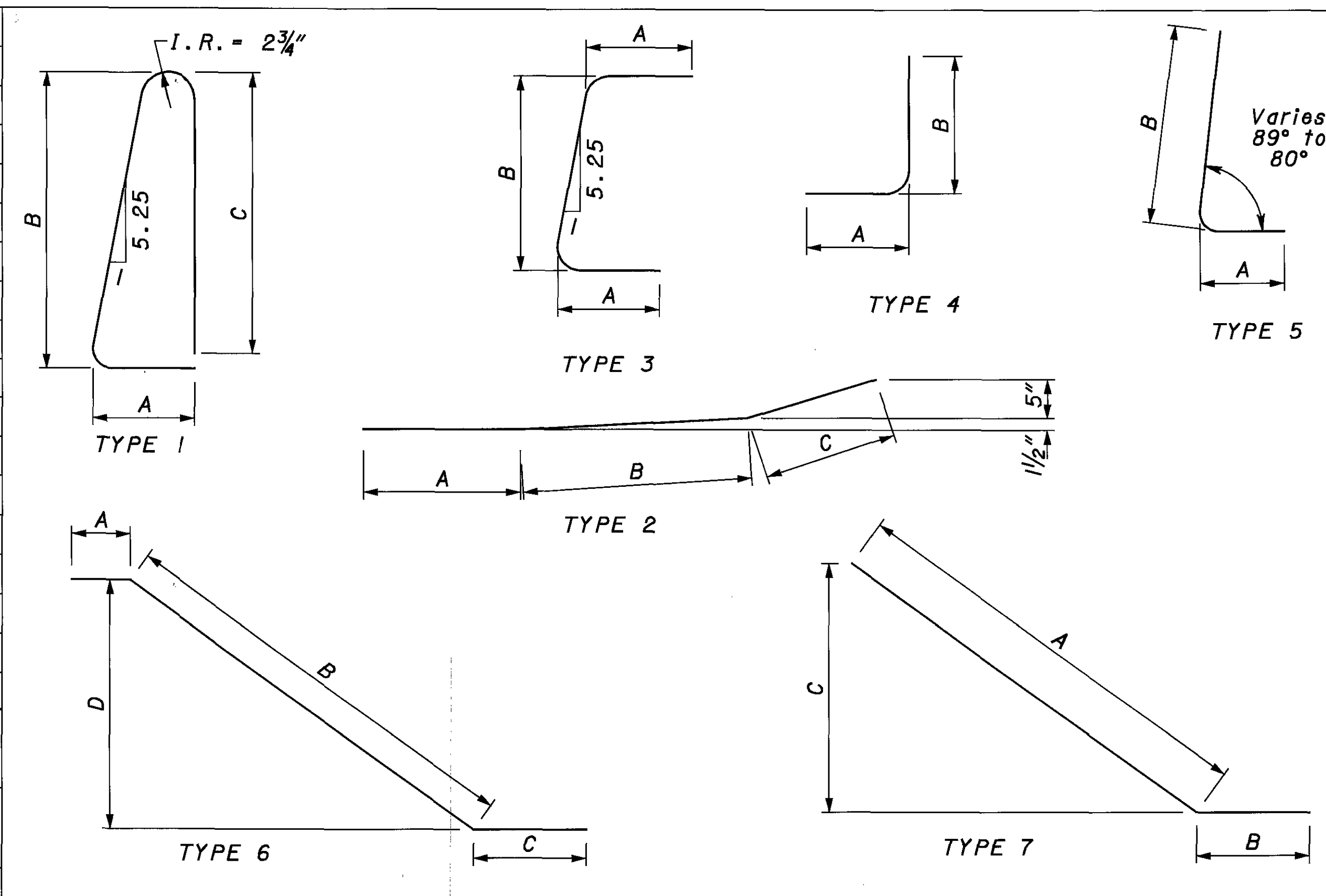


SECTION E-E



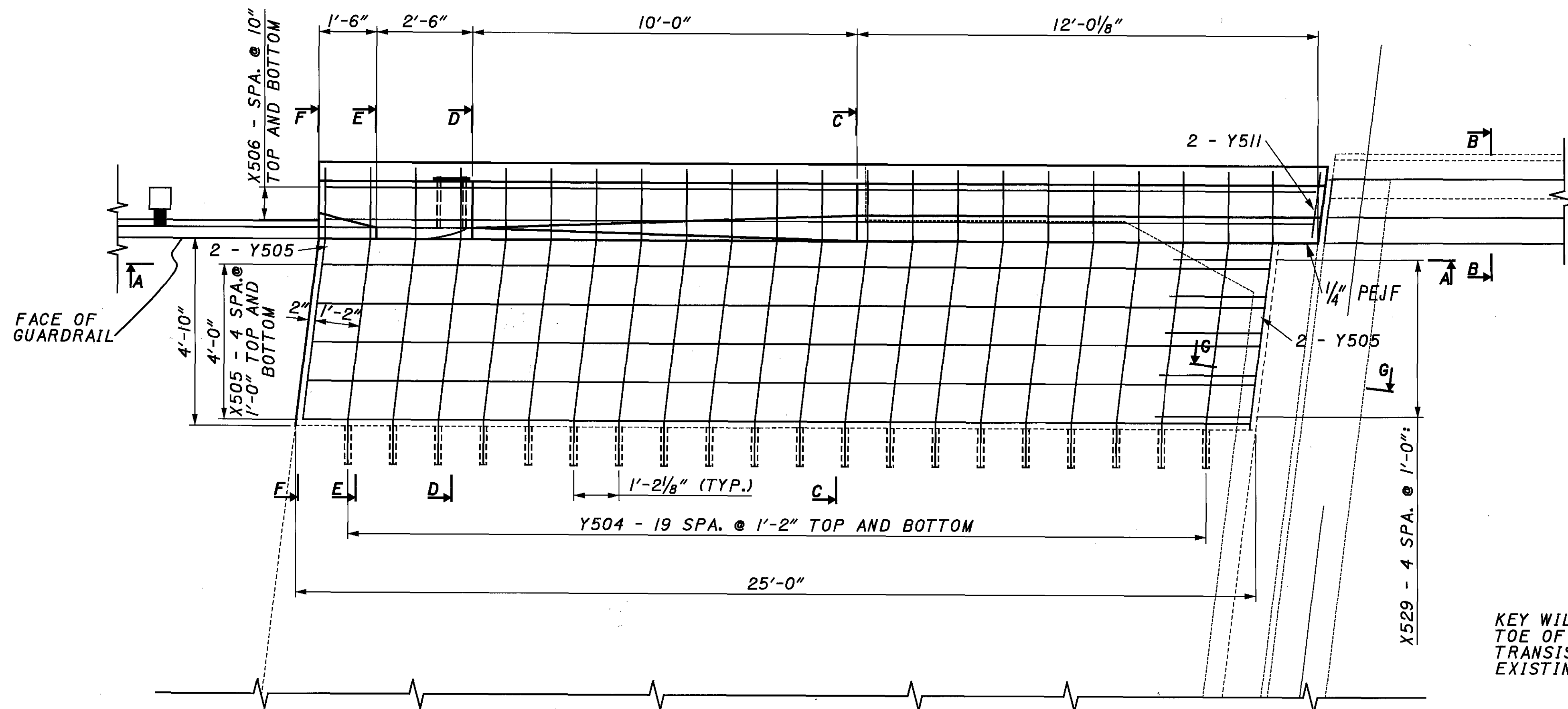
SECTION B-B

REINFORCING STEEL LIST*							
MARK	NUMBER	LENGTH	SHAPE	A	B	C	D
X501	8	10'-0"	STR.				
X502	3	5'-6"	TYPE 2	1'-8"	2'-5"	1'-5"	
X503	5	5'-6"	STR.				
X504	6	14'-9"	STR.				
X505	18	24'-8"	STR.				
X506	4	25'-6"	STR.				
X529	9	5'-0"	TYPE 4	2'-0"	3'-0"		
Y501	12	7'-5"	TYPE 1	1'-1"	3'-2"	3'-0"	
Y502	40	11'-9"	TYPE 6	1'-2"	8'-9"	1'-10"	1'-1"
Y503	4	10'-7"	TYPE 7	8'-9"	1'-10"	1'-1"	
Y506	18	1'-6"	STR.				
Y511	2	1'-8"	STR.				
X601	1	14'-9"	STR.	FIELD BEND IF NECESSARY			
Y601	11	4'-6"	TYPE 3	1'-1"	2'-4"		
Y602	11	3'-5"	TYPE 4	1'-1"	2'-4"		
Y603	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 4	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y605	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 5	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y606	8	4'-10"	TYPE 4	1'-1"	3'-9"		

