

KENTUCKY DEPARTMENT OF HIGHWAYS

JEFFERSON COUNTY

LOUISVILLE - COVINGTON RD.

I-71 TRI-LEVEL INTERCHANGE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

GENERAL NOTES

SPECIFICATIONS: KENTUCKY DEPARTMENT OF HIGHWAYS, CURRENT STANDARD WITH SUPPLEMENTS.
DESIGN LOAD: BRIDGE DESIGNED FOR HS20-44 LOADING AS SPECIFIED IN 1951 AASHO.
SPECIFICATIONS OR ALTERNATE LOADING OF TWO 24 KIP AXLES SPACED 14 FEET APART, WHICHEVER PRODUCES THE GREATER STRESS.
DESIGN STRESSES: FOR REINFORCED CONCRETE:
F_c = 20,000 PSI; F_s = 20,000 PSI; F_s = 20,000 PSI FOR REINFORCEMENT.
FOR A36 STRUCTURAL STEEL: F_y = 20,000 PSI; FOR A441 STEEL: F_y = 27,000 PSI FOR PLATES 3/4" THICK AND UNDER; F_y = 25,000 PSI FOR PLATES 3/4" TO 1 1/2" THICK; F_y = 23,000 PSI FOR PLATES 1 1/2" TO 4" THICK.
FOUNDATION PRESSURE: FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 20,000 PSI. THESE MAXIMUMS ARE FOR GROUP 1 LOADS WITH INCREASES ALLOWED FOR OTHER LOADING GROUPS.
CONCRETE: CLASS "A" CONCRETE IS TO BE USED THROUGHOUT, EXCEPT IN HANDRAIL. CLASS "B" CONCRETE IS TO BE USED IN HANDRAIL.
REINFORCEMENT: INTERMEDIATE OR HARD GRADE REINFORCEMENT SHALL BE USED IN ACCORDANCE WITH ASTM A15-64 FOR BILLET STEEL OR A15-64 FOR RAIL STEEL, CONFORMING TO BENDING REQUIREMENTS OF AASHO SPEC. 1042. DIMENSIONS SHOWN FROM FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.
BEVELED EDGES: ALL EXPOSED EDGES SHALL BE BEVELED 7/8" UNLESS OTHERWISE SHOWN.
EXPANSION JOINT MATERIAL, JOINT SEAL: THE COST OF THESE ITEMS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "A" CONCRETE.
STRUCTURAL STEEL: SEE STRUCTURAL STEEL NOTES ON SHEET NO. 23 AND STANDARD DRAWING A510C. "LUMP SUM BID" FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL, CAST IRON, SHOP DETAIL LIGHT TRACINGS, RIVETS, HIGH STRENGTH BOLTS, WASHERS, WELDING AND WELDING MATERIALS, MOLDED LEAD, LEAD PLATES AND ANCHOR BOLTS, PAINT AND ALL LABOR AND MATERIALS NECESSARY TO ERECT THE STEEL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

CHANGES IN STRUCTURAL STEEL QUANTITIES: IN THE EVENT THAT CHANGES IN QUANTITIES ARE REQUIRED DUE TO CHANGES BY THE ENGINEERS 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 SHOWN ON THE PLANS.
PROTECTIVE COATING: PROTECTIVE COATING SHALL BE APPLIED IN ACCORDANCE WITH SPECIAL PROVISION FOR LINED OIL PROTECTIVE COATING.
OPTIONAL TYPES OF HIGH-STRENGTH HANDRAIL: THE CONTRACTOR SHALL PROVIDE THROUGHOUT THE PROJECT, AT HIS OPTION, EITHER HIGH STRENGTH ALUMINUM HANDRAIL IN ACCORDANCE WITH STANDARD DRAWING H150 OR HIGH STRENGTH CONCRETE HANDRAIL IN ACCORDANCE WITH STANDARD DRAWING H150.
WIND LOADS: THIS STRUCTURE IS DESIGNED USING WIND LOADS BASED ON A WIND VELOCITY OF 80 M.P.H.
SHOP INSPECTION: BY DEPARTMENT OF HIGHWAYS.
JOINT SEALING COMPOUND: COLD APPLIED, ELASTOMERIC TYPE JOINT SEALING COMPOUND SHALL CONFORM TO THE SPECIAL PROVISIONS FOR THIS MATERIAL. SPECIAL PROVISIONS GOVERN MATERIAL REQUIREMENTS, SAMPLING AND TESTING, APPLICATION AND PAYMENT.
CONCRETE FINISH: EXTERIOR FACE OF FLINTS AND SOFFIT OVERHANGS SHALL RECEIVE A RUBBED SURFACE FINISH.

STANDARD DRAWINGS AND SPECIAL PROVISIONS
A510C G550c H115
A510C G550c H150
A510C

SPECIAL PROVISION FOR PREFORMED JOINT SEALER: 4/23/65.
SPECIAL PROVISION FOR JOINT SEALING COMPOUND: 6/24/65.
SPECIAL PROVISION FOR LINED OIL PROTECTIVE COATING 4/14/64.
SPECIAL PROVISION FOR HIGH STRENGTH CAST ALUMINUM BRIDGE RAILING POST 10/2/64.

Sheet 1 of 29

Tri-level Interchange at Junction of I-71 & I-264

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
JEFFERSON	
LOUISVILLE - COVINGTON	
ROAD	
STATION 28+11.55-13.56 (Ramp E-W) PROJECT NO. SP 56-315-11	
BRIDGE NUMBER	10346

27

BRIDGE

PLANS PREPARED BY
C.R. KROBOTH
CONSULTING ENGR. INC.

DATE: 10-1-65
BY: J.E.H.
CHECKED BY: J.E.H.
DATE: 10-1-65

DESIGNED BY: J.E.H.
CHECKED BY: J.E.H.
DATE: 10-1-65

REFERENCE AND ESTIMATE OF QUANTITIES ~ UPPER BRIDGE										
Item	Quant.	Concrete	Reinforcing Steel	Structural Steel	High-Strength Handrail	Structure Excavation	Electrical Conduit	Protective Coating	Other	Remarks
		(Cu Yds.)	(Lbs.)	(Lump Sum)	(Lb. Ft.)	(Cu Yds.)	(Cu Yds.)	(Lump Sum)	(Lb. Yds.)	(Lump Sum)
Notes & Quantities	1									
Layout	2.29									
Abutment 1-L	10.118	123.1	7,157			100	85	30		
Abutment 2-L	19.20	225.8	14,001			150	85	30		
Span 1-L (Structural Steel)	21-24			①						②
Span 1-L (Concrete Deck)	25	150.0	9,181					75		
High-Strength Handrail	26				306					
Construction Elevations	27									
Electrical Conduit	28									
Soundings	29									
Sub Total - Substructure		308.9	15,338			250	80	30		
Sub Total - Superstr.		150.0	9,181		306			75		
Totals - Upper Bridge		308.9	15,338	①	306	250	80	75		②

REFERENCE AND ESTIMATE OF QUANTITIES ~ LOWER BRIDGE										
Item	Quant.	Concrete	Reinforcing Steel	Structural Steel	High-Strength Handrail	Structure Excavation	Electrical Conduit	Protective Coating	Other	Remarks
		(Cu Yds.)	(Lbs.)	(Lump Sum)	(Lb. Ft.)	(Cu Yds.)	(Cu Yds.)	(Lump Sum)	(Lb. Yds.)	(Lump Sum)
Notes & Quantities	1									
Layout	2.29									
Abutment 1-L	3.47	55.8	3,402			30	25	15		
Abutment 2-L	5.67	83.7	5,009			25	25	15		
Span 1-L (Structural Steel)	8.70			③						④
Span 1-L (Concrete Deck)	11.18	17.9	1,110					280		
High-Strength Handrail	26				205					
Construction Elevations	27									
Electrical Conduit	28									
Soundings	29									
Sub Total - Substructure		109.5	9,371			55	25	15		
Sub Total - Superstr.		117.9	1,110		205			280		
Totals - Lower Bridge		227.4	10,481	③	205	55	25	280		④

TOTAL ESTIMATE OF QUANTITIES (Sum of Upper and Lower Bridges)										
Totals - Substructure		318.4	24,749			280	135	110		
Totals - Superstructure		297.9	10,291		205			280		

- ① - ③ Approximate Weight of Structural Steel = 460,574"
② - ④ Option 1 = 6,462, Option 2 = 4,285, Option 3 = 6,535

BILL OF INCIDENTAL MATERIAL

ITEM	QUANTITY	SIZE	LOCATION
Preformed Joint Seal	1	1" x 3/4" x 35'10"	Ext. Slab & Parapet @ E.B. 21
Preformed Joint Seal	1	1" x 3/4" x 35'5"	" " " " " " " " " " " "
Preformed Joint Seal	4	1" x 3/4" x 21'5"	Ext. Curb @ " " " " " " " " " "
Preformed Joint Seal	1	1 1/4" x 2" x 41'0"	Slab & Parapet @ E.B. 21
Joint Sealing Compound	1	1 3/4" x 2" x 50'8"	" " " " " " " " " " " "
Joint Sealing Compound	1	1" x 3" x 39'11"	Expan. Joint @ E.B. 1-1
Joint Sealing Compound	1	1" x 3" x 47'9"	" " " " " " " " " " " "



ELEVATION
100' Composite Welded R Girder Span 16'30" Left 1:20 Slopes
11'30"-44' Loading 32' Roadway 1:10 1/2 Safety Curbs
45' Shoulders of Bridge

LAYOUT ~ LOWER BRIDGE

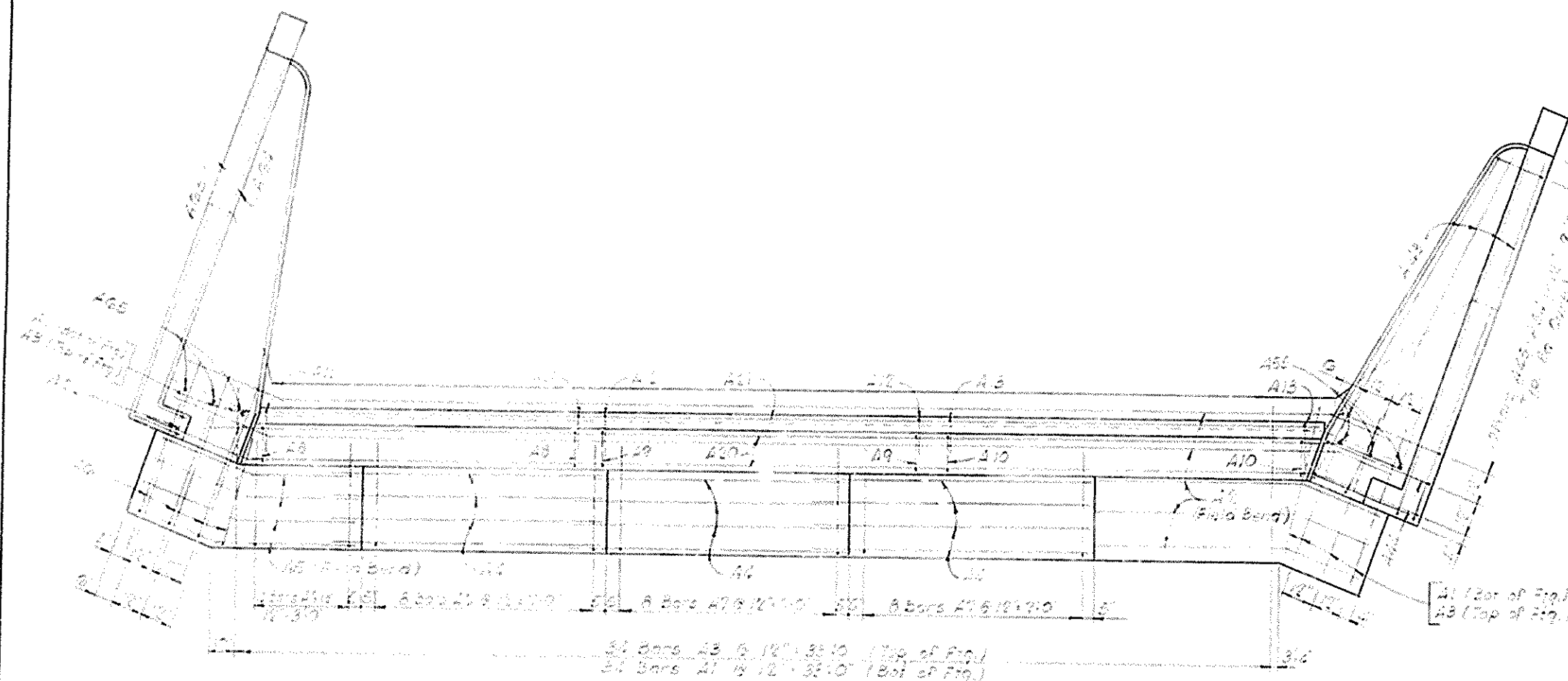
Ramp 3, I-75 over Ramp 5, I-75 Sheet 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD

