

JACKSON COUNTY
JAC-93-27.41

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81 DATED 11-27-81
DBR-2-73 DATED 4-10-73
PSBD-1-81 REVISED 6-20-89
AND TO SUPPLEMENTAL SPECIFICATION 836 DATED 11-12-85

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1989 AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING - HS20-44 AND THE ALTERNATE MILITARY LOADING
CONCRETE CLASS C - UNIT STRESS 1333 PSI FOR SUBSTRUCTURE
REINFORCING STEEL - ASTM A615, A616, A617
GRADE 60 - UNIT STRESS 24,000 PSI FOR SUBSTRUCTURE
GRADE 40 - UNIT STRESS 20,000 PSI PERMITTED FOR PRESTRESSED BOX BEAMS

CONCRETE FOR PRESTRESSED BEAMS:

MINIMUM COMPRESSIVE STRENGTH AT TIME OF INITIAL PRESTRESS, f'_{ci} = 4000 PSI
MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, f'_c = 5500 PSI
UNIT STRESS: 2200 PSI COMPRESSION
444 PSI TENSION

PRESTRESSING STRAND - ASTM A416 GRADE 270, 1/2" DIAMETER, SEVEN-WIRE, UNCOATED, STRESS-RELIEVED STRAND.

A_s = 0.153 SQ. IN. f'_s = 270,000 PSI
INITIAL STRESS $0.70f'_s$ = 189,000 PSI
STRESS AT RELEASE $0.63f'_s$ = 170,100 PSI
(ASSUMED AT SECTION OF MAX. MOMENT)

PRESTRESS LOSSES: TOTAL LOSSES, Δf_s , WERE COMPUTED USING THE EQUATION
 $\Delta f_s = 25,200 + 14.0 f_{cl} - 5.6 f_{cd}$ PSI

ABUTMENT PILING: ABUTMENT PILING BENDING STRESS MAY APPROACH, REACH OR EXCEED YIELD STRESS.

DECK PROTECTION METHOD: TYPE D WATERPROOFING, ASPHALT CONCRETE OVERLAY, STEEL DRIP STRIP, AND SEALING OF CONCRETE SURFACES.

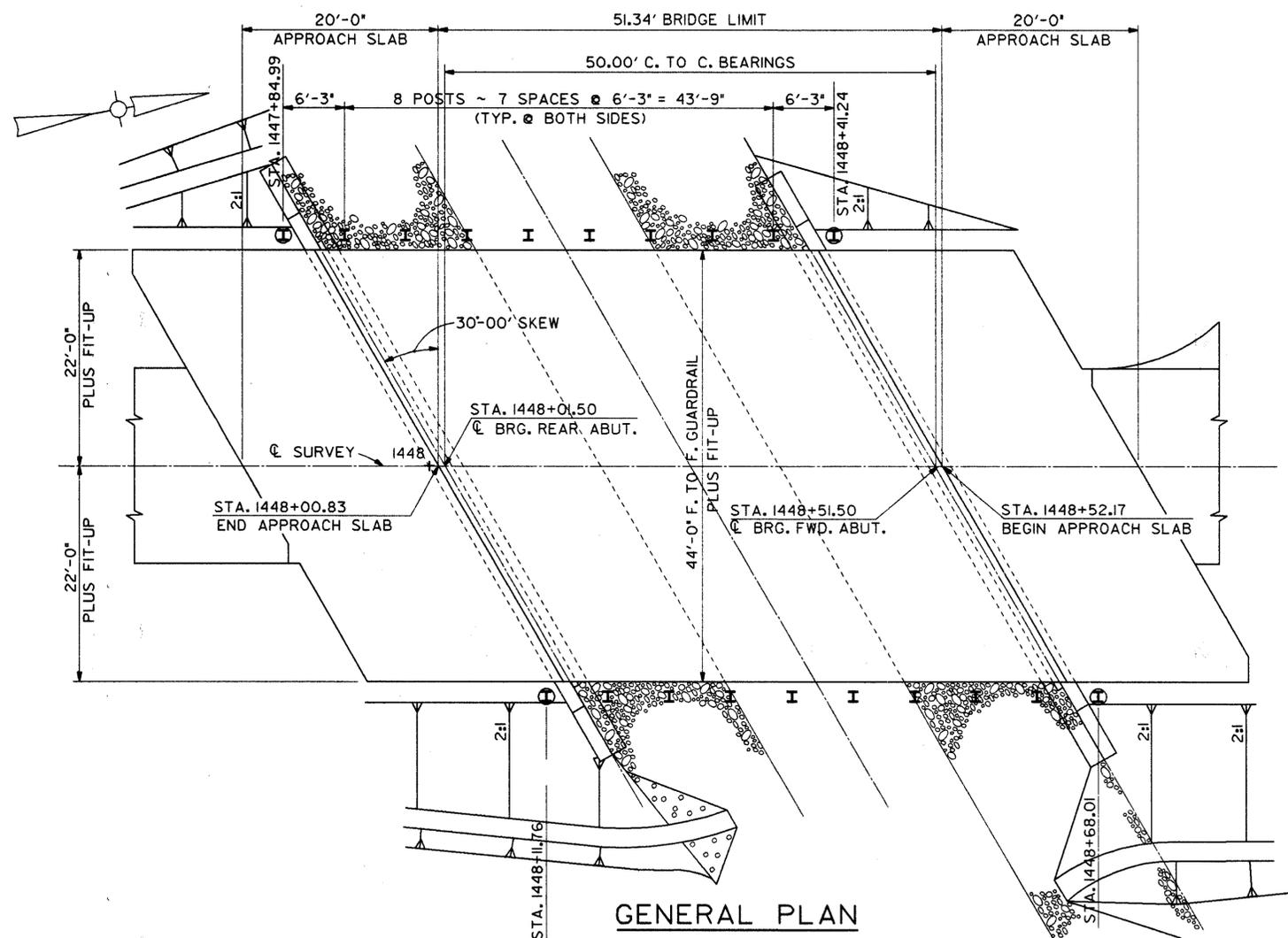
REMOVAL OF EXISTING STRUCTURE: WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED. SUITABLE WASTE MASONRY MAY BE USED AS BANK PROTECTION AS DIRECTED BY THE ENGINEER.