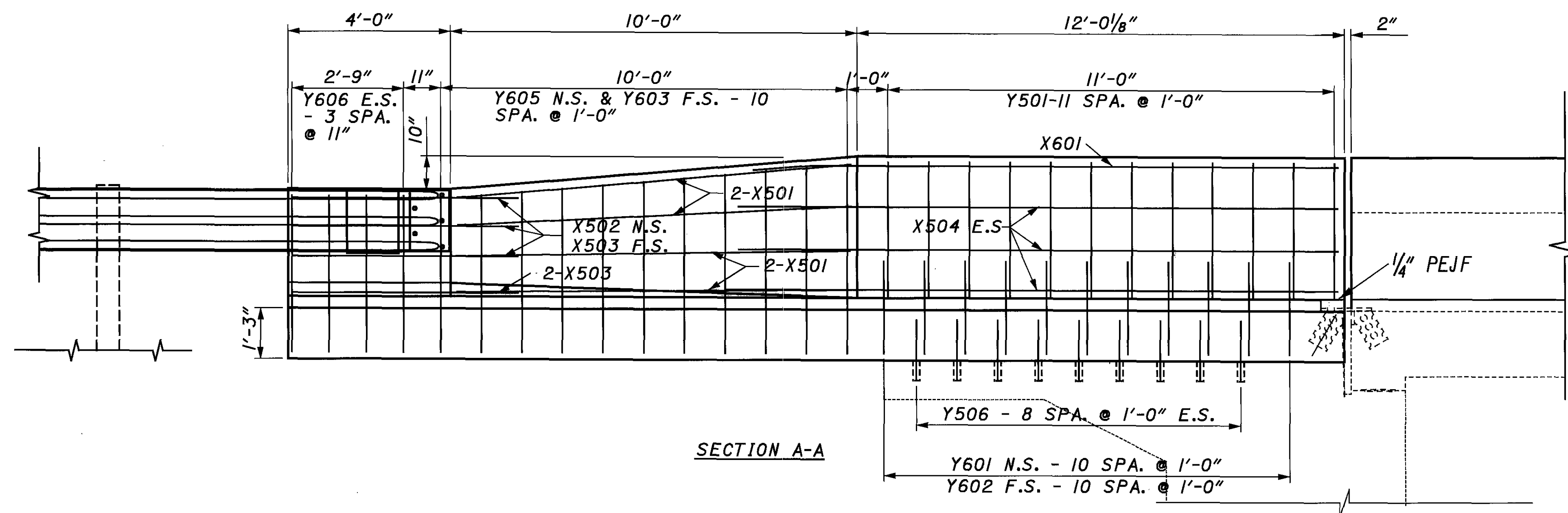


NOTE: E.S. - EACH SIDE
F.S. - FAR SIDE
N.S. - NEAR SIDE
PEJF - PREFORMED ELASTOMERIC JOINT FILLER

*REINFORCING STEEL LIST APPLIES TO ONLY ONE CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN



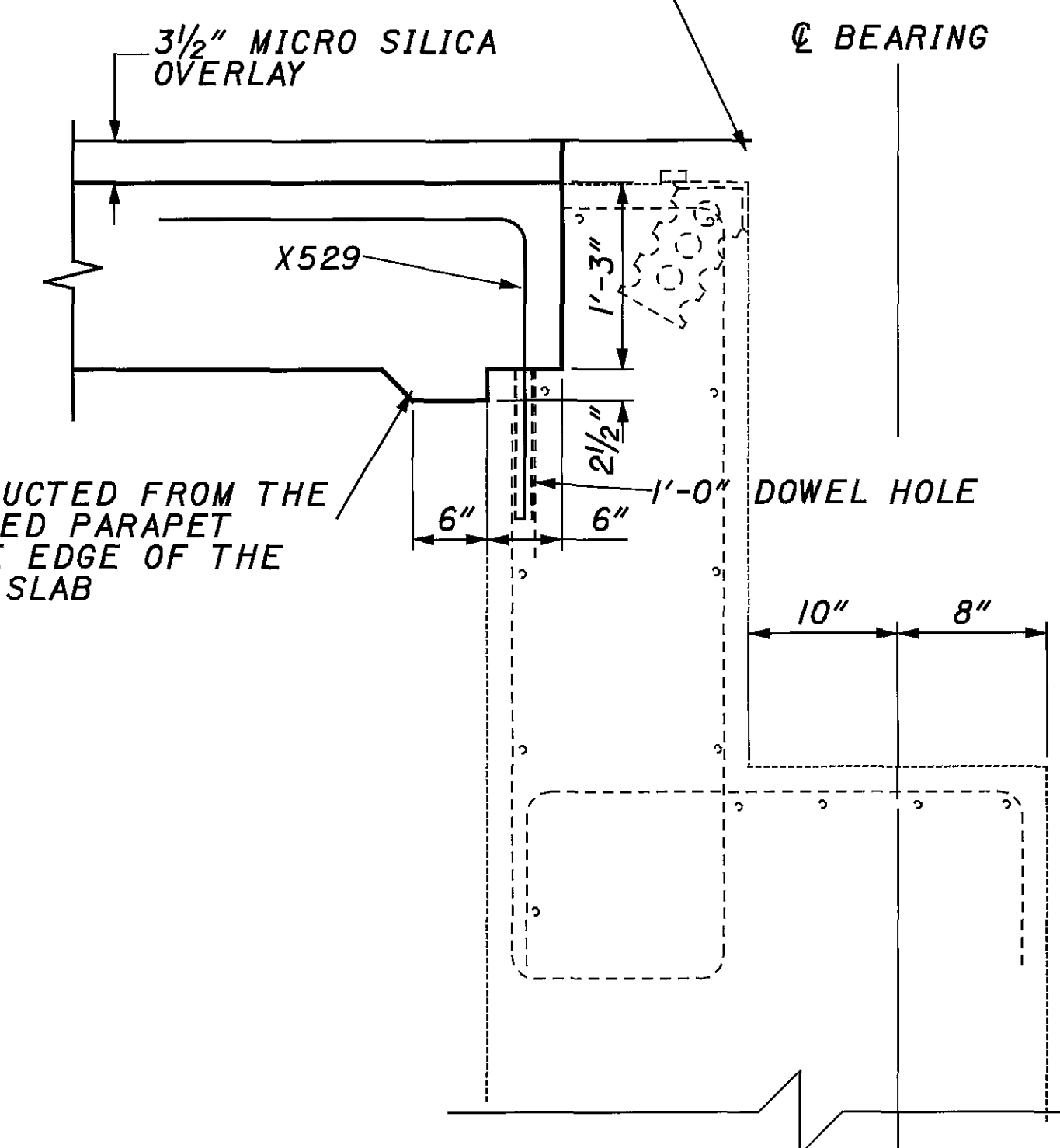
TYPICAL CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN
FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 16/19



