

OHIO RIVER BASIN CAVE RUN RESERVOIR KENTUCKY RELOCATION KENTUCKY HWY. 519 BRIDGE OVER NORTH FORK LICKING RIVER AT STA. 50+76.00

REFERENCE & ESTIMATE OF QUANTITIES															
Location	Item	Drawing Number	Concrete	Concrete	Steel	Structural	High	Styrene-	End Bent	Structure		Piling		6" Drain	Linseed
			Class 'A' (Cu. Yds.)	Class 'AA' (Cu. Yds.)	Reinforce- ment (Lbs.)	Steel (Lump Sum)	Strength Handrail (Lin. Ft.)	Butadiene Prot. Coating (Gal.)	Backfill (Cu. Yds.)	Common (Cu. Yds.)	Solid Rock (Cu. Yds.)	Furnish (Lin. Ft.)	Drive (Lin. Ft.)	Pipe (Lin. Ft.)	Oil (Sq. Yds.)
Title & Quantities		128													
Notes		129													
Layout		130													
Pile Record		131													
End Bent 1		132, 133	41.0	30.3	6,456			1.2	35	150		1000	1000		
Pier 1		134, 136	322.6		51,999			4.1		725	75				
Pier 2		135, 136	298.4		50,072			4.1		525	70				
End Bent 2		132, 133	41.0	30.3	6,456			1.2	35	150		835	835		
Structural Steel		137-141												30	
Concrete Deck		142		357.2	85,555			164							1029
Construction Elevations		143													
Soundings		144													
High Strength Handrail		145						706							
12' Str. Steel Bearing Pile		146													
Armored Edge For Concrete		147													
End Bent Backfill & Earth Core		148													
Guardrail Bridge Wing Connector		149													
Modifications & Additions To Weld Specs		150													
Sub-total Substructure			703.0	60.6	114,983	—	—	94	70	1550	145	1835	1835	—	—
Sub-total Superstructure			—	357.2	85,555	①	706	176	—	—	—	—	—	30	1029
Total			703.0	417.8	200,538	①	706	27	70	1550	145	1835	1835	30	1029

① Approximate weight of Structural Steel = 399,500 Lbs.

BILL OF INCIDENTAL MATERIAL			
Item	No.	Size	Location
(a) Joint Sealing Compound	2	1" x 3 1/2" x 33'-0"	Expan. Dam @ End Bents
(b) Hook Bolt Assembly	8	Bolts, Sleeves & Washers	At all End Bent Wings

(a) See Drwg. 141
(b) See Drwg. 149

SPECIAL PROVISIONS: See Sheet 2

PLANS PREPARED BY:
KROBOTH ENGRS. INC.

19386

Sheet 1 of 17

30 DEC 71	OM EXCAVATION QUANTITY REVISIONS	JEE	
SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 TITLE & QUANTITIES		
DRAWN	TRACED		
N.E.T.			
CHECKED	D.G.M.		
QUANTITIES			
APPROVAL RECD.	APPROVED	DATE	
ASST. CHIEF ENGR. DIV.	COL. CORPS OF ENGINEERS	DISTRICT ENGINEER	
APPROVED	SCALE AS NOTED		
CHIEF ENGINEERING DIVISION	DRAWING NUMBER		LR 174-12.6/128

GENERAL NOTES

SPECIFICATIONS:

THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, SHALL APPLY TO THIS PROJECT.

DESIGN LOADS:

THIS BRIDGE IS DESIGNED FOR H20 44 LIVE LOAD AS SPECIFIED IN 1965 AASHTO SPECIFICATIONS. THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 64 m.p.h.

DESIGN STRESSES:

FOR REINFORCED CONCRETE USE THE FOLLOWING:

FOR CLASS "A"

f_s - 20,000 PSI u (for embedment) - 200 PSI
 f_c - 1,200 PSI u (for summation of perimeters) - 300 PSI
 $f'c$ - 3,000 PSI n - 10

FOR CLASS "AA"

f_s - 20,000 PSI u (for embedment) - 200 PSI
 f_c - 1,600 PSI FOR OTHER THAN SLABS u (for summation of perimeters) - 300 PSI
 f_c - 1,200 PSI FOR DECK SLABS n - 8
 $f'c$ - 4,000 PSI

FOR STRUCTURAL STEEL

f_s - 20,000 PSI FOR A36 STEEL

FOUNDATION PRESSURE:

FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 15 000 PSF. PILES ARE DESIGNED FOR A MAXIMUM AXIAL LOAD OF 20 4 TONS PER PILE AND A MAXIMUM HORIZONTAL SHEAR OF 8.8 TONS PER PILE. THESE MAXIMUMS ARE FOR GROUP I LOADS WITH INCREASES ALLOWED FOR OTHER LOADING GROUPS.

CONCRETE:

CLASS "AA" CONCRETE IS TO BE USED THROUGHOUT THE SUPERSTRUCTURE, AND THE PORTIONS OF THE SUBSTRUCTURE ABOVE THE BEARING SEATS. CLASS "A" CONCRETE IS TO BE USED IN THE SUBSTRUCTURE BELOW THE BEARING SEATS.

REINFORCEMENT:

DIMENSIONS SHOWN FROM FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.

BEVELED EDGES:

ALL EXPOSED EDGES SHALL BE BEVELED 7/8" UNLESS OTHERWISE SHOWN.

BILL OF INCIDENTAL MATERIAL:

THE QUANTITIES SHOWN IN THE BILL OF INCIDENTAL MATERIAL ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ENOUGH MATERIAL TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE COST OF THESE ITEMS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "AA" CONCRETE.

PAYMENT FOR STRUCTURAL STEEL:

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL BOLTS WASHERS STEEL PINS, CAST IRON, LEAD PLATES, MOLTEN LEAD, WELDING AND WELDING MATERIALS, FLOOR DRAINS, PAINT AND ALL LABOR AND MATERIALS NECESSARY TO ERECT THE STEEL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL SHOWN IN THE ESTIMATE OF QUANTITIES DOES NOT INCLUDE OVERRUN OR WELD MATERIAL.

CHANGES IN STRUCTURAL STEEL QUANTITIES:

IN THE EVENT THAT CHANGES IN STEEL QUANTITIES ARE REQUIRED DUE TO CHANGES BY THE ENGINEER IN THE PLANS, ADDITIONAL PAYMENTS THEREFOR SHALL BE MADE AT A UNIT PRICE WHICH WILL BE EQUAL TO THE CONTRACT LUMP SUM PRICE DIVIDED BY THE ESTIMATED TOTAL WEIGHT.

PILING:

THE CONTRACTOR SHALL USE 12" STRUCTURAL STEEL BEARING PILE # 53 LBS. SEE DRAWING 146 PILING SHALL BE DRIVEN TO REFUSAL OR TO SOLID ROCK. TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED. ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THAT THEY MAY BE USED IN THE FINISHED STRUCTURE.

PAINT:

ALL STRUCTURAL STEEL EXCEPT PINS AND PIN BEARING SURFACES SHALL BE GIVEN ONE SHOP COAT OF TYPE I RED LEAD PAINT, ONE FIELD COAT OF TYPE I RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS. THE EXPOSED SURFACES OF EXPANSION DAMS AND ARMORED EDGES, NOT ACCESSIBLE AFTER ERECTION, SHALL BE GIVEN ONE FIELD COAT OF TYPE I RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT BEFORE ERECTION. THE PINS AND PIN BEARING SURFACES SHALL BE COATED IN THE SHOP WITH A MIXTURE OF WHITE LEAD AND TALLOW IN ACCORDANCE WITH THE SPECIFICATIONS.

HANDRAIL:

THE CONTRACTOR SHALL PROVIDE THROUGHOUT THE PROJECT, A HIGH STRENGTH ALUMINUM HANDRAIL ACCORDING TO DRAWING 145

CONSTRUCTION IDENTIFICATION:

THE NAMES OF THE PRIME CONTRACTOR AND THE SUB-CONTRACTOR SHALL BE IMPRINTED IN THE CONCRETE WITH ONE INCH LETTERS AT A LOCATION DESIGNATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL PLANS, EQUIPMENT AND LABOR NECESSARY TO DO THE WORK FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

MATERIALS:

ASTM SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW, SHALL GOVERN THE MATERIALS FURNISHED.

- A36-68 STRUCTURAL STEEL FOR WEB PLATES, FLANGE PLATES, STIFFENERS, CROSS FRAMES, LATERALS, BEARING ASSEMBLIES, EXPANSION DAMS AND VARIOUS PARTS OF DRAINS.
- A48-64 GRAY IRON CASTINGS
- A72-68 WROUGHT IRON PIPE
- A108-61T PINS
- A325-68b HIGH STRENGTH BOLTS, NUTS AND WASHERS
- B2-55 SHEET LEAD AND MOLTEN LEAD

ANCHOR BOLT HOLES:

HOLES OF DEPTH AND DIMENSIONS SHOWN SHALL BE DRILLED FOR ANCHOR BOLTS OR DOWELS BY THE SUPERSTRUCTURE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR KEEPING HOLES DRY IN FREEZING WEATHER. AFTER BASE PLATES ARE PROPERLY SET AND ANCHOR BOLTS ARE PLACED IN DRILLED HOLES, MOLTEN LEAD SHALL BE POURED IN HOLES AND PACKED UNTIL HOLES ARE COMPLETELY FILLED FLUSH TO TOP OF BASE PLATES. THE COST OF DRILLING ANCHOR BOLT HOLES, FURNISHING LEAD, AND FILLING HOLES WITH MOLTEN LEAD SHALL BE INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID FOR STRUCTURAL STEEL.

DRAIN DETAILS:

FOUNDRY NOTE - ALL DRAINS SHALL BE GRAY IRON CASTINGS, ASTM A48, CURRENT EDITION, CLASS 30A. REPORT OF FIELD INSPECTION OF CASTINGS, CURRENT FORM, SHALL BE SUBMITTED TO THE CONTRACTING OFFICER, U.S. ARMY ENGINEER DISTRICT, LOUISVILLE, KENTUCKY.

WROUGHT IRON PIPE IS TO BE 8" STANDARD WEIGHT 19.0 POUND PER LINEAR FOOT IN ACCORDANCE WITH ASTM A72, CURRENT EDITION. SEAMLESS STEEL PIPE IS TO BE 8" STANDARD WEIGHT IN ACCORDANCE WITH ASTM A53, CURRENT EDITION, TYPE S, GRADE A.

PIPE, FITTINGS, AND CONNECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAR FOOT OF 8" DRAIN PIPE COMPLETE IN PLACE. PIPE AND ALL FITTINGS ARE TO BE GIVEN TWO COATS OF TYPE I RED LEAD PAINT AND TWO COATS OF ALUMINUM PAINT.

CONNECTIONS:

UNLESS OTHERWISE PROVIDED ON THE PLANS, ALL CONNECTIONS SHALL BE 7/8" DIAMETER HIGH STRENGTH BOLTS. OPEN HOLES SHALL BE 15/16" DIAMETER. ALL JOINTS ARE DESIGNED AS FRICTION TYPE CONNECTIONS. INSTALLATION SHALL BE BY TURN-BOLT METHOD. WHEN THE WIDTH OF HIGH-STRENGTH BOLT HEAD CORRESPONDS TO THAT OF THE HEAVY SEMIFINISHED HEXAGON BOLT, ONLY ONE WASHER PER BOLT IS REQUIRED.

DIMENSIONS:

DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS, EXCEPT AS NOTED.

PROHIBITED FIELD WELDING:

EXCEPT AS SHOWN ON THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERFORMED ON THE LOAD CARRYING MEMBERS OF THE BRIDGE WITHOUT THE WRITTEN CONSENT OF THE CONTRACTING OFFICER, AND THEN ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE AUTHORIZATION.

CAMBER:

WEB PLATES SHALL BE CUT TO PROVIDE FOR PARABOLIC CAMBER OF THE GIRDER. GIRDERS WHICH DO NOT CONFORM TO PLAN CAMBER AND GRADE IN THE ERECTED POSITION SHALL BE CONSIDERED AS REQUIRING AT NO ADDITIONAL COST TO THE GOVERNMENT, EITHER AN ADJUSTMENT IN DEPTH OF THE CONCRETE SLAB HAUNCH OVER THE STEEL SUPPORTING MEMBERS OR A REWORKING OF THE GIRDER CAMBER TO MEET THE PLAN GRADE AND SLAB THICKNESS.

SHOP ASSEMBLY:

GENERAL REAMING OF HOLES FOR EACH BOLTED SPLICE AND CONNECTION OF THE CONTINUOUS GIRDERS SHALL BE REQUIRED. EACH CONTINUOUS GIRDER UNIT SHALL BE COMPLETELY SHOP ASSEMBLED WITH PARTS ADJUSTED TO LINE, ELEVATIONS, AND CAMBER, FIT FOR DRILLING OR REAMING. OTHER BOLTED CONNECTIONS TO THE GIRDERS SHALL BE DRILLED OR REAMED IN THE SHOP WITH CONNECTING PARTS ASSEMBLED OR SHALL BE DRILLED OR REAMED TO A METAL TEMPLATE WITHOUT ASSEMBLY. GIRDERS SHALL REMAIN ASSEMBLED FOR INSPECTION BY THE GOVERNMENT INSPECTOR AND ARE TO BE WATCHMARKED WHILE ASSEMBLED. CONNECTIONS FOR THE CROSS FRAMES, LATERAL BRACING, EXPANSION JOINTS AND OTHER MINOR MEMBERS MAY BE PUNCHED OR DRILLED FULL SIZE WITHOUT ASSEMBLY, SUBJECT TO THE REQUIREMENTS IN THE SPECIFICATIONS FOR GENERAL REAMING.

WELDING MATERIAL:

WELDING AND WELDING MATERIAL SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT SPECIFICATIONS AND SUBSEQUENT ADOPTED AMENDMENTS, AND DRAWING 150, "MODIFICATIONS AND ADDITIONS TO AWS D2.0-66 SPECIFICATIONS".

WELDING PROCEDURE:

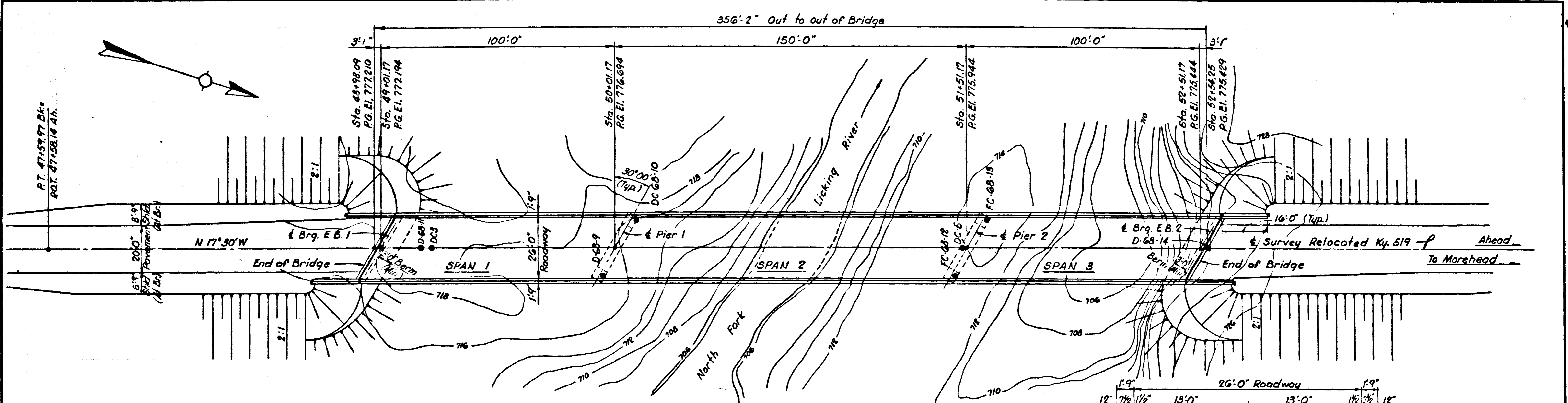
QUALIFICATION TESTS OF ALL WELDING PROCEDURES SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND WELDING PROCEDURE AND THE START OF THE FABRICATION.

PREHEAT REQUIREMENTS:

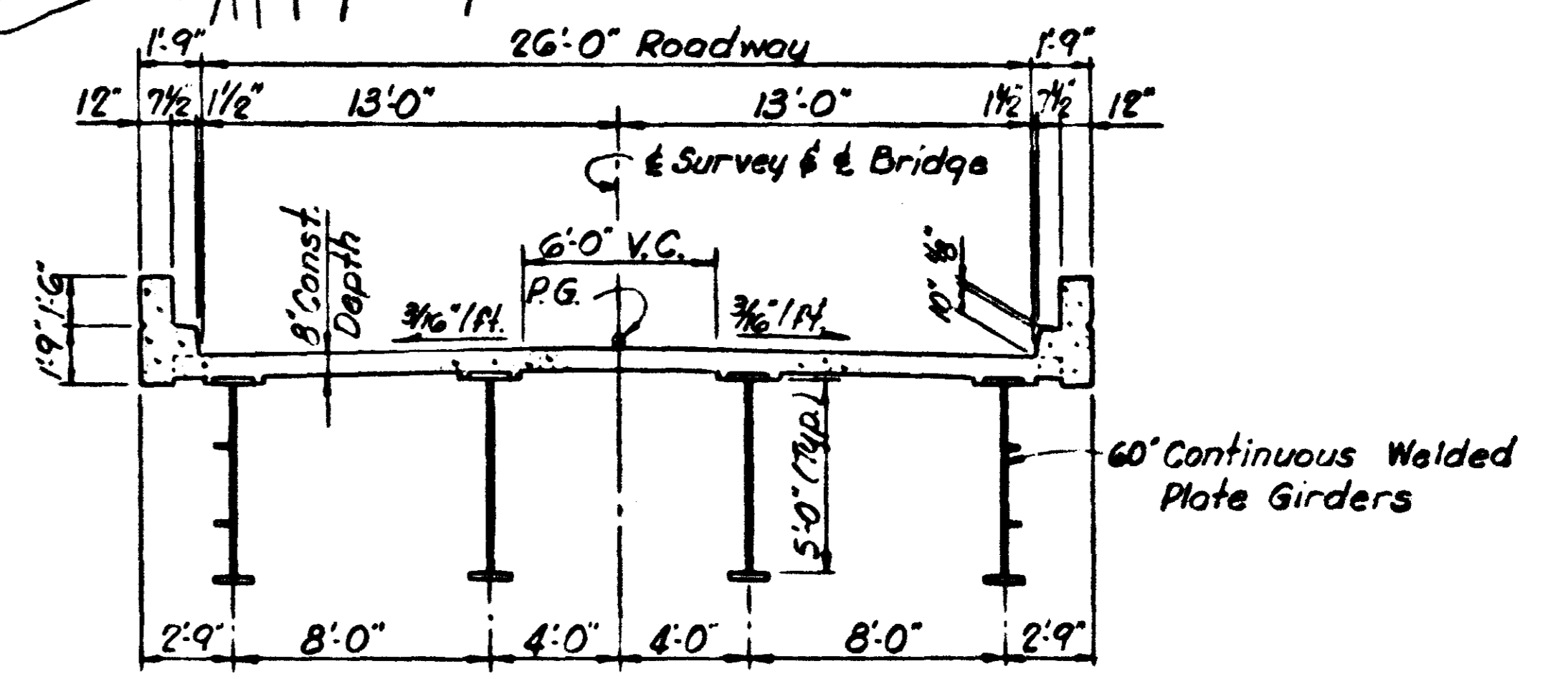
PREHEAT REQUIREMENTS OF AWS SPECIFICATIONS SHALL BE OBSERVED WHILE WELDING BEARING ASSEMBLIES. WHERE PREHEATING OF THE BASEMETAL IS REQUIRED IT SHALL BE INDICATED WITH THE WELD SYMBOL ON THE SHOP DRAWINGS. THE SHOP DETAIL DRAWINGS SHALL SPECIFY THE ELECTRODES TO BE USED FOR WELDING BEARING ASSEMBLIES. AFTER ALL WELDING IS COMPLETED THE BEARING ASSEMBLIES SHALL BE STRESS RELIEVED BY HEAT TREATMENT IN ACCORDANCE WITH AWS SPECIFICATIONS 412. FINISH MACHINING SHALL BE DONE SUBSEQUENT TO HEAT TREATMENT. STIFFENERS SHALL BE HELD IN FULL BEARING TIGHTLY AGAINST BEARING PLATES BY PROPER WELDING JIGS THROUGHOUT WELDING OF STIFFENERS TO BEARING PLATES.

SYMBOL	DATE	DESCRIPTION	APPROVAL
		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
		OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 GENERAL NOTES	
DESIGNED		<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">DRAWN <i>RS</i></div> <div style="border: 1px solid black; padding: 2px;">CHECKED <i>DGM</i></div> </div>	
APPROVAL			
ASST. CHIEF ENGR. DIV.			COL. CORPS OF ENGINEERS
APPROVED:			DISTRICT ENGINEER
CHIEF ENGINEERING DIVISION		SCALE:	DRAWING NUMBER LR 174-12.6/129

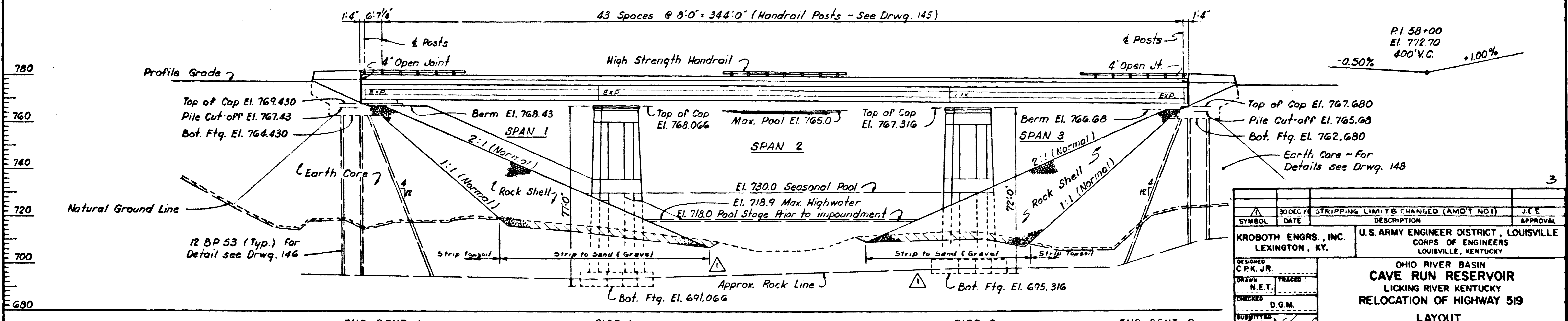
2



PLAN Scale 1":20'
 100'-150'-100' Cont. Welded R Girder
 H20-44 Loading 9" Curbs
 26' Roadway 30' Skew Right
 37'-6" Shoulders at Bridge 2:1 Slopes

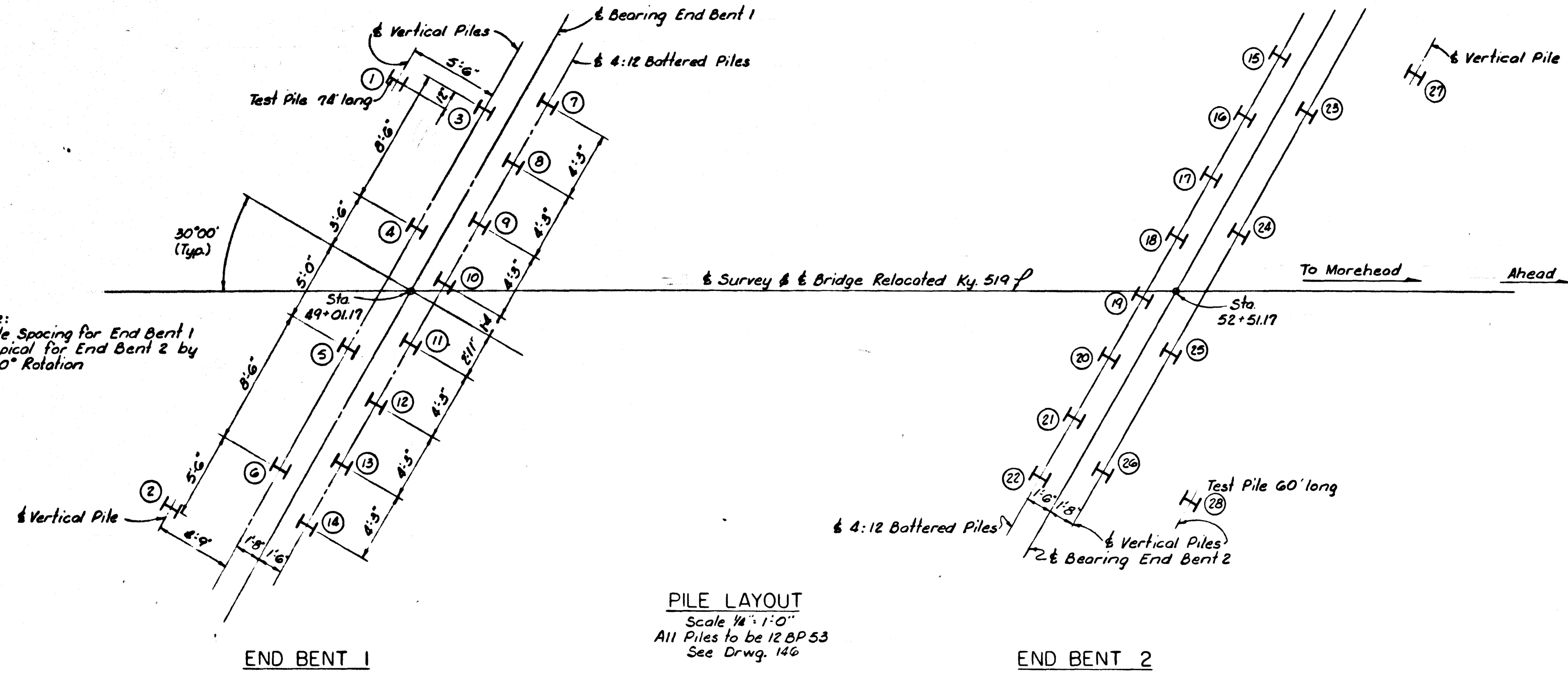
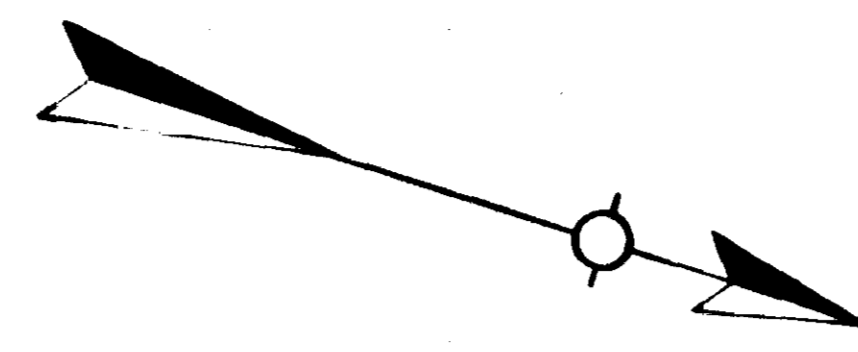


TYPICAL SECTION THRU DECK
 Scale 3/16" = 1'-0"



ELEVATION
 Scale 1" = 20'

DESIGNED C.P.K. JR.	U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY
DRAWN N.E.T.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 LAYOUT
CHECKED D.G.M.	
APPROVED [Signature]	SCALE AS NOTED
APPROVAL NO.:	DRAWING NUMBER LR 174-12.6/130