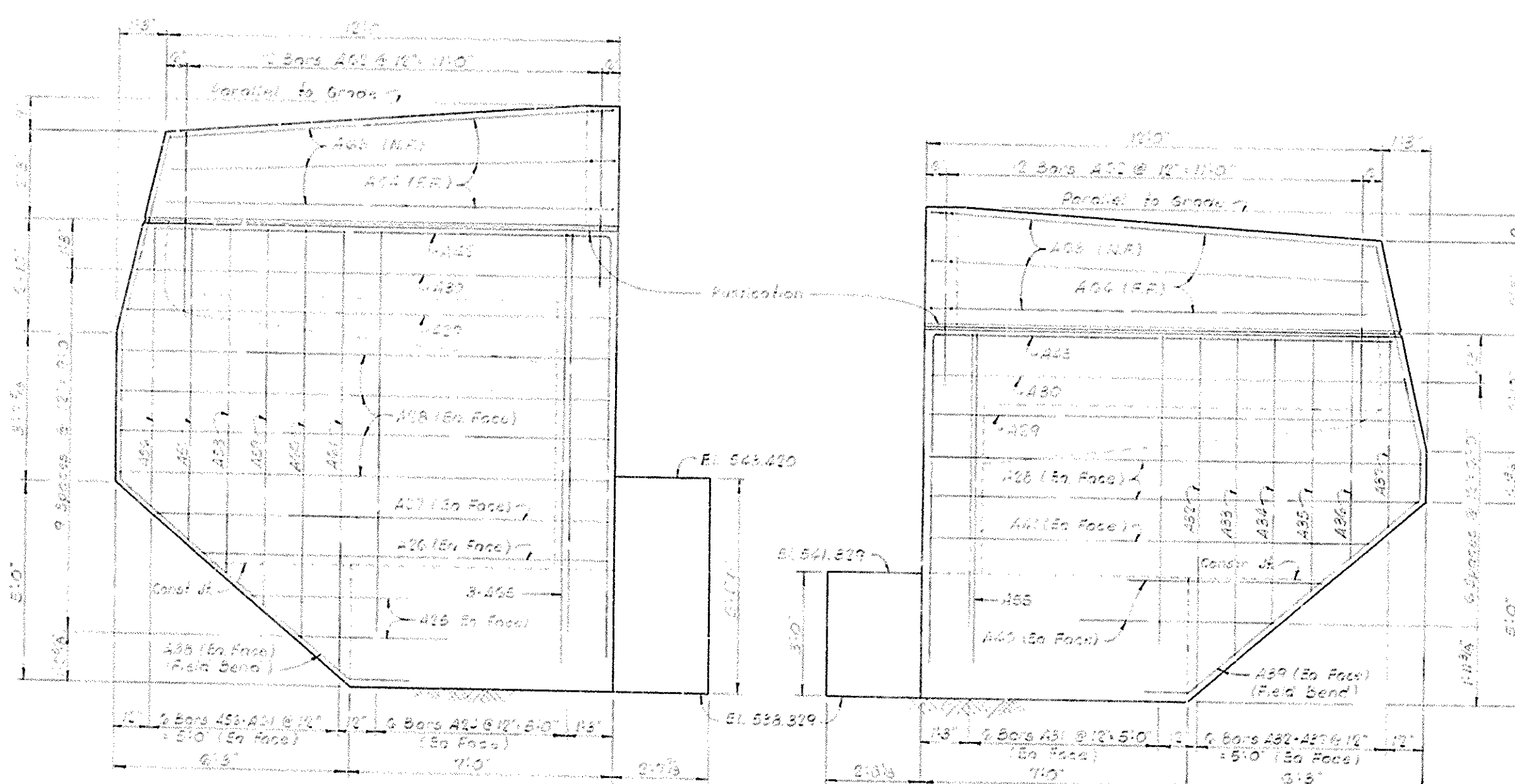
STATION 681.0+19.85 Ramp 3	PROJECT NO. 8256-013-1L
BRIDGE NUMBER	DRAWING 6846
	INDEX

BRIDGE

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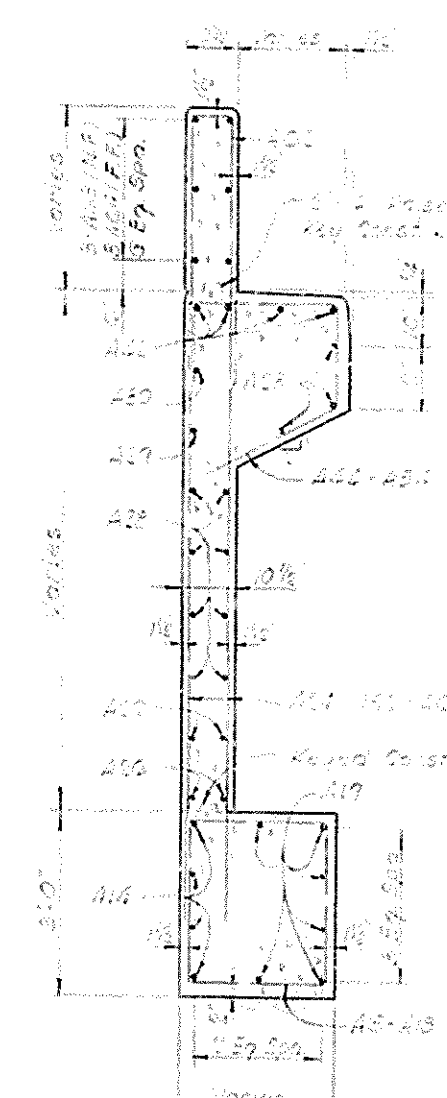


PLAN
Showing Reinforcement

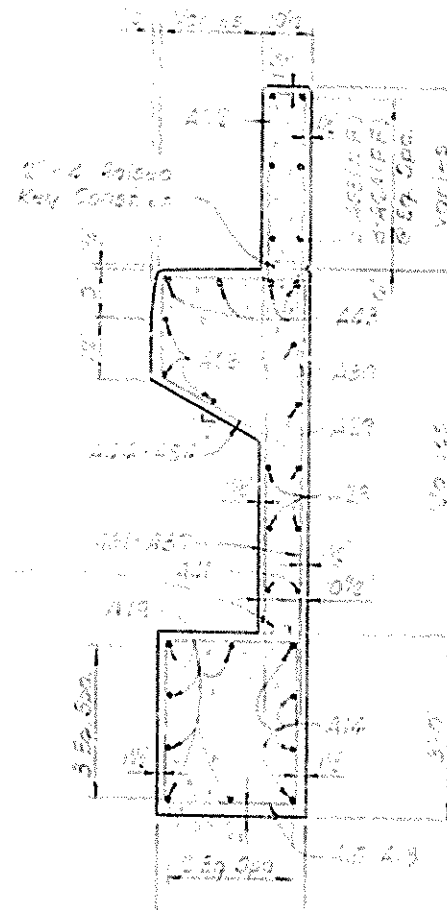


ELEVATION B-B

ELEVATION C-C



SECTION D-D



SECTION E-E

Note:
N.B. indicates near face
F.F. indicates far face

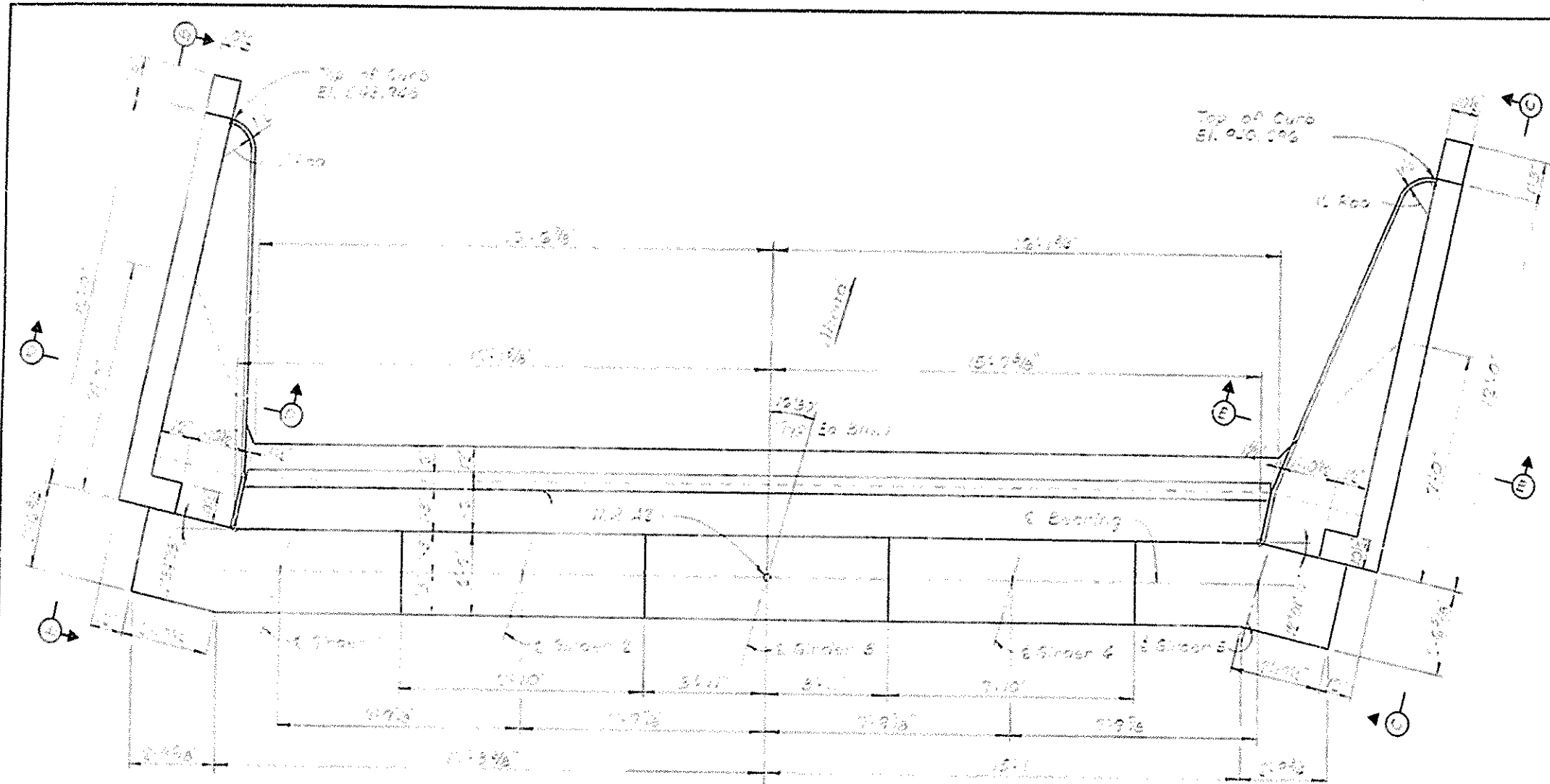
Ramp 5.171 over Ramp 5.171 Sheet 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD