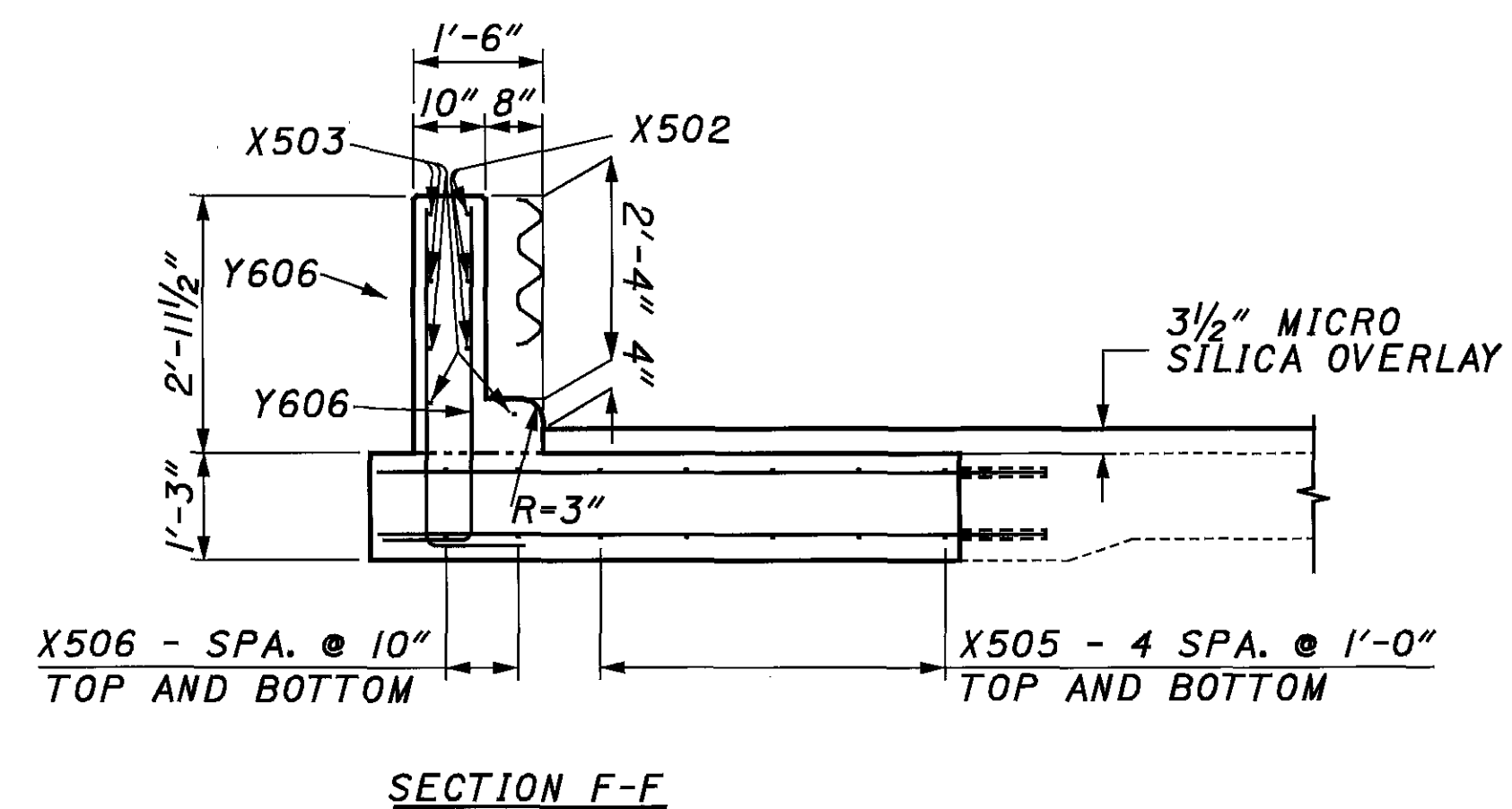
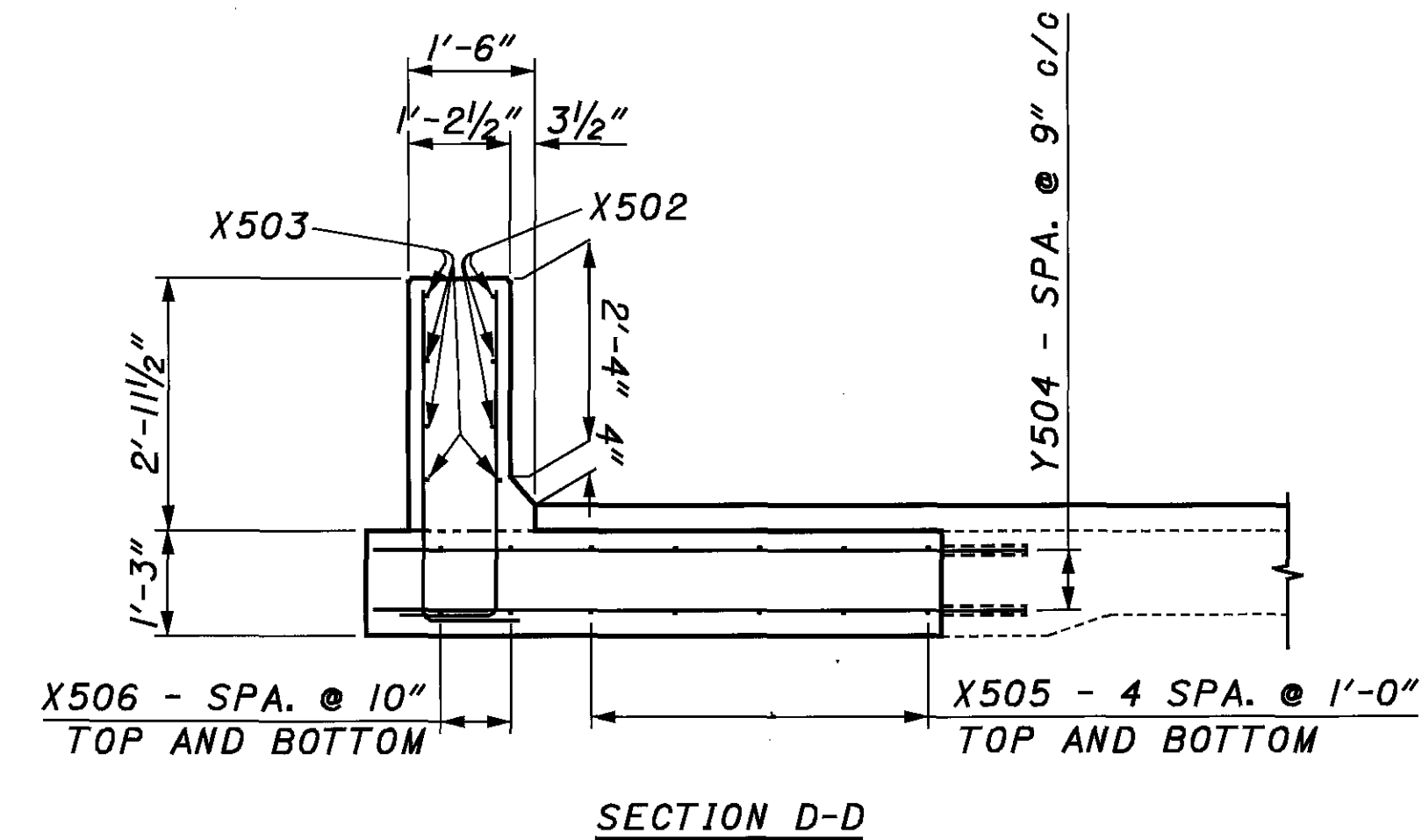