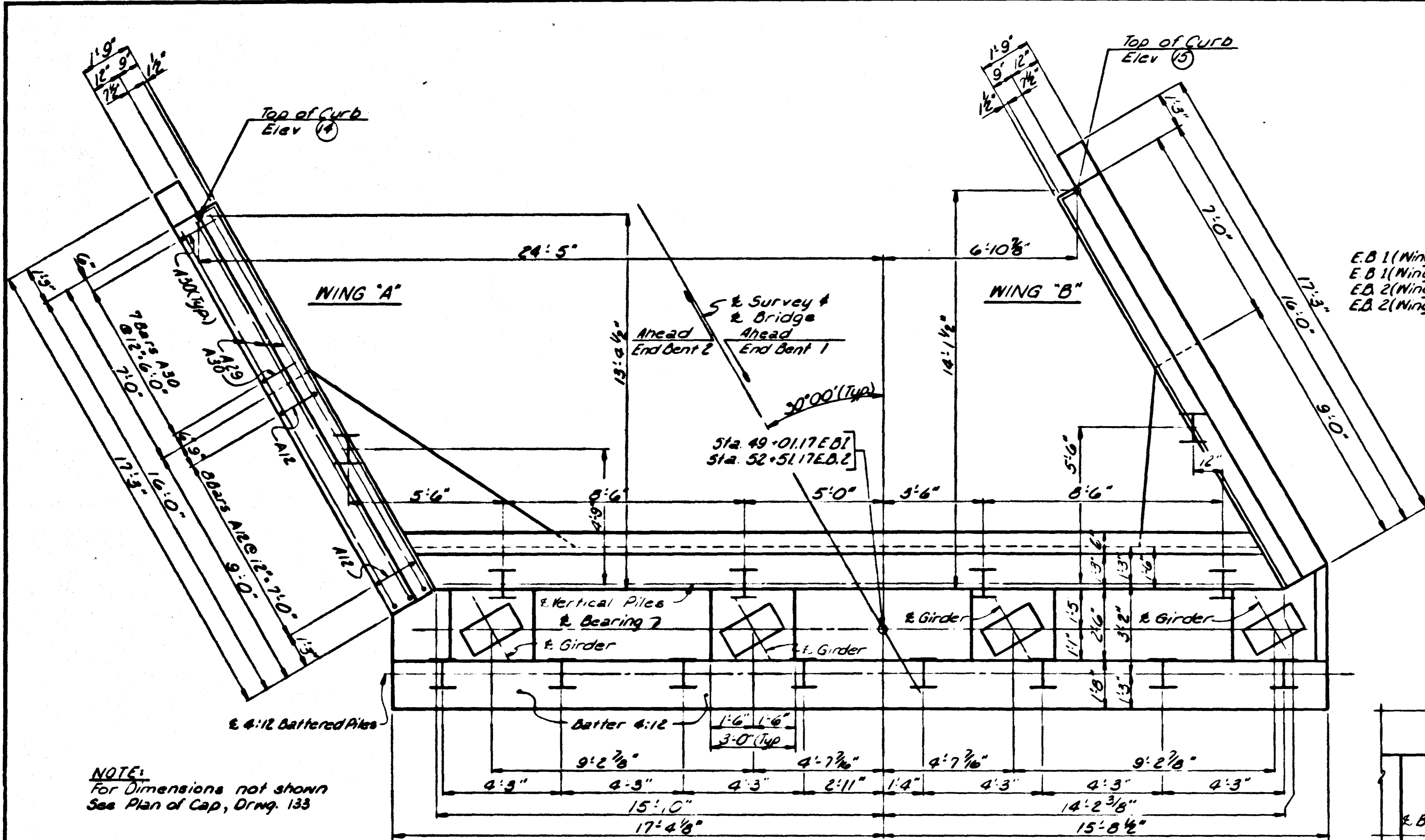


PILE LAYOUT
 Scale 1/8" = 1'-0"
 All Piles to be 12 BP 53
 See Drwg. 146

PILE RECORD									
END BENT 1					END BENT 2				
PILE NO.	CUT-OFF ELEVATION	TIP OF PILE ELEVATION	LENGTH OF PILE IN PLACE	CALC. BRG. CAPACITY (TONS)	PILE NO.	CUT-OFF ELEVATION	TIP OF PILE ELEVATION	LENGTH OF PILE IN PLACE	CALC. BRG. CAPACITY (TONS)
1	767.43				15	765.68			
2	"				16	"			
3	"				17	"			
4	"				18	"			
5	"				19	"			
6	"				20	"			
7	"				21	"			
8	"				22	"			
9	"				23	"			
10	"				24	"			
11	"				25	"			
12	"				26	"			
13	"				27	"			
14	"				28	"			

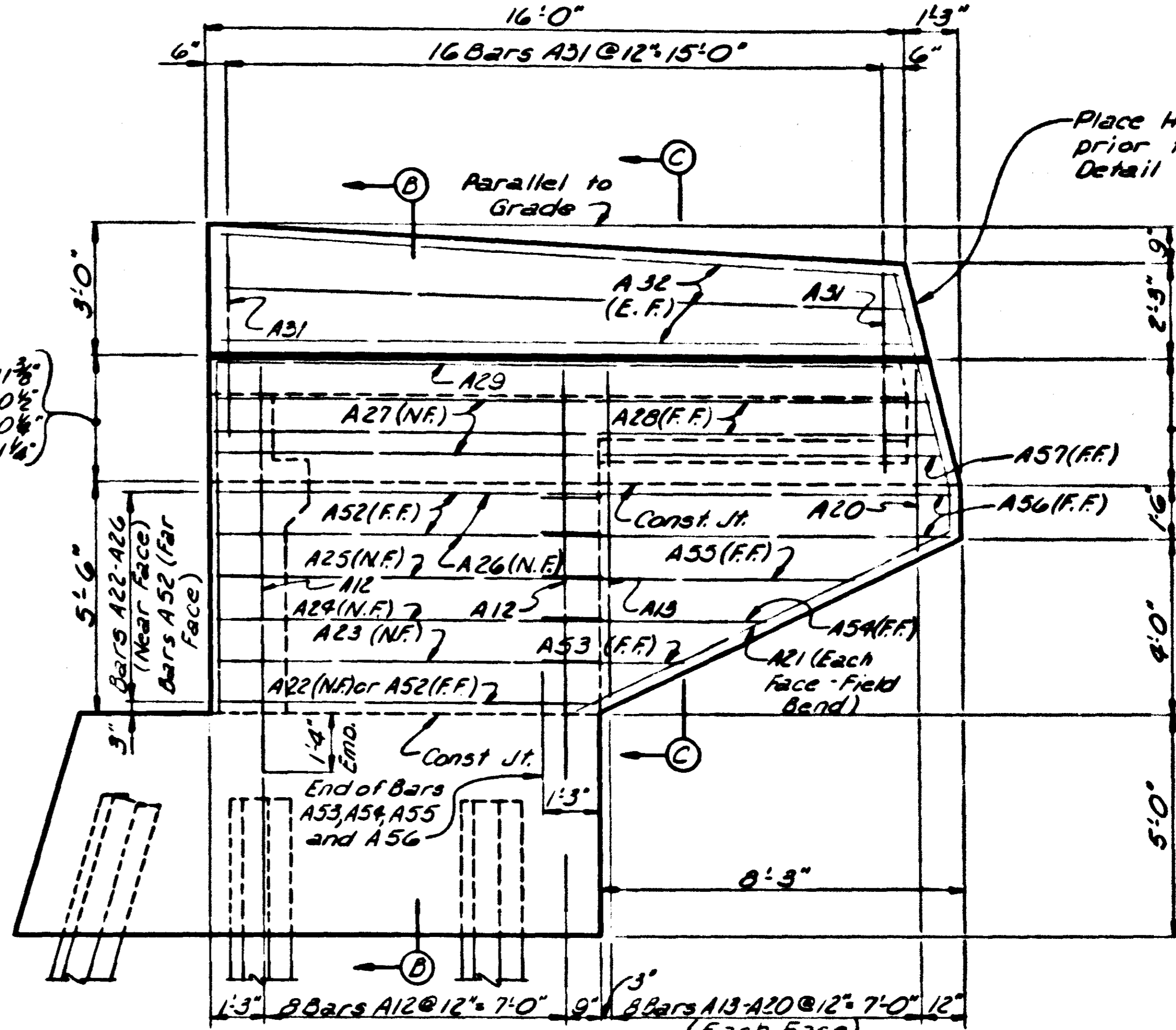
NOTE: THIS PILE RECORD DOES NOT REPLACE OTHER RECORDS OF PILES REQUIRED TO BE KEPT AND SUBMITTED BY THE RESIDENT ENGINEER AFTER ALL PILES HAVE BEEN DRIVEN. THE RESIDENT ENGINEER SHALL RECORD THE TIP OF PILE ELEVATION AS DRIVEN, THE LENGTH OF PILE IN PLACE, THE CALCULATED BEARING CAPACITY OF EACH PILE, AND SHALL RETURN ONE BLUE PRINT COPY OF THIS SHEET WITH THIS DATA TO THE CONTRACTING OFFICER, U. S. ARMY ENGINEER DISTRICT LOUISVILLE, KENTUCKY, SO THAT THE DATA MAY BE RECORDED ON THE ORIGINAL PLANS. LENGTHS OF PILES IN PLACE SHOWN HEREON ARE THE ACTUAL LENGTHS OF PILES IN THE FINISHED STRUCTURE BELOW CUT-OFF ELEVATION AND ARE NOT NECESSARILY PAY ITEMS.

DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN
CHECKED	D.G.M.	CAVE RUN RESERVOIR
APPROVED		LICKING RIVER KENTUCKY
		RELOCATION OF HIGHWAY 519
		PILE RECORD
SCALE	AS NOTED	
DRAWING NUMBER	LR 174-12.6/131	



PLAN
(Showing Dimensions)
Scale: 3/8"=1'-0"

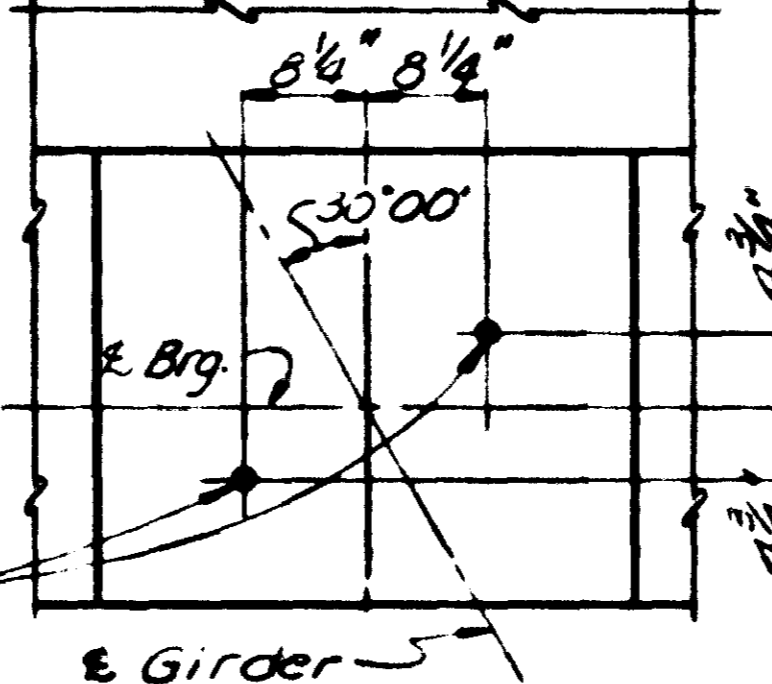
NOTE:
For Dimensions not shown
See Plan of Cap, Drwg. 133



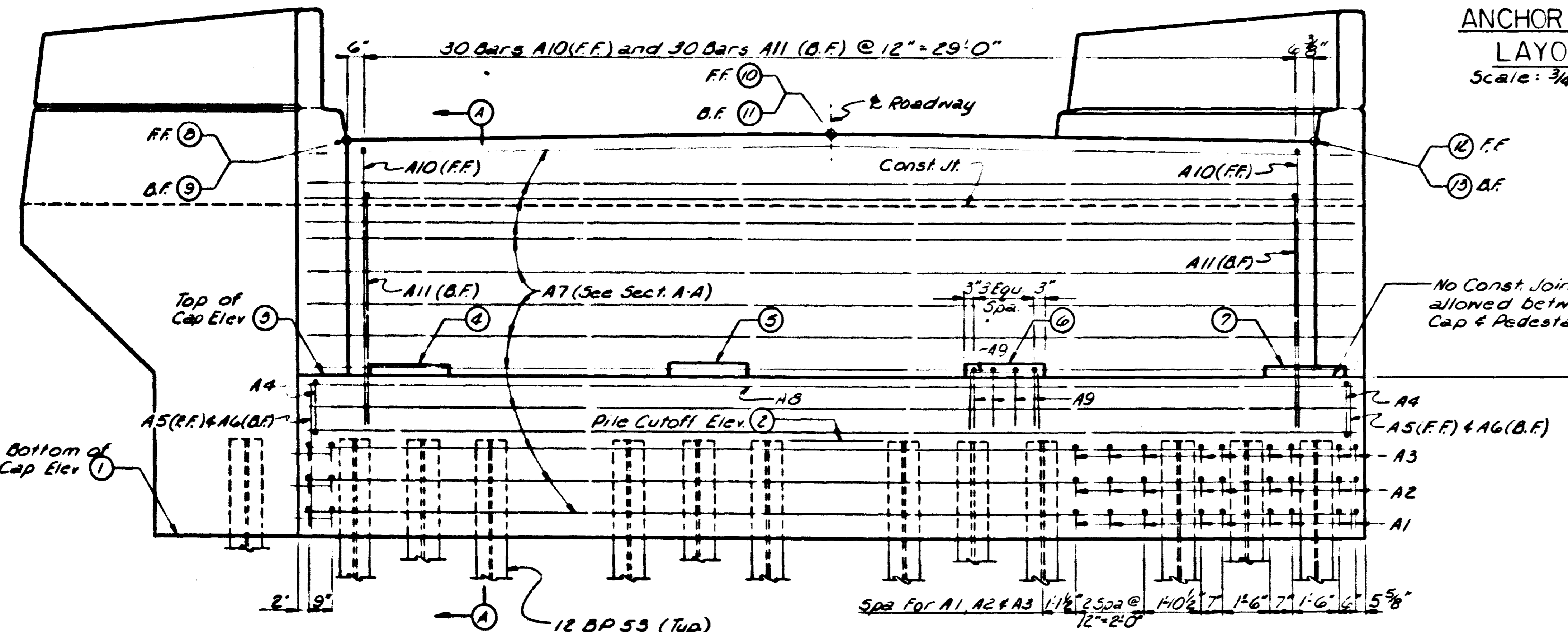
WING "B" ELEVATION
(Wing B Shown - Wing A Similar)
Scale: 3/8"=1'-0"

(E.B. 1 (Wing A) 3'-0 3/8"
E.B. 1 (Wing B) 2'-11 1/4"
E.B. 2 (Wing A) 2'-9 3/8"
E.B. 2 (Wing B) 2'-10 1/4"

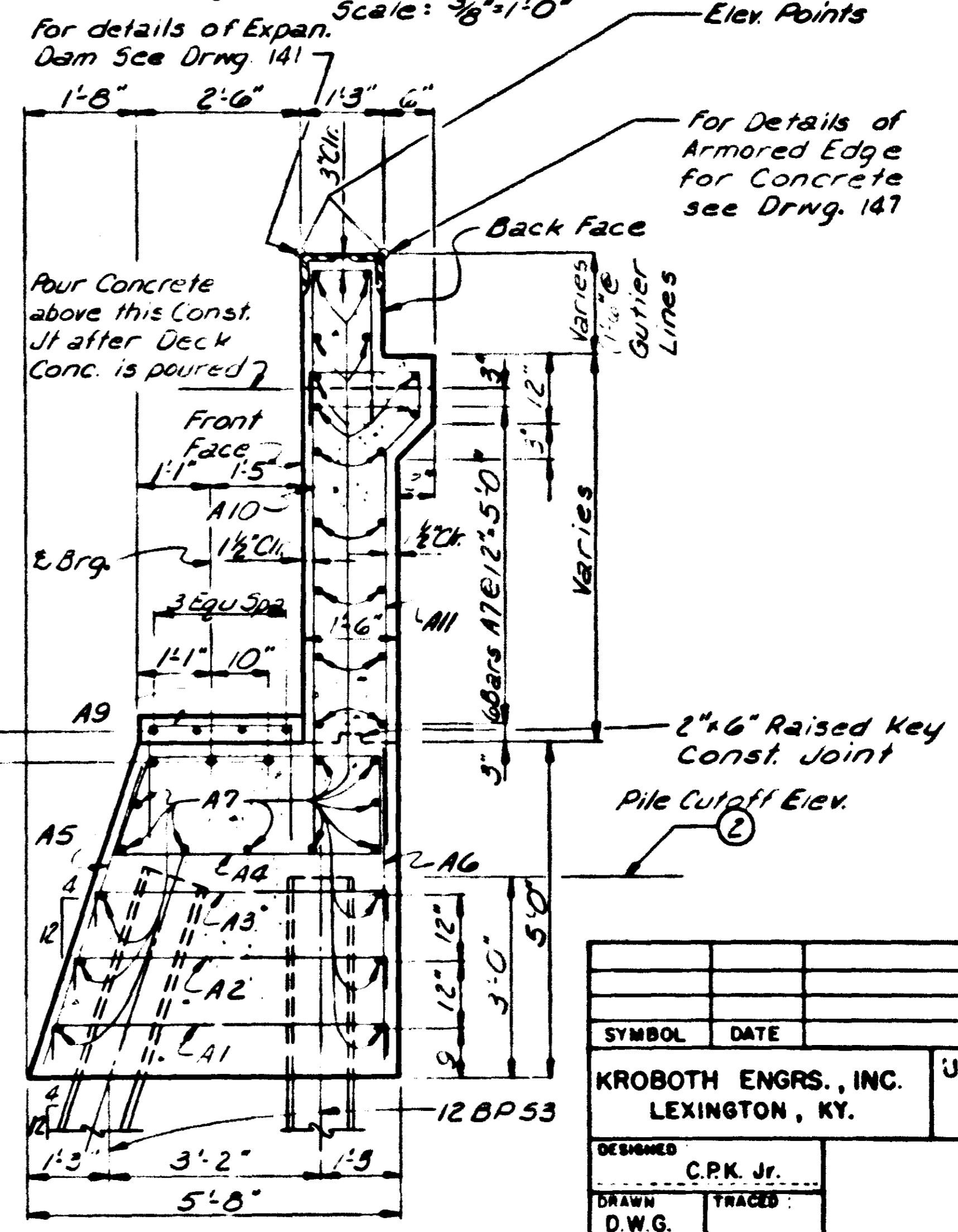
NOTE:
N.F. Denotes Near Face
F.F. Denotes Far Face
E.F. Denotes Each Face



ANCHOR BOLT LAYOUT
Scale: 3/4"=1'-0"



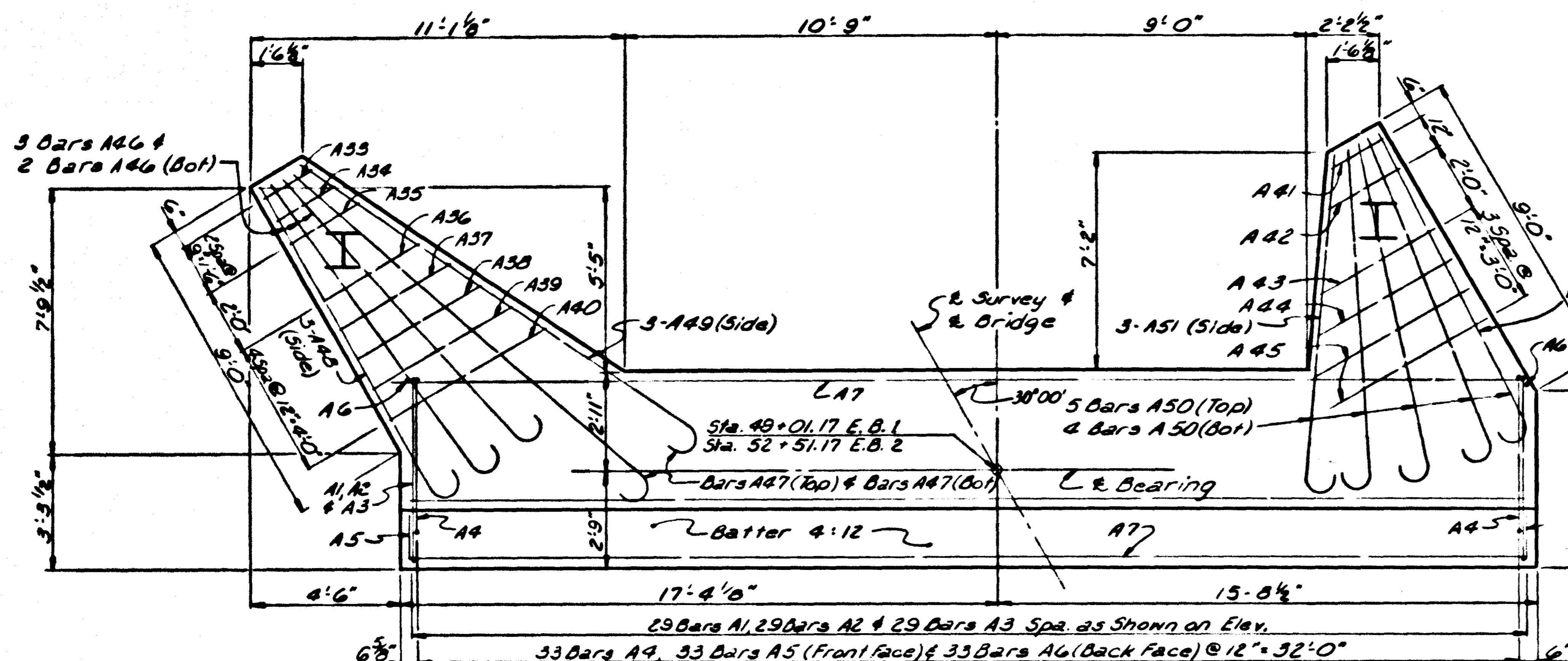
ELEVATION
Scale: 3/8"=1'-0"



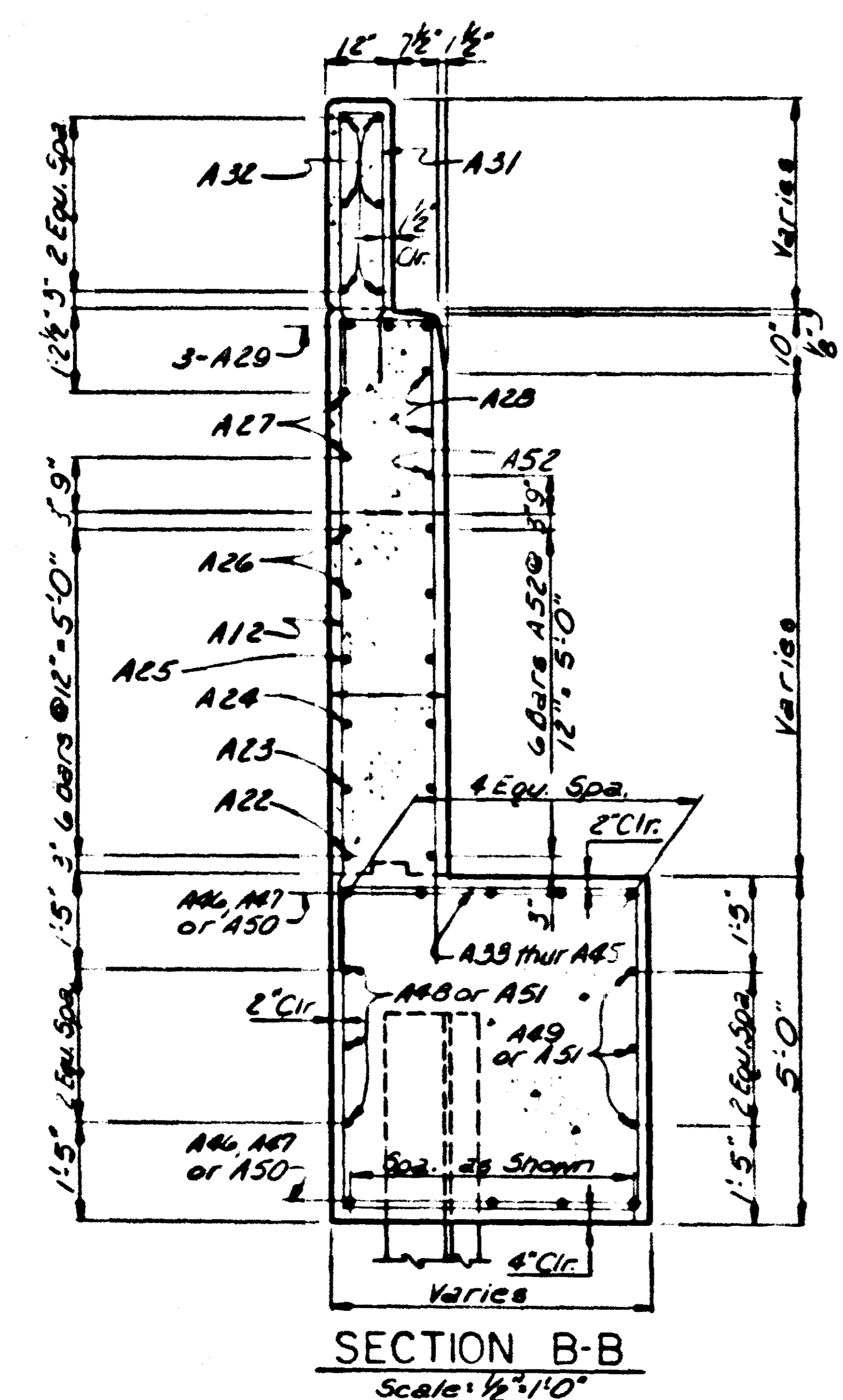
SECTION A-A
Scale: 1/2"=1'-0"

TABLE OF ELEVATIONS		
Point	End Bent 1	End Bent 2
1	764.430	762.680
2	767.43	765.68
3	769.430	767.680
4	769.833	768.013
5	769.935	768.162
6	769.912	768.185
7	769.763	768.083
8	777.037	775.155
9	777.044	775.188
10	777.179	775.412
11	777.187	775.405
12	776.962	775.270
13	776.969	775.263
14	776.961	775.959
15	777.866	776.334