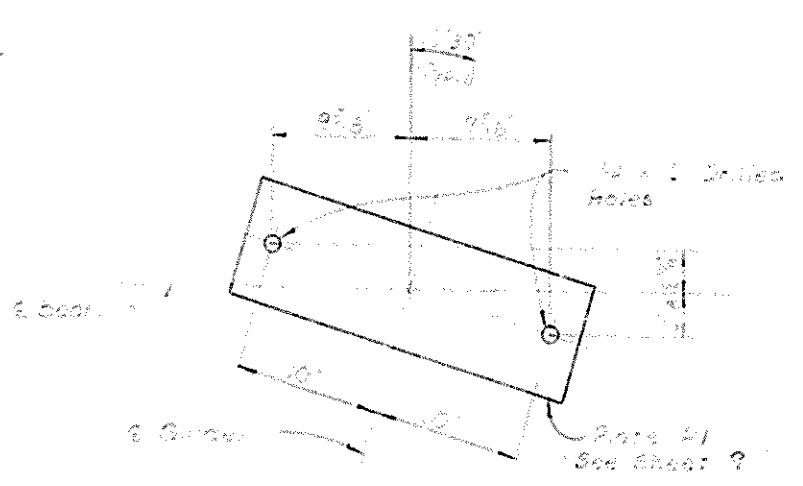
STATION 0+00 to 0+05 Ramp 5 PROJECT NO. 10346
 BRIDGE NUMBER 10346

ABUTMENT I-L

BRIDGE

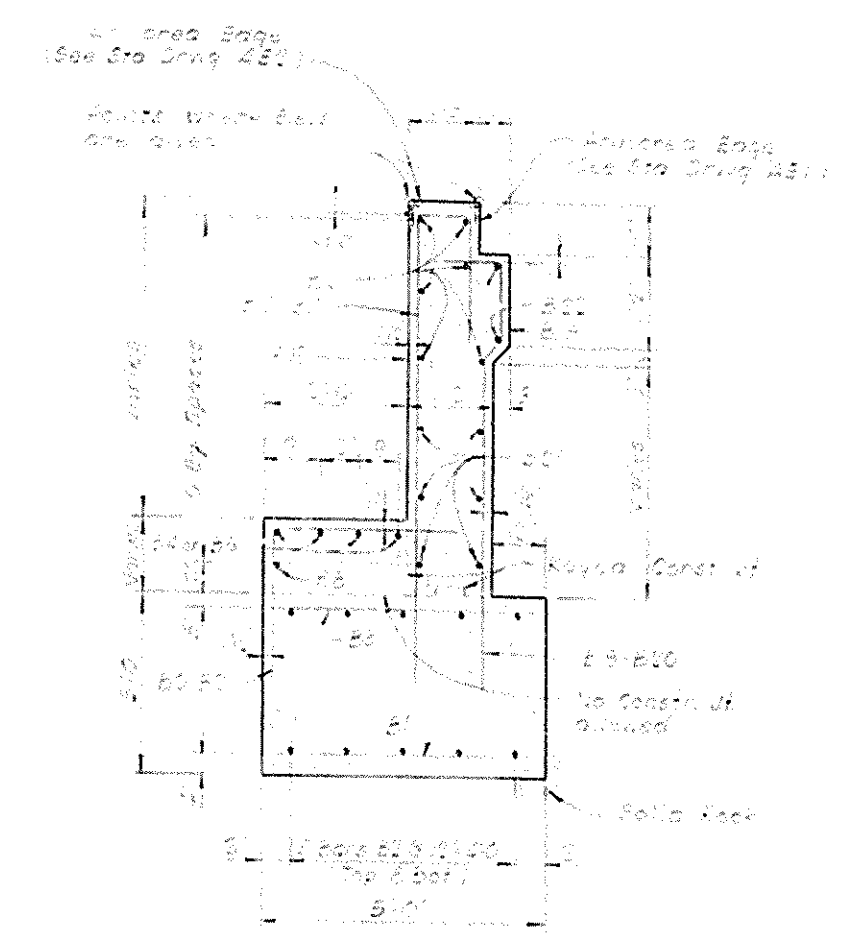


PLAN
Showing Dimensions

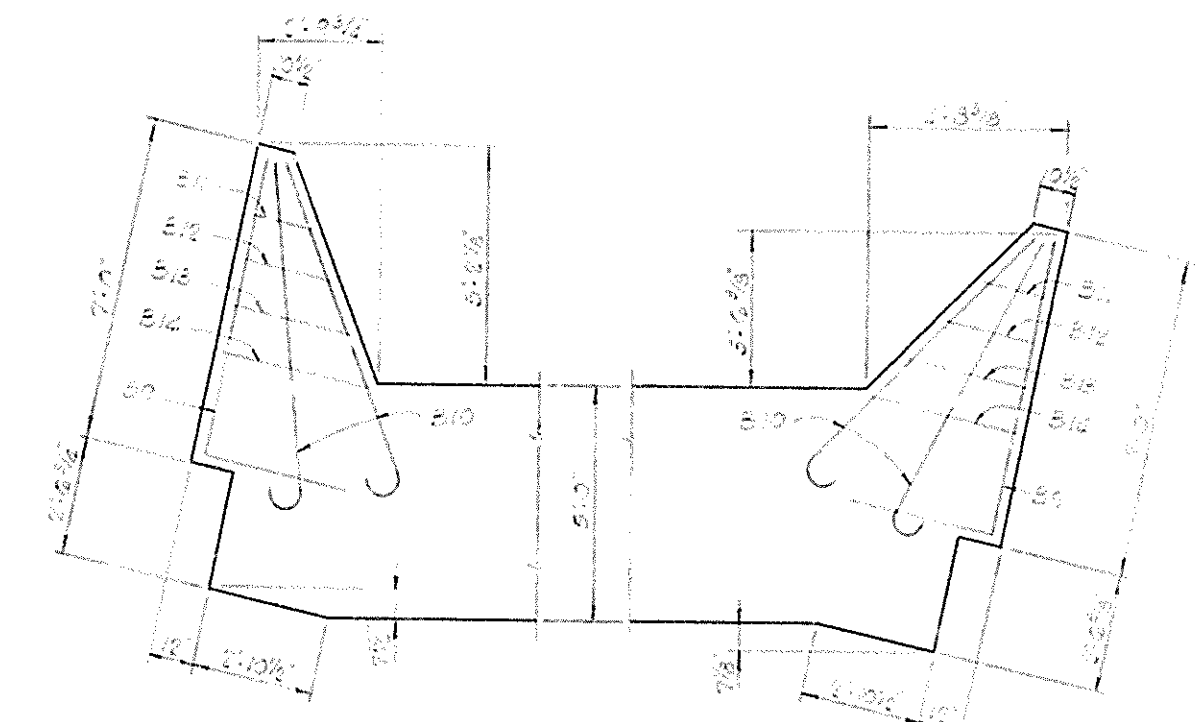


ANCHOR BOLT LAYOUT

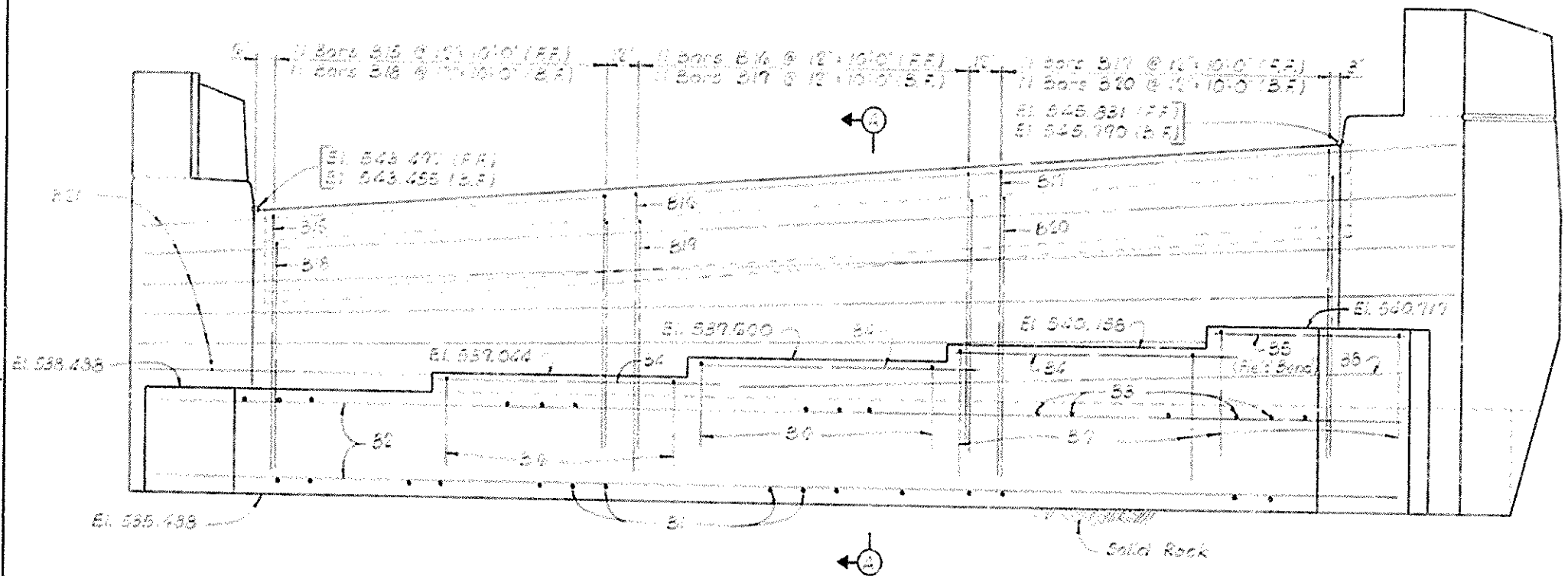
Note: Top of cap bars are to be accurately located in accordance with the plans so that they will not interfere with drilling anchor bolt holes.