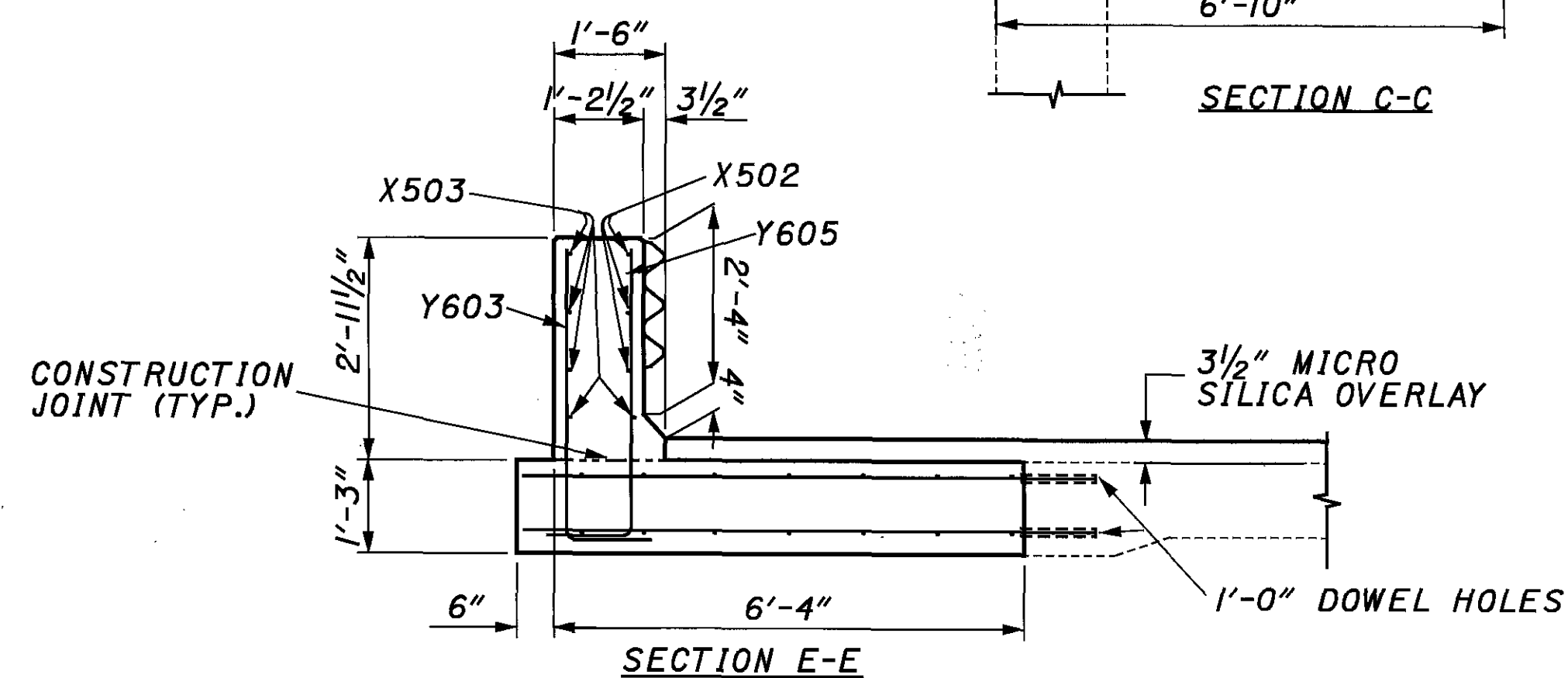
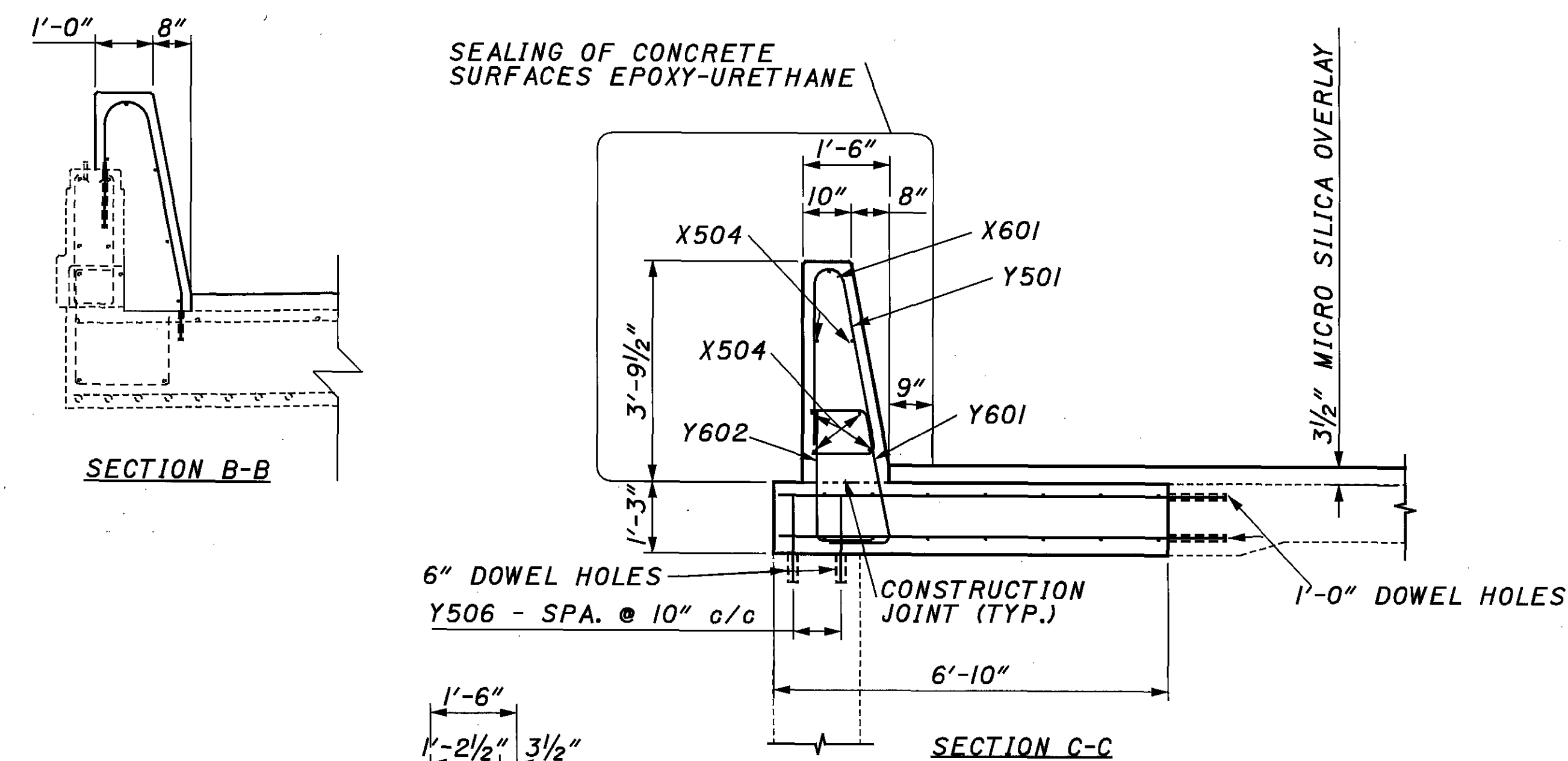
SECTION A-A