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS ATTAINED BY PENETRATING SOFT BEDROCK WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH, OR REFUSAL SHALL BE CONSIDERED AS ATTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

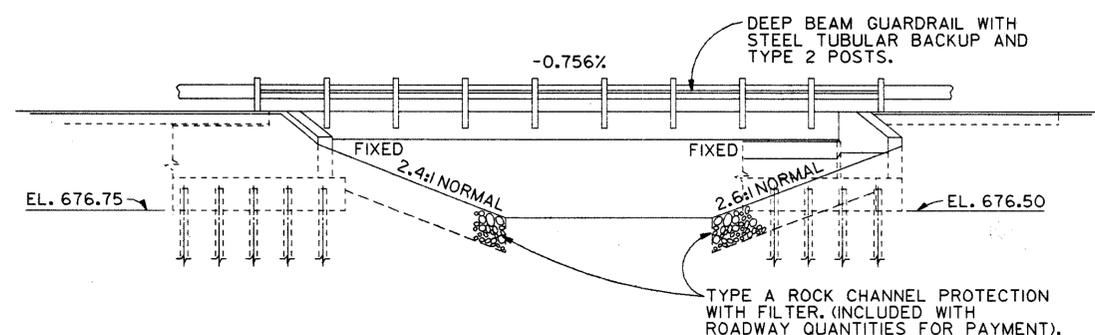
THE DESIGN LOAD IS 48 TONS PER PILE FOR THE ABUTMENT PILES.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATING THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNERS. THE CONTRACTOR AND OWNERS ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM SPECIAL, SEALING OF CONCRETE SURFACES: A CONCRETE SEALER SHALL BE APPLIED TO THE FASCIA BEAMS FOR THE FULL LENGTH OF THE SURFACES SHOWN ON SHEET 9/9, AND TO THE ABUTMENT FACE AND BEAM SEAT AS SHOWN ON SHEET 6/9. SEE THE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.



GENERAL PLAN



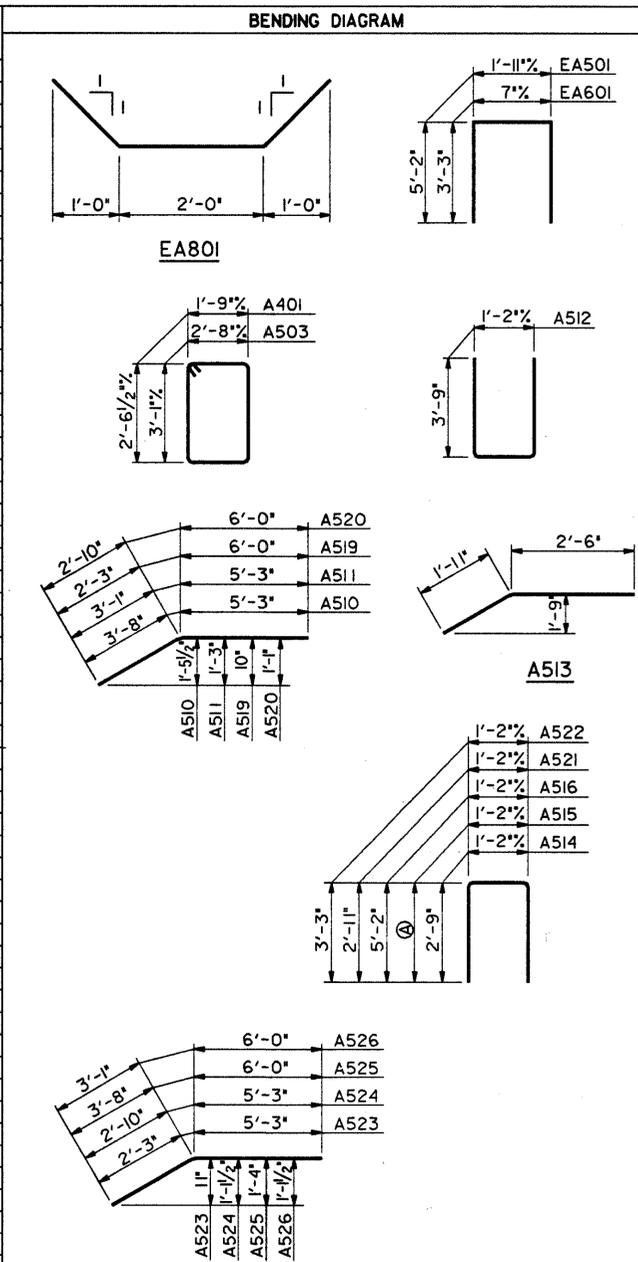
ELEVATION

A. M. KINNEY, INC. CINCINNATI, OHIO							2 / 9
GENERAL PLAN, ELEVATION AND GENERAL NOTES							
BRIDGE NO. JAC-93-2743 OVER SAND RUN							
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED	
J.J.K.	M.E.C.	~	E.B.W.	J.C.O.	3-12-90		

JACKSON COUNTY
JAC-93-27.41

STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHP	REAR		FWD.	
ABUTMENTS								
EA901	12	29'-0"	1183	S	6	6		
EA801	60	4'-10"	774	B	30	30		
EA601	102	6'-9"	1034	B	51	51		
EA501	82	12'-0"	1026	B	41	41		
EA502	16	30'-0"	501	S	8	8		
TOTAL EPOXY = 4518								
EPOXY COATED BARS								
A802	16	36'-4"	1552	S	8	8		
A503	116	12'-0"	1452	B	58	58		
A504	16	26'-5"	441	S	8	8		
A505	16	35'-10"	598	S	8	8		
A506	12	12'-10"	161	S	6	6		
A507	12	10'-9"	134	S	6	6		
A508	2	7'-4"	15	S	1	1		
A509	2	6'-9"	14	S	1	1		
A510	1	8'-11"	9	B	1	-		
A511	1	8'-4"	9	B	1	-		
A512	34	8'-5"	298	B	17	17		
A513	4	4'-5"	18	B	2	2		
A514	4	6'-5"	27	B	2	2		
A515	4	8'-7"	2	B	2	2		
A515	SERIES TO	165	B	SERIES	SERIES			
	OF 4	11'-3"		OF 4	OF 4			
A516	10	11'-3"	117	B	5	5		
A517	2	6'-3"	13	S	1	1		
A518	2	6'-10"	14	S	1	1		
A519	1	8'-3"	9	B	1	-		
A520	1	8'-10"	9	B	1	-		
A521	2	6'-9"	14	B	1	1		
A522	2	7'-5"	15	B	1	1		
A523	1	7'-6"	8	B	-	1		
A524	1	8'-1"	8	B	-	1		
A525	1	9'-8"	10	B	-	1		
A526	1	9'-1"	9	B	-	1		
A401	40	9'-1"	243	B	20	20		
TOTAL NON-EPOXY = 5362								
TOTAL EPOXY AND NON-EPOXY = 9880								



Ⓐ VARIES FROM 3'-10" TO 5'-2" AT 5 3/8" INCREMENTS
AN 'E' PREFIX IN THE 'MARK' COLUMN INDICATES EPOXY COATED BARS.