SECTION A-A



WING CAP PLAN



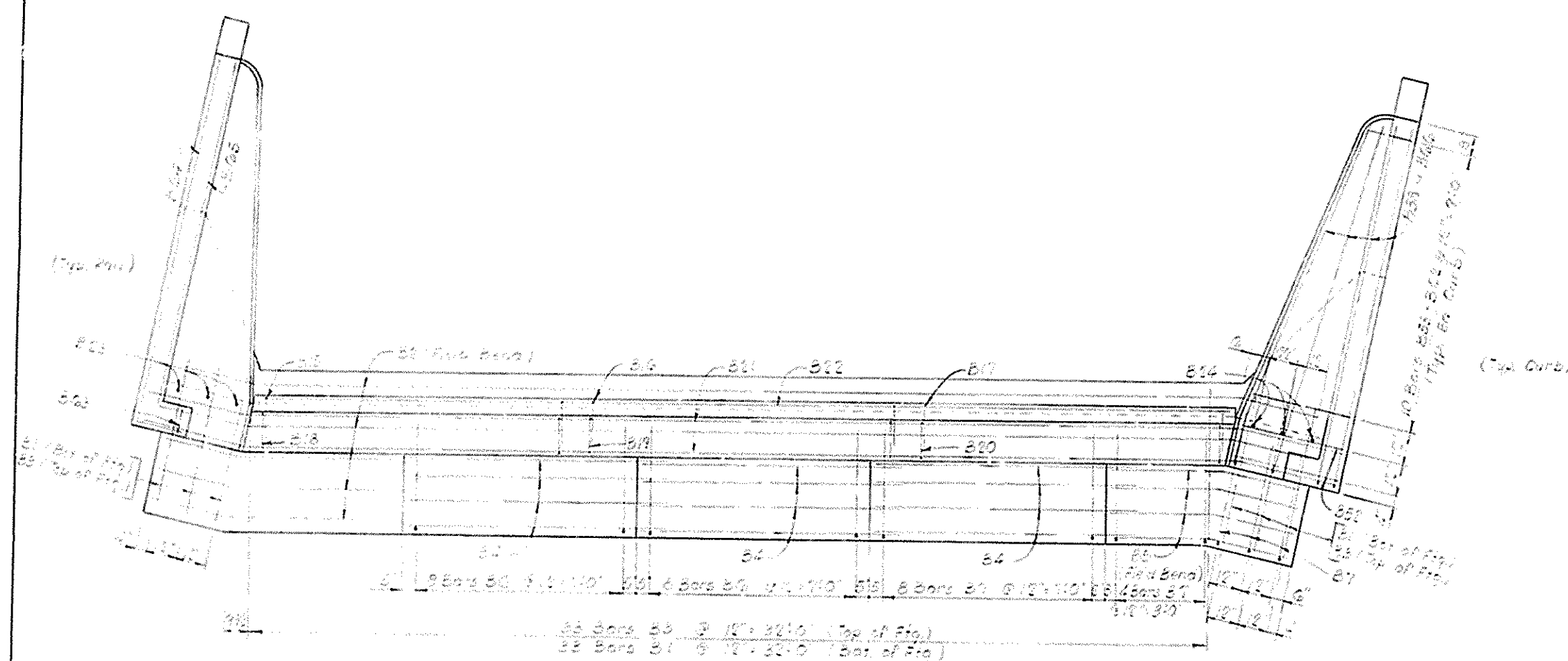
ELEVATION

ABUTMENT 2-L

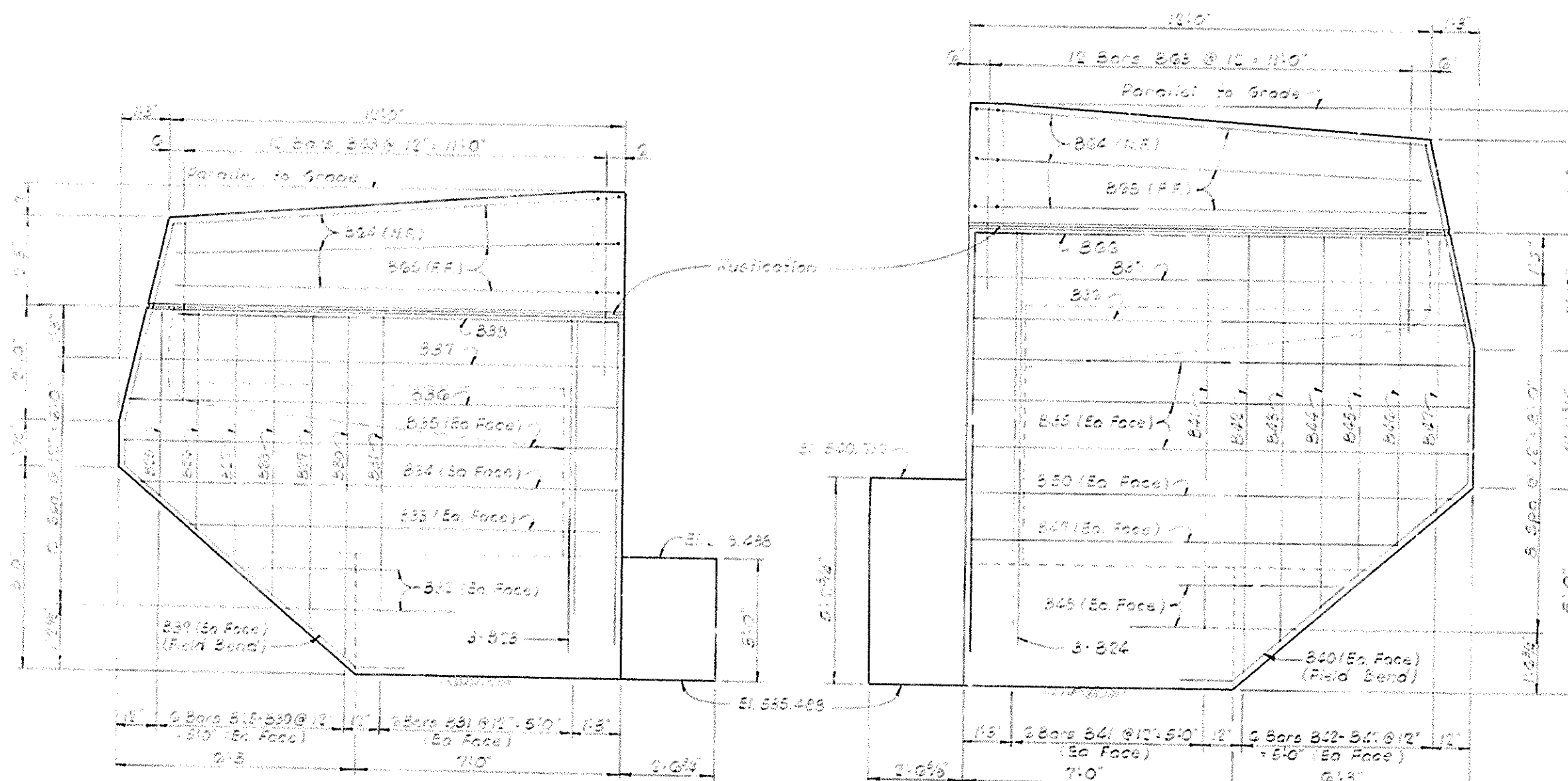
Ramp 3 1/2' over Ramp 6 1/2' Sheet 6

COMMONWEALTH OF KENTUCKY			
DEPARTMENT OF HIGHWAYS			
FRANKFORT			
COUNTY OF			
JEFFERSON			
LOUISVILLE - COVINGTON			
ROAD			
STATION	10+13.55 Ramp 3	PROJECT NO.	
BRIDGE NUMBER		DRAWING NO.	10346
		INDEX	

BRIDGE

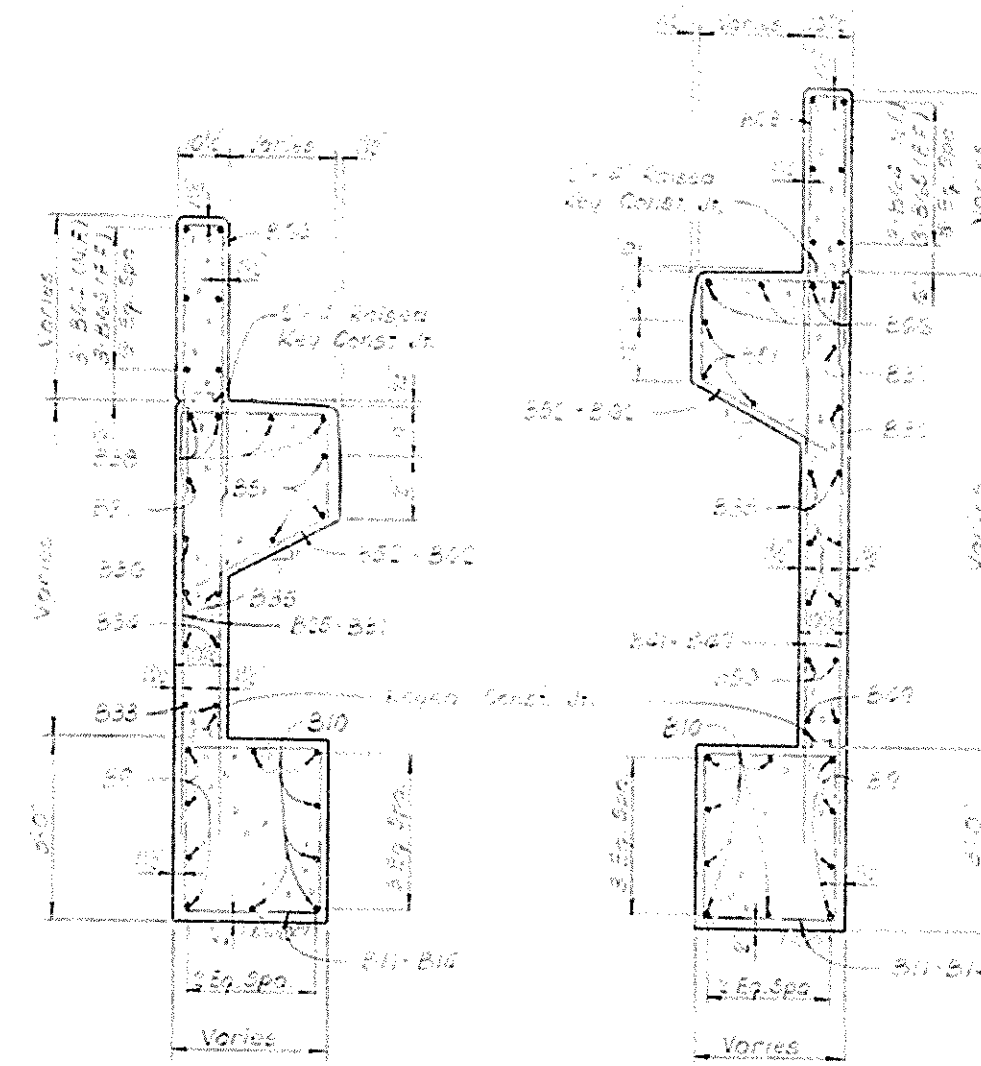


PLAN
(Showing Reinforcement)



ELEVATION B-B

ELEVATION C-C



SECTION D-D

SECTION E-E

Note:
NF indicates rear face.
RF indicates front face.

ABUTMENT 2-L

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 2+3.2955 Ramp 3 PROJECT NO.
 BRIDGE NUMBER 116345
 DRAWING INDEX
 NO.

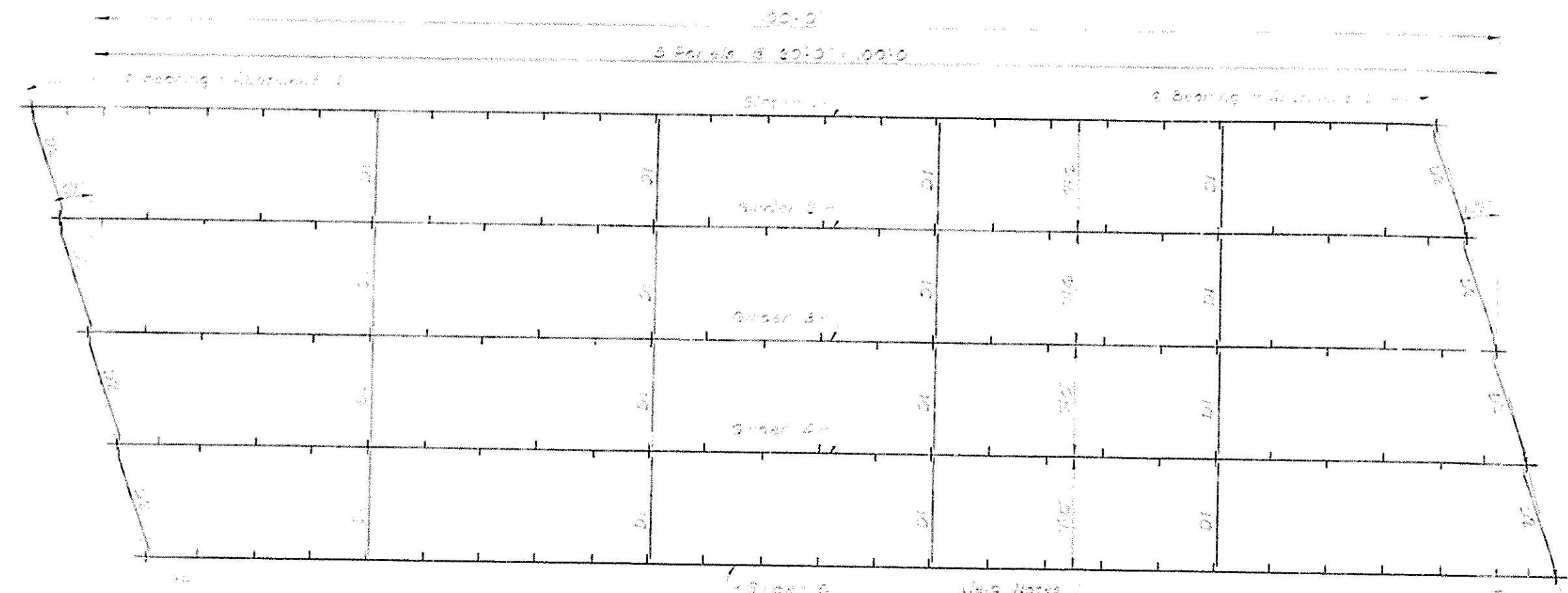
BRIDGE

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ABUTMENT 1-L & 2-L

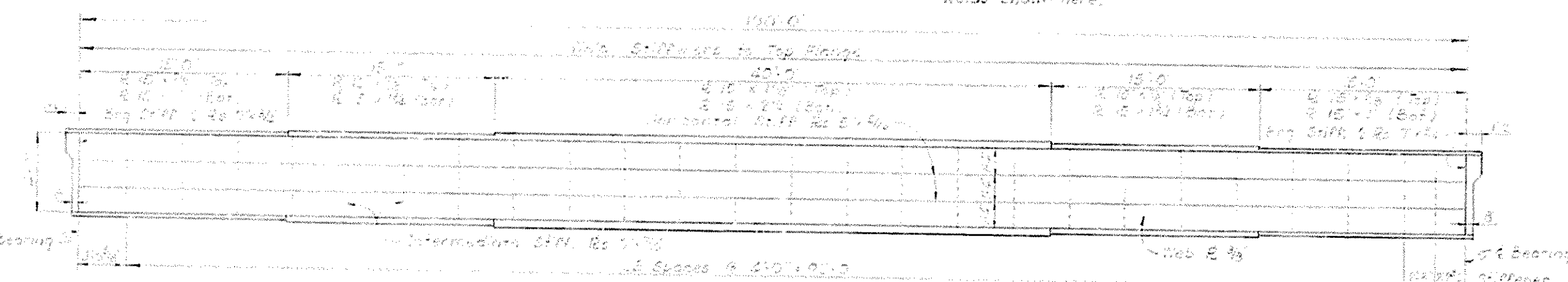
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 0+00 PROJECT NO.
BRIDGE NUMBER
DRAWING
NO.