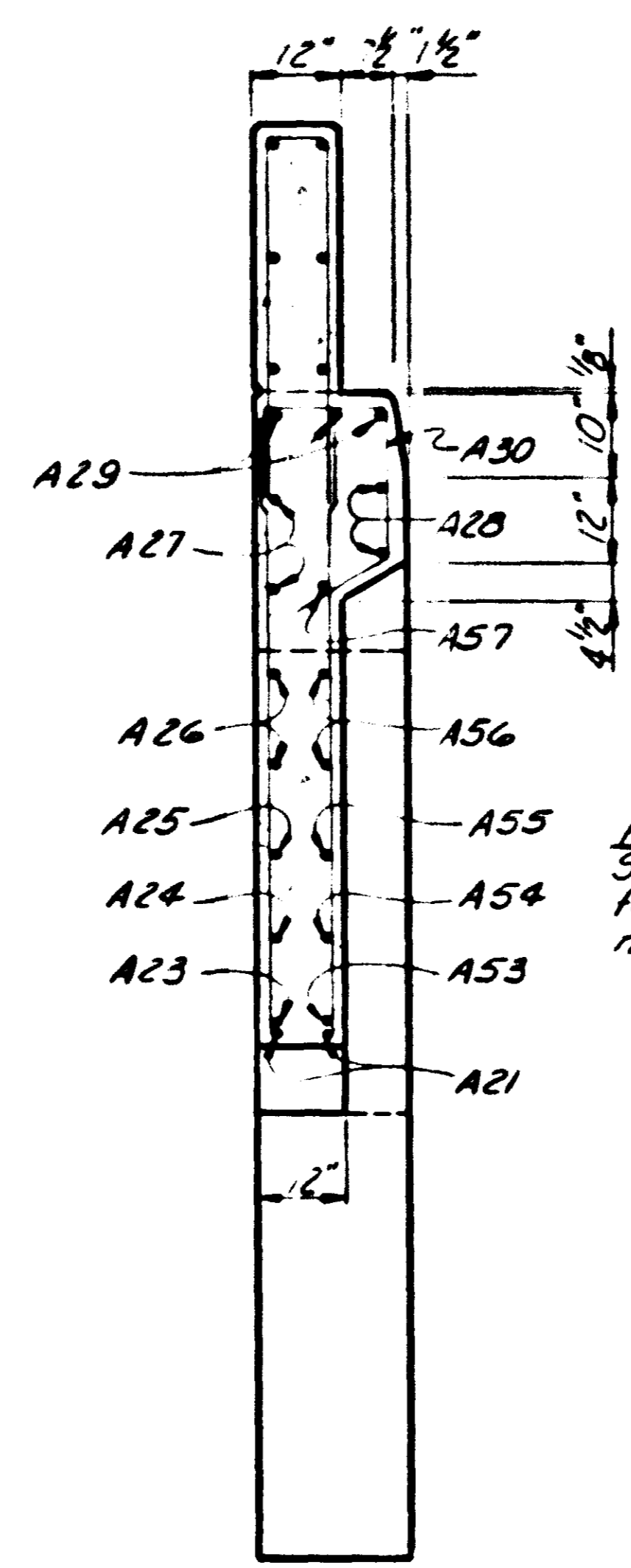
SYMBOL	DATE	DESCRIPTION	APPROVAL
DESIGNED		C.P.K. Jr.	
DRAWN		TRACED	
CHECKED		D.G.M.	
APPROVED		DATE:	
ASST. CHIEF ENGR. DIV.		COL. CORPS OF ENGINEERS DISTRICT ENGINEER	
APPROVED		SCALE AS NOTED	
CHIEF ENGINEERING DIVISION		DRAWING NUMBER	



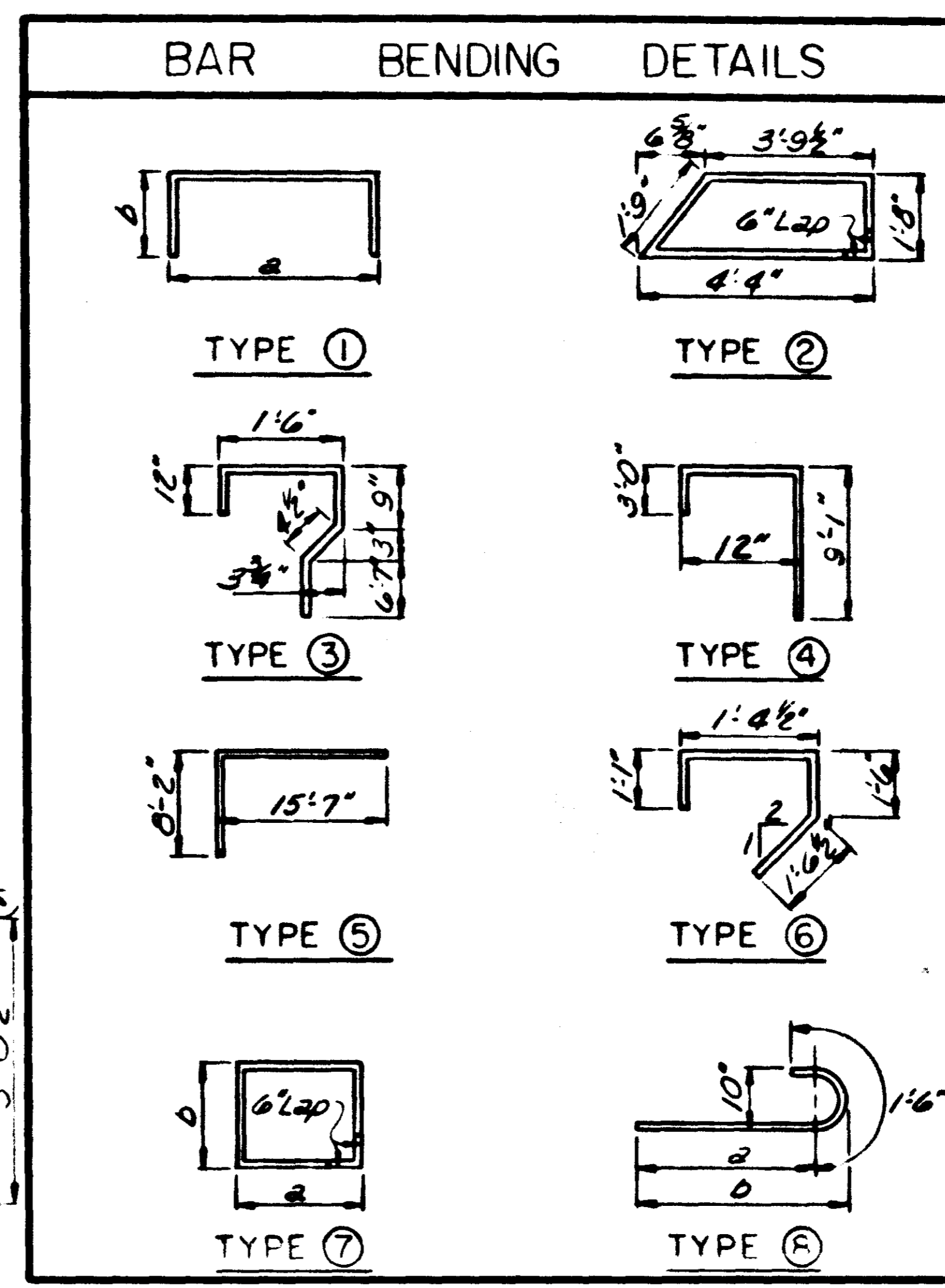
PLAN OF CAP
Scale: 1/8" = 1'-0"



SECTION B-B
Scale: 1/2" = 1'-0"



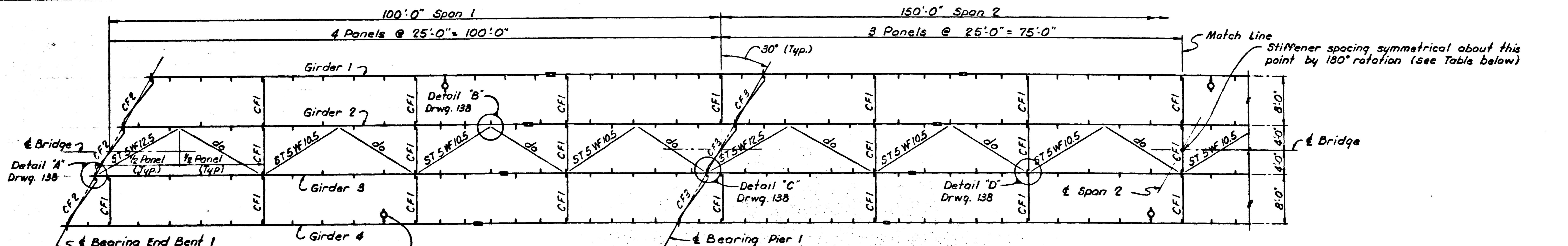
SECTION C-C
Scale: 1/2" = 1'-0"



BILL OF REINFORCEMENT										
MARK	TYPE	NO. OF BARS		SIZE	LENGTH Ft. In.	LOCATION	a		b	
		EB. 1	EB. 2				Ft.	In.	Ft.	In.
A1	(1)	29	29	#4	5 0	Cap	5	2	0	4
A2	(1)	29	29	#4	5 4	"	4	10	0	4
A3	(1)	29	29	#4	5 0	"	4	6	0	4
A4	(2)	33	33	#4	12 5	"				
A5	Str.	33	33	#5	4 11	"				
A6	Str.	33	33	#5	4 8	"				
A7	Str.	36	36	#5	32 8	"				
A8	Str.	3	3	#8	32 8	"				
A9	(1)	32	32	#4	5 7	Pedestals	2	9	1	6
A10	(4)	30	30	#6	12 10	Parapet				
A11	(3)	30	30	#6	10 0	"				
A12	(1)	16	16	#5	20 6	Wing Wall	1	6	9	7
A13	Str.	4	4	#5	7 10	"				
A14	Str.	4	4	#5	7 4	"				
A15	Str.	4	4	#5	6 11	"				
A16	Str.	4	4	#5	6 4	"				
A17	Str.	4	4	#5	5 10	"				
A18	Str.	4	4	#5	5 5	"				
A19	Str.	4	4	#5	4 10	"				
A20	Str.	4	4	#5	4 5	"				
A21	Str.	4	4	#5	15 10	"				
A22	Str.	2	2	#5	9 0	"				
A23	Str.	2	2	#5	11 1	"				
A24	Str.	2	2	#5	13 1	"				
A25	Str.	2	2	#5	15 1	"				
A26	Str.	4	4	#5	17 0	"				
A27	Str.	4	4	#5	16 5	"				
A28	Str.	4	4	#5	15 9	Curo				
A29	(5)	6	6	#8	23 7	"				
A30	(6)	14	14	#5	5 4	"				
A31	(1)	32	32	#5	8 11	Plinth	0	9	4	2
A32	Str.	12	12	#4	15 9	"				
A33	(7)	1	1	#4	13 5	Wing Cap	1	10	4	6
A34	(7)	1	1	#4	13 9	"	2	0	4	6
A35	(7)	1	1	#4	14 11	"	2	7	4	6
A36	(7)	1	1	#4	16 11	"	3	7	4	6
A37	(7)	1	1	#4	17 11	"	4	1	4	6
A38	(7)	1	1	#4	18 11	"	4	7	4	6
A39	(7)	1	1	#4	19 9	"	5	0	4	6
A40	(7)	1	1	#4	20 11	"	5	7	4	6
A41	(7)	1	1	#4	13 3	"	1	9	4	6
A42	(7)	1	1	#4	14 7	"	2	5	4	6
A43	(7)	1	1	#4	17 9	"	4	0	4	6
A44	(7)	1	1	#4	19 1	"	4	8	4	6
A45	(7)	2	2	#4	20 5	"	5	4	4	6
A46	(8)	5	5	#8	11 9	"	10	3	10	8
A47	(8)	4	4	#8	15 4	"	13	10	14	3
A48	Str.	3	3	#5	10 9	"				
A49	Str.	3	3	#5	14 0	"				
A50	(8)	9	9	#8	11 0	"	9	6	9	11
A51	Str.	6	6	#5	10 0	"				
A52	Str.	14	14	#5	8 9	Wingwall				
A53	Str.	2	2	#5	3 0	"				
A54	Str.	2	2	#5	5 8	"				
A55	Str.	2	2	#5	7 8	"				
A56	Str.	4	4	#5	9 5	"				
A57	Str.	2	2	#5	9 3	"				

ESTIMATE OF QUANTITIES		
ITEM	END BENT 1	END BENT 2
Concrete, Class "A" Cu.Yds.	41.0	41.0
Concrete, Class "AA" Cu.Yds.	30.3	30.3
Reinforcement Lbs.	6,456	6,456

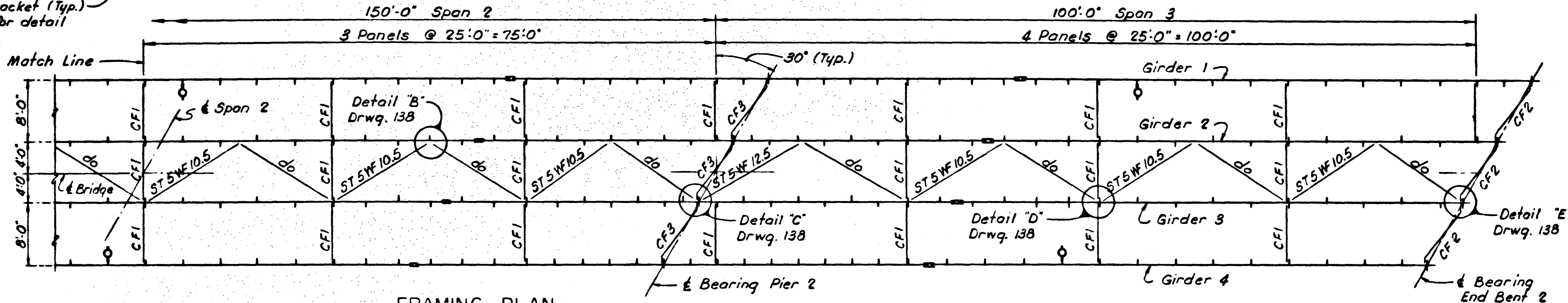
SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 END BENT 1 & END BENT 2		
DRAWN D.W.G.	SCALE AS NOTED		
CHECKED D.G.M.	DRAWING NUMBER LR 174-12 6/133		
APPROVED	DATE		
ASST. CHIEF ENGR. BY	DISTRICT ENGINEER		
APPROVED	SCALE AS NOTED		
CHIEF ENGINEERING DIVISION	DRAWING NUMBER		



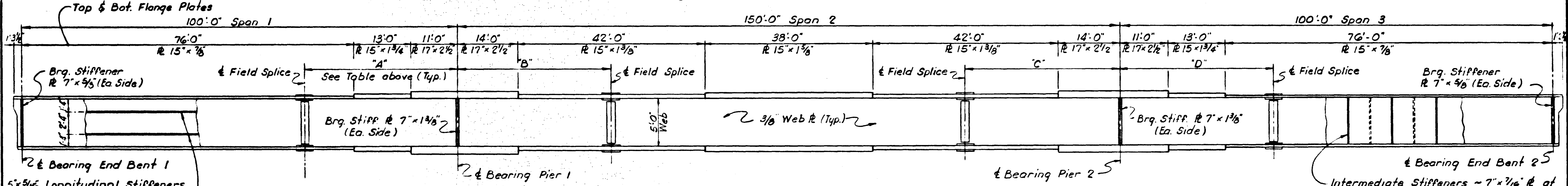
Note: For details of Cross Frames 1, 2 & 3 (CF1, CF2, CF3) See Drwg. 138

Drain Pipe Bracket (Typ.) See Drwg. 139 for detail

DIMENSIONS				
	"A"	"B"	"C"	"D"
Girder 1	34'-5 1/8"	32'-7 7/8"	34'-0 1/8"	32'-7 7/8"
Girder 2	33'-6 1/16"	33'-1 9/16"	33'-6 1/16"	33'-1 5/16"
Girder 3	33'-1 9/16"	33'-6 1/16"	33'-1 9/16"	33'-6 1/16"
Girder 4	32'-7 7/8"	34'-0 1/8"	32'-7 7/8"	34'-5 1/8"



FRAMING PLAN
Scale: 1/8" = 1'-0"



GIRDER ELEVATIONS
Scale: Horiz. 3/32" = 1'-0"
Vert. No Scale

Note: For Blocking & Camber Diagrams See Drwg. 141

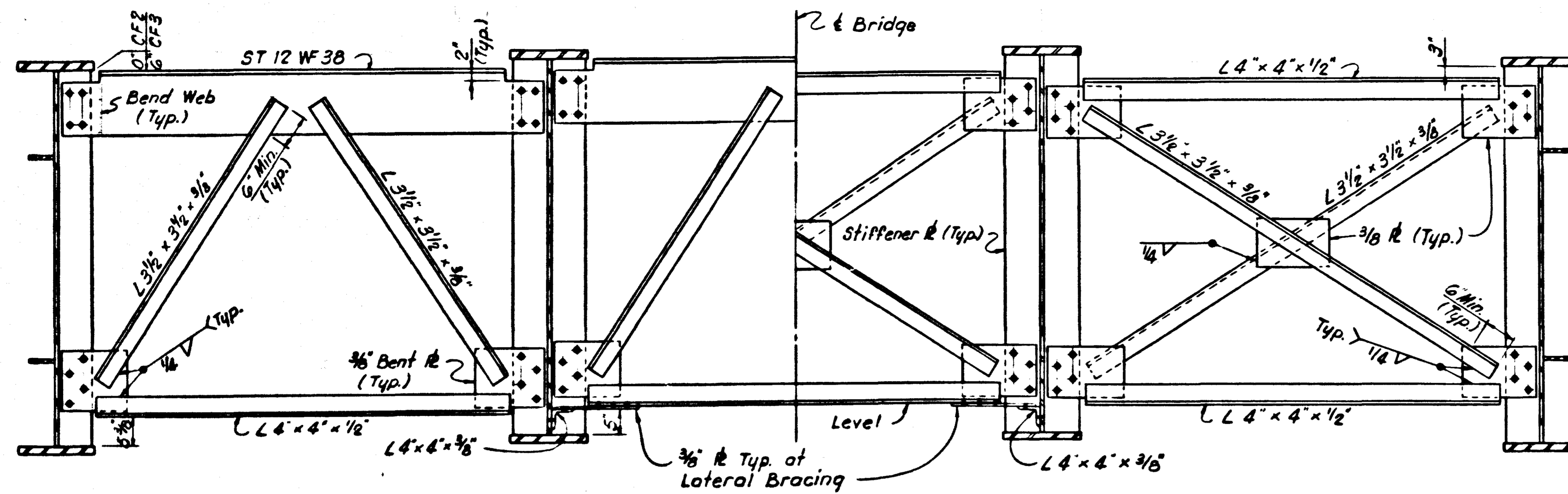
Intermediate Stiffeners ~ 7" x 7/16" R at Cross Frame Connections (CF1) & 5" x 5/16" R elsewhere (See Table below for Spacing)

STIFFENER SPACING						
STIFFENER TO FLANGE WELD	TOP & BOT	TOP		BOTTOM		TOP & BOT.
		TOP	TOP & Bot	TOP & Bot	TOP	
Girder 1	Brq.	1 @ 3'-0 7/8", 9 @ 5'-0"	4 @ 5'-0"	1 @ 4'-0", 7 @ 3'-6", 1 @ 3'-5 1/8" (Pier), 1 @ 3'-6 1/8", 2 @ 3'-6", 2 @ 3'-9", 1 @ 4'-2"	3 @ 4'-2"	2 @ 4'-2", 5 @ 5'-0" (Span 2)
Girder 2	Brq.	1 @ 2'-8 3/16", 9 @ 5'-0", 2 @ 4'-2"	3 @ 4'-2"	1 @ 4'-2", 1 @ 4'-0", 6 @ 3'-6", 1 @ 2'-3 1/16" (Pier), 1 @ 2'-4 3/16", 1 @ 2'-4", 4 @ 3'-6", 1 @ 4'-0"	3 @ 4'-2"	3 @ 4'-2", 5 @ 5'-0" (Span 2)
Girder 3	Brq.	1 @ 2'-3 3/16", 9 @ 5'-0", 1 @ 5'-0", 1 @ 4'-2"	3 @ 4'-2"	2 @ 4'-2", 1 @ 4'-0", 4 @ 3'-6", 1 @ 2'-4", 1 @ 2'-4 5/16" (Pier), 1 @ 2'-3 1/16", 6 @ 3'-6"	1 @ 4'-0", 2 @ 4'-2"	4 @ 4'-2", 5 @ 5'-0" (Span 2)
Girder 4	Brq.	1 @ 3'-5 1/8", 1 @ 3'-6", 8 @ 5'-0"	2 @ 5'-0", 3 @ 4'-2"	3 @ 4'-2", 1 @ 4'-0", 3 @ 3'-6", 1 @ 3'-6 7/8" (Pier), 1 @ 3'-5 1/8", 6 @ 3'-6"	1 @ 3'-6", 1 @ 4'-0", 1 @ 4'-2"	5 @ 4'-2", 5 @ 5'-0" (Span 2)

* Indicates no flange stiffener weld top or bottom on pair of stiffeners at space(s) shown.

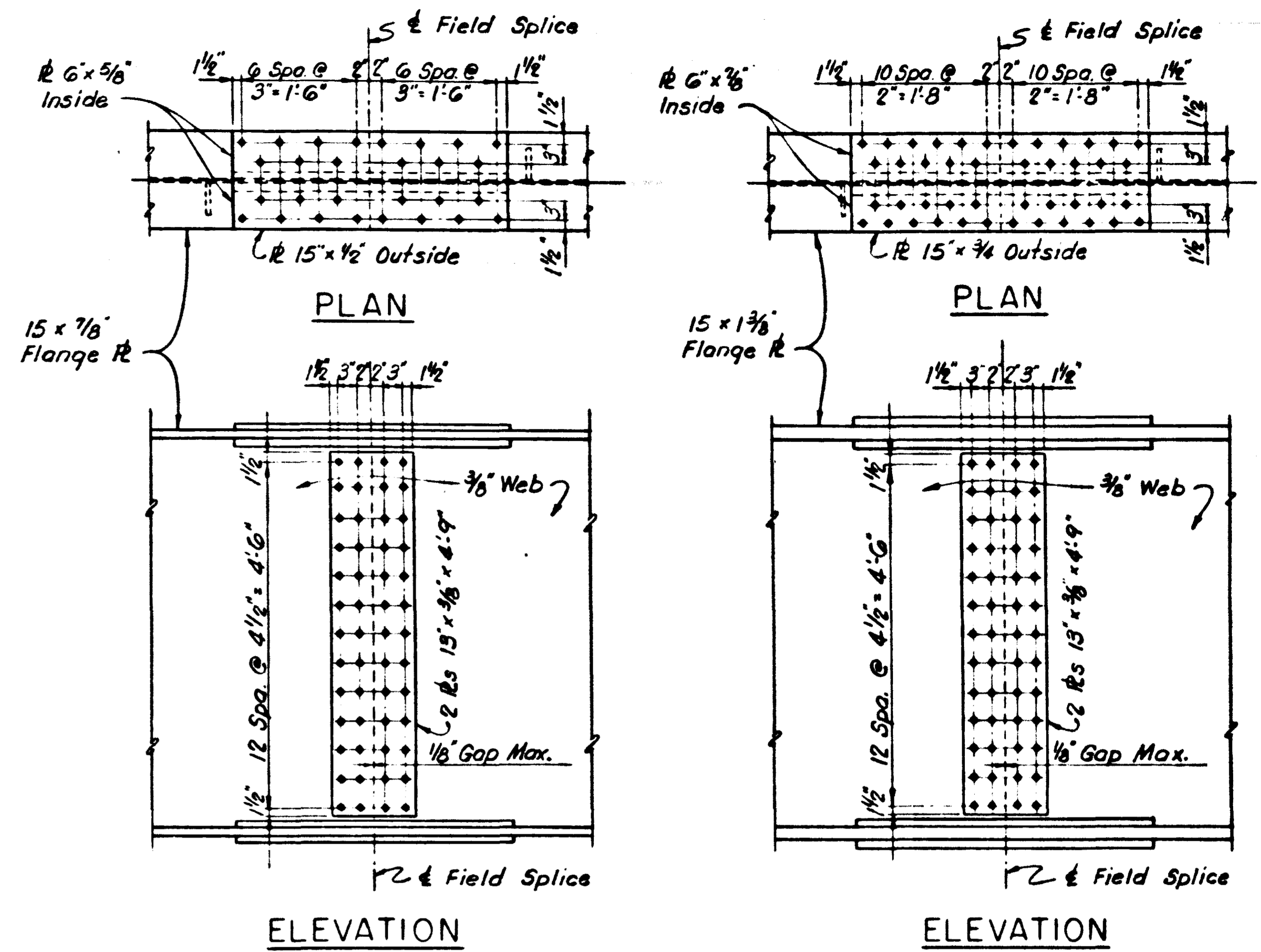
Note: Stiffener Spacings are C. to C. of stiffeners and are cumulative from left to right as shown in table. Stiffeners shall be placed on side of web as shown in Framing Plan.