ESTIMATED QUANTITIES

CALCULATED BY: J.I.K. DATE 2-19-90
CHECKED BY: E.B.W. DATE 3-12-90

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPERSTR.	ABUTMENTS	GENERAL
202	11002	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN			LUMP SUM
403	20000	12	CU. YD.	ASPHALT CONCRETE, AC-20	12		
404	20000	9	CU. YD.	ASPHALT CONCRETE, AC-20	9		
503	21100	146	CU. YD.	UNCLASSIFIED EXCAVATION		146	
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			LUMP SUM
507	11100	600	LIN. FT.	STEEL PILES HPIOX42		600	
509	11500	5362	LB.	REINFORCING STEEL, GRADE 60		5362	
509	15800	4518	LB.	EPOXY COATED REINFORCING STEEL, GRADE 60		4518	
511	43500	95	CU. YD.	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING		95	
512	55800	274	SQ. YD.	TYPE D WATERPROOFING	274		
SPECIAL	51267500	31	SQ. YD.	SEALING OF CONCRETE SURFACES(SEE PROPOSAL NOTE)	31		
SPECIAL	51267502	27	SQ. YD.	SEALING OF CONCRETE SURFACES, (EPOXY) (SEE PROPOSAL NOTE)		27	
515	53900	11	EACH	PRESTRESSED CONCRETE BOX BEAM B27-48 (40-52' LENGTH) (SEE PROPOSAL NOTE)	11		
516	13600	226	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER		226	
516	31011	104	LIN. FT.	2" DEEP JOINT SEALER, AS PER PLAN (See Sht. 22)		104	
SPECIAL	51631200	102	LIN. FT.	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	102		
516	41200	10	SQ. FT.	1/8" PREFORMED BEARING PAD, 711.21		10	
516	43100	44	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY 1"X6"X10", (NEOPRENE) 50 Durometer		44	
517	72300	112.50	LIN. FT.	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS)	112.50		
518	21200	35	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC		35	
SPECIAL	51822200	78	SQ. FT.	STEEL DRIP STRIP (See Sht. 21)	78		
518	41100	142	LIN. FT.	6" PERFORATED HELICAL CORRUGATED STEEL PIPE, 707.01		142	
518	41200	18	LIN. FT.	6" NON-PERFORATED HELICAL CORRUGATED STEEL PIPE, INCLUDING SPECIALS, 707.01		18	

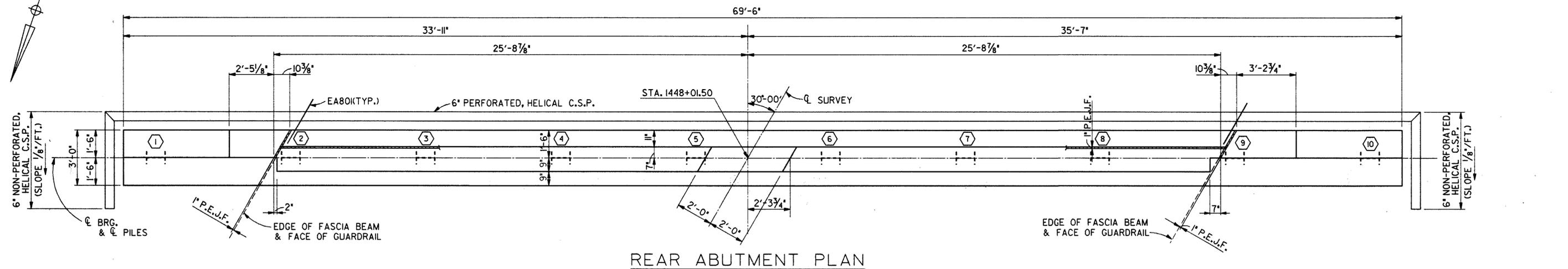
A. M. KINNEY, INC.
CINCINNATI, OHIO

ESTIMATED QUANTITIES AND REINFORCING STEEL LIST

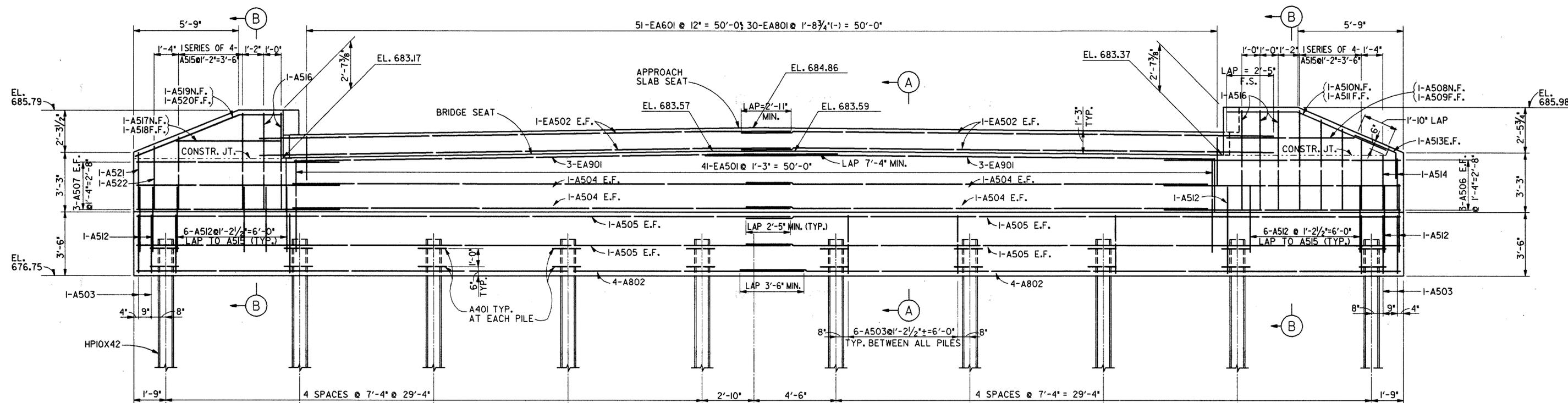
BRIDGE NO. JAC-93-2743
OVER SAND RUN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.I.K.	M.E.C.	~	E.B.W.	J.C.O.	3-12-90	

JACKSON COUNTY
JAC-93-27.41



REAR ABUTMENT PLAN



ELEVATION

LEGEND

N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
C.S.P. = CORRUGATED STEEL PIPE

NOTES

FOR ABUTMENT NOTES AND SECTIONS A-A & B-B, SEE SHEET 6/9.