NOTE: E.S. - EACH SIDE
F.S. - FAR SIDE
N.S. - NEAR SIDE
PEJF - PREFORMED ELASTOMERIC JOINT FILLER

ITEM SPECIAL - POLYMER-MODIFIED
ASPHALT EXPANSION JOINT SYSTEM,
SEE SHEET 19/19 FOR MORE DETAILS



PROPOSED SECTION G-G

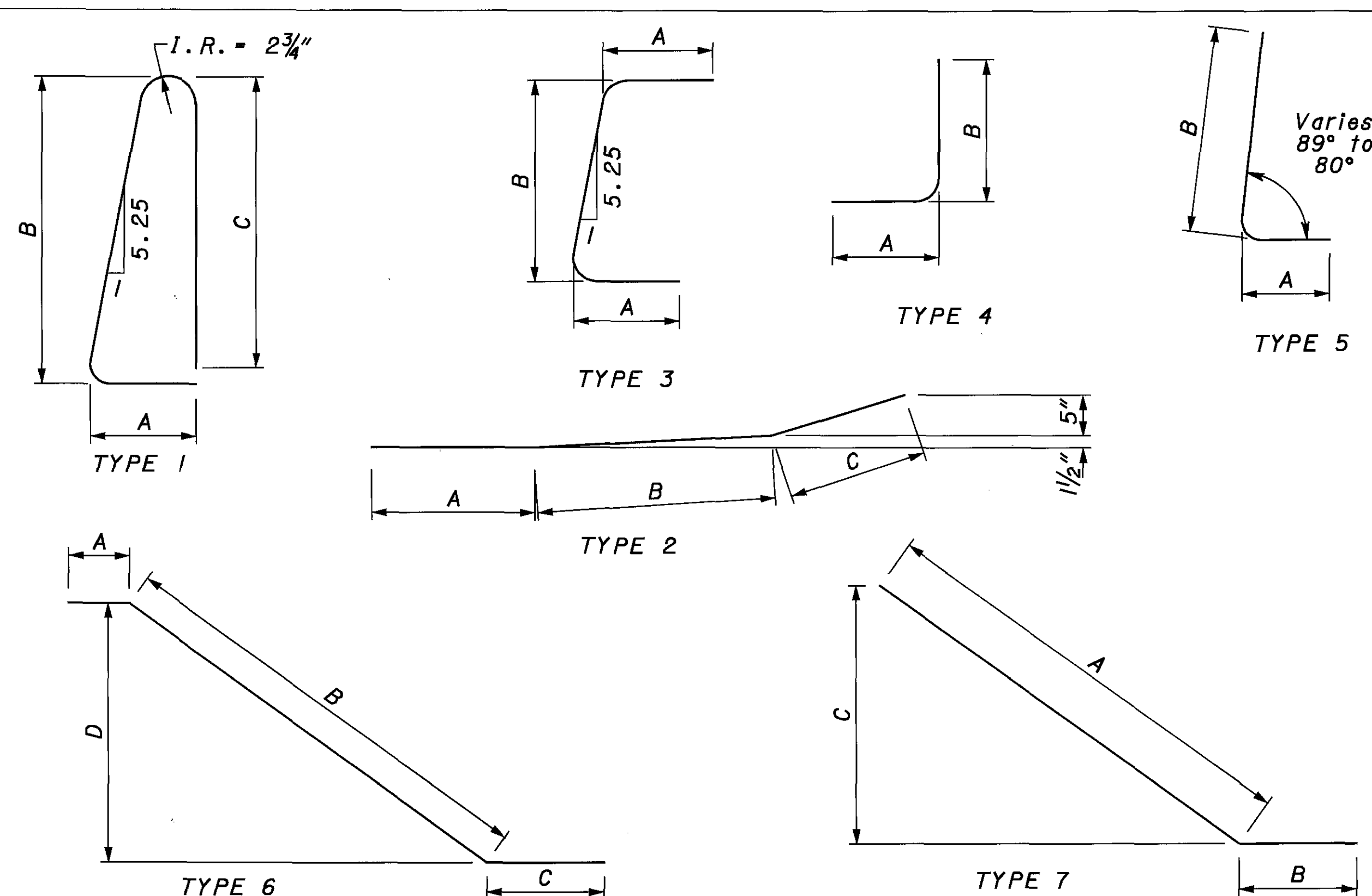


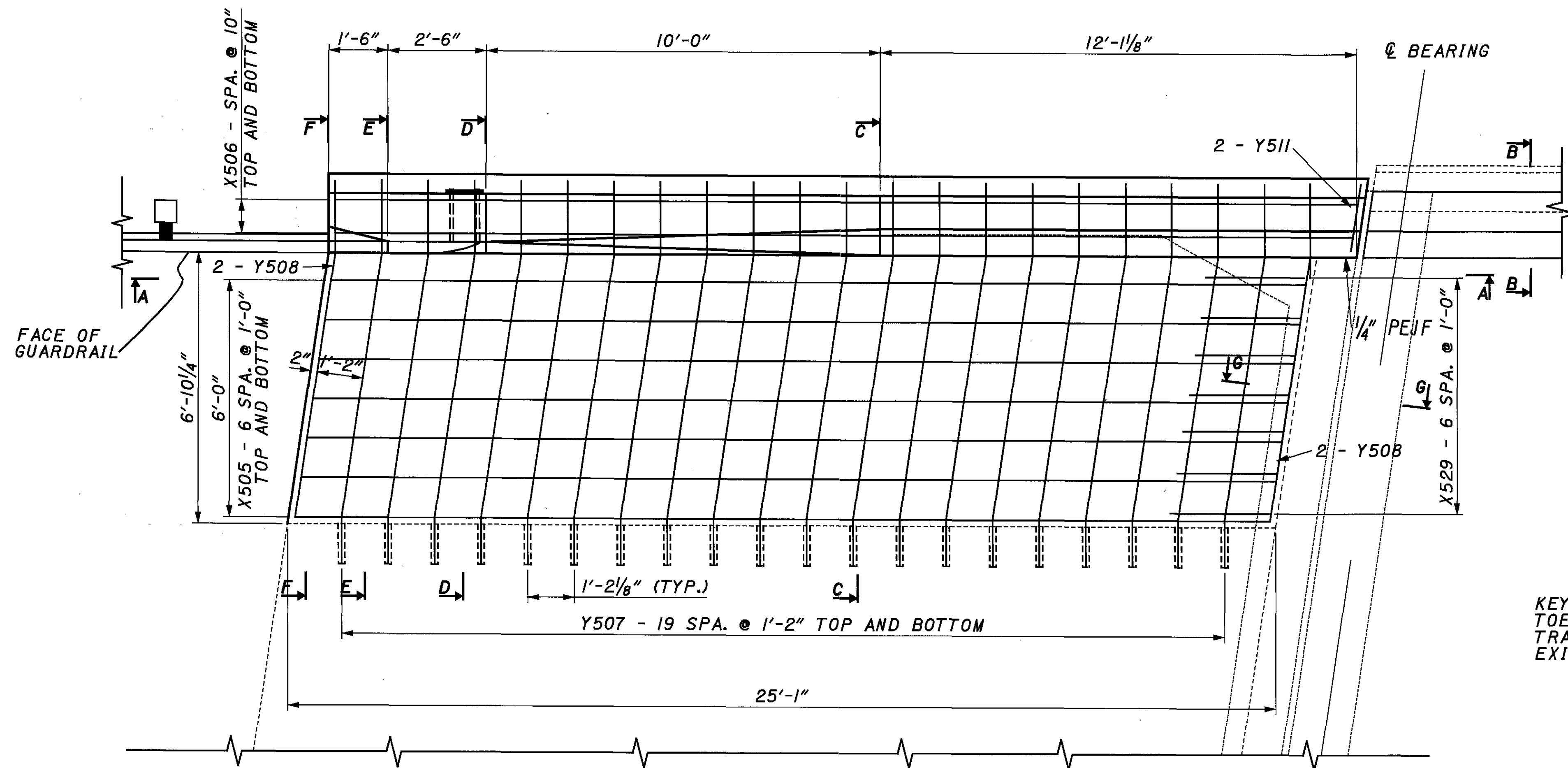
SECTION F-F

REINFORCING STEEL LIST*							
MARK	NUMBER	LENGTH	SHAPE	A	B	C	D
X501	8	10'-0"	STR.				
X502	3	5'-6"	TYPE 2	1'-8"	2'-5"	1'-5"	
X503	5	5'-6"	STR.				
X504	6	14'-9"	STR.				
X505	10	24'-8"	STR.				
X506	4	25'-6"	STR.				
X529	5	5'-0"	TYPE 4	2'-0"	3'-0"		
Y501	12	7'-5"	TYPE 1	1'-1"	3'-2"	3'-0"	
Y504	40	7'-8"	TYPE 6	1'-2"	4'-8"	1'-10"	1'-1"
Y505	4	6'-6"	TYPE 7	4'-8"	1'-10"	1'-1"	
Y506	18	1'-6"	STR.				
Y511	2	1'-8"	STR.				
X601	1	14'-9"	STR.	FIELD BEND IF NECESSARY			