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 FRAMING PLAN & GIRDER DETAIL	
DRAWN	N.E.T.		
CHECKED	D.G.M.		
APPROVED		SCALE AS NOTED DRAWING NUMBER LR 174-12.6/137	



CF 2 & CF 3

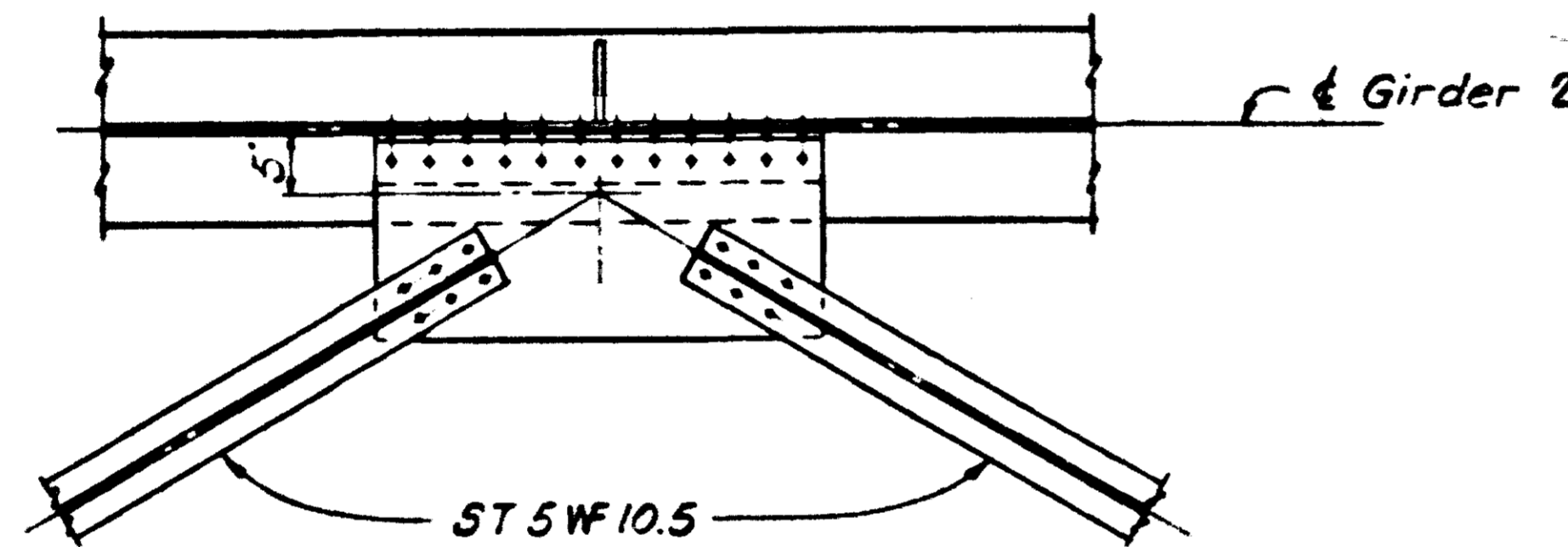
CF 1



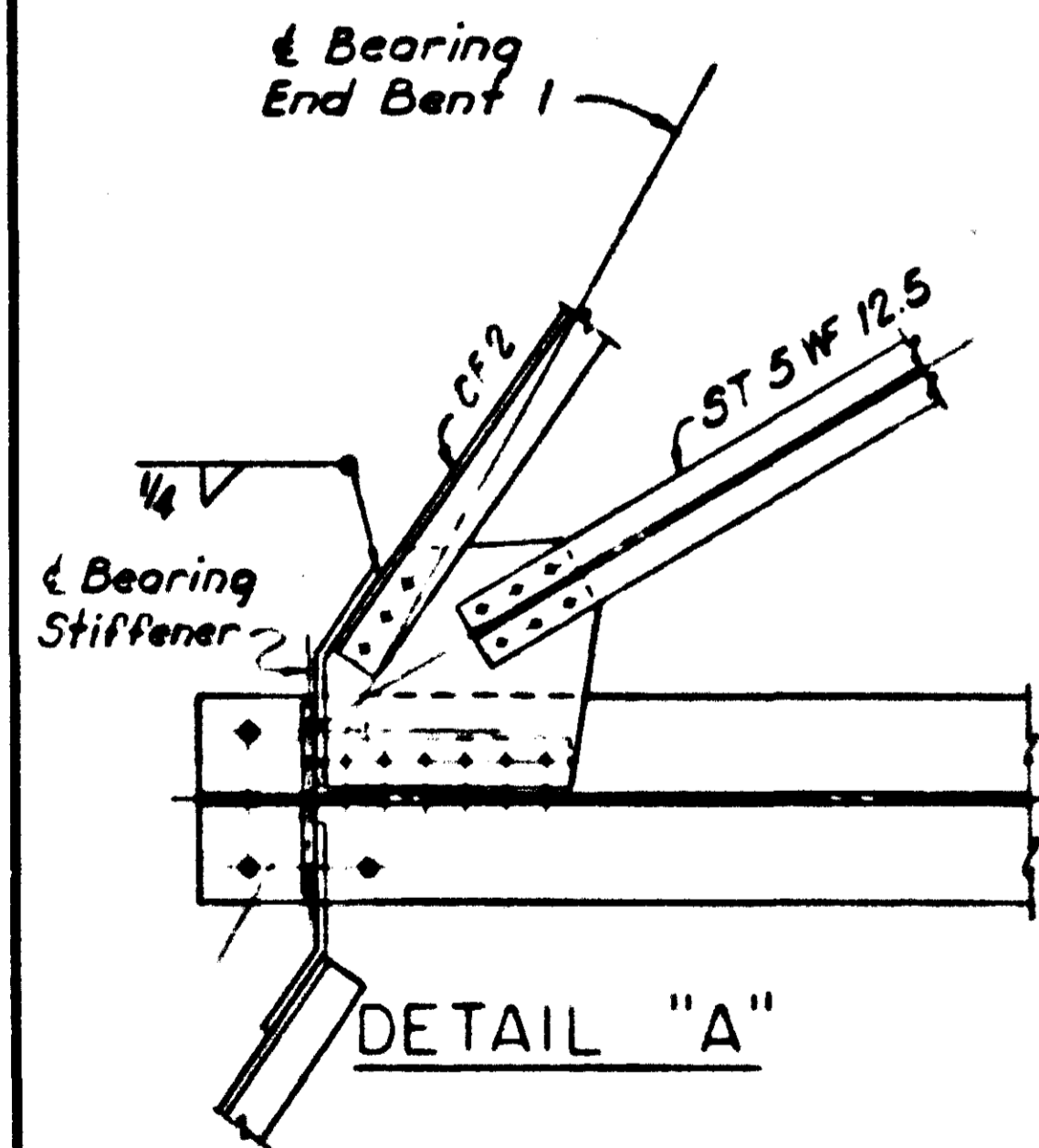
FIELD SPLICES
Scale: 3/4" = 1'-0"

Note: Unless otherwise noted all holes are 1/16" for 1/8" H.S. Bolts

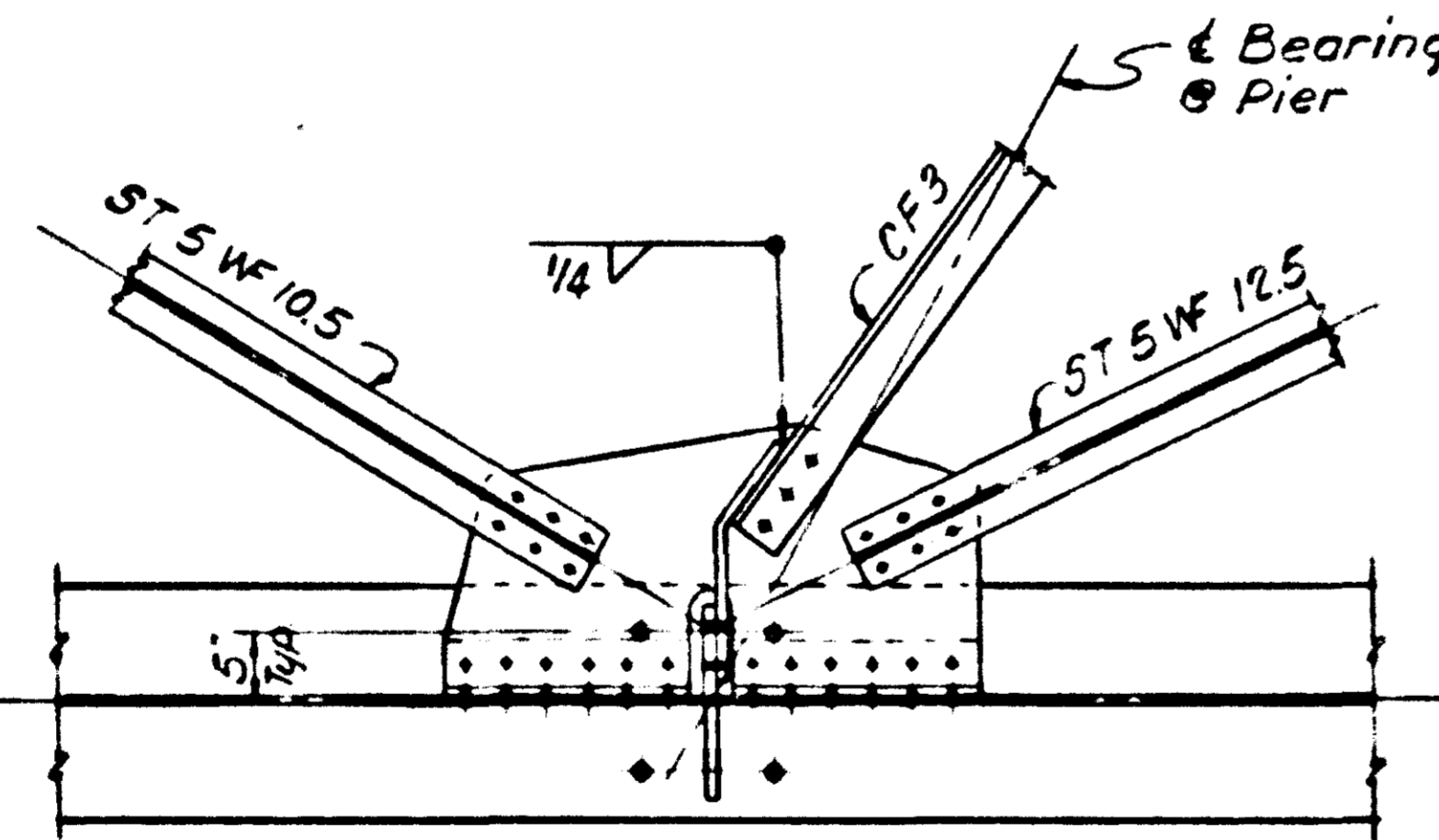
CROSS FRAME DETAILS
Scale: 3/4" = 1'-0"



DETAIL "B"

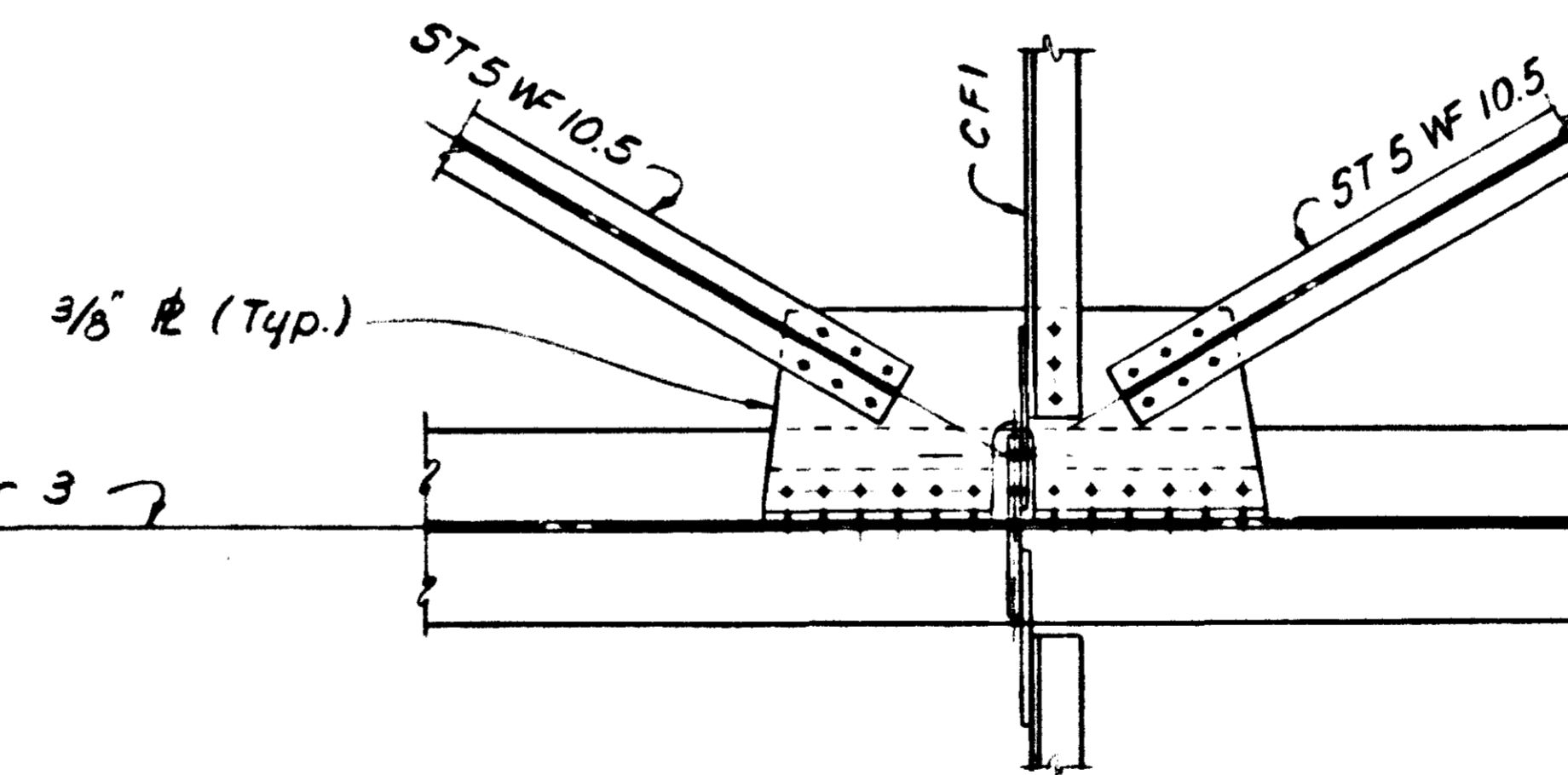


DETAIL "A"

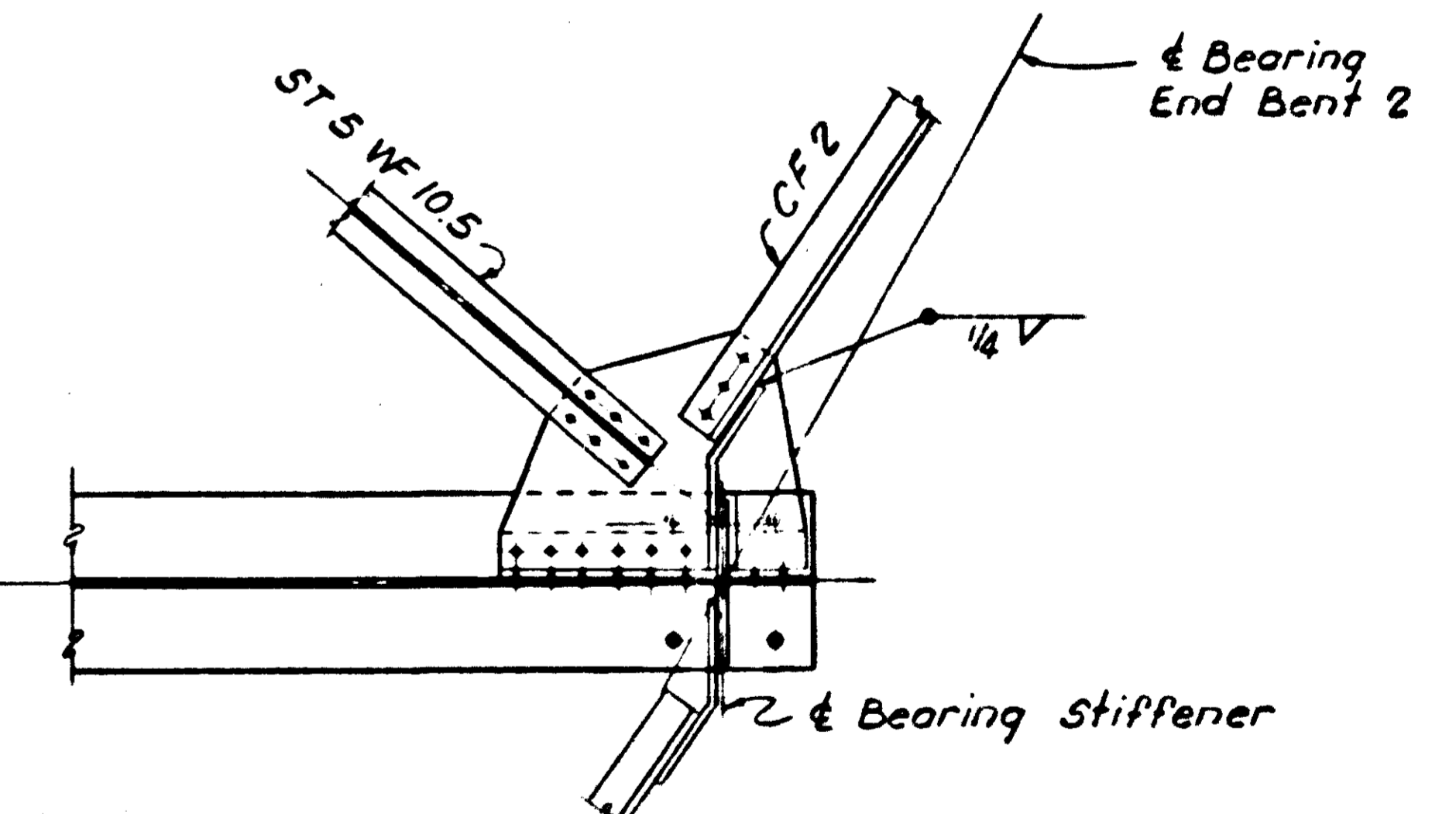


DETAIL "C"

LATERAL BRACING
Scale: 3/4" = 1'-0"