A. M. KINNEY, INC.
CINCINNATI, OHIO

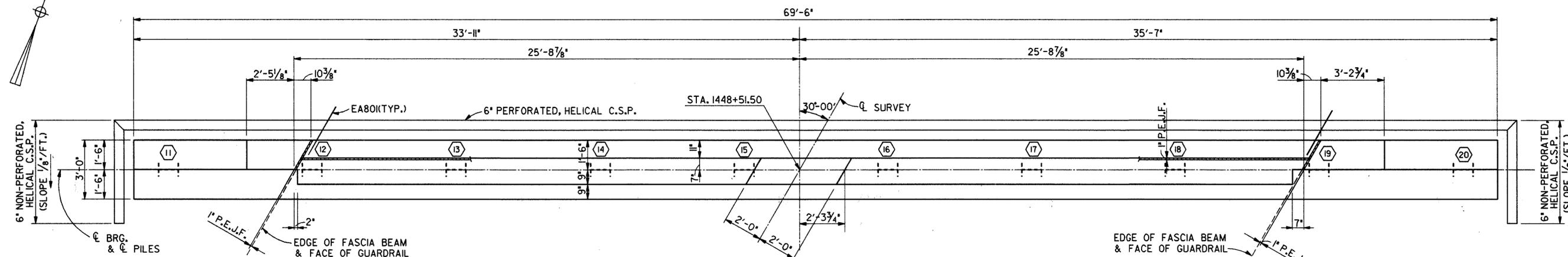
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REAR ABUTMENT
PLAN AND ELEVATION

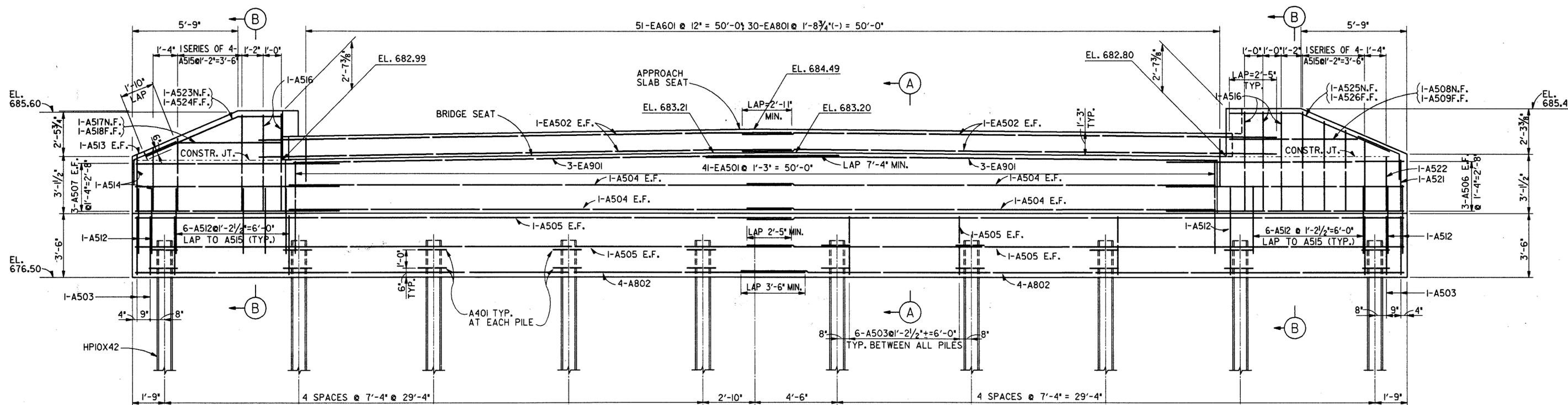
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OVER SAND RUN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.I.K.	M.E.C.	~	E.B.W.	J.C.O.	3-12-90	

JACKSON COUNTY
JAC-93-27.4I



FORWARD ABUTMENT PLAN



ELEVATION

LEGEND

N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
C.S.P. = CORRUGATED STEEL PIPE

NOTES

FOR ABUTMENT NOTES AND SECTIONS A-A & B-B, SEE SHEET 6 / 9.