BRIDGE

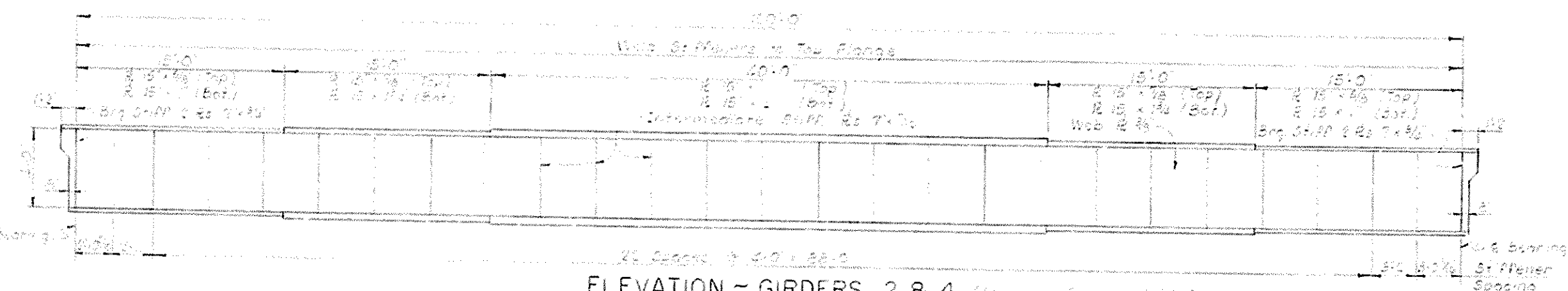


FRAMING PLAN

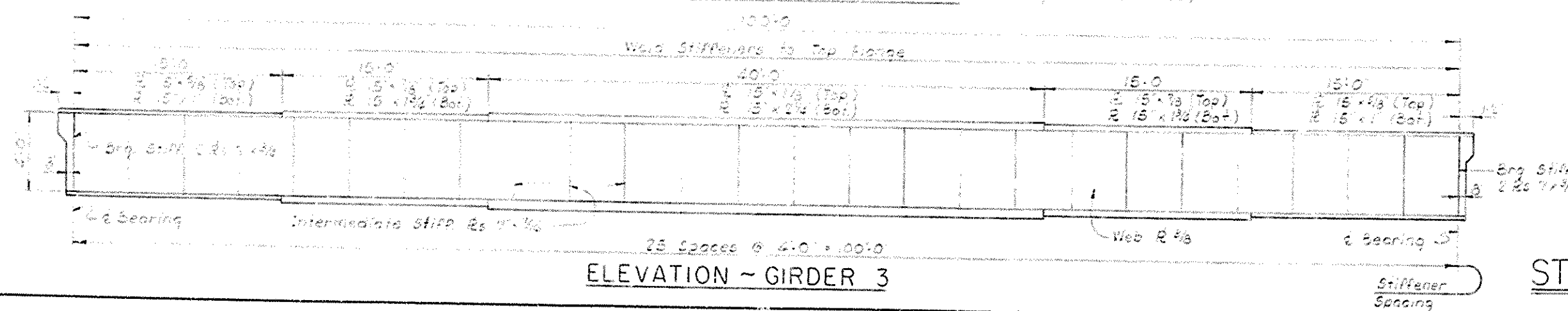
Weld Notes:
 Flange to web weld shall be single pass submerged arc fillet weld in the flat position. Parts are to be assembled with edge of web rigid against flange & before welding.
 See American Welding Society Specifications for Vascular Highway and Railway Bridges, 1963 Edition for prequalified welds shown here.



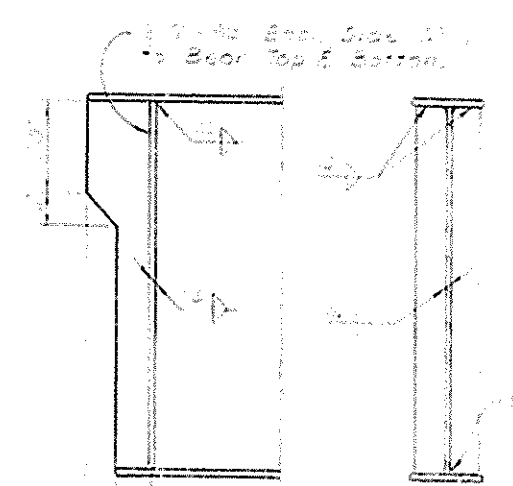
ELEVATION ~ GIRDERS 1 & 5 (Looking from outside)



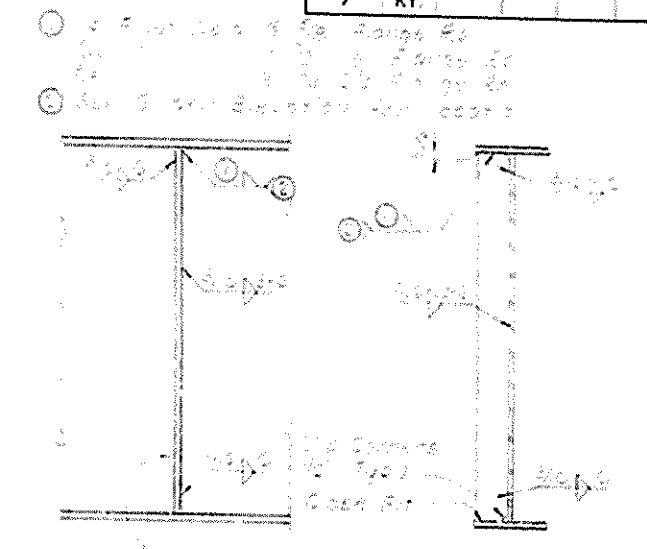
ELEVATION ~ GIRDERS 2 & 4 (Looking from outside)



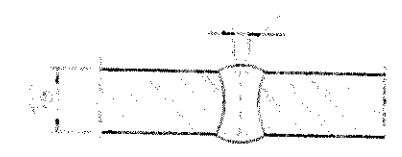
ELEVATION ~ GIRDER 3



ELEVATION SECTION
BEARING STIFFENER



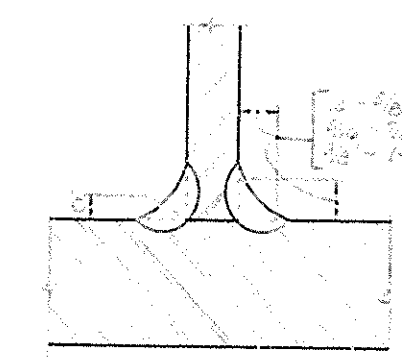
ELEVATION SECTION
INTERMEDIATE STIFFENERS



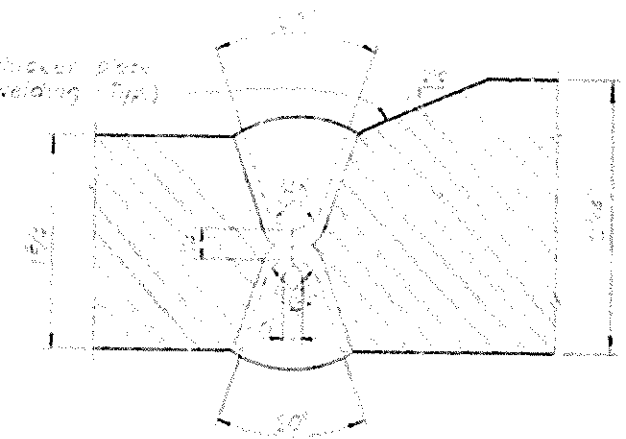
AWS B-LI-S



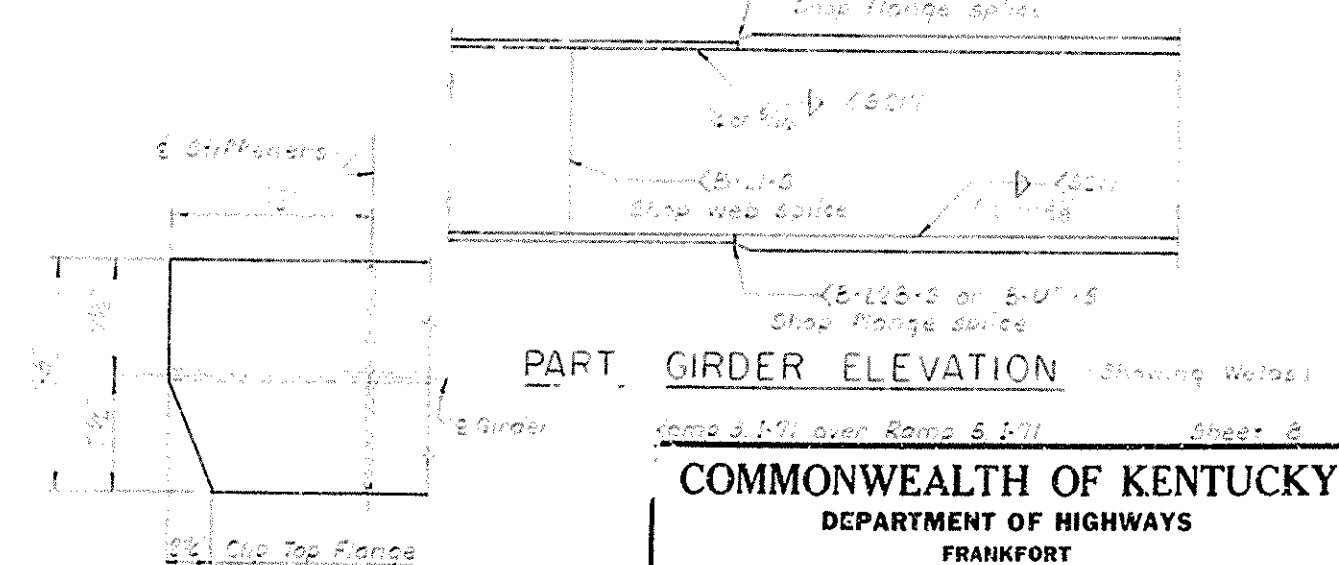
AWS B-L2B-S



FLANGE TO WEB WELD
(Submerged Arc Weld)



AWS B-U7-S



PART GIRDER ELEVATION (Showing Welds)