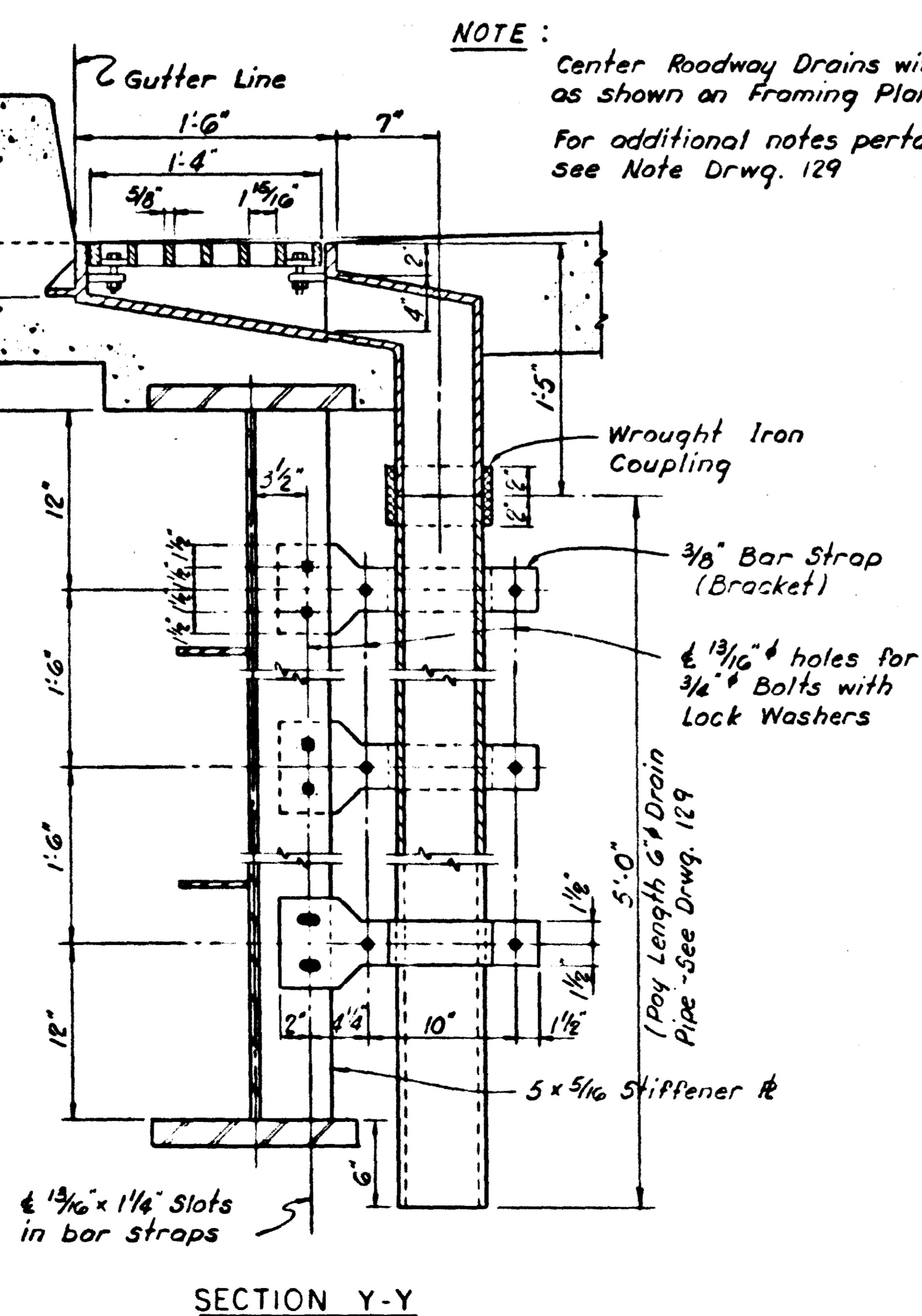
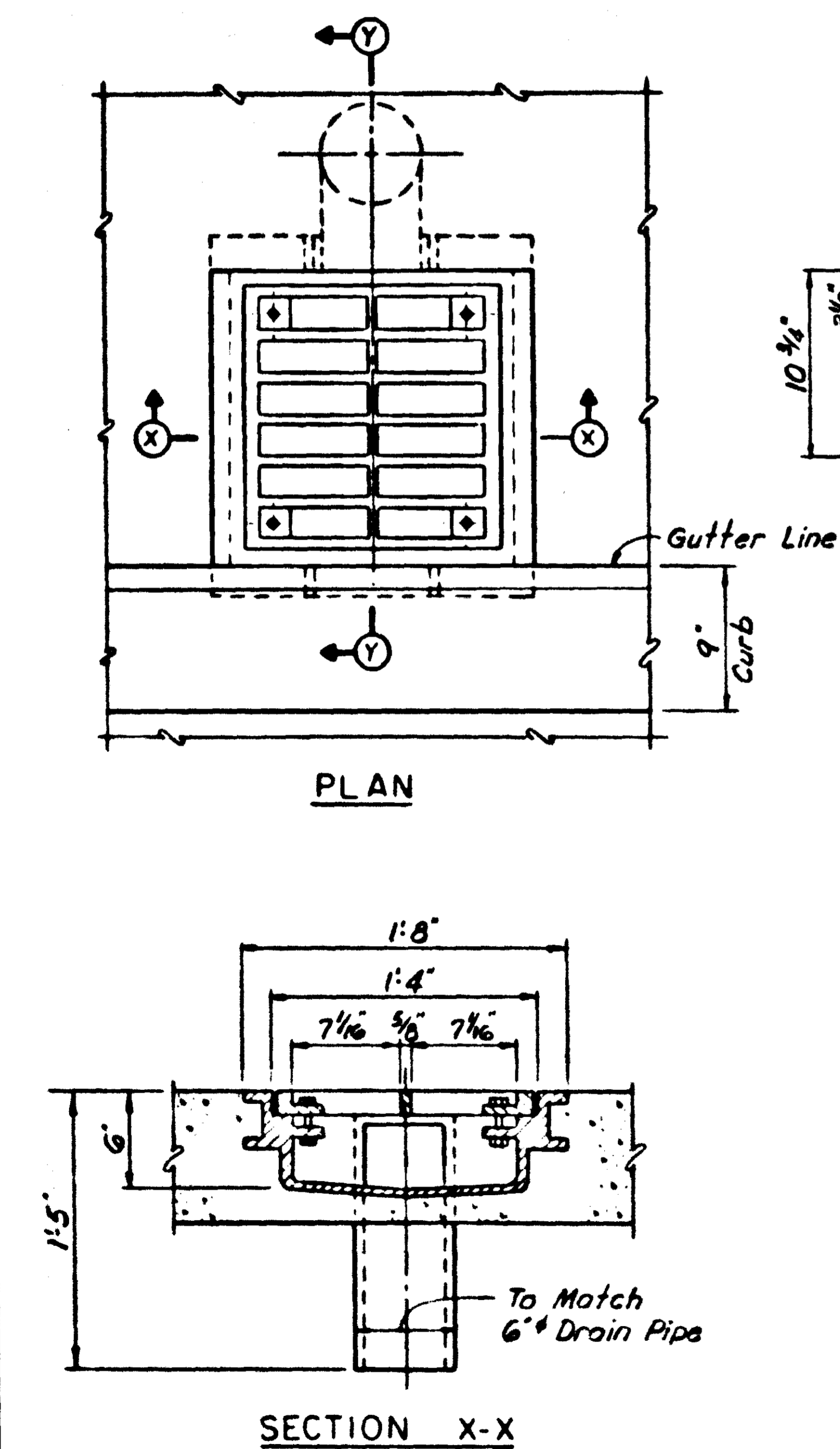
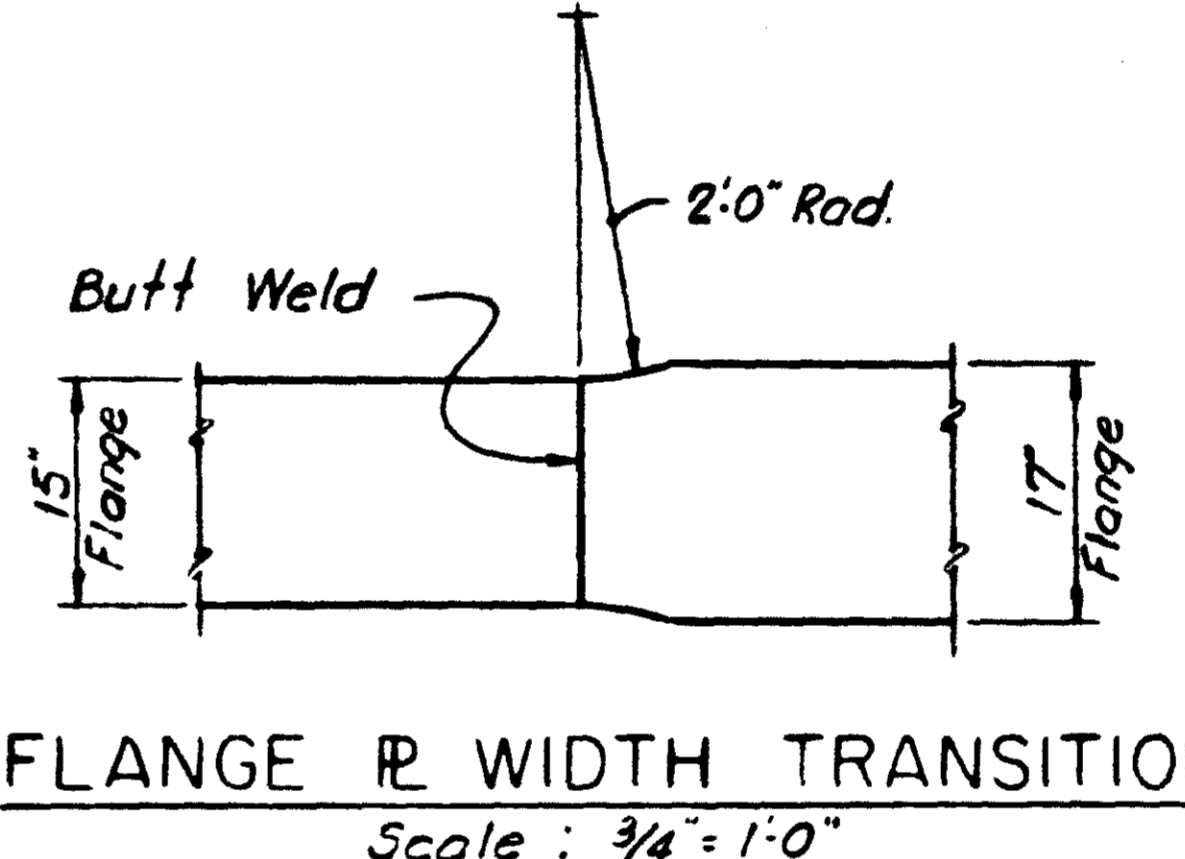
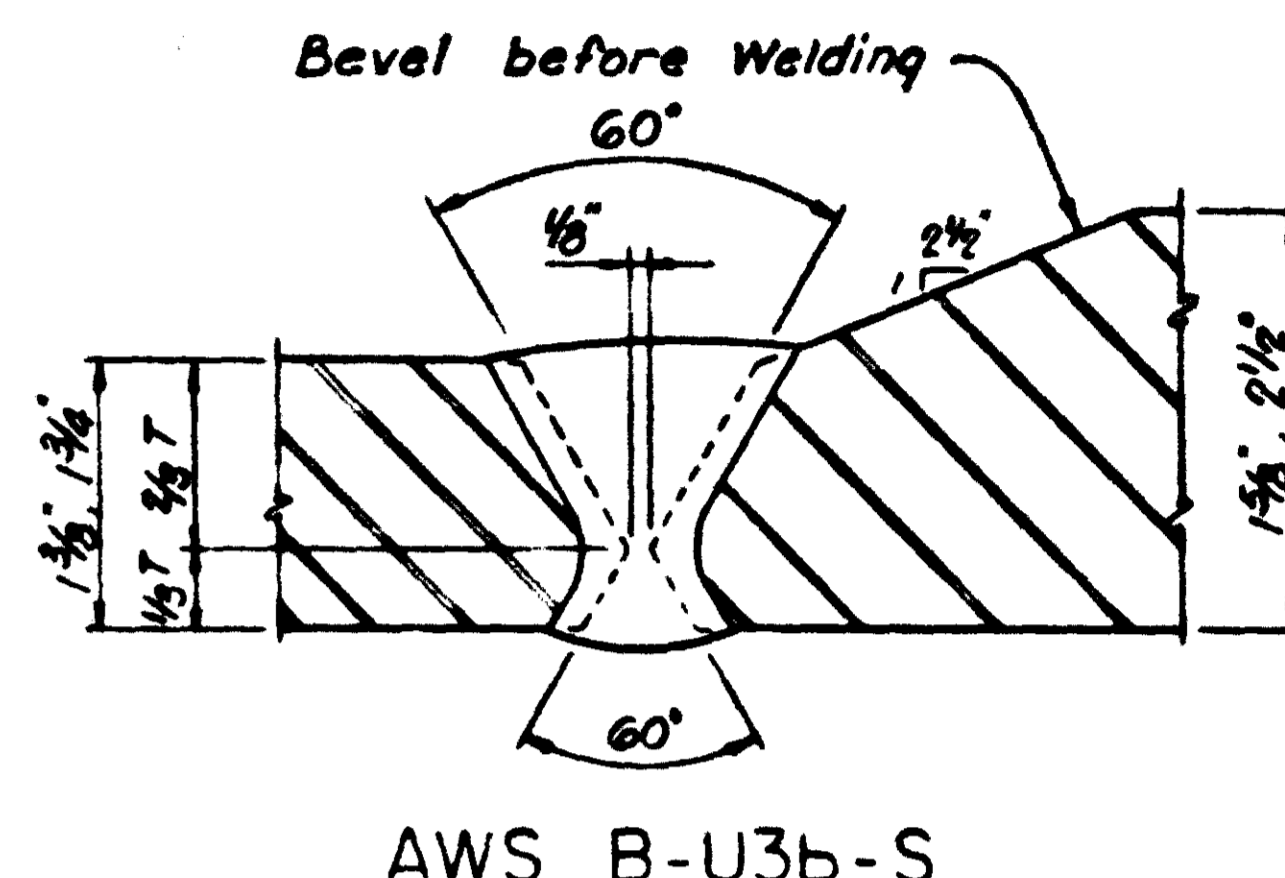
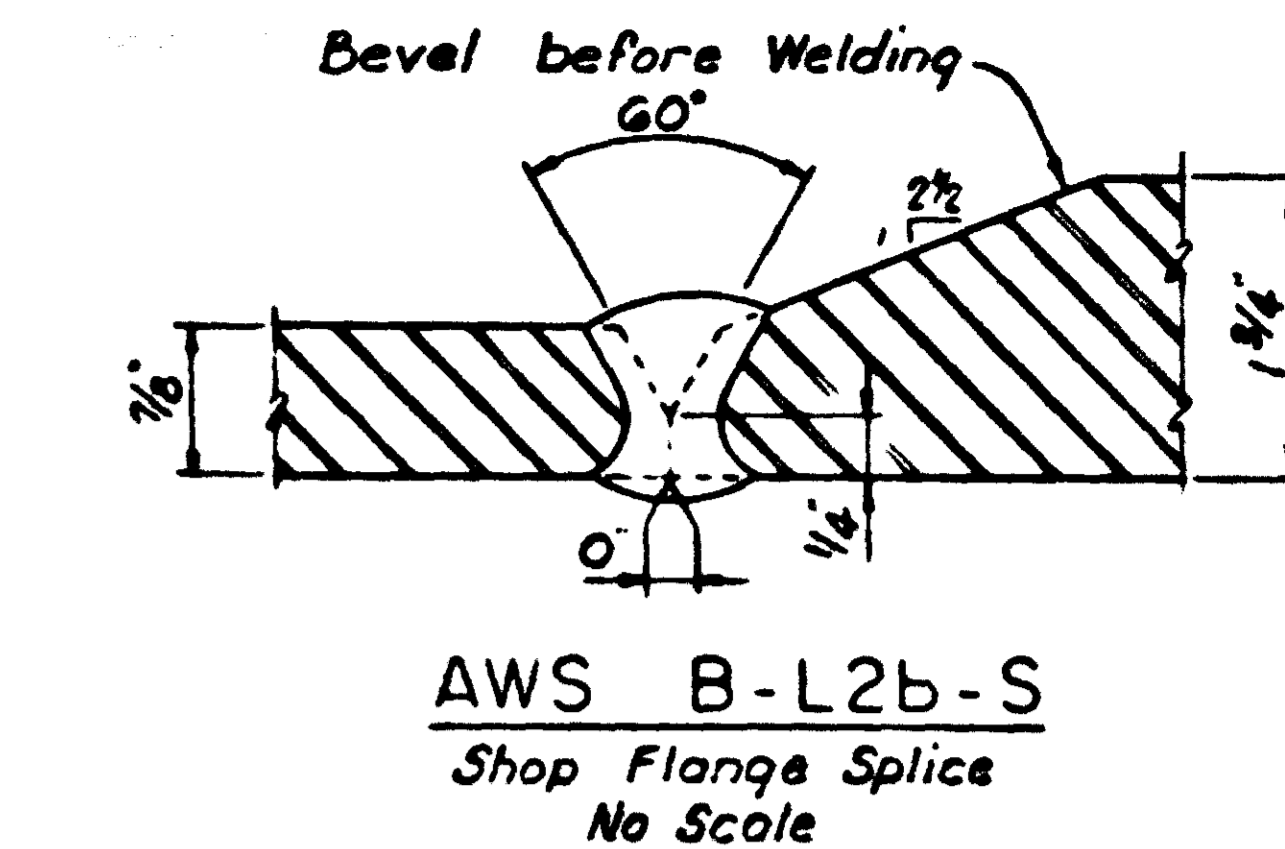
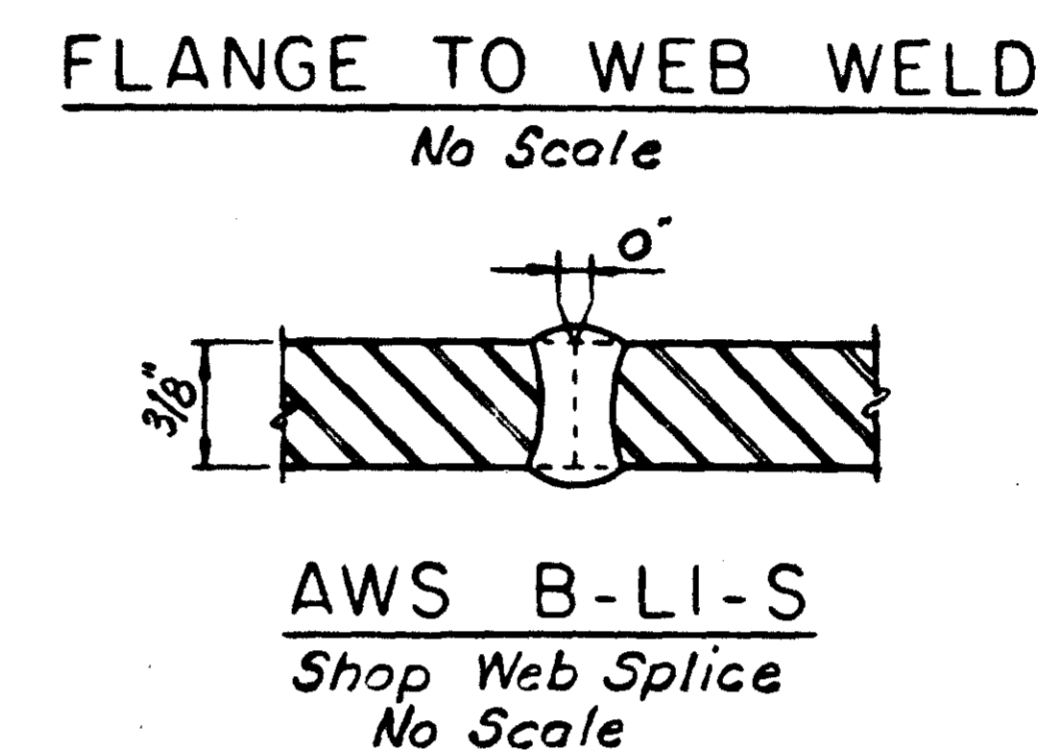
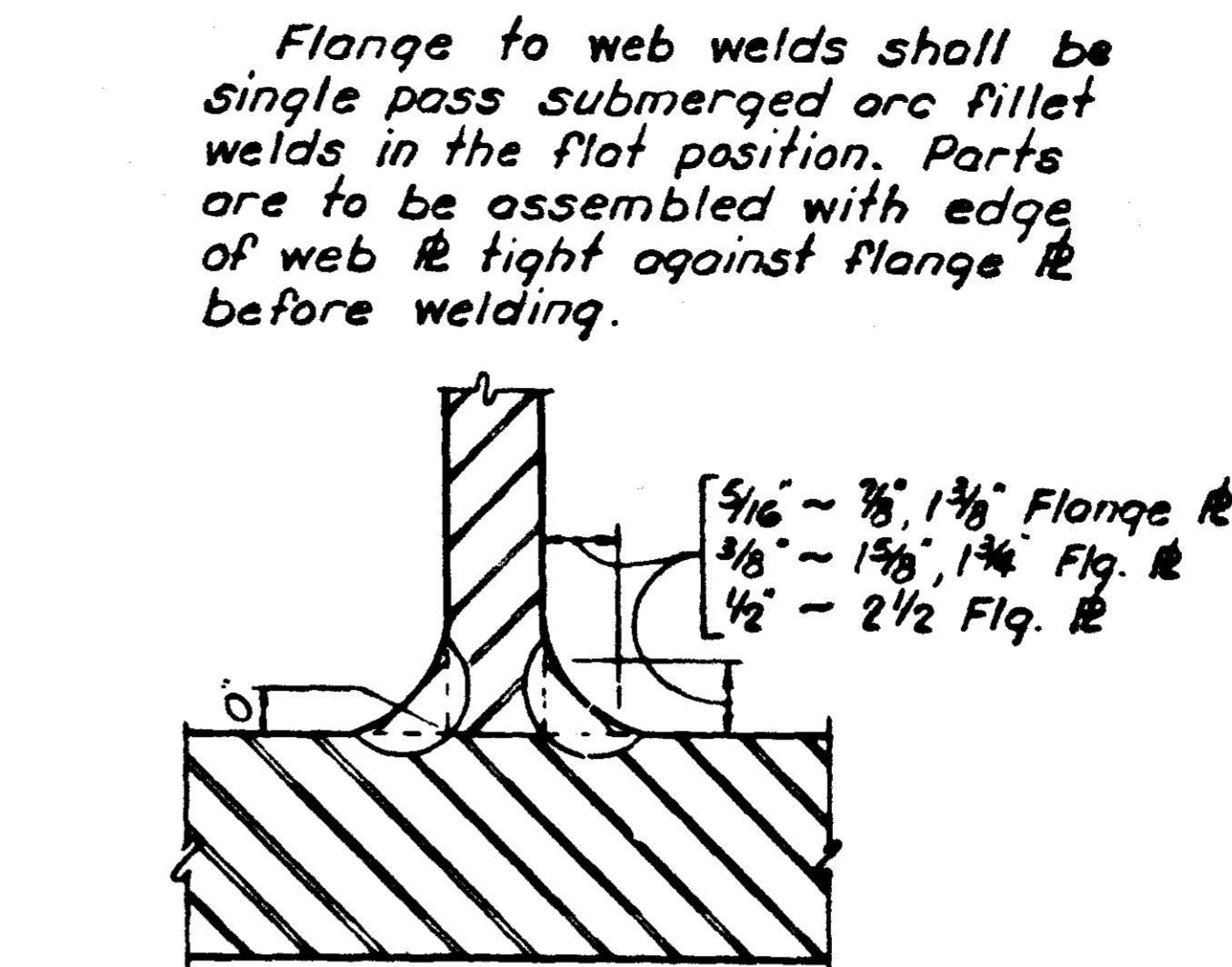
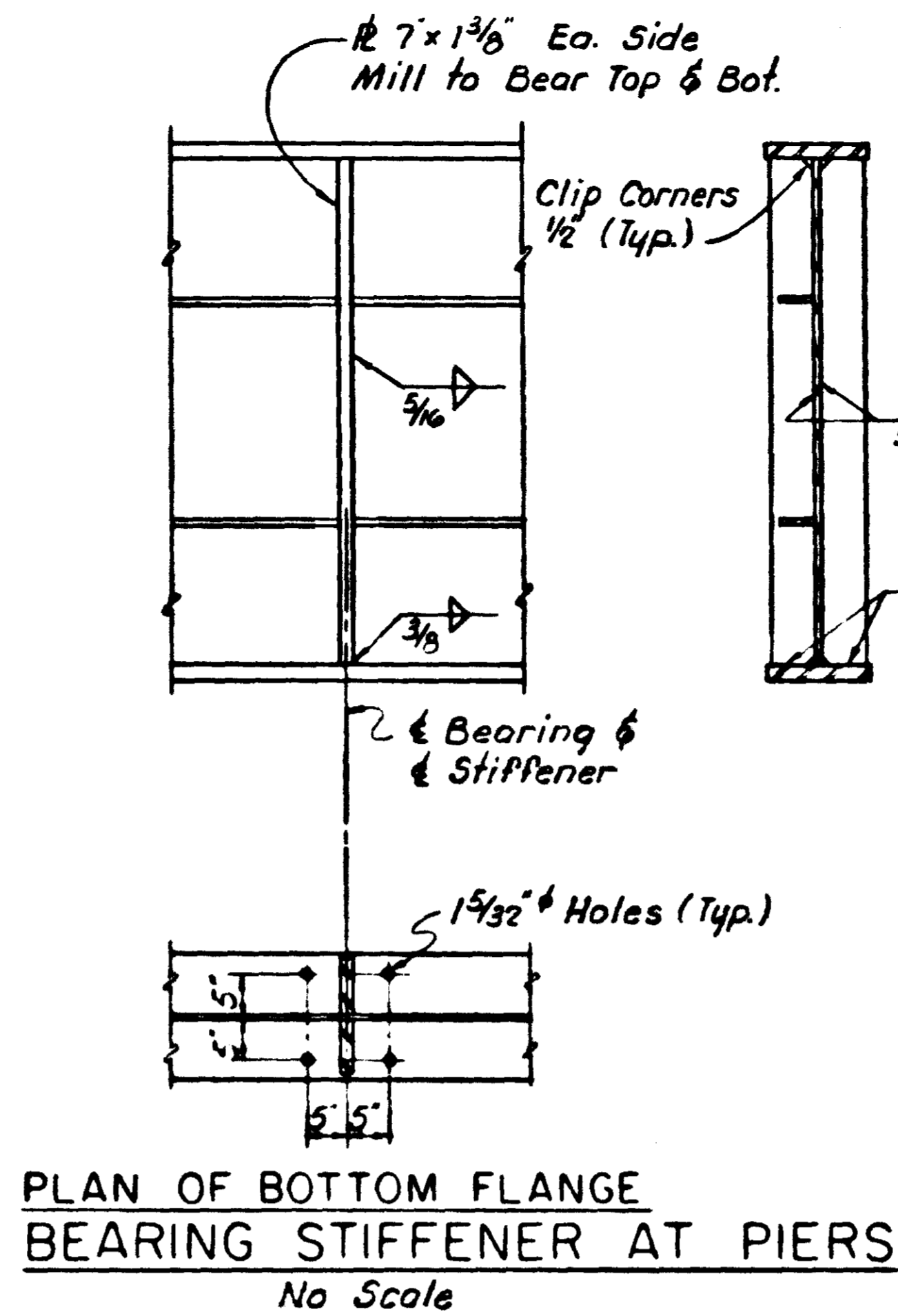
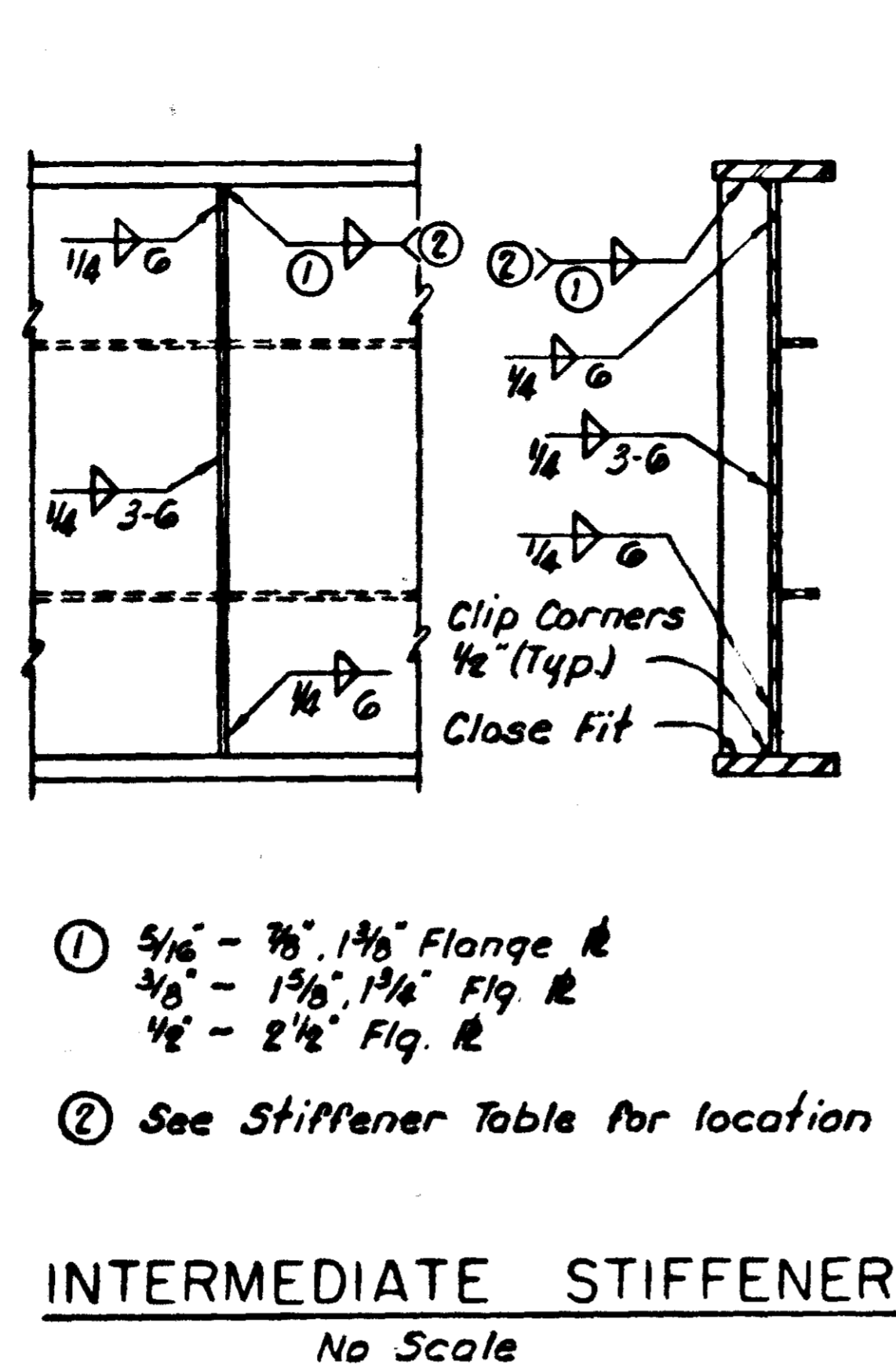
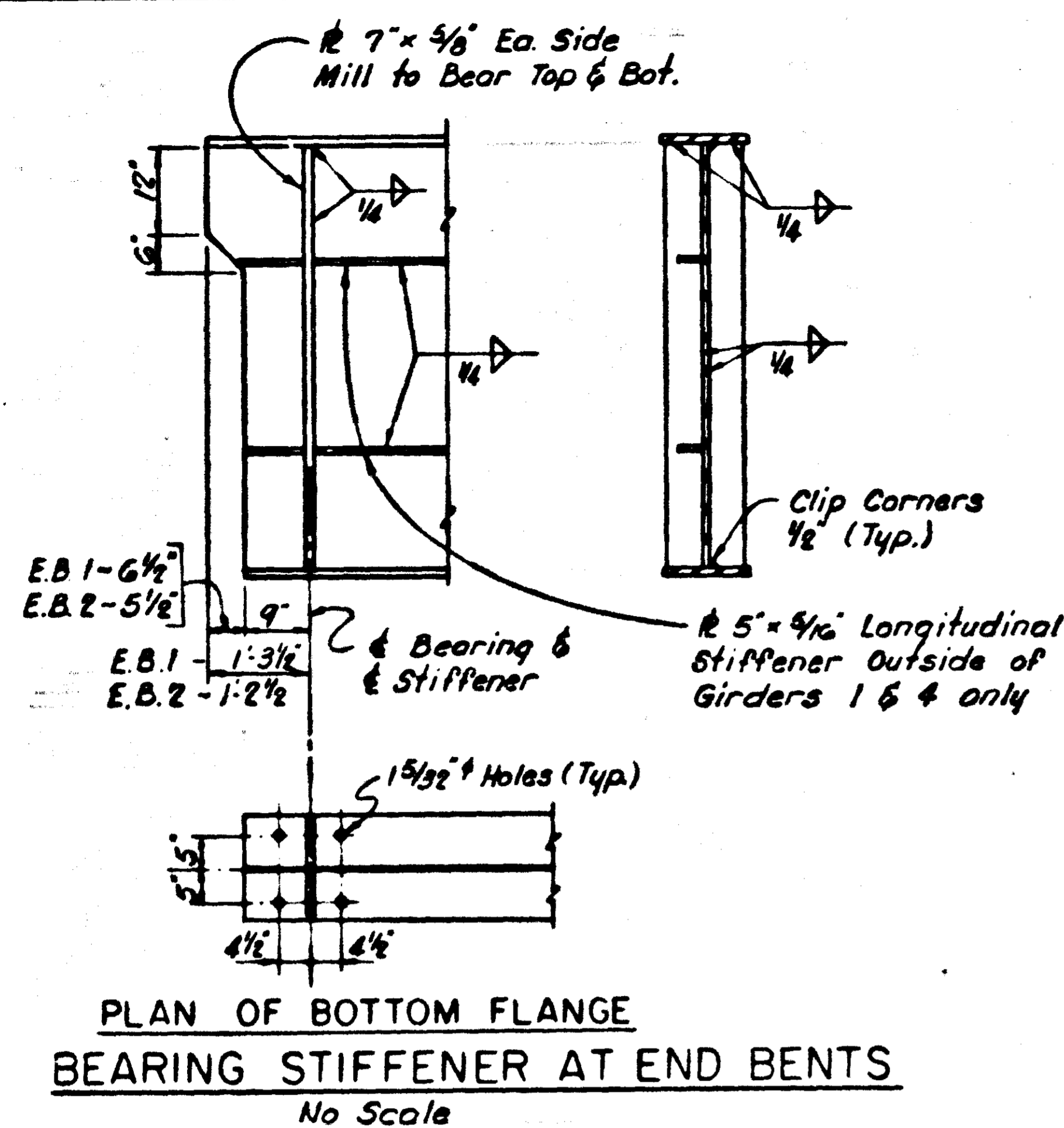


DETAIL "D"



DETAIL "E"

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 CROSSFRAME, LATERAL & SPLICE DETS.	
DRAWN	N.E.T.		
CHECKED	D.G.M.		
SUBMITTED			
APPROVAL RECD	APPROVED	DATE	
ASST. CHIEF ENGR. DIV.	CHIEF ENGINEERING DIVISION	SCALE	AS NOTED
		DRAWING NUMBER	LR 174-12.6/138



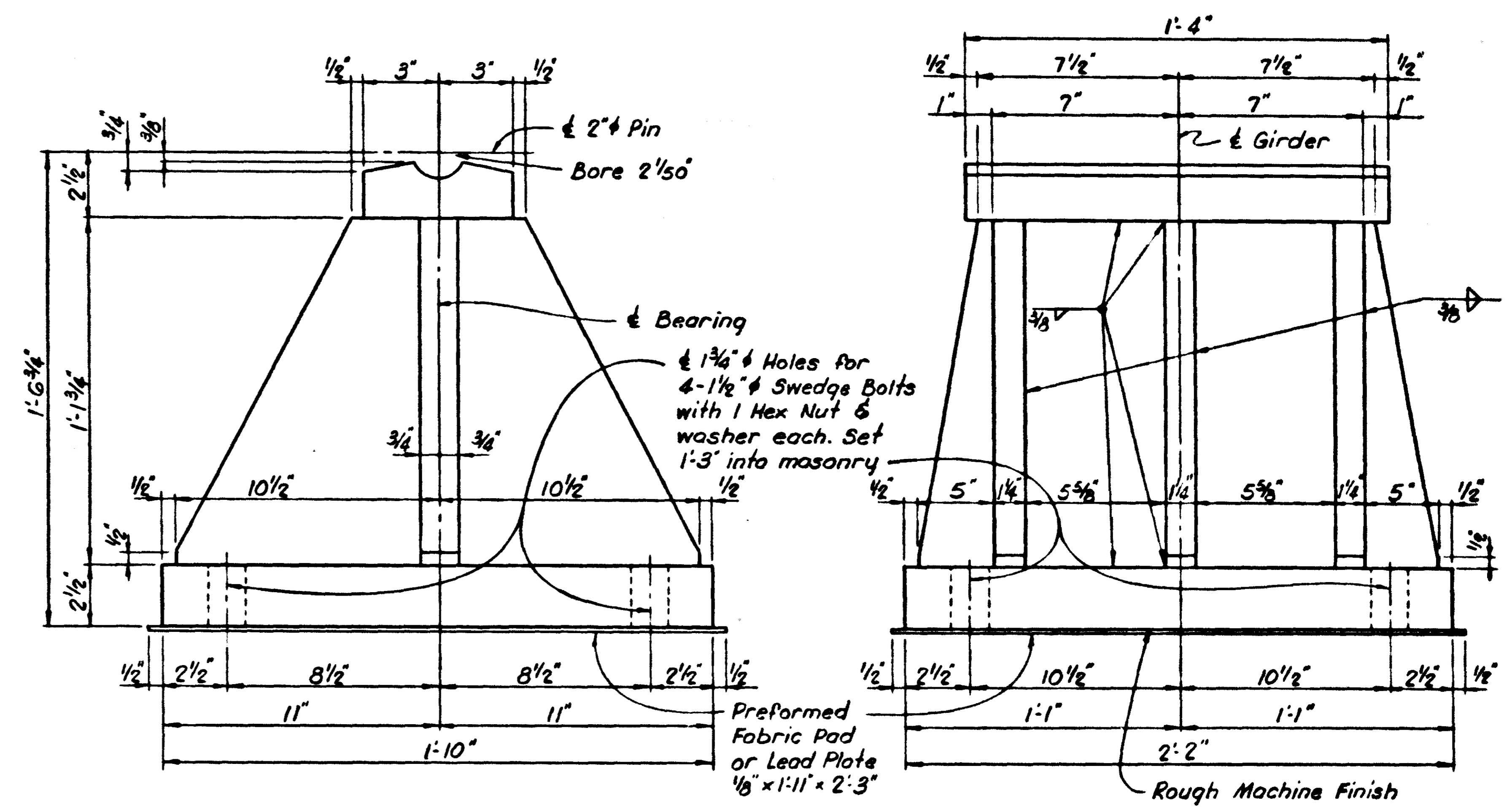
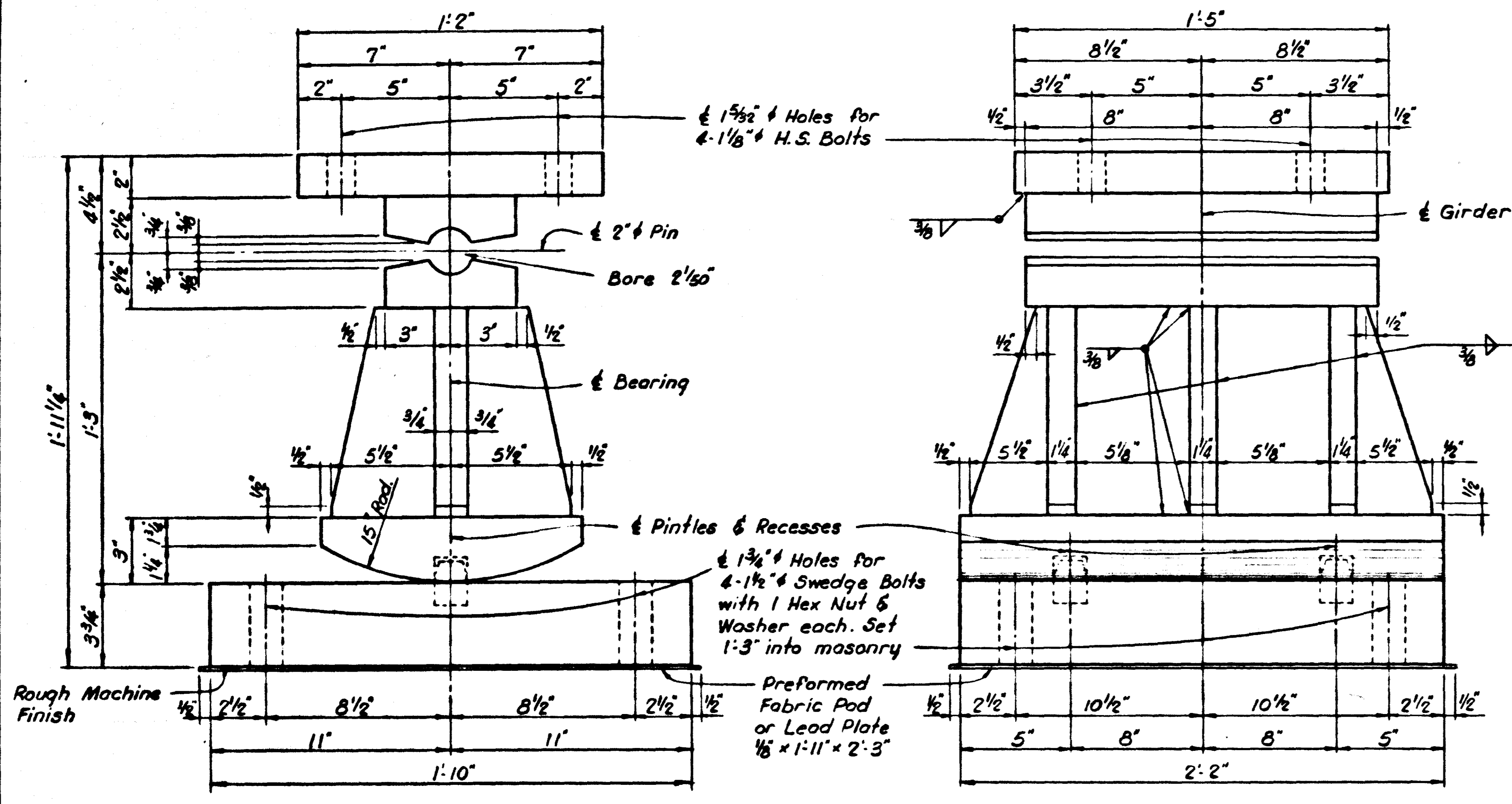
NOTE: Center Roadway Drains with brackets as shown on Framing Plan Drwg. 137 For additional notes pertaining drains see Note Drwg. 129