A. M. KINNEY, INC.
CINCINNATI, OHIO

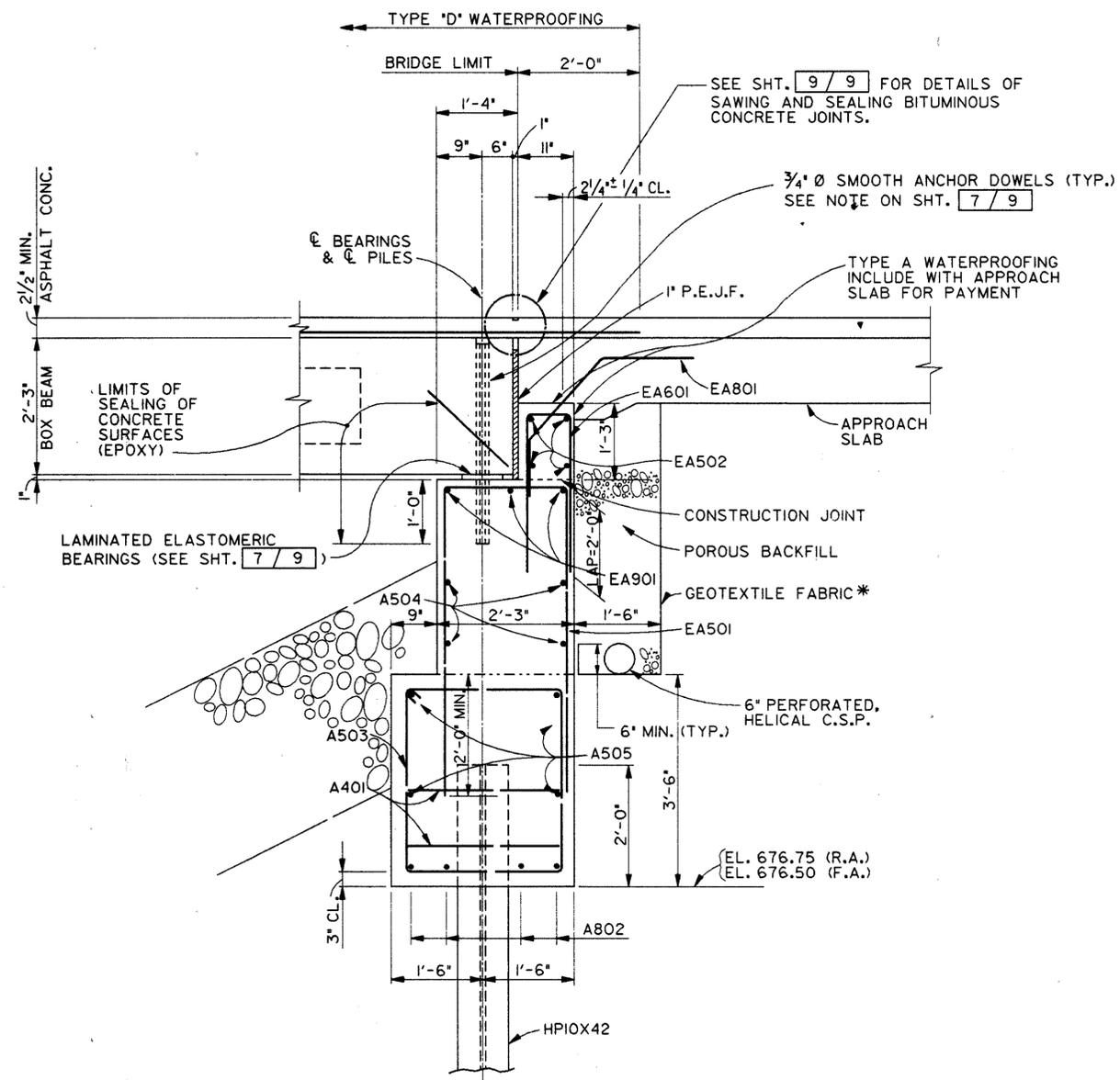
5 / 9

FORWARD ABUTMENT
PLAN AND ELEVATION

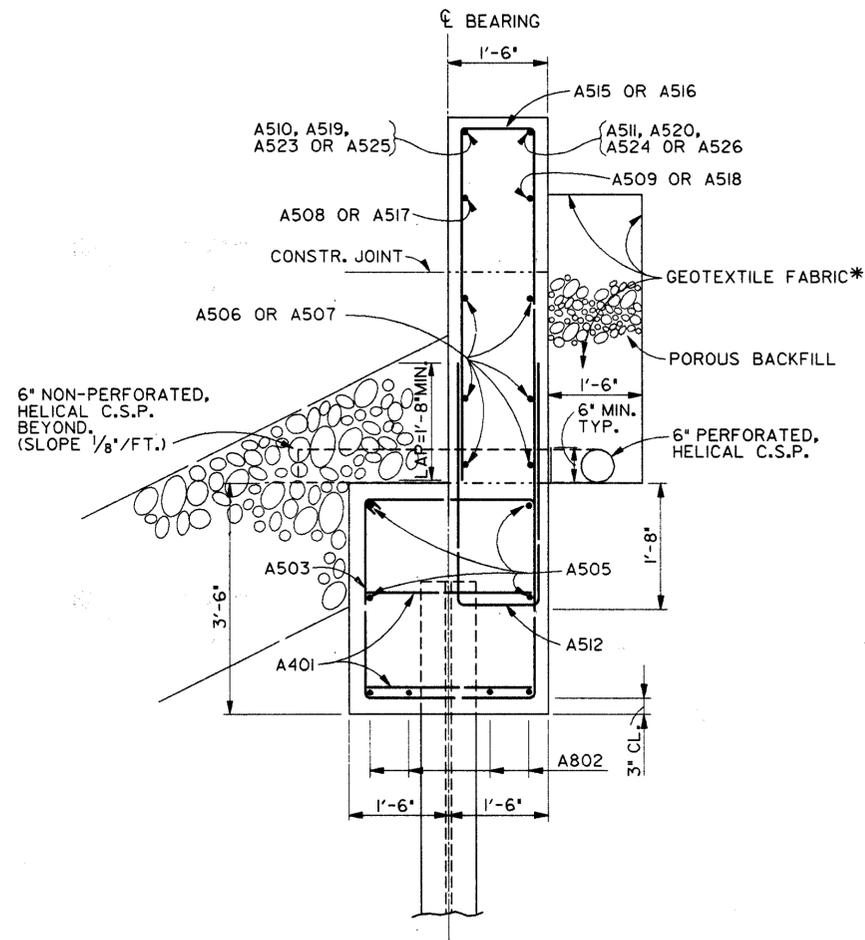
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J.I.K.	M.E.C.	~	E.B.W.	J.C.O.	3-12-90	

JACKSON COUNTY
JAC-93-27.41



SECTION A-A



SECTION B-B

* GEOTEXTILE FABRIC, TYPE A SHALL CONFORM TO ITEM 712.09 AND SHALL BE INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

NOTES

CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINTS SHALL NOT BE PLACED UNTIL AFTER THE PRESTRESSED BOX BEAMS HAVE BEEN SET.

POROUS BACKFILL, 1.5 FT. THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE ENDS OF THE WING WALLS.

BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES.

FOR LOCATION OF SECTIONS A-A AND B-B SEE SHEETS 4 / 9 & 5 / 9 .

LEGEND

R.A. = REAR ABUTMENT
F.A. = FORWARD ABUTMENT
C.S.P. = CORRUGATED STEEL PIPE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

A. M. KINNEY, INC.
CINCINNATI, OHIO

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ABUTMENT DETAILS

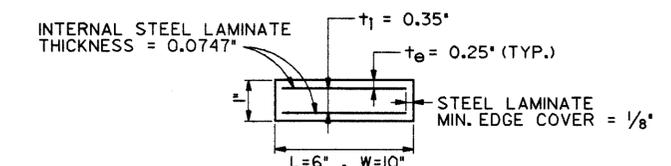
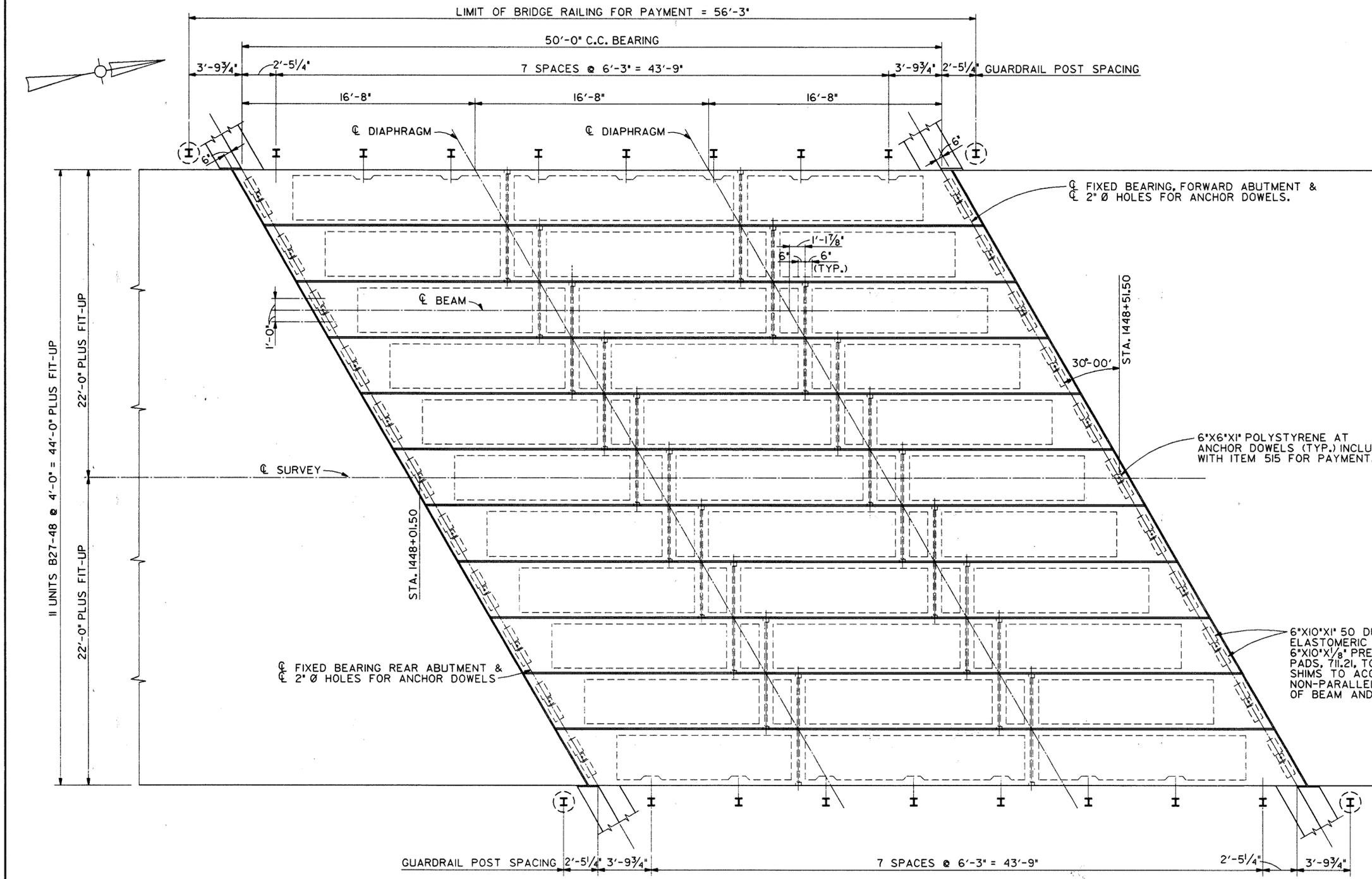
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FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