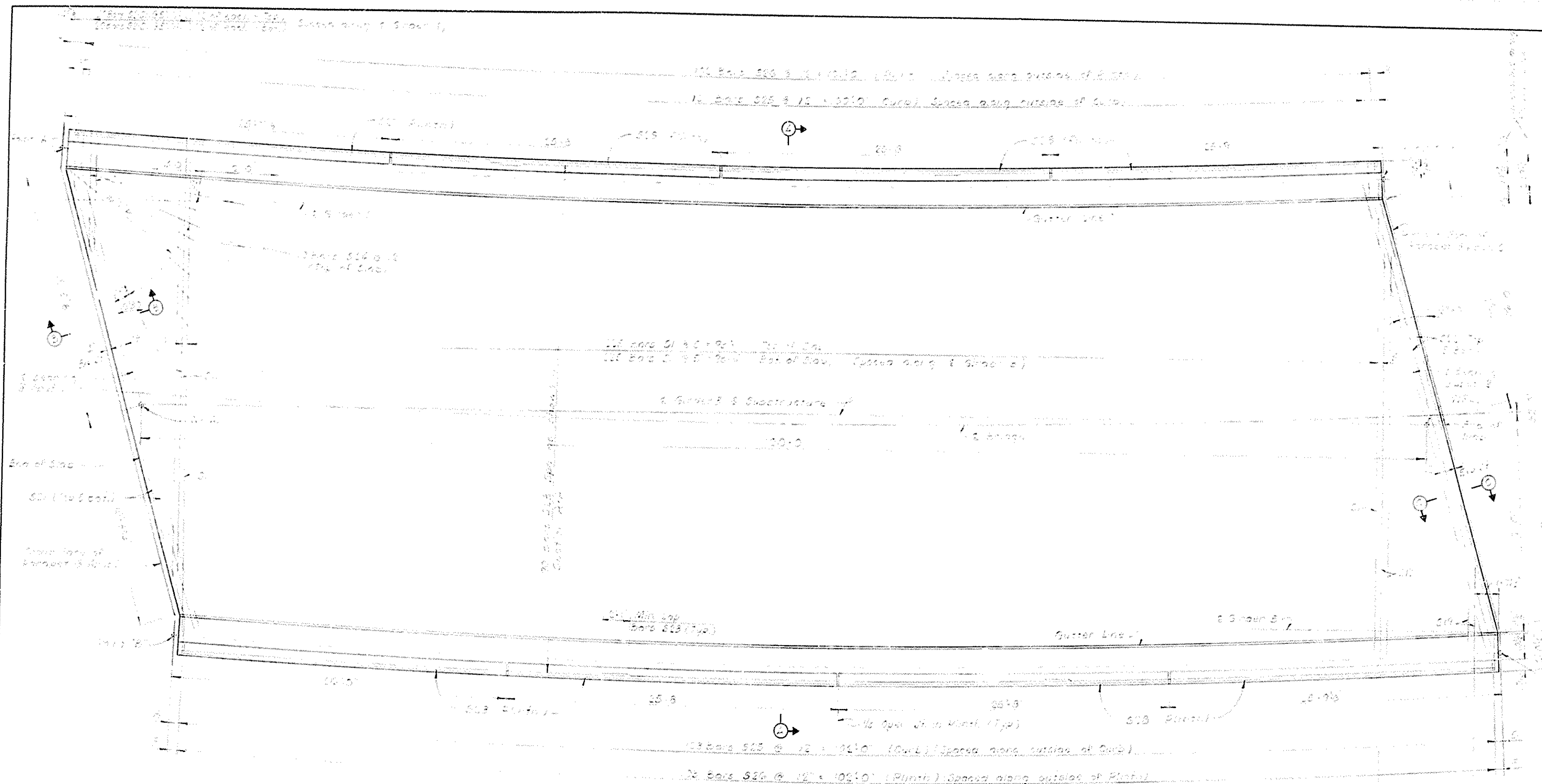
END OF TOP FLANGE DETAIL

SPAN 1-L
STRUCTURAL STEEL

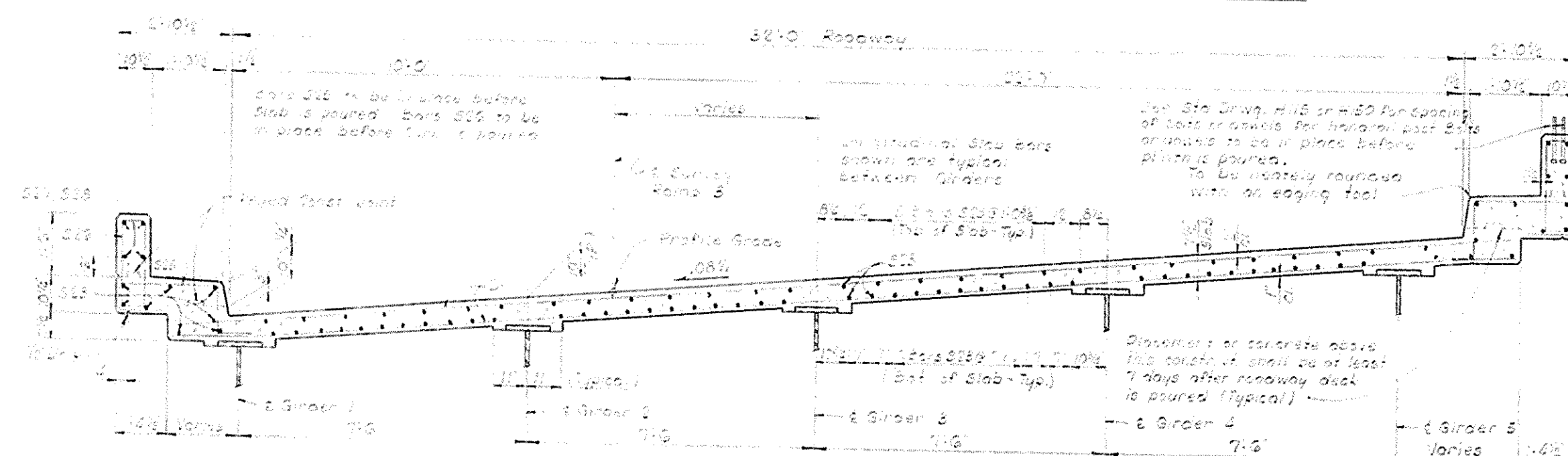
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 15+04.65 Ramp 3 PROJECT NO. GP50-312-11
 BRIDGE NUMBER 0326

BRIDGE

BRIDGE



PLAN OF SLAB



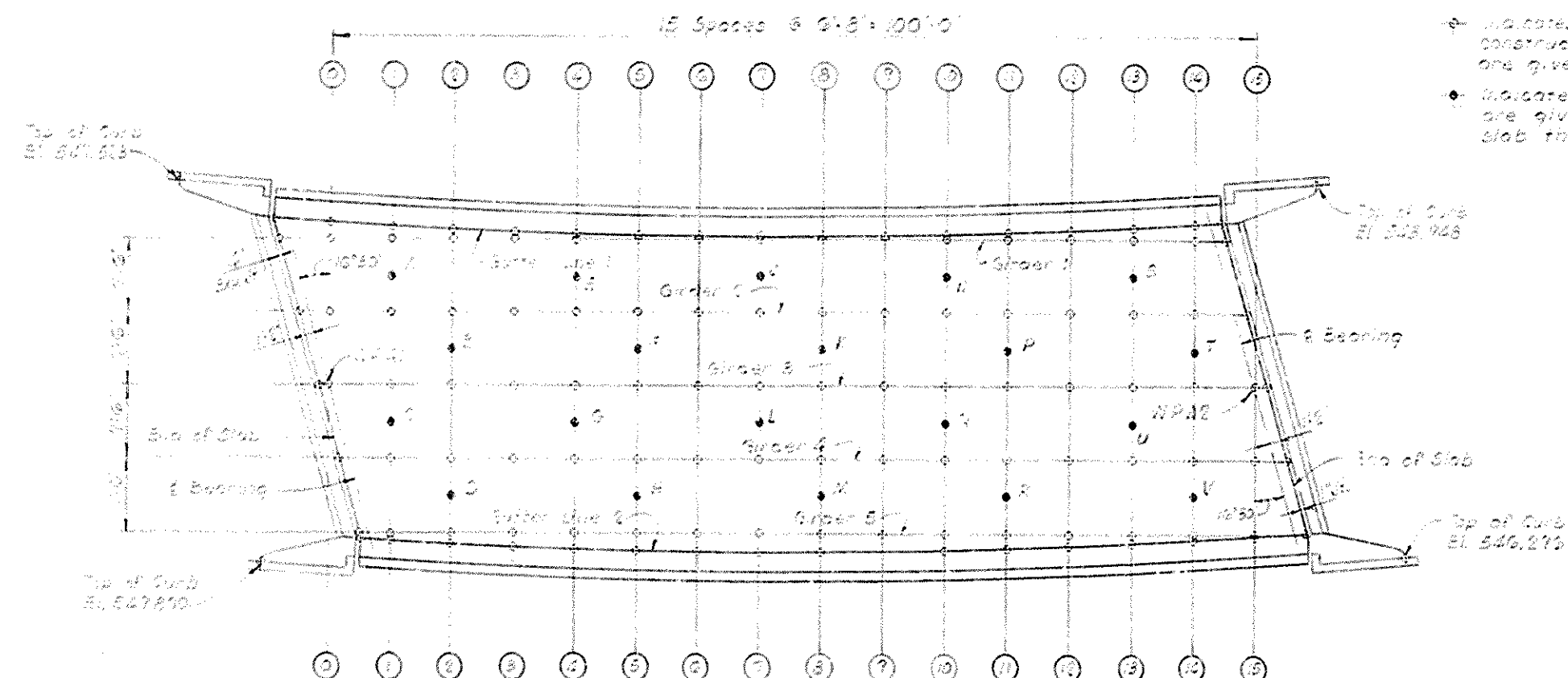
SECTION A-A

SPAN 1-L
CONCRETE DECK

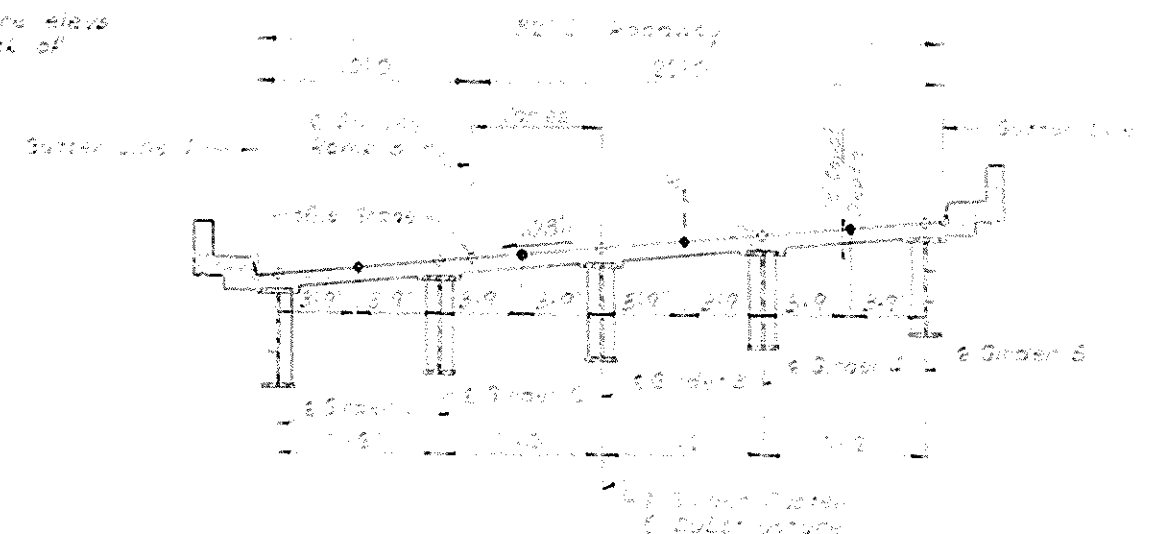
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE — COVINGTON
ROAD

STATION 21+00.00 **PROJECT NO.** 10-000000
BRIDGE **DRAW**
NUMBER

BRIDGE



PLAN
(Showing where Elevations are given)



TYPICAL SECTION THRU DECK

NOTES

These elevations are for steel of points indicated after cross bracing and in place and after all pilework has been removed, but before forms for concrete slabs have been set in place. Read elevations in three columns using a target rod and enter elevations in table under Steel Elevations.