ROADWAY DRAIN
Scale: 1 1/2 = 1:0

ESTIMATE OF QUANTITIES
6" Drain Pipe 30 Lin. Ft.
6 Drains required @ Approx. 250 Lbs. Each

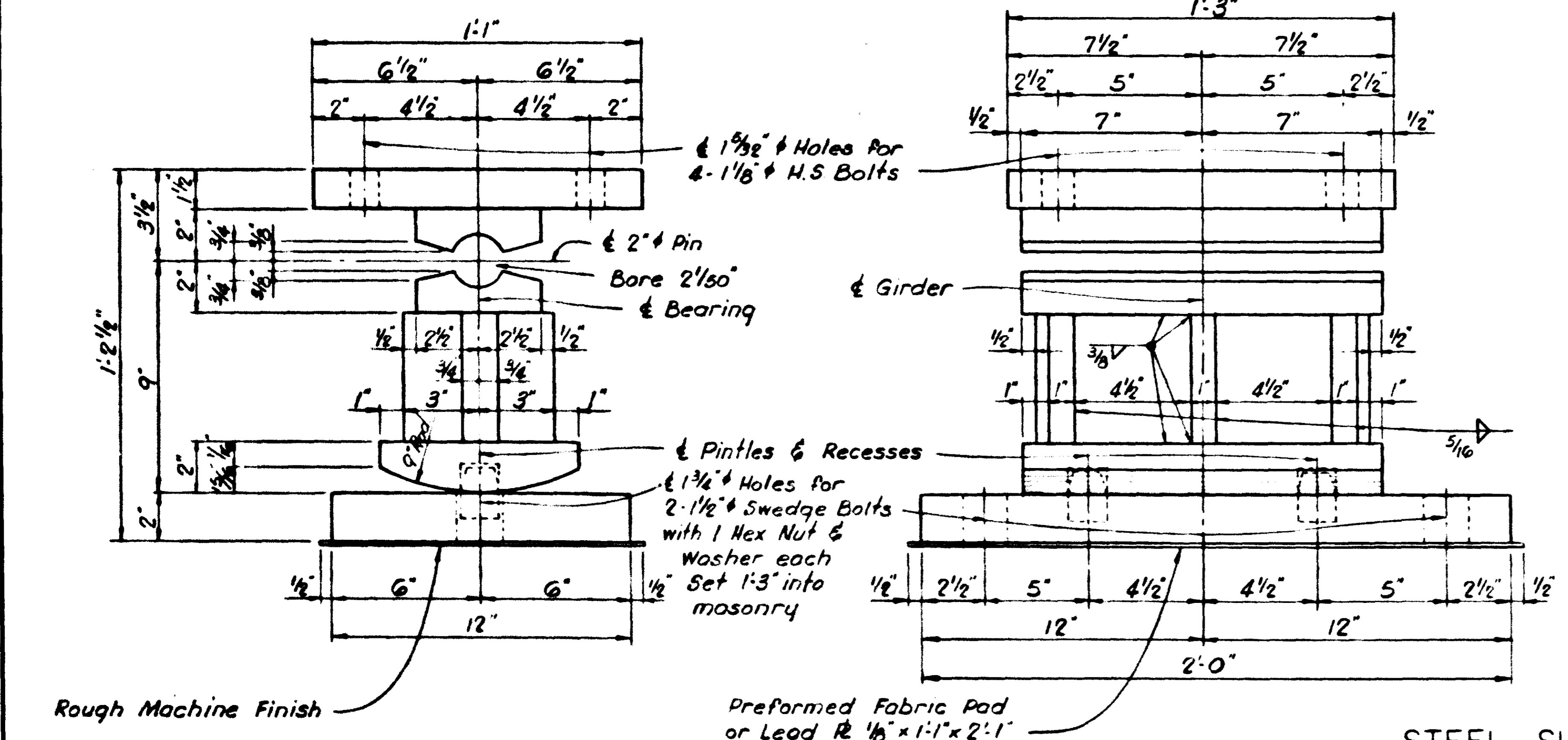
SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED: C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 GIRDER & DRAIN DETAILS		
DRAWN: N.E.T.	APPROVED: _____ DATE: _____		
CHECKED: D.G.M.	SCALE: AS NOTED		
APPROVAL: _____		DATE: _____	
ASST. CHIEF ENGR. DIV.		CHIEF, CORPS OF ENGINEERS DISTRICT ENGINEER	
CHIEF ENGINEERING DIVISION		DRAWING NUMBER LR 174-12.6/139	

For details of top assembly see Expansion Rocker (ER1)



EXPANSION ROCKER (ER1)
4 Required Scale: 3" = 1'-0"
Approx. Wt. = 1325# Ea. Capacity = 430 kips

FIXED SHOE (FS1)
4 Required Scale: 3" = 1'-0"
Approx. Wt. = 1050# Ea. Capacity = 445 kips

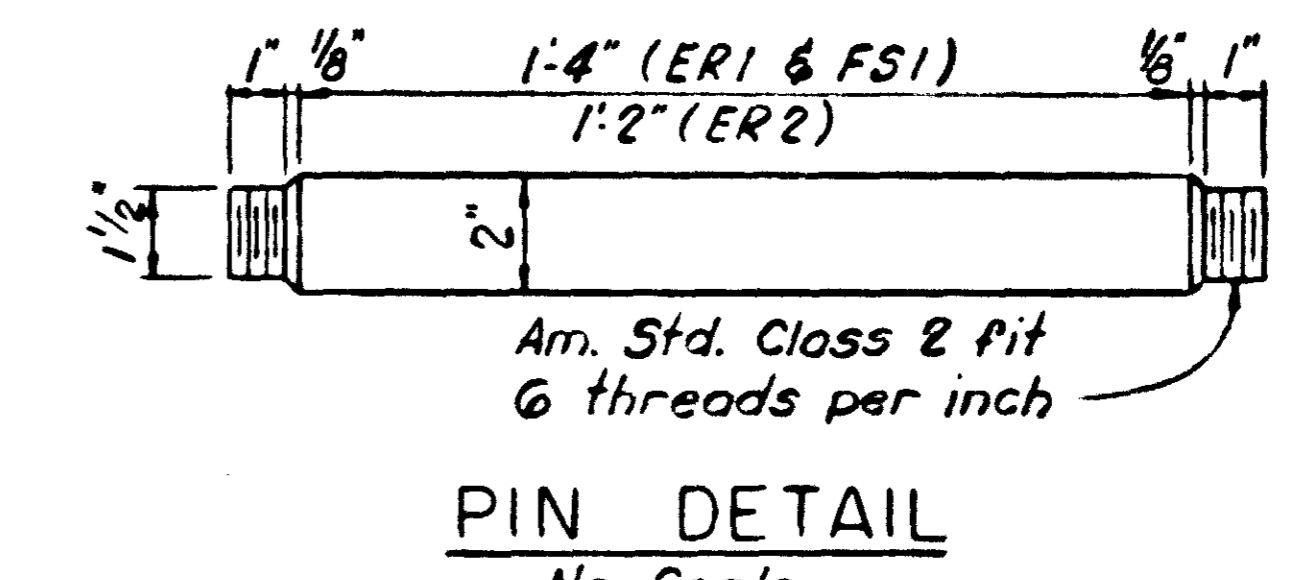
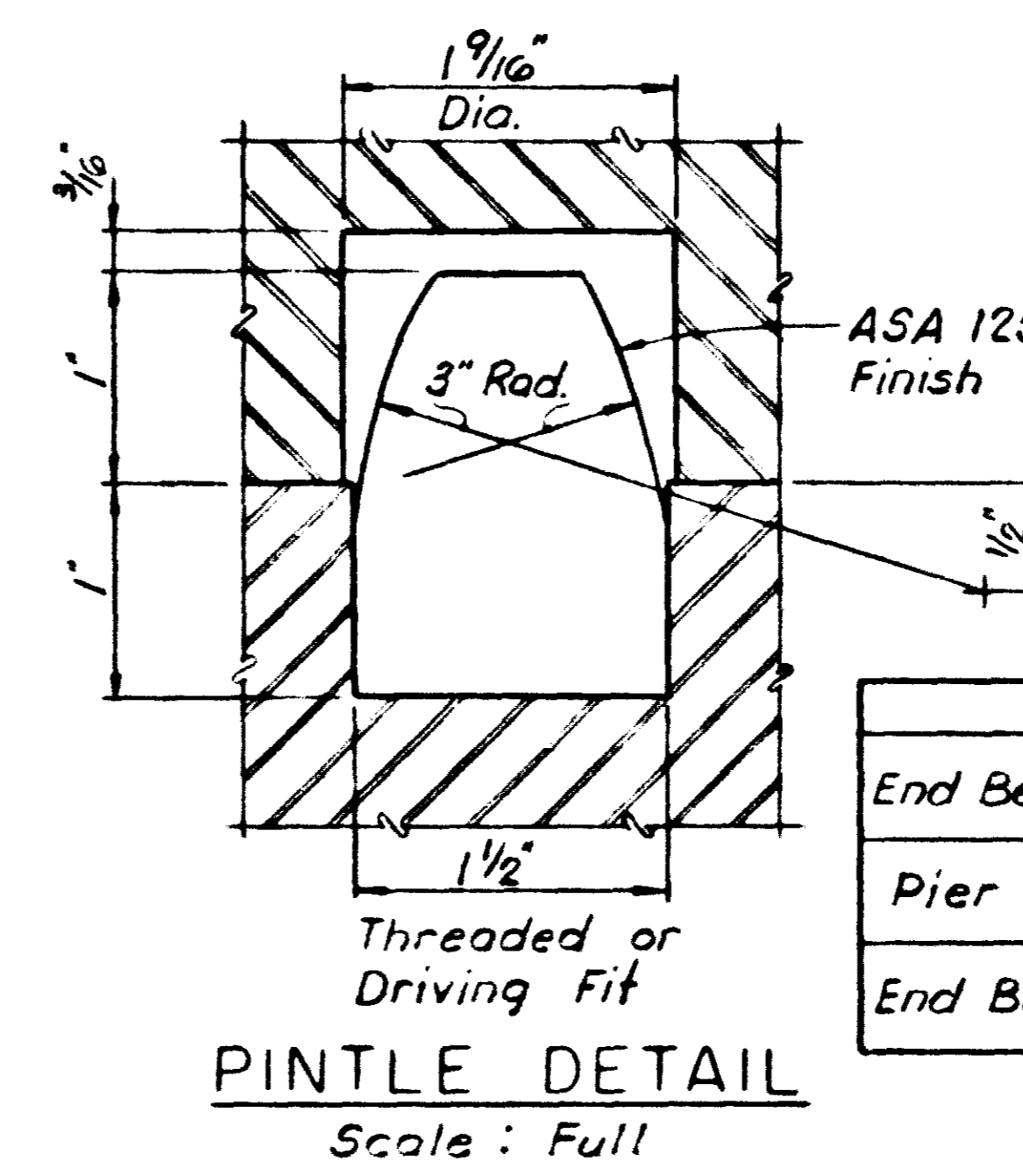


EXPANSION ROCKER (ER2)
8 Required Scale: 3" = 1'-0"
Approx. Wt. = 470# Ea. Capacity = 135 kips

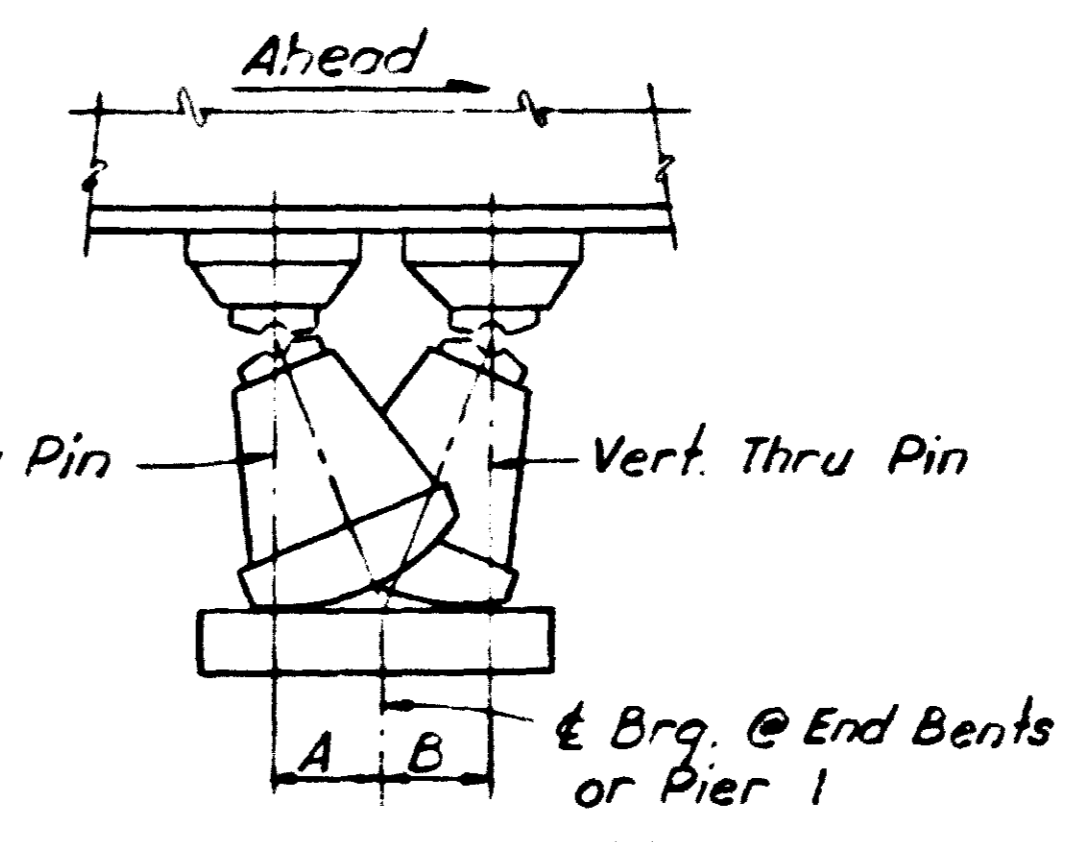
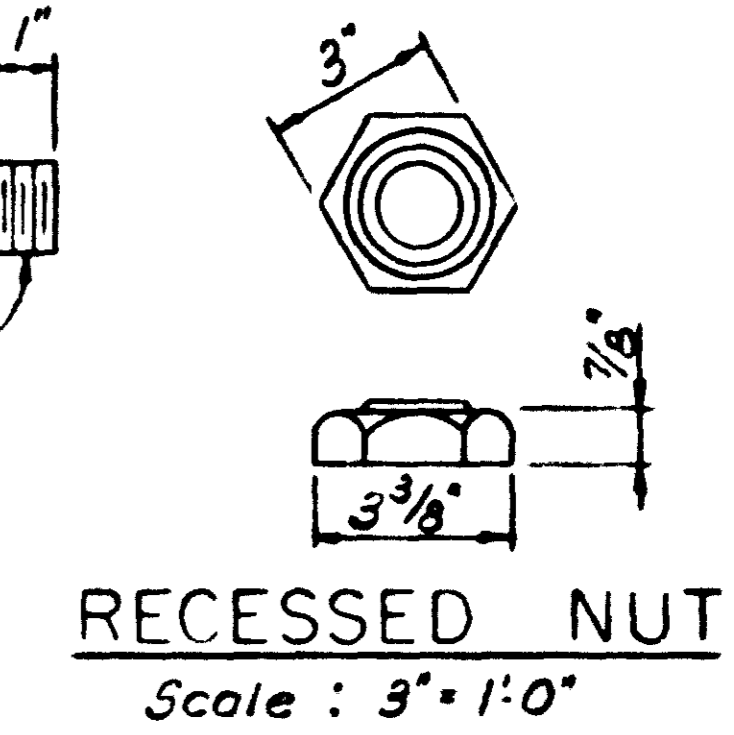
STEEL SURFACE SPECS.

Steel Slabs
Heavy I's in contact in shoes to be welded
Milled Ends of Compression Members, Stiff. & Fillers
Bridge Rollers & Rockers
Pins & Pin Holes
See Note Drwg. 129 for Preheat Requirements

ASA 2000
ASA 1000
ASA 500
ASA 250
ASA 125



		No Scale						
		0°	20°	40°	60°	80°	100°	120°
End Bent 1	A	—	—	—	0	3/8	3/4	1 3/16
	B	1 3/16	3/4	3/8	0	—	—	—
Pier 1	A	—	—	—	0	1/4	7/16	1 1/16
	B	1 1/16	7/16	1/4	0	—	—	—
End Bent 2	A	1/2	5/16	3/16	0	—	—	—
	B	—	—	—	0	3/16	5/16	1/2



SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 SHOE & ROCKERS	
DRAWN	N.E.T.	SCALE AS NOTED	
CHECKED	D.G.M.	DRAWING NUMBER LR 174-12.6/140	
APPROVAL RECD:		APPROVED: DATE:	
ASST. CHIEF ENGR. DIV.		COL. CORPS OF ENGINEERS DISTRICT ENGINEER	
CHIEF ENGINEERING DIVISION		SCALE AS NOTED	