20
25

JACKSON COUNTY
JAC-93-27.41



LAMINATED ELASTOMERIC BEARING
50 DUROMETER

DEAD LOAD REACTION = 14.4k
LIVE LOAD REACTION = 12.3k
MAXIMUM DESIGN LOAD = 26.7k

TOLERANCES:
INDIVIDUAL ELASTOMERIC LAYER THICKNESS: $\pm 20\%$ OF DESIGN VALUE (NOT TO EXCEED $\pm 1/8"$)

PLAN DIMENSION -0, +1/4"
DESIGN THICKNESS -0, +1/8"
EDGE COVER OF EMBEDDED LAMINATES -0, +1/8"

BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH ELASTOMERIC BEARING PAD WITH INTERNAL LAMINATES ONLY (NEOPRENE), 6" X 10" X 1".

ELASTOMERIC TEST PAD

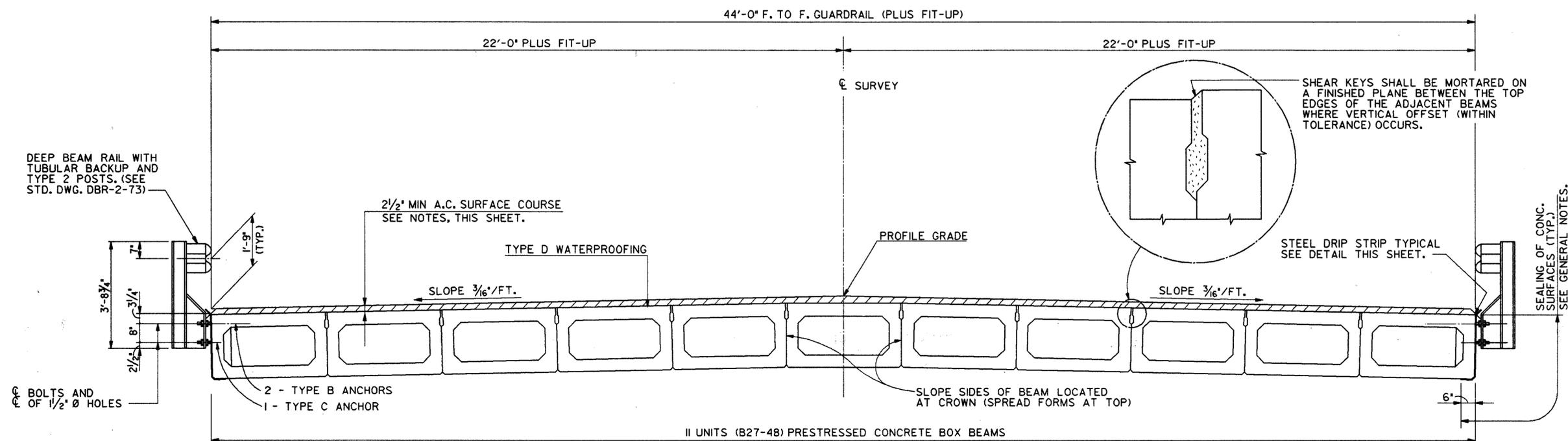
THE ELASTOMERIC BEARING MANUFACTURER SHALL SUPPLY A PLAIN ELASTOMERIC PAD FOR TESTING PURPOSES. THE PAD SHALL BE FURNISHED FROM THE SAME BATCH OF NEOPRENE THAT IS USED IN THE FABRICATION OF THE LAMINATED ELASTOMERIC BEARINGS AND THE FABRICATOR SHALL CERTIFY THE IDENTITY OF THE ELASTOMER. THE PAD SHALL HAVE A 1/2 INCH THICKNESS, AND SHALL HAVE MINIMUM LENGTH AND WIDTH DIMENSIONS OF 6 INCHES. PAYMENT FOR THE TEST PAD WILL BE INCLUDED IN THE PRICE BID FOR THE BEARINGS.

NOTES

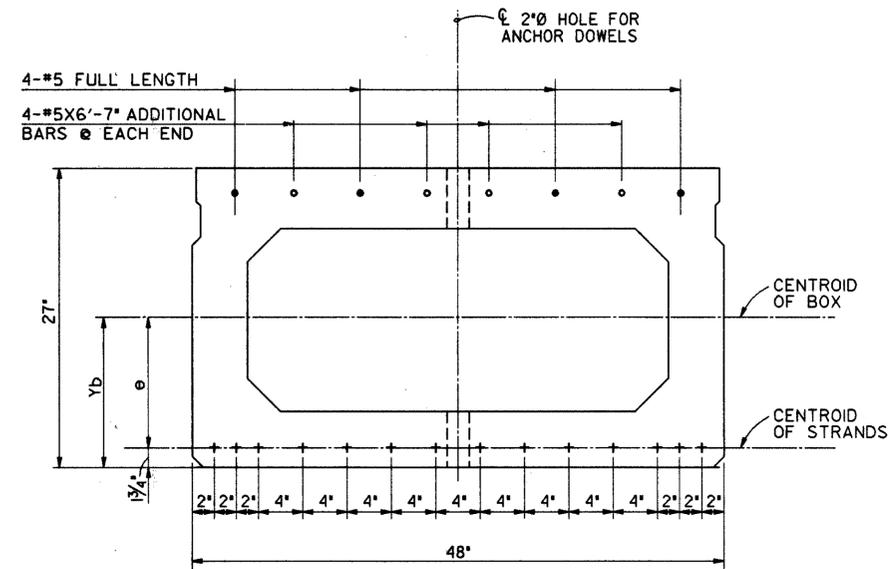
- EACH PRESTRESSED CONCRETE BOX BEAM SHALL BE ANCHORED AT EACH END WITH A 3/4" Ø SMOOTH DOWEL INSTEAD OF THE NO. 6 REINFORCING BAR INDICATED IN STANDARD DWG. PSBD-1-81. USE THE FIXED ANCHOR DOWEL DETAIL AT BOTH ENDS OF ALL BEAMS.
- FOR ADDITIONAL NOTES, SEE SH. 8 / 9
- FOR GENERAL NOTES, SEE SH. 2 / 9