Y601	11	4'-6"	TYPE 3	1'-1"	2'-4"		
Y602	11	3'-5"	TYPE 4	1'-1"	2'-4"		
Y603	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 4	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y605	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 5	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y606	8	4'-10"	TYPE 4	1'-1"	3'-9"		

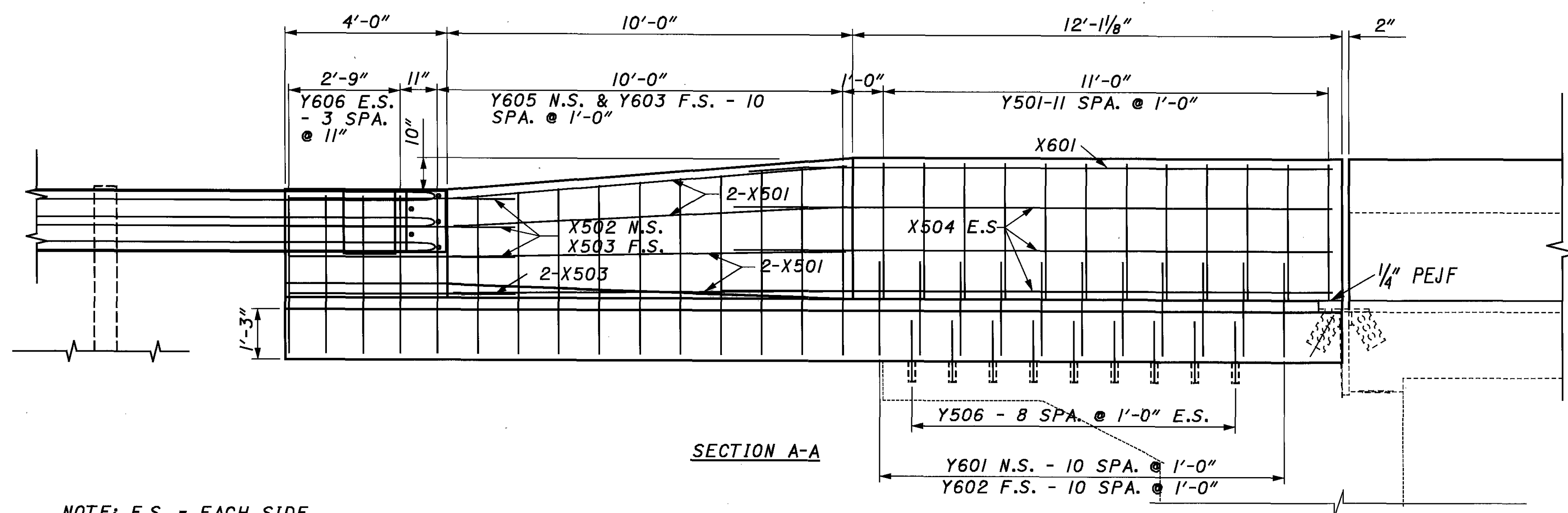
NOTE: E.S. = EACH SIDE
F.S. = FAR SIDE
N.S. = NEAR SIDE
PEJF = PREFORMED ELASTOMERIC JOINT FILLER

*REINFORCING STEEL LIST APPLIES TO ONLY ONE CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN





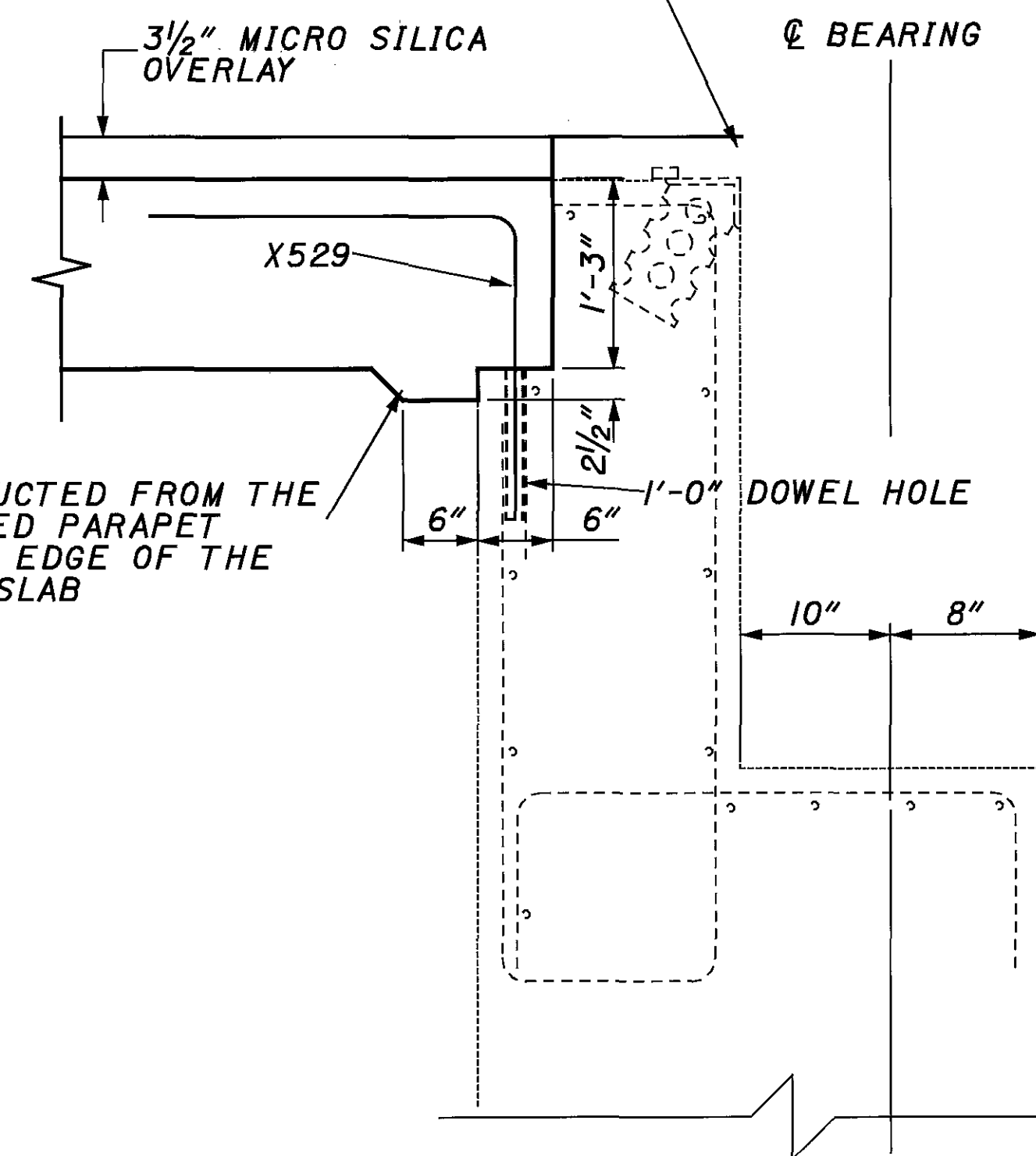
TYPICAL CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN
FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 18/19