Compute Dimension X as follows: Construction elevation minus steel elevation equals Dimension X. Construction elevations include center line to weight of concrete slab, piling and bearing.

For setting reinforcement measure Dimension X above top of steel for top of template. Do not set templates by elevations.

Construct bearing piling to ground grade. Do not use timber to bearing piling.

Upon delivery to bridge site, slab elevation tolerances of indicated steel are to have dimension and cross tolerances meeting the requirements of A.S.T.M. Designation A3 for rolled beams or meeting the requirements of AWS Specifications for welded girders and are based on the fraction of the steel undamaged.

LOCATION	GUTTER LINE 1	GIRDER 1			GIRDER 2			GIRDER 3			GIRDER 4			GIRDER 5			GUTTER LINE 2
		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	
Top of Slab	546.286	546.593			547.041			547.517			548.120			548.626			548.668
0+0	546.256	546.563			547.011			547.487			548.090			548.596			548.638
1+1	546.226	546.533			546.981			547.457			548.060			548.566			548.608
2+2	546.196	546.503			546.951			547.427			548.030			548.536			548.578
3+3	546.166	546.473			546.921			547.397			548.000			548.506			548.548
4+4	546.136	546.443			546.891			547.367			547.973			548.476			548.518
5+5	546.106	546.413			546.861			547.337			547.943			548.446			548.488
6+6	546.076	546.383			546.831			547.307			547.913			548.416			548.458
7+7	546.046	546.353			546.801			547.277			547.883			548.386			548.428
8+8	546.016	546.323			546.771			547.247			547.853			548.356			548.398
9+9	545.986	546.293			546.741			547.217			547.823			548.326			548.368
10+10	545.956	546.263			546.711			547.187			547.793			548.296			548.338
11+11	545.926	546.233			546.681			547.157			547.763			548.266			548.308
12+12	545.896	546.203			546.651			547.127			547.733			548.236			548.278
13+13	545.866	546.173			546.621			547.097			547.703			548.206			548.248
14+14	545.836	546.143			546.591			547.067			547.673			548.176			548.218
15+15	545.806	546.113			546.561			547.037			547.643			548.146			548.188
End of Slab	545.500	545.807			546.255			546.731			547.334			547.840			547.882

Slab Discontinuity	Plan Elev. Top of Slab	Field Elev. Top of Slab	Computed Slab Thickness
A	546.585		
B	546.567		
C	546.549		
D	546.531		
E	546.513		
F	546.495		
G	546.477		
H	546.459		
I	546.441		
J	546.423		
K	546.405		
L	546.387		
M	546.369		
N	546.351		
O	546.333		
P	546.315		
Q	546.297		
R	546.279		
S	546.261		
T	546.243		
U	546.225		
V	546.207		

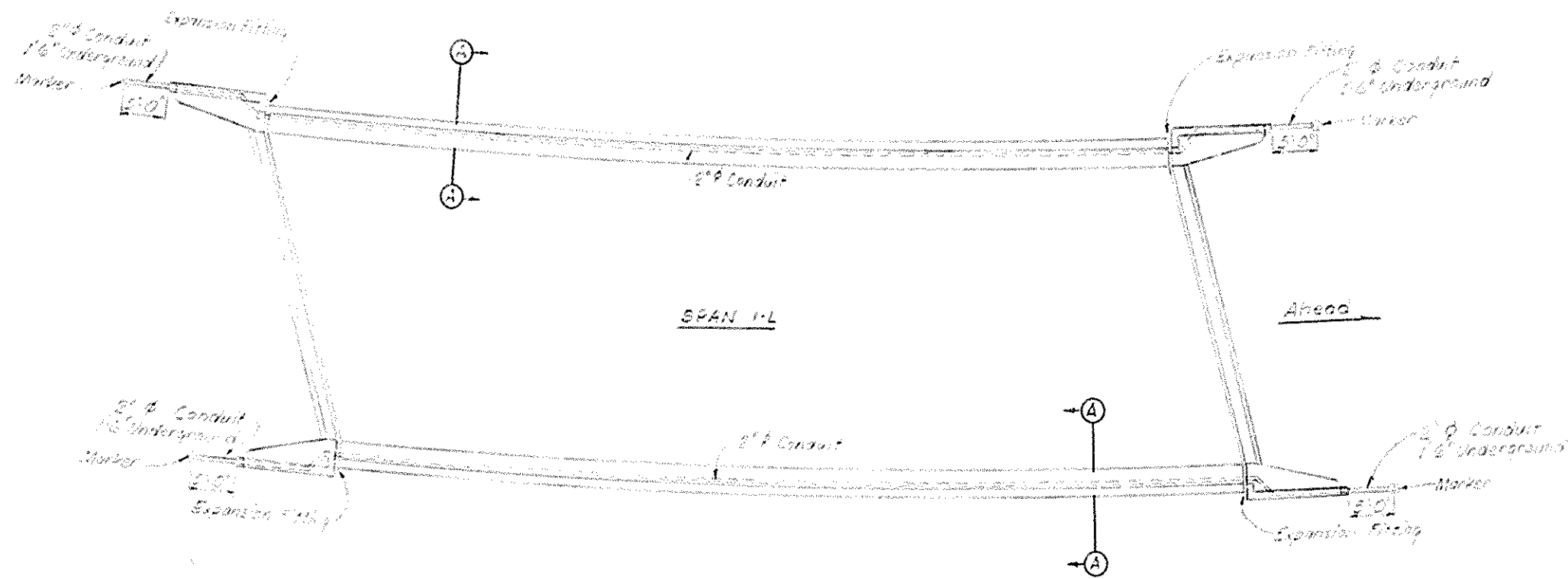
After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than 1/2" from the plan thickness, allowing 1/32" 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 Director, Division of Bridges.

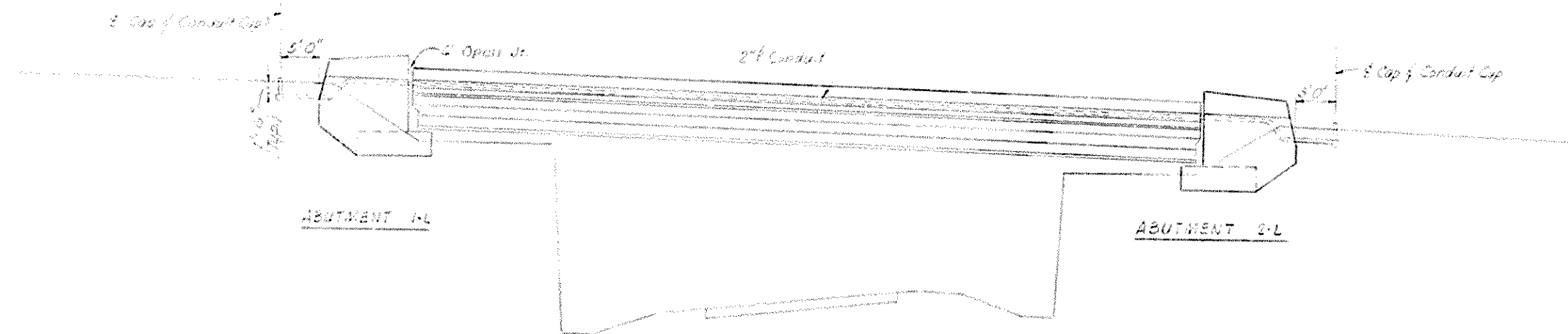
ELEVATIONS ~ LOWER BRIDGE

Commonwealth of Kentucky
Department of Highways
Frankfort
County of
JEFFERSON
Louisville - Covington
ROAD
STATION 8+21.34745 Ramps 2
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16346
INDEX

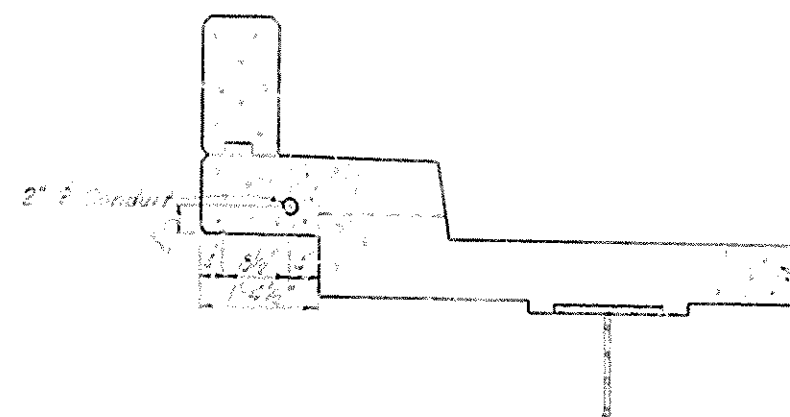
BRIDGE



PLAN
(Showing Conduit & Junction Box Layout)



ELEVATION



SECTION A-A

BILL OF MATERIAL	
2" Rigid Gum Conduit	170'
2" Conduit Connection	16 Ea
2" Gum Cap	4 Ea
Expansion Fittings (Crouse-Hinds No. 641 with 1/2" ID around street for expansion fitting)	4 Ea

Note:
Markers shall consist of 4" x 4" x 36" reinforced concrete posts with 4 size #4 deformed steel reinforcing rods per post, and a 2" brass disc cast in the end of the post inscribed "End of Duct." Markers to be 2" above grade with disc exposed.