A. M. KINNEY, INC. CINCINNATI, OHIO						7 / 9
SUPERSTRUCTURE PLAN AND DETAILS						
BRIDGE NO. JAC-93-2743 OVER SAND RUN						
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JACKSON COUNTY
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TYPICAL TRANSVERSE DECK SECTION

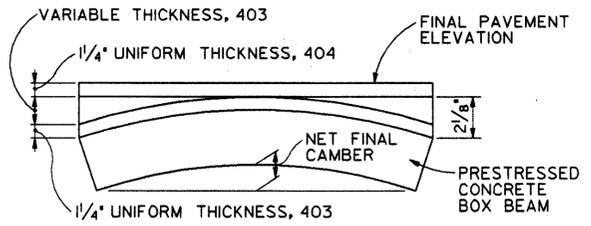


TYPICAL BEAM SECTION (B27-48)

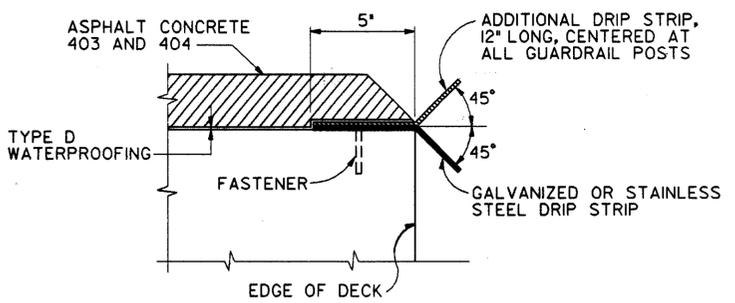
NOTE: SEE STD. DWG. PSBD-1-81 FOR DIMENSIONS AND SIZE & SPACING OF TRANSVERSE REINFORCING NOT SHOWN. FOR GENERAL NOTES SEE SHEET 2 / 9

BOX BEAM B27-48 SECTION PROPERTIES	
A = 678.8 IN. ²	NO. OF STRANDS = 14
I = 64649 IN. ⁴	e = 11.86'
Yb = 13.61 IN.	INITIAL CAMBER = 0.35'
Z+ = 4828 IN. ³	DEBONDED STRANDS = NONE
Zb = 4750 IN. ³	

INITIAL CAMBER GIVEN IS AT TIME OF TRANSFER OF STRESS AND INCLUDES DEFLECTION DUE TO WEIGHT OF BEAM BUT DOES NOT INCLUDE AN ALLOWANCE FOR CREEP.



ASPHALT THICKNESS DIAGRAM



DRIP STRIP DETAIL

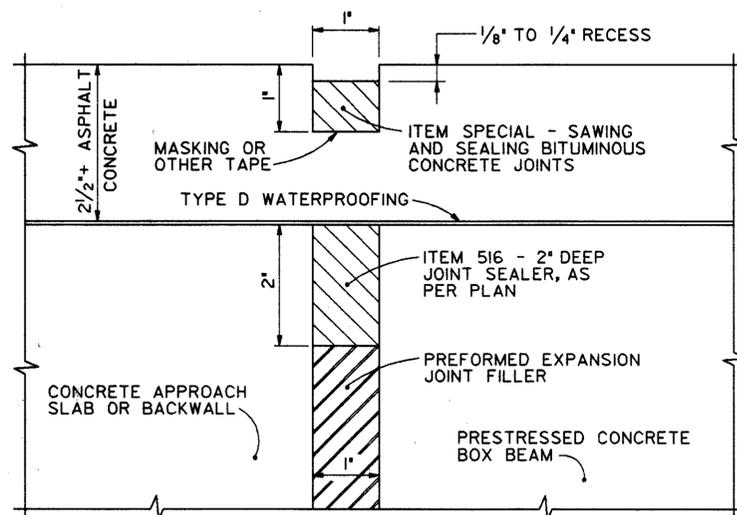
ITEM SPECIAL: STEEL DRIP STRIP
PRIOR TO APPLYING DECK MEMBRANE WATERPROOFING, A BENT DRIP STRIP SHALL BE INSTALLED ALONG THE EDGES OF THE DECK AS SHOWN. THE STRIPS SHALL BE FASTENED AT 1'-6" C/C MAXIMUM WITH 1/4" X 5/32" X 1/4" FLAT HEAD DRIVE PIN AND WASHER, (LENGTH X SHANK DIA. X HEAD DIA.) OR NO. 10 GALVANIZED SCREWS AND EXPANSION ANCHORS, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE STRIPS SHALL BE PLACED THE FULL LENGTH OF THE DECK, ENDING AT THE FACE OF THE ABUTMENT WINGWALL OR STEEL END DAM ANGLE. WHERE SPLICES ARE REQUIRED, A 3" (MIN.) LAP SHALL BE USED WITH A FASTENER THROUGH THE LAP. STEEL FOR THE GALVANIZED STRIPS SHALL BE 8" X 0.105" AND SHALL MEET THE REQUIREMENTS OF ASTM A 568. GALVANIZING SHALL BE IN ACCORDANCE WITH 711.02. STAINLESS STEEL SHALL BE 20 GAUGE ASTM A167, TYPE 304, MILL FINISH. PAYMENT SHALL BE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL, SQ. FT., STEEL DRIP STRIP, WHICH SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