SECTION A-A

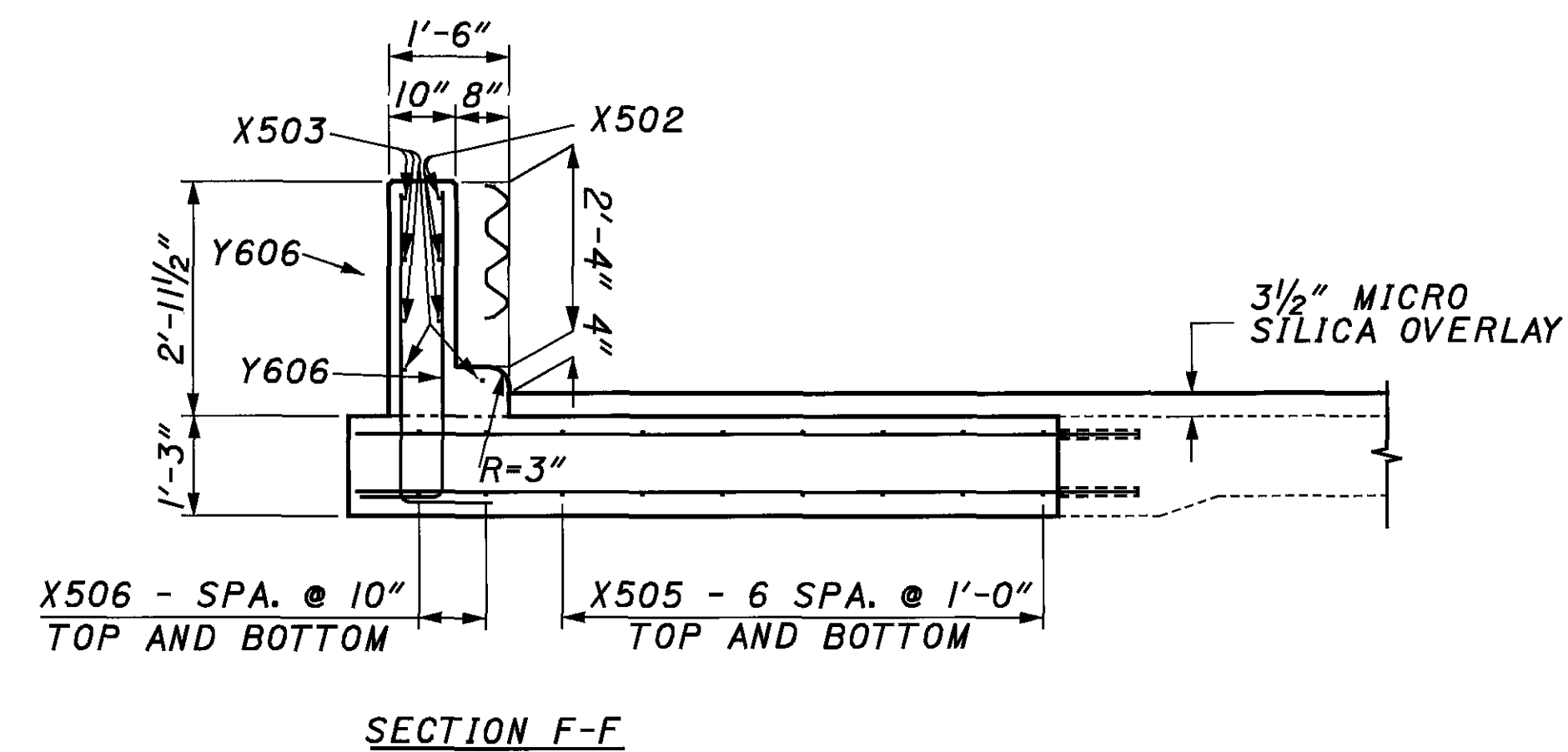
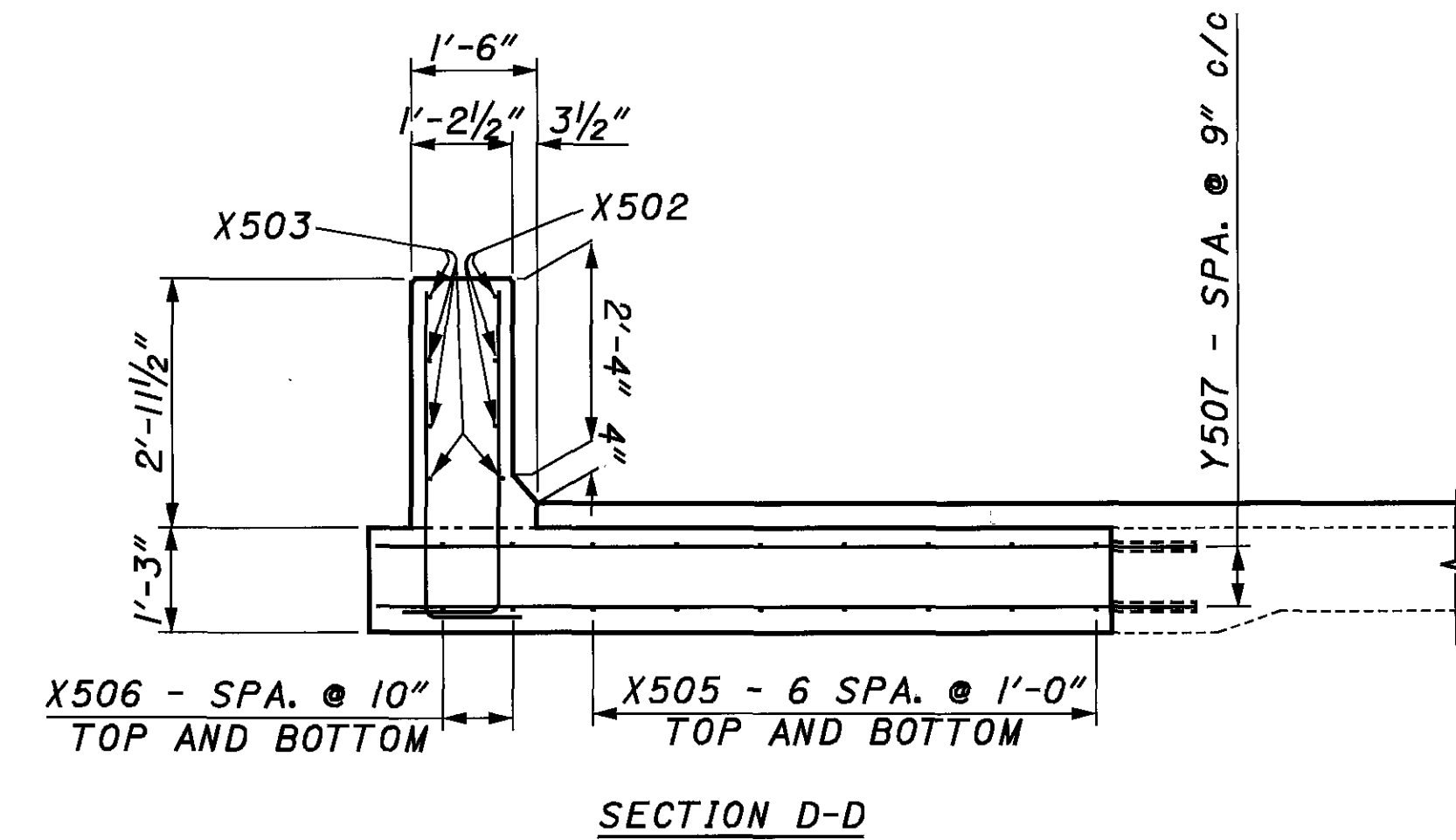
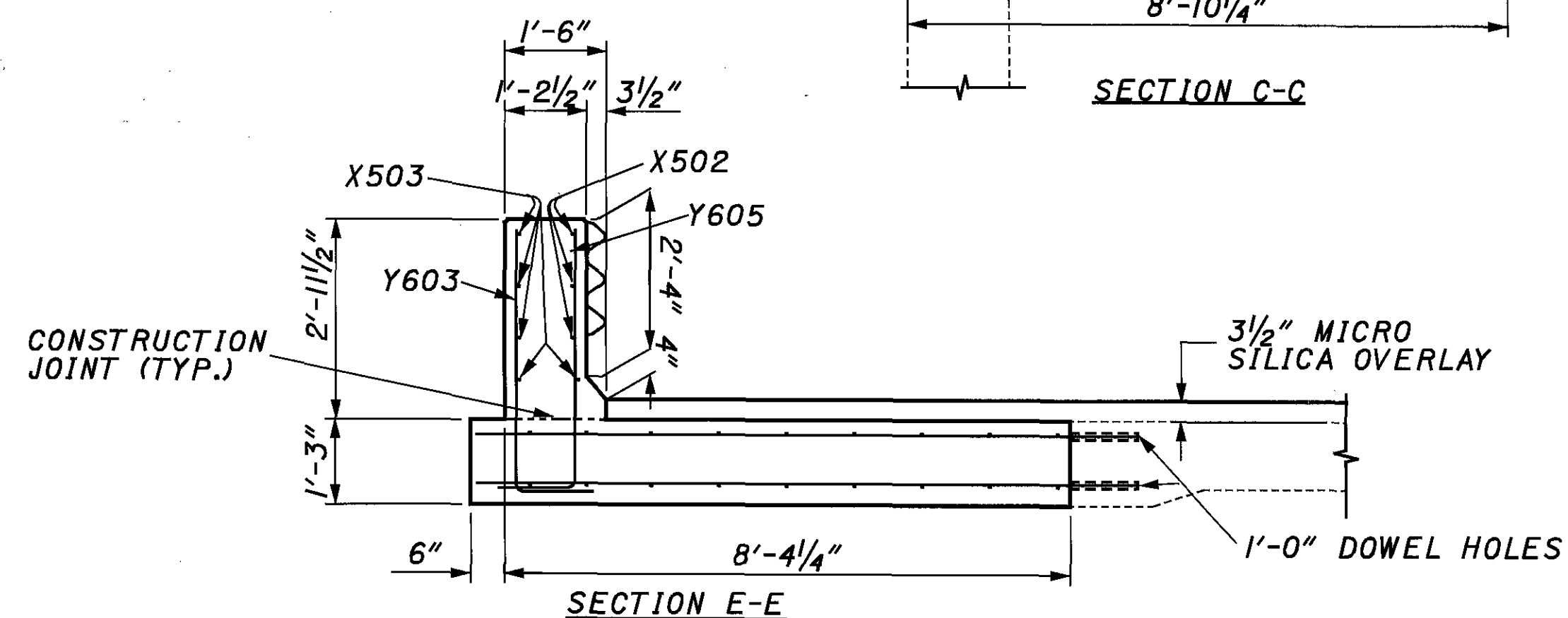
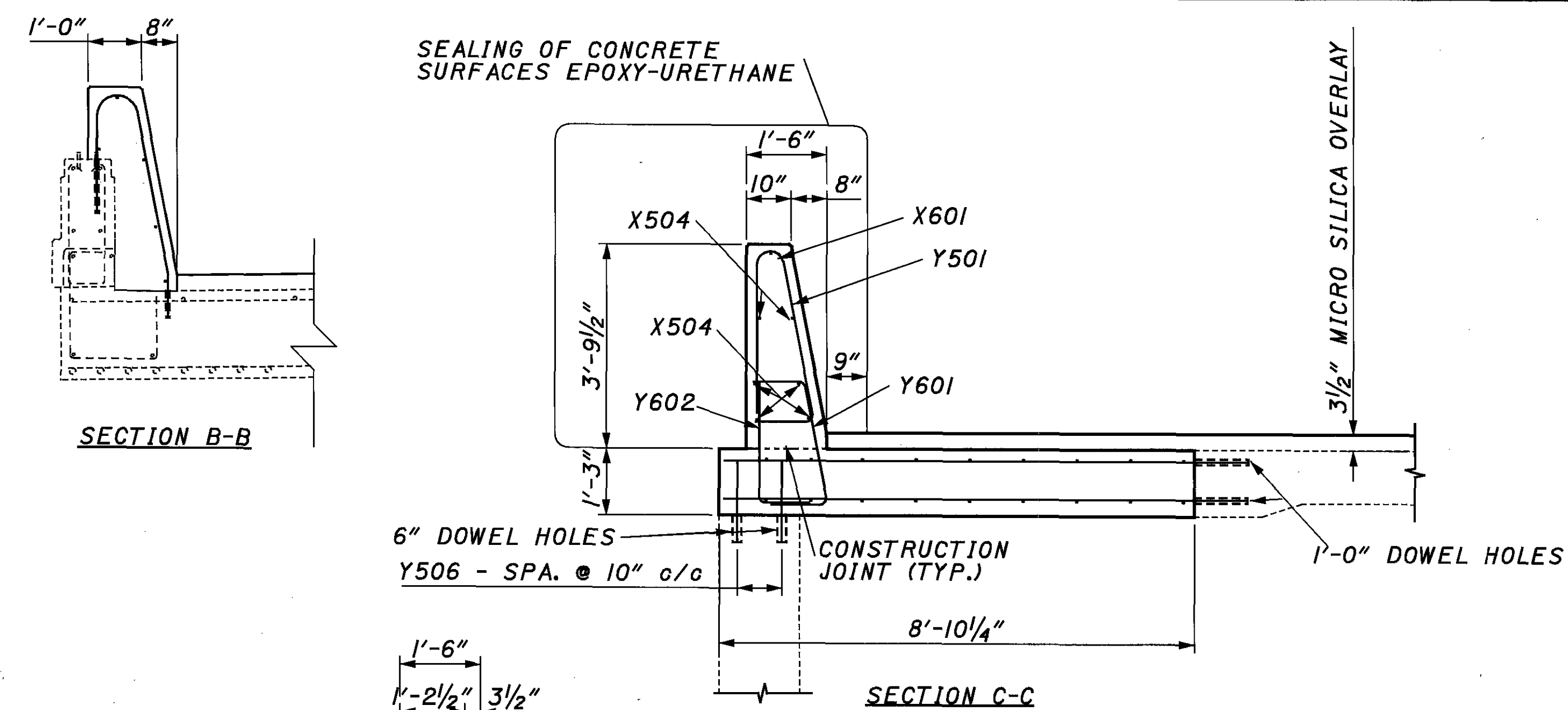
NOTE: E.S. - EACH SIDE
F.S. - FAR SIDE
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PEJF - PREFORMED ELASTOMERIC JOINT FILLER