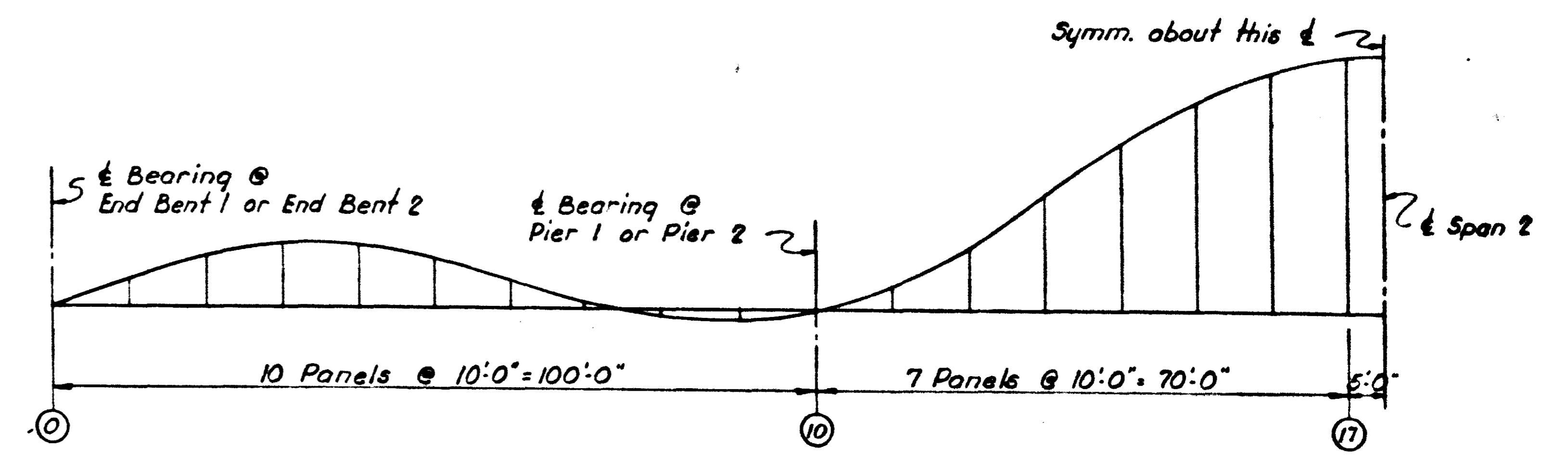
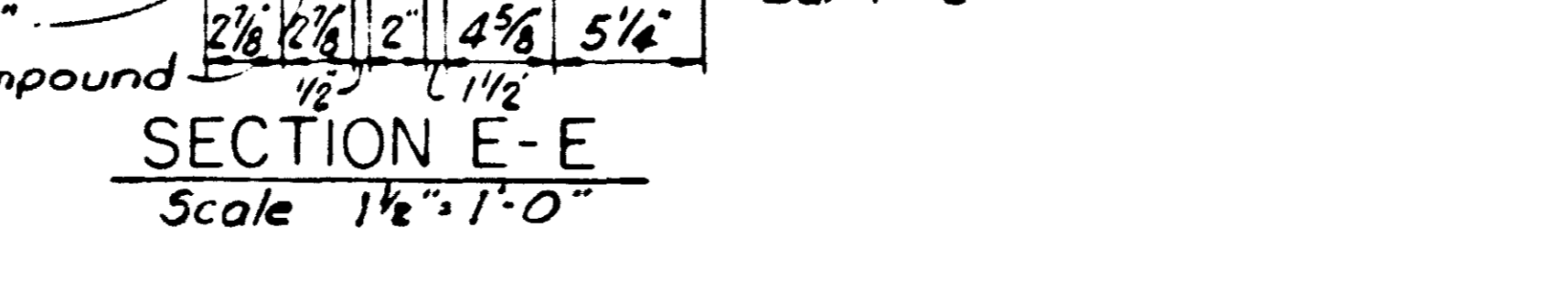
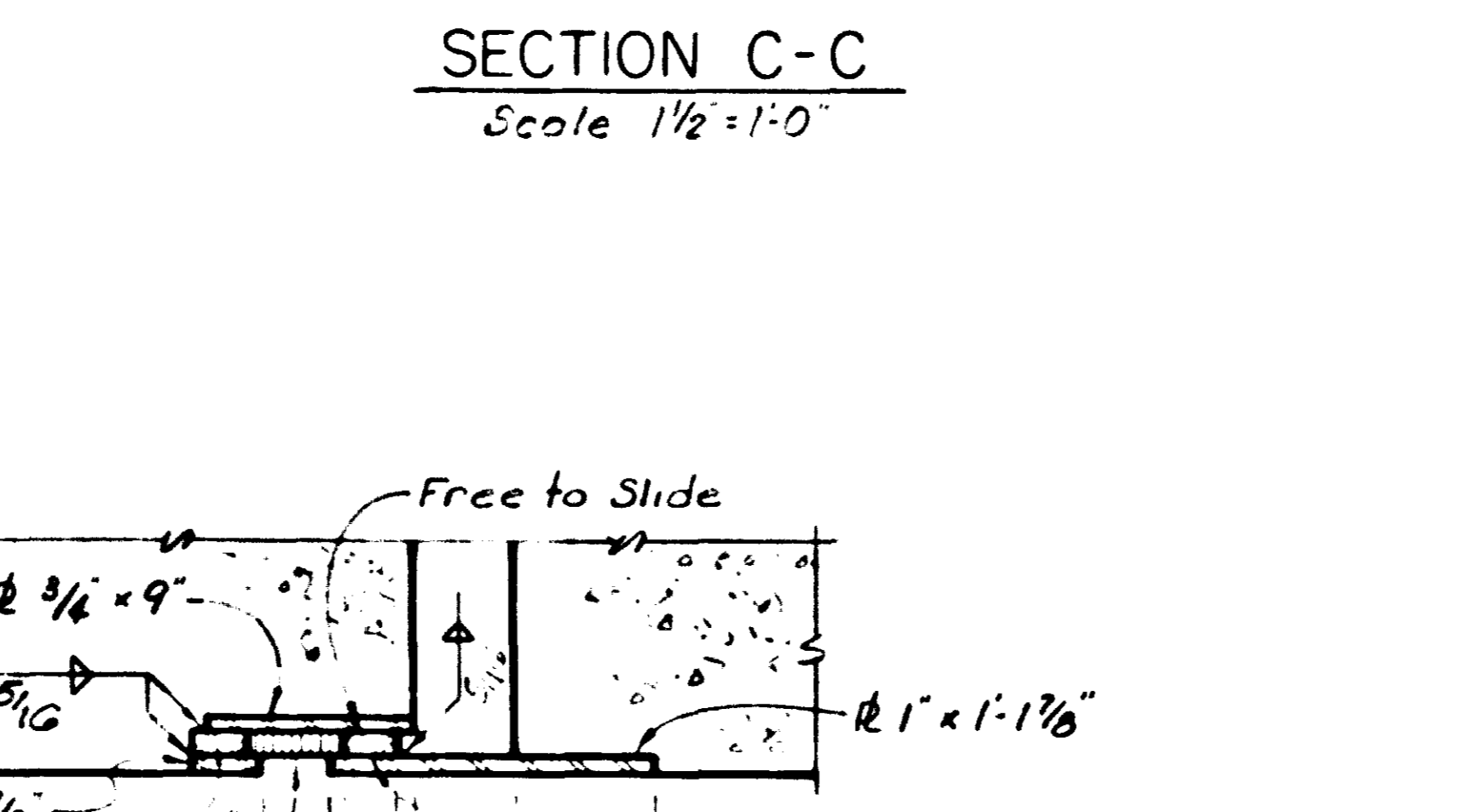
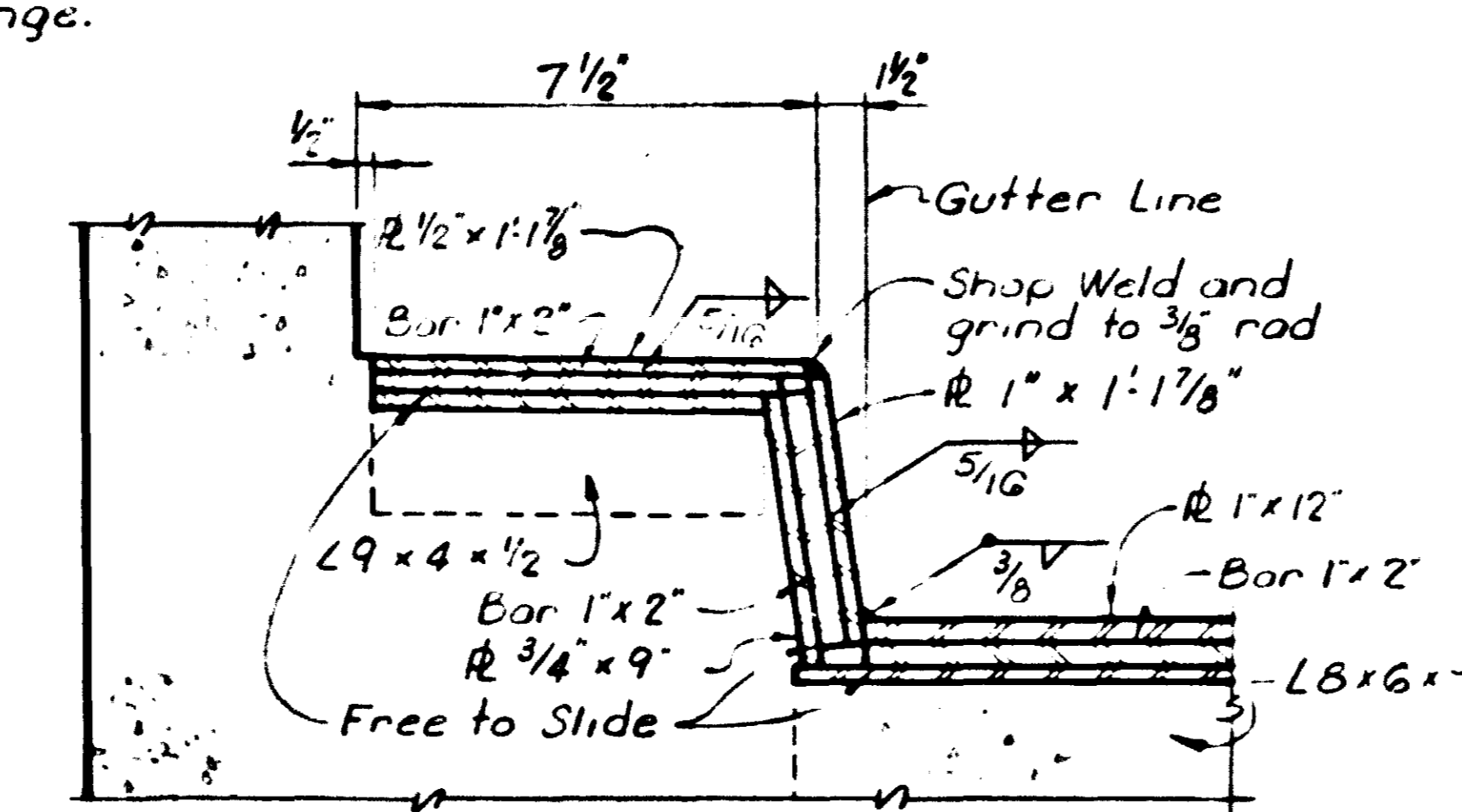
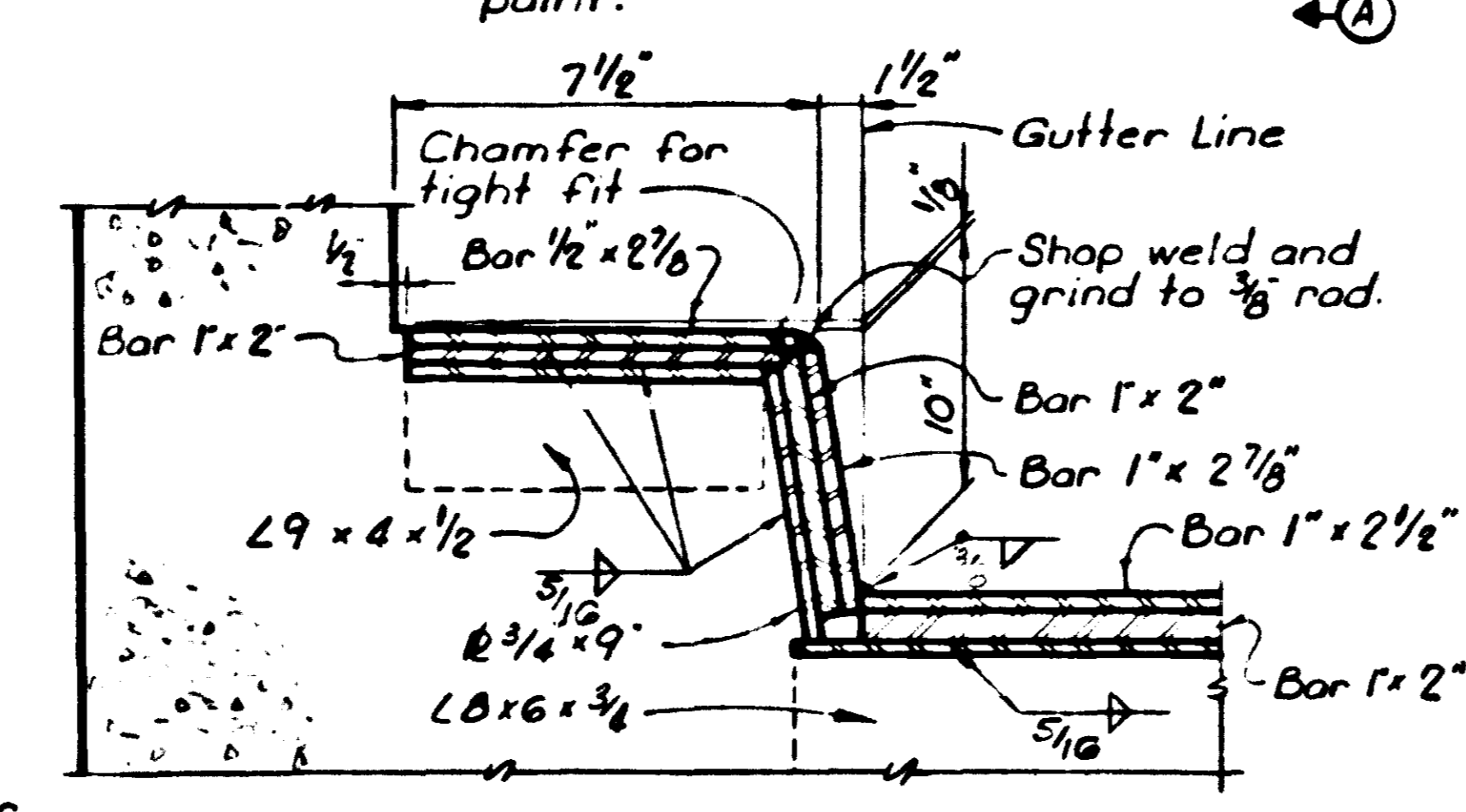
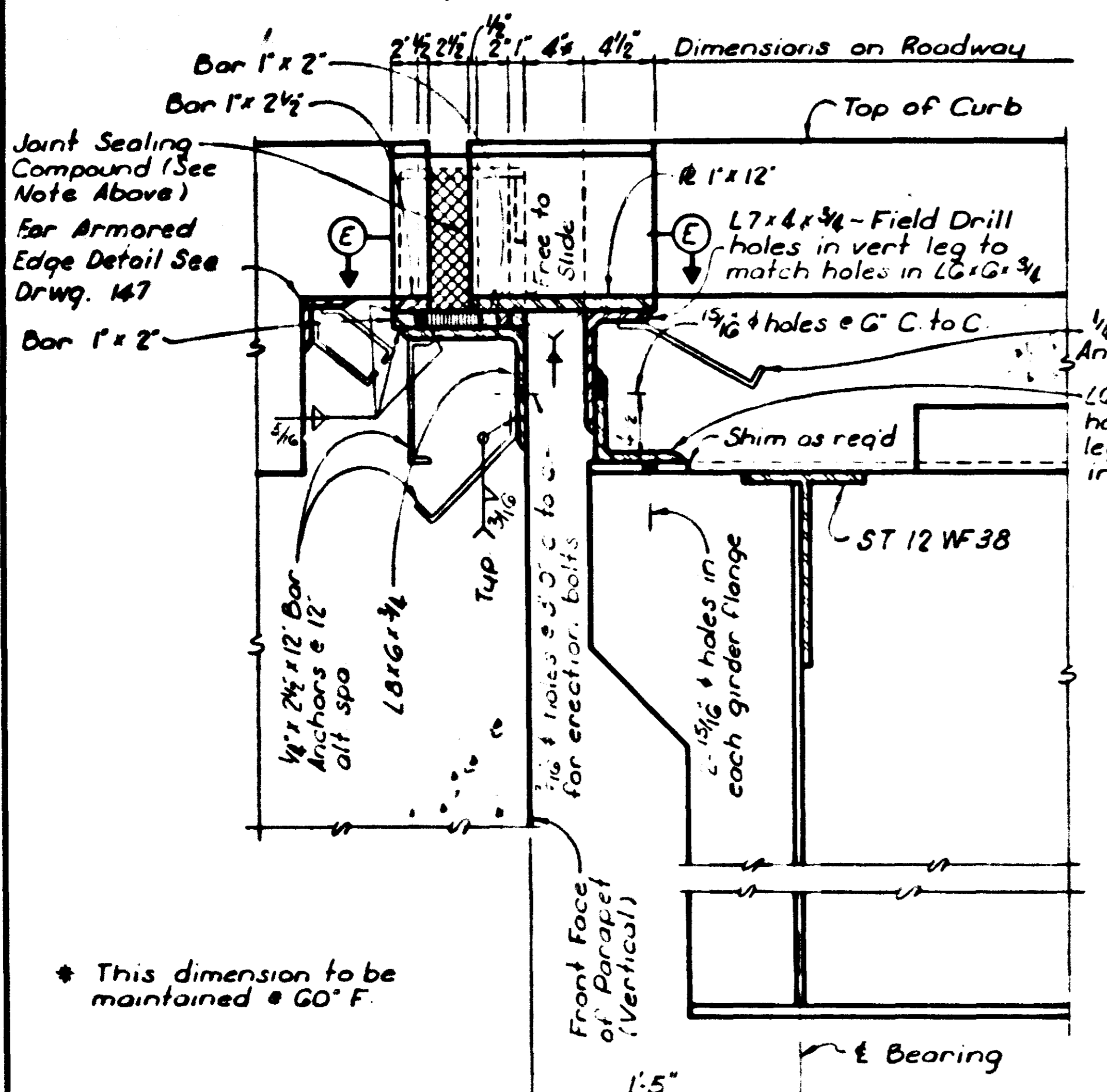
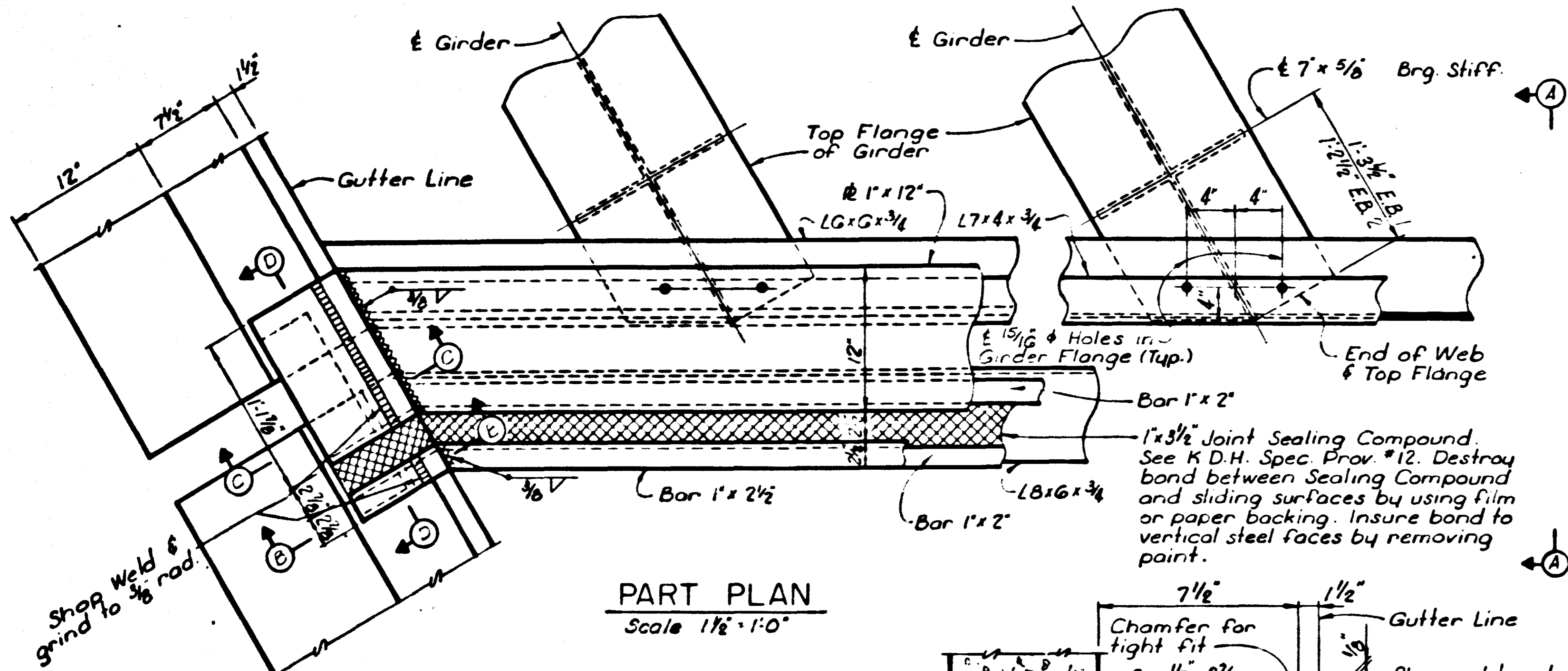
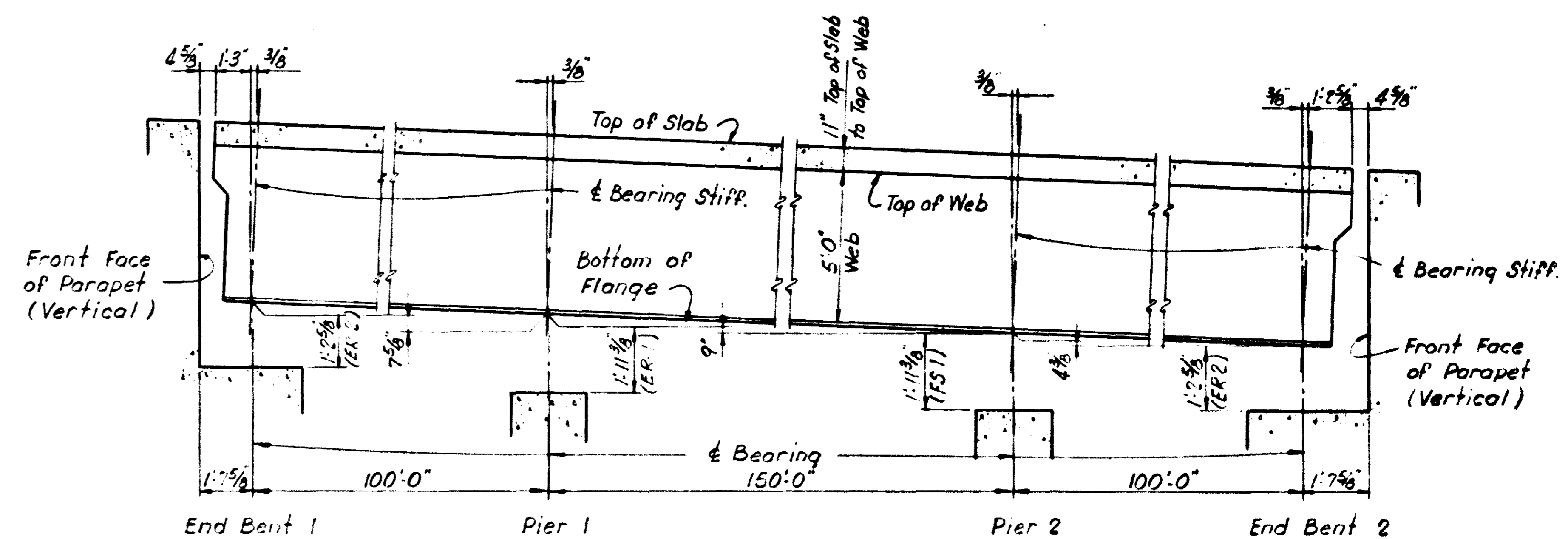


TABLE OF DEAD LOAD DEFLECTION

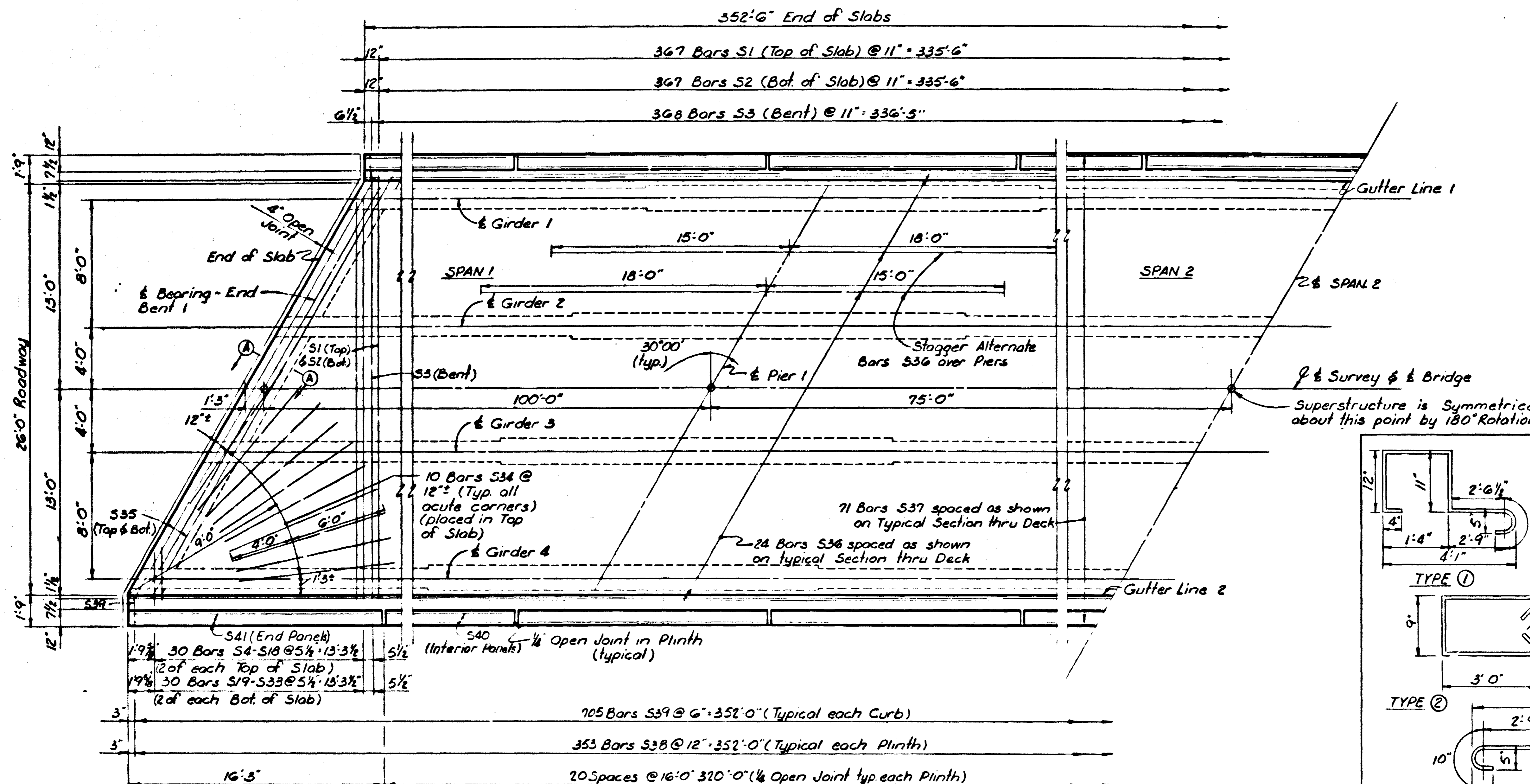
Panel Points	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Full Dead Load (To be cut into Web)	0	1/4"	7/16"	9/16"	5/8"	1/2"	1/4"	1/16"	-1/8"	-1/8"	0	1/4"	9/16"	1"	1 1/16"	2 1/8"	2 1/2"	2 3/8"
Concrete Dead Load	0	1/4"	7/16"	9/16"	5/8"	1/2"	1/4"	1/16"	0	-1/16"	0	3/16"	7/16"	3/4"	1 1/16"	1 5/8"	1 7/8"	1 1/2"



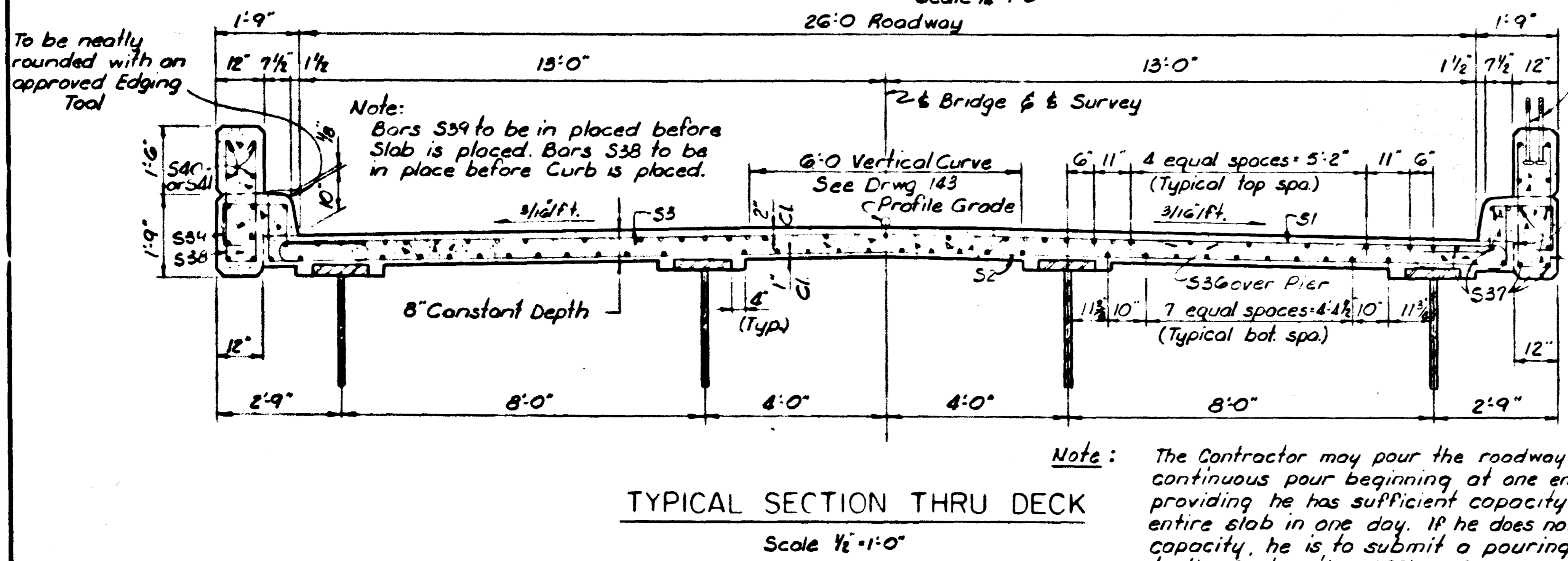
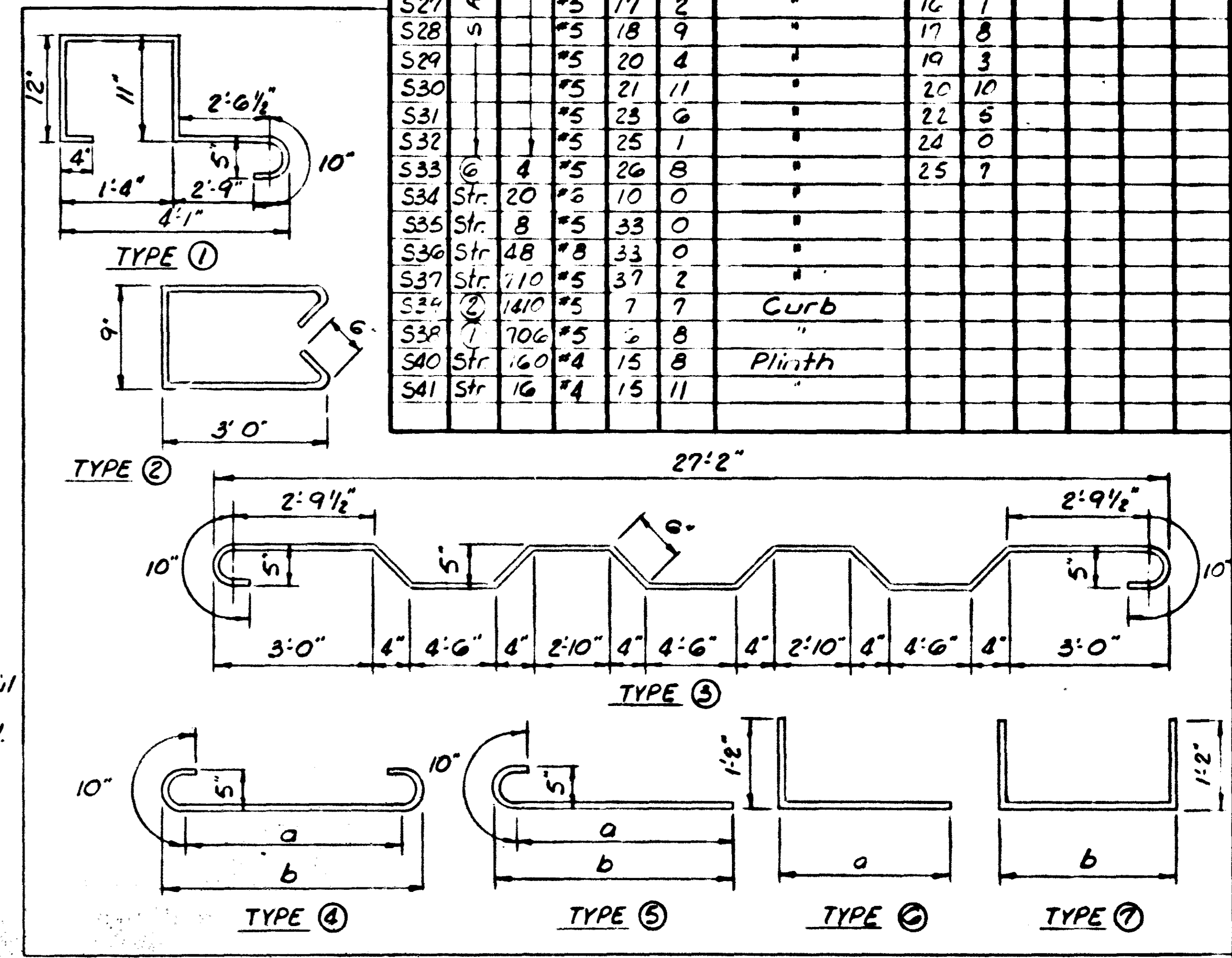
* This dimension to be maintained @ 60° F.