NOTES

- CALCULATED CAMBER AT TIME OF PAVING, INCLUDING ALLOWANCE FOR CAMBER GROWTH DUE TO CREEP, IS 1".
- CALCULATED DEFLECTION DUE TO WEIGHT OF SURFACE COURSE AND RAILING IS 1/8".
- NET FINAL CAMBER OF BEAMS IS 7/8". THIS IS 7/8" IN EXCESS OF THE AMOUNT REQUIRED TO PLACE THE TOP OF THE BEAM PARALLEL TO PROFILE GRADE. THIS EXCESS AMOUNT SHALL BE COMPENSATED FOR BY THICKENING THE 403 LEVELING COURSE FROM 1/4" AT CENTER OF SPANS TO 2/8" AT ENDS OF SPANS.
- ASPHALT CONCRETE SURFACE COURSE SHALL CONSIST OF A VARIABLE THICKNESS OF 403 AND 1/4" THICKNESS OF 404. THE 403 SHALL BE PLACED IN TWO OPERATIONS. THE FIRST COURSE SHALL BE OF 1/4" UNIFORM THICKNESS. THE SECOND COURSE SHALL BE FEATHERED TO PLACE THE SURFACE PARALLEL TO AND 1/4" BELOW FINAL PAVEMENT SURFACE ELEVATION.
- FOR PRESTRESSED CONCRETE BOX BEAM NOTES, LIFTING INSERTS, WALL THICKENING AT GUARD RAIL ANCHORS, DETAILS AT ANCHOR DOWELS, DETAILS AND REINFORCEMENT OF BEAM ENDS, END DETAILS OF TRANSVERSE TIE ROD ANCHORAGE, BEAM DIMENSIONAL TOLERANCE AND MISCELLANEOUS DETAILS AND NOTES, SEE STANDARD DRAWING PSBD-1-81.
- FOR DEEP BEAM GUARD RAIL, POST AND ANCHORAGE DETAILS, SEE STANDARD DRAWING DBR-2-73.
- FOR GENERAL NOTES, SEE SHEET 2 / 9

A. M. KINNEY, INC. CINCINNATI, OHIO					
SUPERSTRUCTURE SECTION AND DETAILS					
BRIDGE NO. JAC-93-2743 OVER SAND RUN					
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JACKSON COUNTY
JAC-93-27.41



SEALING OF JOINTS AT ABUTMENTS

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

1) DESCRIPTION:

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

2) MATERIALS:

THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATION D3405, JOINT SEALANTS, HOT-POURED, FOR CONCRETE AND ASPHALT PAVEMENTS. ACCEPTABLE ALTERNATE MATERIALS ARE:

ROOF-FLEX 176, POLYURETHANE, AS PRODUCED BY THE CARBOLINE COMPANY, 350 HANLEY INDUSTRIAL COURT, ST. LOUIS, MISSOURI 63144 (ROGER ZUBAL, 614-877-3406); A SILICONE SEALANT MEETING FEDERAL SPECIFICATIONS TT-S-001543A CLASS A (ONE-PART SILICONE SEALANTS) AND TT-S-00230C CLASS A (ONE-COMPONENT SEALANTS), SUCH AS THOSE MANUFACTURED BY GENERAL ELECTRIC, SILICONE PRODUCTS DIVISION, 6155 ROCKSIDE RD., ROCKSIDE SQUARE I, INDEPENDENCE, OHIO 44131 (JOHN FROMHOLTZ, 216-447-1750) OR DOW CORNING, 3737 PARK EAST, BEACHWOOD, OHIO 44122 (ROBERT RUPPEL, 216-464-2330); OR SOF-SEAL, A COLD-APPLIED, LOW-MODULUS, TWO-COMPONENT POLYMERIC COMPOUND HORIZONTAL SEALANT AS MANUFACTURED BY W. R. MEADOWS, INC., P.O. BOX 543, ELGIN, ILLINOIS 60121 (ROBERT CAMERON, 312-683-4500). SEALANT WILL BE ACCEPTED ON THE BASIS OF THE MANUFACTURER'S CERTIFICATION THAT IT CONFORMS TO THE REQUIREMENTS OF THESE SPECIFICATIONS.

3) CONSTRUCTION DETAILS:

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

B) CUTTING OF TRANSVERSE JOINTS: THE CONTRACTOR SHALL SAW OR ROUT TRANSVERSE JOINTS TO THE DIMENSIONS SHOWN IN THE DETAILS ON THIS SHEET. THE CUT JOINTS SHALL LIE DIRECTLY ABOVE EACH BOX BEAM ABUTMENT JOINT. THE JOINT LOCATION SHALL BE MARKED ON THE NEW ASPHALT SURFACE WITH A CHALK LINE, OR BY SOME OTHER ACCEPTABLE METHOD, BEFORE CUTTING. DETAILS OF THE METHOD FOR LOCATING AND ACCURATELY MARKING THE PROPOSED CUTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER PRIOR TO STARTING ANY SURFACING OR PAVING OPERATIONS.

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

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

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

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

HOT-POURED JOINT SEALANT MATERIAL SHALL BE HEATED IN A KETTLE OR MELTER CONSTRUCTED AS A DOUBLE BOILER, WITH THE SPACE BETWEEN THE INNER AND OUTER SHELLS FILLED WITH OIL OR OTHER HEAT TRANSFER MEDIUM. POSITIVE TEMPERATURE CONTROL AND MECHANICAL AGITATION SHALL BE PROVIDED. HEATING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. JOINT SEALER MATERIAL SHALL NEVER BE KEPT HEATED AT THE POURING TEMPERATURE FOR MORE THAN FOUR (4) HOURS AND SHALL NEVER BE REHEATED. SEALER LEFT IN THE APPLICATOR AT THE END OF A DAY'S WORK SHALL BE REMOVED AND DISCARDED.

HOT-POURED SEALANT SHALL BE APPLIED IMMEDIATELY THROUGH A NOZZLE, WHICH MUST PROJECT INTO THE SAWED JOINT, FILLING FROM THE BOTTOM UP. THE SEAL SHALL COMPLETELY FILL THE JOINT IN SUCH A MANNER THAT, AFTER COOLING, THE LEVEL OF THE SEALER WILL NOT BE HIGHER THAN 1/8" BELOW THE PAVEMENT SURFACE. ANY DEPRESSION IN THE COOLED SEAL GREATER THAN 3/16" SHALL BE BROUGHT UP TO THE SPECIFIED LIMIT BY FURTHER ADDITION OF HOT-POURED SEALANT. CARE SHALL BE TAKEN IN THE SEALING OF THE JOINTS SO THAT THE FINAL APPEARANCE WILL PRESENT A NEAT FINE LINE.

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

4) METHOD OF MEASUREMENT:

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

5) BASIS OF PAYMENT:

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

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

THIS ITEM SHALL MEET THE MATERIAL (PARA. 2) AND SEALING (PARA. 3D) SPECIFICATIONS OF ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS.

A. M. KINNEY, INC.
CINCINNATI, OHIO

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ABUTMENT JOINTS IN BITUMINOUS CONCRETE, BOX BEAM BRIDGES

BRIDGE NO. JAC-93-2743
OVER SAND RUN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
O.D.O.T.	M.E.C.	~	W.T.F.	W.J.J.	2-2-84	6-16-87