ITEM SPECIAL - POLYMER-MODIFIED
ASPHALT EXPANSION JOINT SYSTEM,
SEE SHEET 19/19 FOR MORE DETAILS

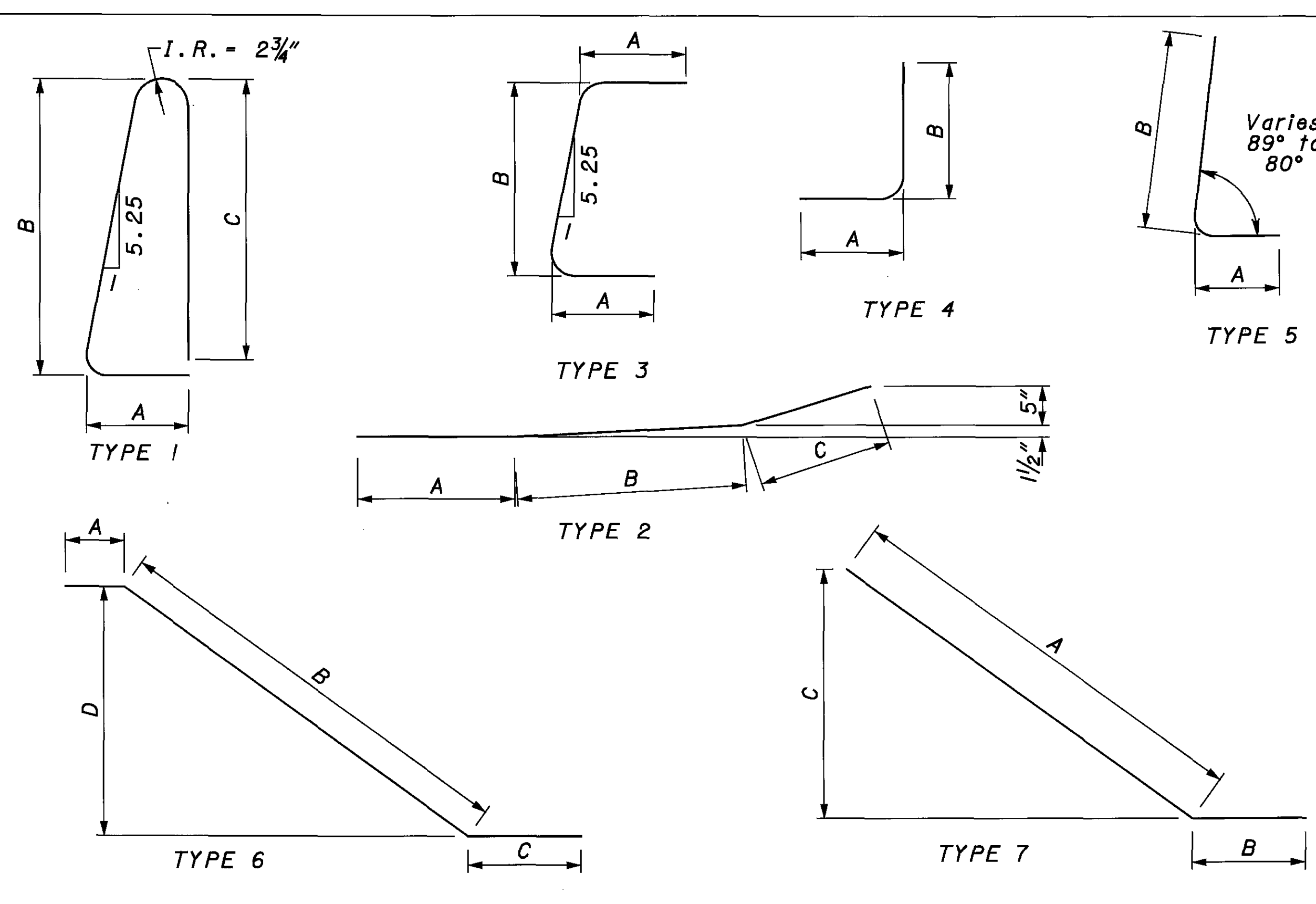


PROPOSED SECTION G-G

KEY WILL BE CONSTRUCTED FROM THE
TOE OF THE PROPOSED PARAPET
TRANSITION TO THE EDGE OF THE
EXISTING APPROACH SLAB

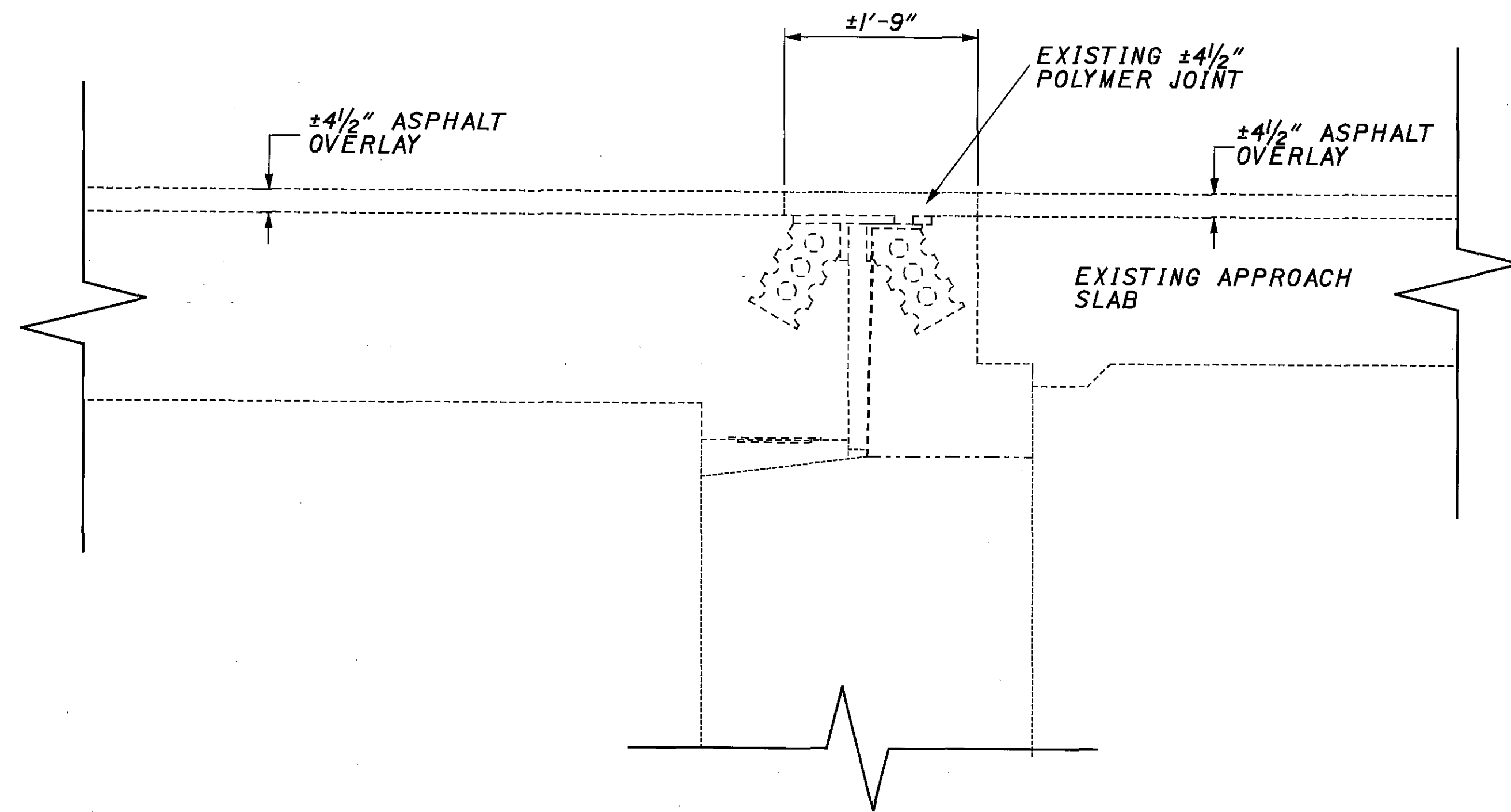


REINFORCING STEEL LIST*							
MARK	NUMBER	LENGTH	SHAPE	A	B	C	D
X501	8	10'-0"	STR.				
X502	3	5'-6"	TYPE 2	1'-8"	2'-5"	1'-5"	
X503	5	5'-6"	STR.				
X504	6	14'-9"	STR.				
X505	14	24'-8"	STR.				
X506	4	25'-6"	STR.				
X529	7	5'-0"	TYPE 4	2'-0"	3'-0"		
Y501	12	7'-5"	TYPE 1	1'-1"	3'-2"	3'-0"	
Y506	18	1'-6"	STR.				
Y507	40	9'-9"	TYPE 6	1'-2"	6'-9"	1'-10"	1'-1"
Y508	4	8'-7"	TYPE 7	6'-9"	1'-10"	1'-1"	
Y511	2	1'-8"	STR.				
X601	1	14'-9"	STR.	FIELD BEND IF NECESSARY			
Y601	11	4'-6"	TYPE 3	1'-1"	2'-4"		
Y602	11	3'-5"	TYPE 4	1'-1"	2'-4"		
Y603	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 4	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y605	1 SER. 11 BARS	4'-10" TO 5'-8"	TYPE 5	1'-1"	3'-9" TO 4'-7"	1" INC.	
Y606	8	4'-10"	TYPE 4	1'-1"	3'-9"		



NOTE: E.S. - EACH SIDE
F.S. - FAR SIDE
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PEJF - PREFORMED ELASTOMERIC JOINT FILLER

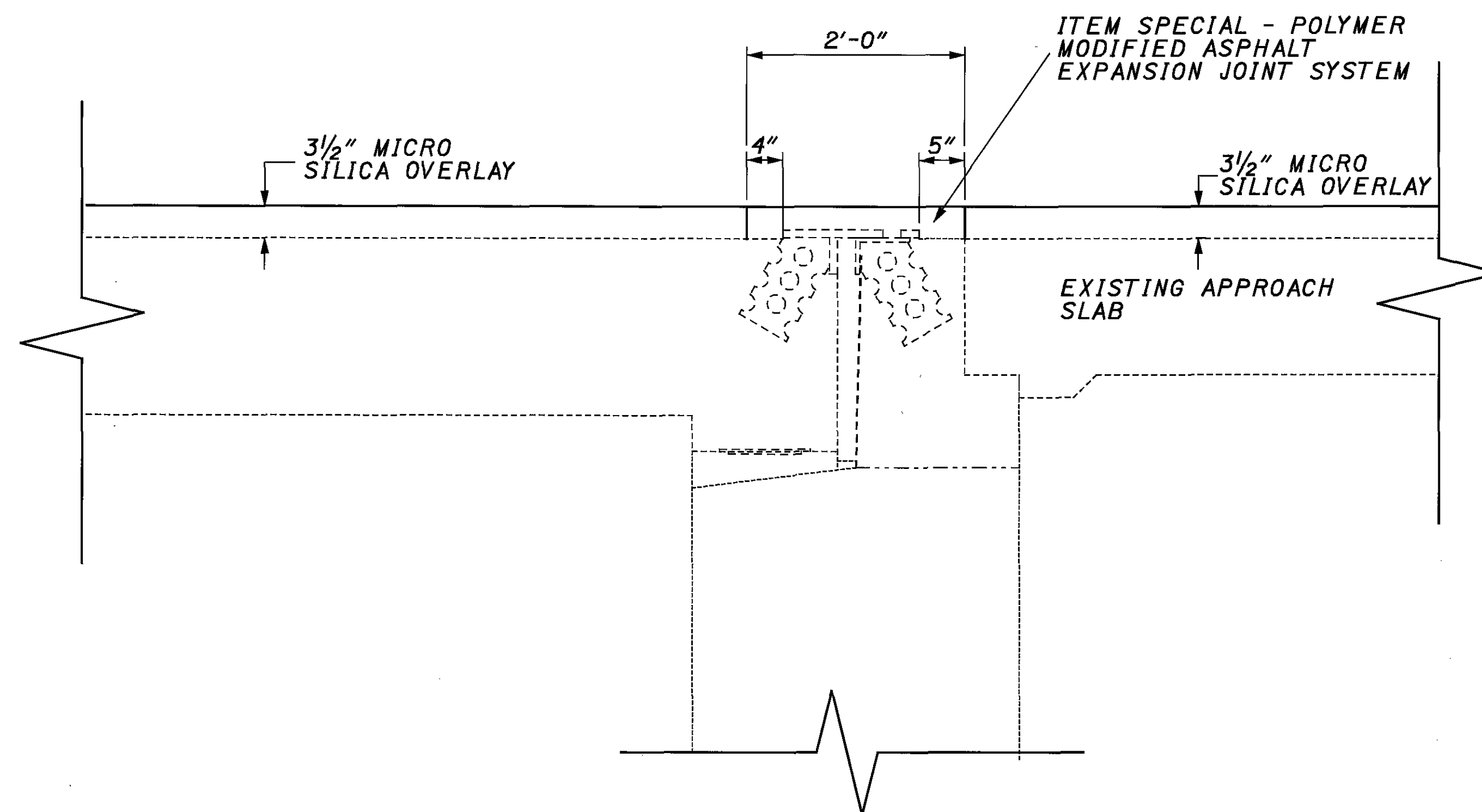
*REINFORCING STEEL LIST APPLIES TO ONLY ONE CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN



CROSS SECTION VIEW OF EXISTING JOINT

APPLIES TO: REAR AND FORWARD ABUTMENTS OF BOTH THE EASTBOUND AND WESTBOUND STRUCTURES

NOTE: HYDRODEMOLITION WILL STOP 6" FROM EITHER SIDE OF THE JOINT AND THE REMAINING CONCRETE DECK WILL BE REMOVED IN SUCH A MANNER AND TO AN EXTENT AS TO EXPOSE SOUND CONCRETE UP TO THE EXPANSION JOINT.



CROSS SECTION VIEW OF EXISTING JOINT

APPLIES TO: REAR AND FORWARD ABUTMENTS OF BOTH THE EASTBOUND AND WESTBOUND STRUCTURES

NOTE: THE LIMITS OF THE ITEM SPECIAL - POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM IS FROM TOE TO TOE OF THE PROPOSED PARAPETS.

SEE SHEET 4/19 FOR DETAILS ON THE POLYMER MODIFIED EXPANSION JOINT SYSTEM.