14

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 EXPANSION DAM, CAMBER & BLOCKING DIA.	
DRAWN	N.E.T.		
CHECKED	D.G.M.		
SUBMITTED			
APPROVAL RECD.			
APPROVED:		DATE:	
ASST. CHIEF ENGR. DIV.		COL. CORPS OF ENGINEERS	
CHIEF ENGINEERING DIVISION		DISTRICT ENGINEER	
		SCALE AS NOTED	
		DRAWING NUMBER LR 174-12.6/141	



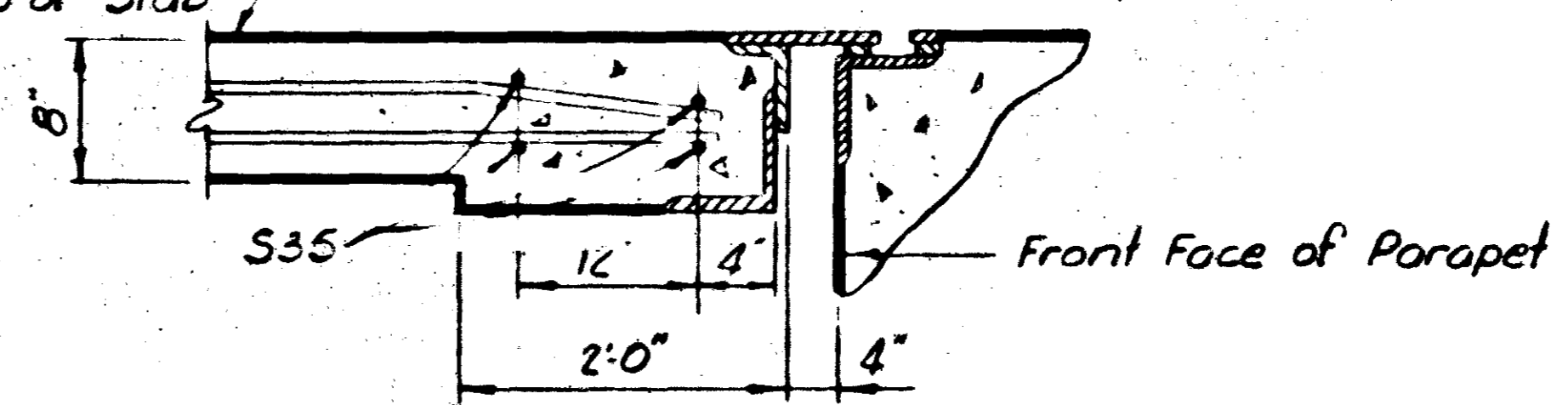
BILL OF REINFORCEMENT											
MARK	TYPE	NO.	BAR SIZE	LENGTH	LOCATION	O		D		C	
						FT	IN	FT	IN	FT	IN
S1	4	367	#5	28 5	Slab	26	9	27	2		
S2	7	367	#5	29 4	"	27	2				
S3	3	367	#5	29 5	"						
S4	5	4	#5	4 1	"	3	3	3	5 1/2		
S5			#5	5 8	"	4	10	5	0 1/2		
S6			#5	7 3	"	6	5	6	7 1/2		
S7			#5	8 10	"	8	0	8	2 1/2		
S8			#5	10 5	"	9	7	9	4 1/2		
S9			#5	12 0	"	11	2	11	4 1/2		
S10			#5	13 7	"	12	9	12	11 1/2		
S11			#5	15 2	"	14	4	14	6 1/2		
S12			#5	16 9	"	15	11	16	1 1/2		
S13			#5	18 4	"	17	6	17	8 1/2		
S14			#5	19 11	"	19	1	19	3 1/2		
S15			#5	21 6	"	20	8	20	10 1/2		
S16			#5	23 1	"	22	3	22	5 1/2		
S17			#5	24 8	"	23	10	24	0 1/2		
S18	5		#5	26 3	"	25	5	25	7 1/2		
S19	6		#5	4 6	"	3	3				
S20			#5	6 1	"	5	0				
S21			#5	7 8	"	6	7				
S22			#5	9 3	"	8	2				
S23			#5	10 10	"	9	9				
S24			#5	12 5	"	11	4				
S25			#5	14 0	"	12	11				
S26			#5	15 7	"	14	6				
S27			#5	17 2	"	16	1				
S28			#5	18 9	"	17	8				
S29			#5	20 4	"	19	3				
S30			#5	21 11	"	20	10				
S31			#5	23 6	"	22	5				
S32			#5	25 1	"	24	0				
S33	6	4	#5	26 8	"	25	7				
S34	Str	20	#6	10 0	"						
S35	Str	8	#5	33 0	"						
S36	Str	48	#8	33 0	"						
S37	Str	110	#5	37 2	"						
S38	7	1410	#5	7 7	Curb						
S39	7	106	#5	6 8	"						
S40	Str	160	#4	15 8	Plinth						
S41	Str	16	#4	15 11	"						



For Detail of High Strength Handrail see Drwg 145 Anchor Uowels to be in place before Plinth is placed.

Mandatory Construction Joint Concrete is not to be placed above this joint until deck concrete has properly cured.

Note: For Expansion Dam details See Drwg 141

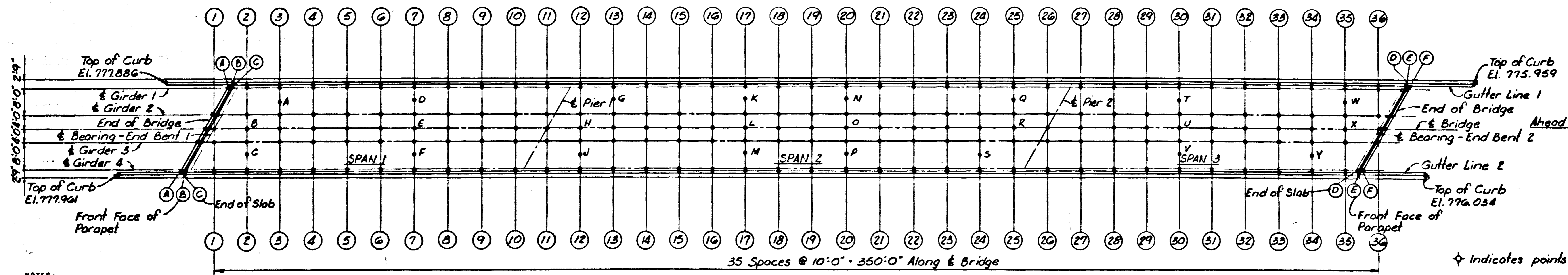


TYPICAL SECTION THRU DECK
Scale 1/2"=1'-0"

Note: The Contractor may pour the roadway slab in one continuous pour beginning at one end of the bridge providing he has sufficient capacity to pour the entire slab in one day. If he does not have this capacity, he is to submit a pouring sequence to the Contracting Officer for approval.

ESTIMATE OF QUANTITIES	
Item	Spans, 263
Concrete, Class "AA" (Cu Yds)	357.2
Steel Reinforcement (Lbs)	85,555

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	C.P.K. Jr.	OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 ROAD SLAB DETAILS	
DRAWN	R.A.S.	SCALE AS NOTED	
CHECKED	D.G.M.	DRAWING NUMBER LR 174-12.6/142	
SUBMITTED		APPROVED	
APPROVAL RECD.		DATE	
ASST. CHIEF ENGR. DIV.		DISTRICT ENGINEER	
APPROVED		SCALE AS NOTED	
CHIEF ENGINEERING DIVISION		DRAWING NUMBER	

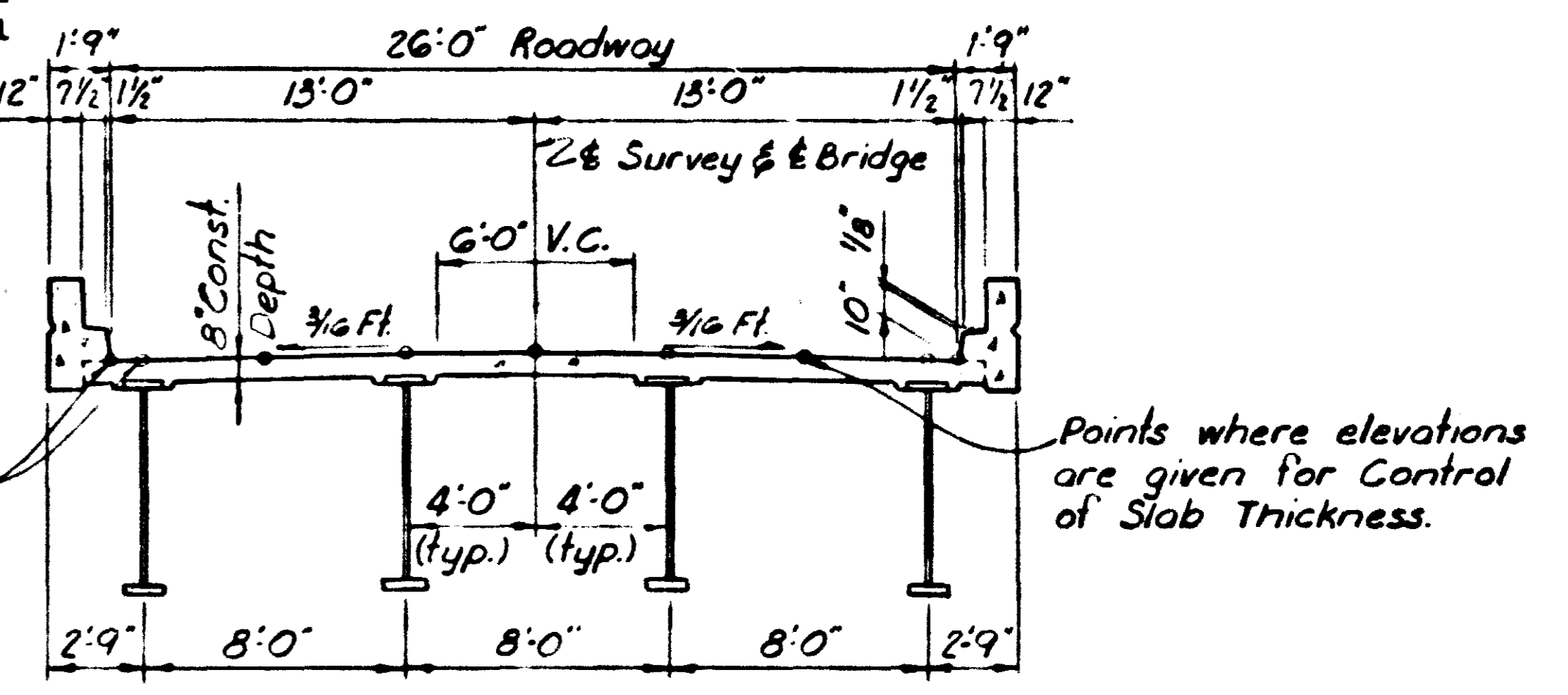


NOTES:
 TAKE ELEVATIONS ON TOP OF STEEL AT POINTS INDICATED AFTER CROSS FRAMES AND LATERAL BRACING ARE IN PLACE AND AFTER ALL FALSEWORK HAS BEEN REMOVED, BUT BEFORE FORMS FOR CONCRETE SLABS HAVE BEEN PUT IN PLACE. READ ELEVATIONS TO THREE DECIMALS USING A TARGET ROD AND ENTER READINGS IN TABLE UNDER STEEL ELEVATIONS. COMPUTE DIMENSION "X" AS FOLLOWS: CONSTRUCTION ELEVATION MINUS STEEL ELEVATION EQUALS DIMENSION "X". CONSTRUCTION ELEVATIONS INCLUDE CAMBER DUE TO WEIGHT OF CONCRETE SLAB PLINTH HANDRAIL.
 FOR SETTING TEMPLATES MEASURE DIMENSION "X" ABOVE TOP OF STEEL FOR TOP OF TEMPLATE. DO NOT SET TEMPLATES BY ELEVATIONS. CONSTRUCT HANDRAIL PLINTH TO SIDEWALK GRADE. DO NOT ADD CAMBER TO HANDRAIL PLINTH. SLAB ELEVATION TOLERANCES ARE BASED ON DELIVERY TO THE BRIDGE SITE OF FABRICATED STEEL HAVING DIMENSION AND SWEEP TOLERANCES MEETING THE REQUIREMENTS OF AHS. SPEC. PAR. 407 FOR WELDED GIRDERS, AND ARE BASED ON ERECTION OF THE STEEL UNDAUNAGED.

PLAN
 (Showing points where elevations are given.)
 Scale 1/16"=1'-0"

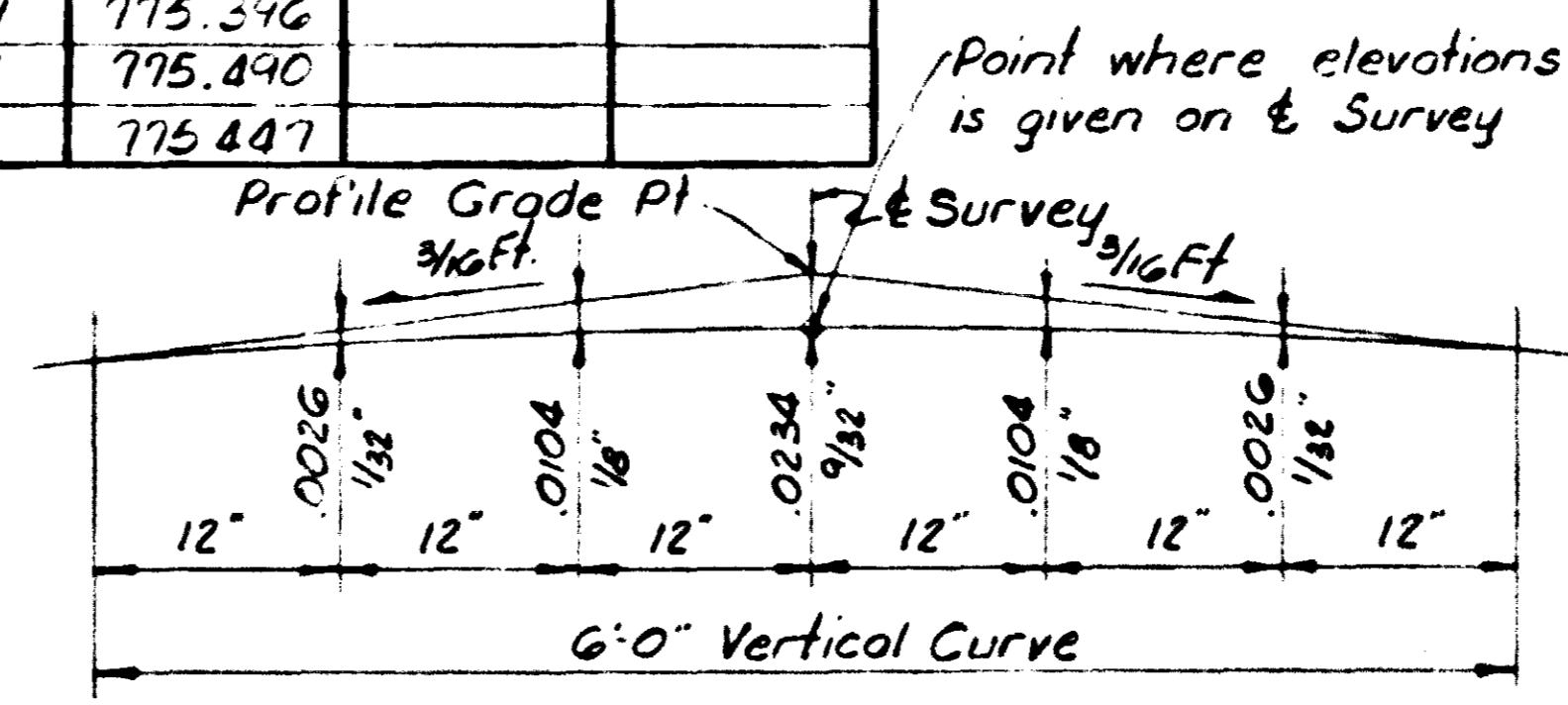
◆ Indicates points where elevations are given.
 ◆ Indicates points where elevations are given for Control of Slab Thickness.

Location	Gutter Line 1 Top Conc	Girder 1			Girder 2			Bridge			Girder 3			Girder 4			Gutter Line 2 Top Conc	POINT	PLAN EL. TOPOFSLAB	FIELD EL. TOPOFORM	COMPUTED SLAB THICKNESS
		Top Conc	Top Steel	Dim "x"	Top Conc	Top Steel	Dim "x"	Top Conc	Top Steel	Dim "x"	Top Conc	Top Steel	Dim "x"	Top Conc	Top Steel	Dim "x"					
A-A	776.969	776.988			777.136			777.187	777.159							777.057	A	776.997			
B-B	776.962	776.981			777.129			777.179	777.152							777.050	B	777.140			
C-C	776.960	776.979			777.126			777.177	777.150							777.048	C	777.046			
1-1	776.991	777.007			777.132			777.171	777.136							777.020	D	776.798			
2-2	776.946	776.963			777.097			777.140	777.105							776.987	E	776.893			
3-3	776.914	776.931			777.063			777.105	777.068							776.947	F	776.785			
4-4	776.878	776.894			777.023			777.063	777.025							776.900	G	776.494			
5-5	776.834	776.850			776.975			777.013	776.973							776.844	H	776.634			
6-6	776.782	776.797			776.919			776.956	776.914							776.783	J	776.542			
7-7	776.723	776.738			776.857			776.893	776.851							776.719	K	776.395			
8-8	776.660	776.675			776.793			776.829	776.787							776.658	L	776.503			
9-9	776.596	776.611			776.732			776.769	776.729							776.602	M	776.406			
10-10	776.538	776.553			776.677			776.715	776.677							776.554	N	776.256			
11-11	776.487	776.503			776.630			776.671	776.632							776.507	O	776.353			
12-12	776.444	776.460			776.591			776.634	776.599							776.484	P	776.245			
13-13	776.409	776.426			776.561			776.605	776.572							776.460	Q	775.892			
14-14	776.382	776.399			776.537			776.583	776.551							776.439	R	775.984			
15-15	776.361	776.378			776.516			776.562	776.529							776.415	S	775.944			
16-16	776.339	776.356			776.492			776.536	776.502							776.384	T	775.635			
17-17	776.312	776.328			776.461			776.503	776.466							776.346	U	775.743			
18-18	776.276	776.292			776.422			776.462	776.424							776.299	V	775.648			
19-19	776.233	776.249			776.374			776.412	776.372							776.242	W	775.546			
20-20	776.181	776.196			776.316			776.353	776.311							776.178	X	775.490			
21-21	776.120	776.134			776.252			776.286	776.242							776.106	Y	775.447			
22-22	776.051	776.065			776.179			776.212	776.166							776.028					
23-23	775.975	775.989			776.101			776.133	776.087							775.949					
24-24	775.896	775.910			776.022			776.055	776.011							775.876					
25-25	775.820	775.834			775.949			775.984	775.941							775.810					
26-26	775.741	775.757			775.882			775.920	775.880							775.753					
27-27	775.689	775.704			775.827			775.866	775.827							775.703					
28-28	775.636	775.652			775.779			775.819	775.782							775.661					
29-29	775.592	775.608			775.737			775.779	775.743							775.625					
30-30	775.553	775.569			775.701			775.743	775.707							775.588					
31-31	775.517	776.533			775.664			775.705	775.669							775.547					
32-32	775.478	775.494			775.623			775.663	775.625							775.500					
33-33	775.434	775.450			775.575			775.613	775.573							775.444					
34-34	775.382	775.397			775.518			775.555	775.513							775.381					
35-35	775.322	775.337			775.455			775.490	775.447							775.313					
36-36	775.256	775.270			775.386			775.420	775.382							775.257					
D-D	775.197	775.215			775.363			775.414	775.386							775.285					
E-E	775.195	775.213			775.361			775.412	775.385							775.283					
F-F	775.188	775.206			775.354			775.405	775.377							775.275					



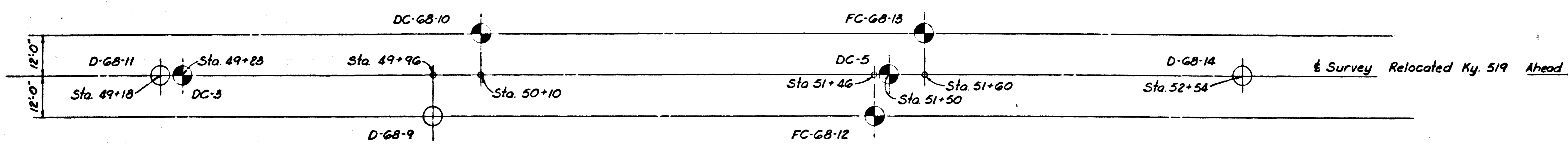
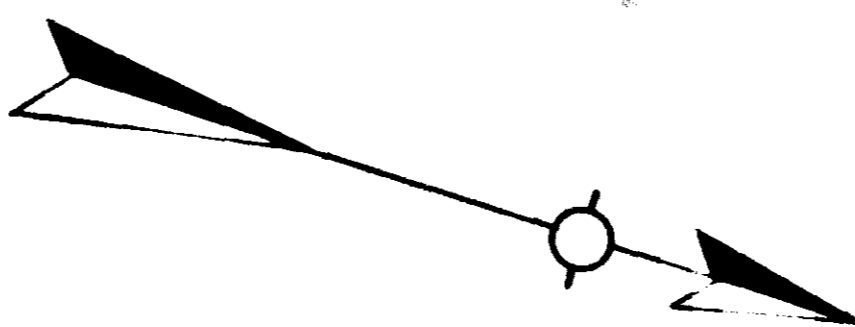
TYPICAL SECTION THRU DECK
 Scale 3/16"=1'-0"

NOTE: AFTER THE SLAB FORMS ARE ERECTED AND BEFORE THE SLAB REINFORCEMENT IS PLACED, THE RESIDENT ENGINEER SHALL TAKE FIELD ELEVATIONS AT THE SLAB THICKNESS CHECK POINTS AND ENTER THEM IN THE TABLE IN THE SPACE PROVIDED. THE SLAB THICKNESS SHALL THEN BE COMPUTED. IF THE COMPUTED SLAB THICKNESS VARIES MORE THAN 1/4" FROM THE PLAN THICKNESS, ALLOWING 1/360 OF THE SLAB SPAN FOR DEFLECTION OF THE FORM WORK, THE FORM SHALL BE ADJUSTED UNTIL THE COMPUTED SLAB THICKNESS IS WITHIN THE TOLERANCE ALLOWED. A COPY OF THIS SHEET SHOWING THE FINAL DATUM ELEVATIONS SHALL BE SENT TO THE CONTRACTING OFFICER, U. S. ARMY ENGINEER DISTRICT LOUISVILLE, KENTUCKY. Points where elevations are given.

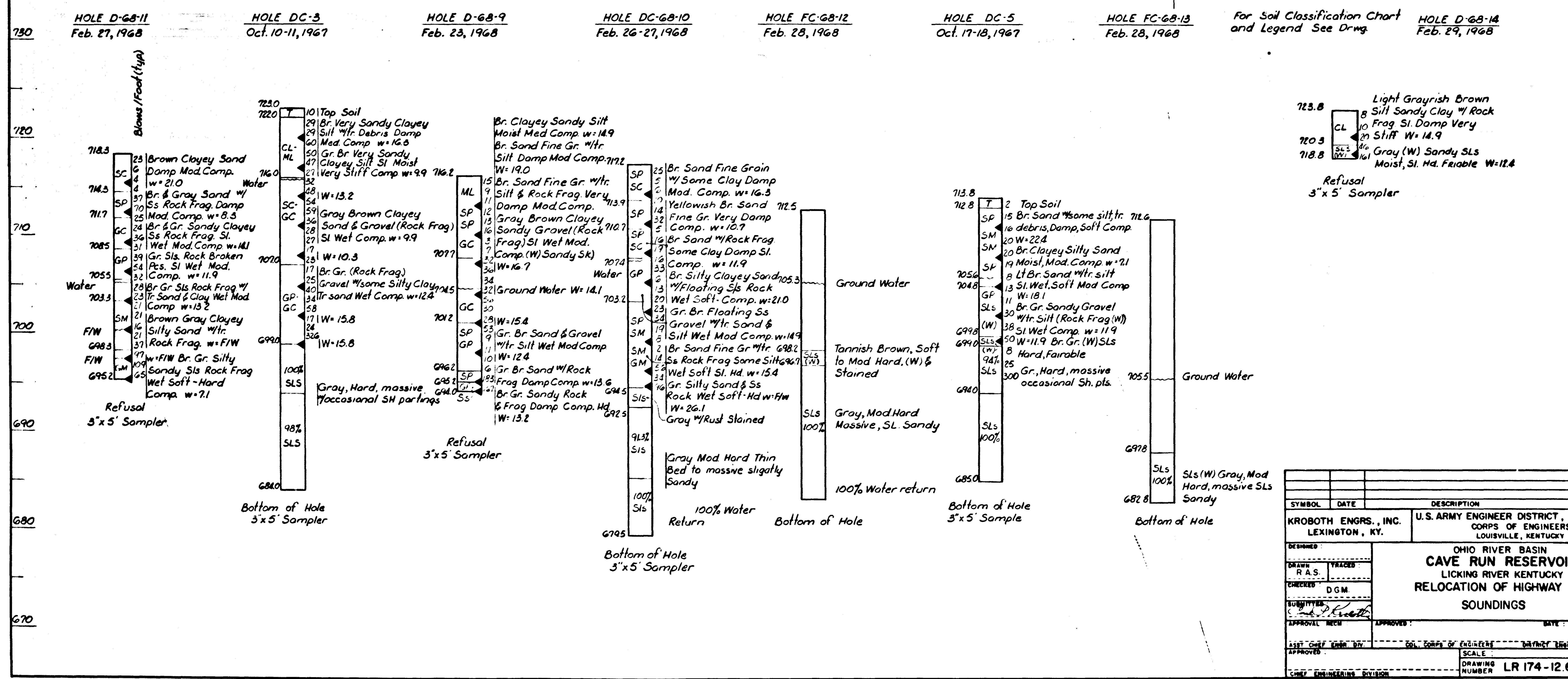


PARABOLIC CROWN DETAIL
 No Scale

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
DESIGNED	P.A.P.	OHIO RIVER BASIN	
DRAWN	R.A.S.	CAVE RUN RESERVOIR	
CHECKED	D.G.M.	LICKING RIVER KENTUCKY	
		RELOCATION OF HIGHWAY 519	
		CONSTRUCTION ELEVATIONS	
APPROVAL	REC'D	APPROVED	DATE
ASST. CHIEF ENGR. DIV.		CHIEF OF ENGINEERS DISTRICT ENGINEER	
SCALE AS NOTED		DRAWING NUMBER	
		LR 174-12.6/143	



- Core into Solid Rock.
- Auger to Solid Rock.
- Indicates where Jar was taken.



- 723.8 Light Grayish Brown
- CL 8 Silt Sandy Clay w/ Rock
- 10 Frag. Sl. Damp Very
- 720.3 20 Stiff W=14.9
- 718.8 SLS 4% Gray (W) Sandy SLS
- 16 Moist, Sl. Hd. Friable W=12.4
- Refusal 3" x 5" Sampler

SYMBOL	DATE	DESCRIPTION	APPROVAL
KROBOTH ENGRS., INC. LEXINGTON, KY.		U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS LOUISVILLE, KENTUCKY	
OHIO RIVER BASIN CAVE RUN RESERVOIR LICKING RIVER KENTUCKY RELOCATION OF HIGHWAY 519 SOUNDINGS			
DESIGNED	TRACED	APPROVAL	
DRAWN R.A.S.	CHECKED D.G.M.	SCALE	
APPROVED		DRAWING NUMBER LR 174-12.6/144	