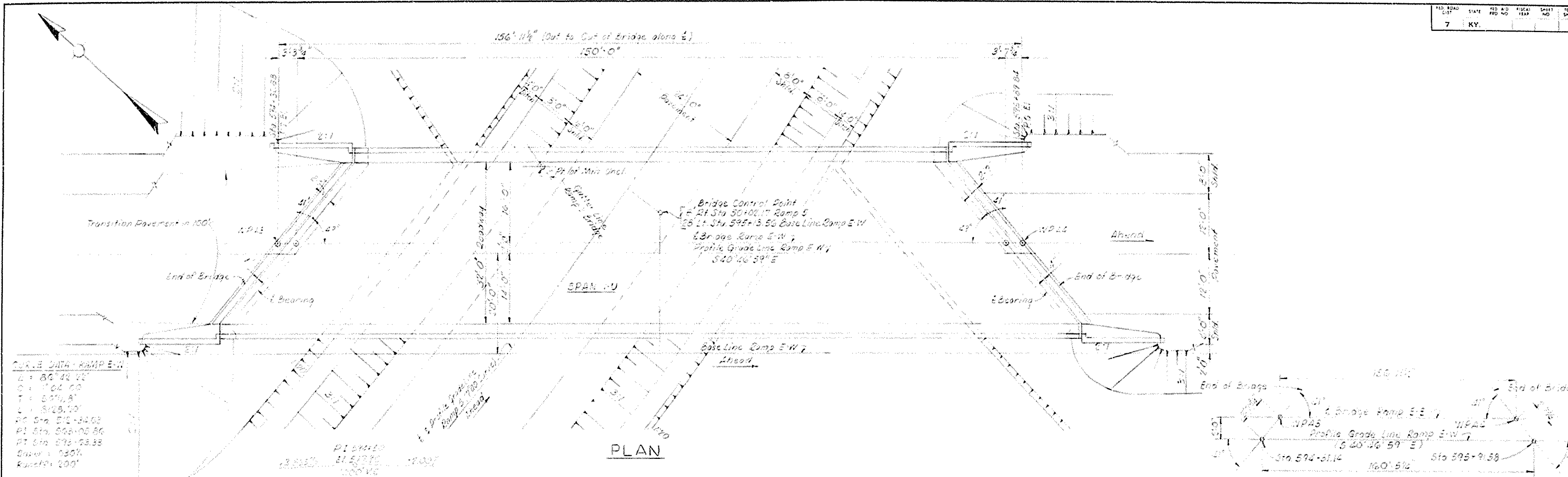
ELECTRICAL CONDUIT LOWER BRIDGE

Range 3, I-75 Over Ramp 3, E. 75

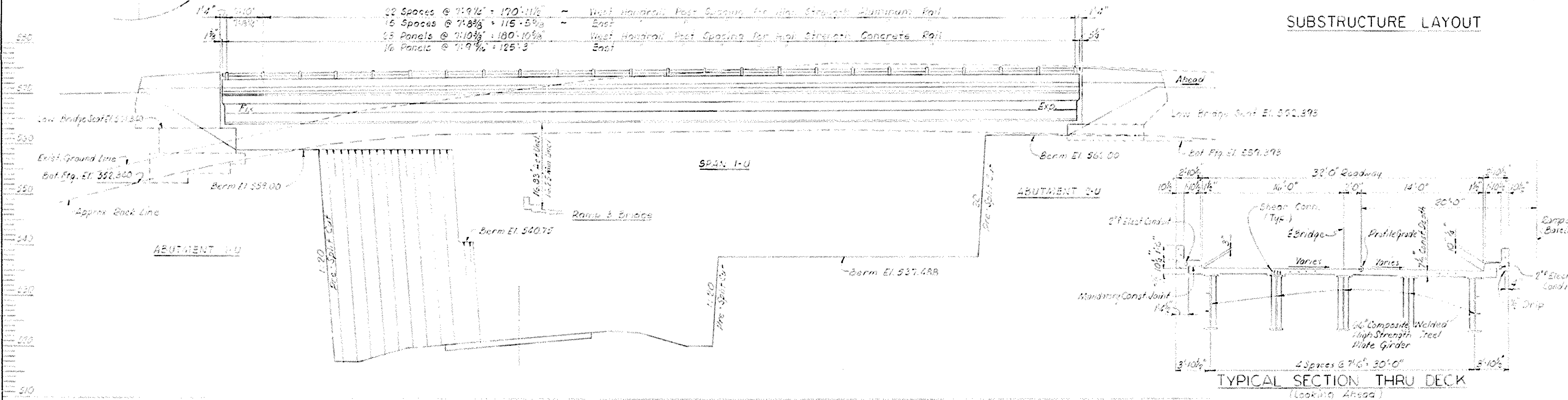
Sheet 14

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT	
COUNTY OF	
JEFFERSON	
LOUISVILLE - COVINGTON	
ROAD	
STATION 50+140.15 Ramp 3	PROJECT NO. 1334-35-10
BRIDGE NUMBER	DRAWING NO. 13346
	INDEX

BRIDGE



SUBSTRUCTURE LAYOUT



TYPICAL SECTION THRU DECK
(Looking Ahead)

ELEVATION

76.08 - 123.92 Composite
Welded I2 Girder Span 41' Span Rt. 41' Span Lt.
1120 Slopes HS20 - 44'4" Loading 32' Roadway 11'10" Safety Curbs
43' Shoulders at Bridge

LAYOUT ~ UPPER BRIDGE

Ramp E, W, T 14 over Ramp 3, 5, 31, 11
 Sheet 15

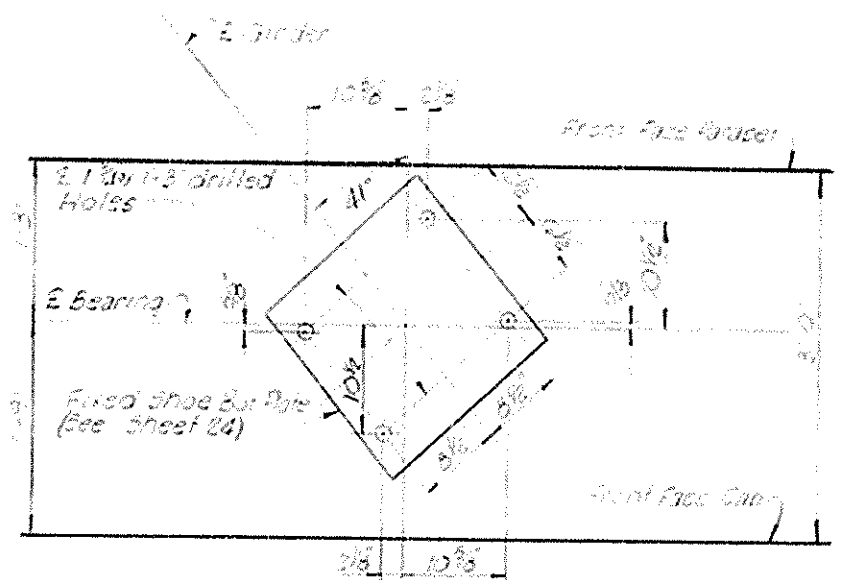
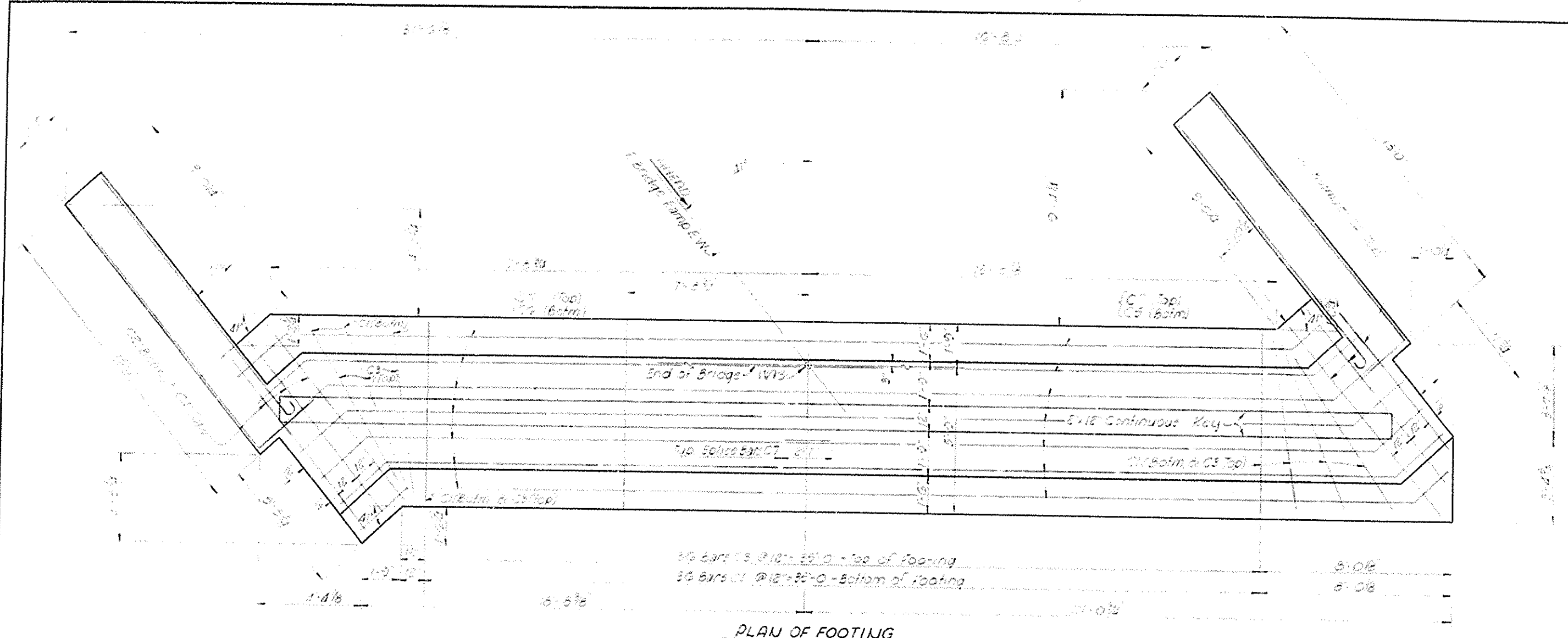
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

ROAD

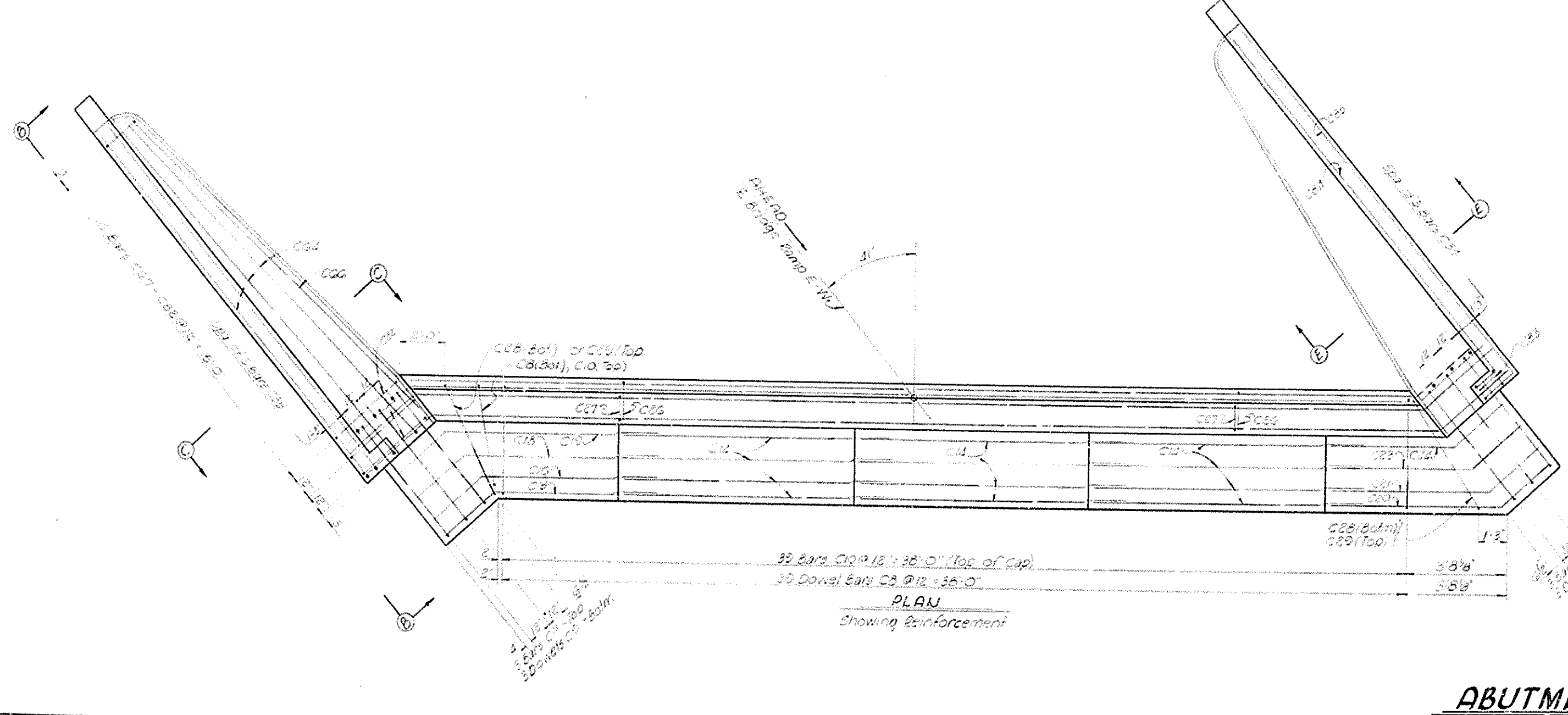
STATION 26+51.313-26+51.313 **PROJECT NO. SP56-313-11**

BRIDGE NUMBER	DRAWING 16326 NO	INDEX
------------------	------------------------	-------

DISPATCHED BY	CHECKED BY	DATE
INTC	DALE	RECEIVED
DISPATCHED BY <th>CHECKED BY</th> <th>DATE</th>	CHECKED BY	DATE
QDM	DALE	RECEIVED
DISPATCHED BY <th>CHECKED BY</th> <th>DATE</th>	CHECKED BY	DATE
QDM	DALE	RECEIVED



NOTE:
Top of Cap cars are to be accurately located in accordance with the plans so that they will not interfere with drilling of Anchor Bolt holes.



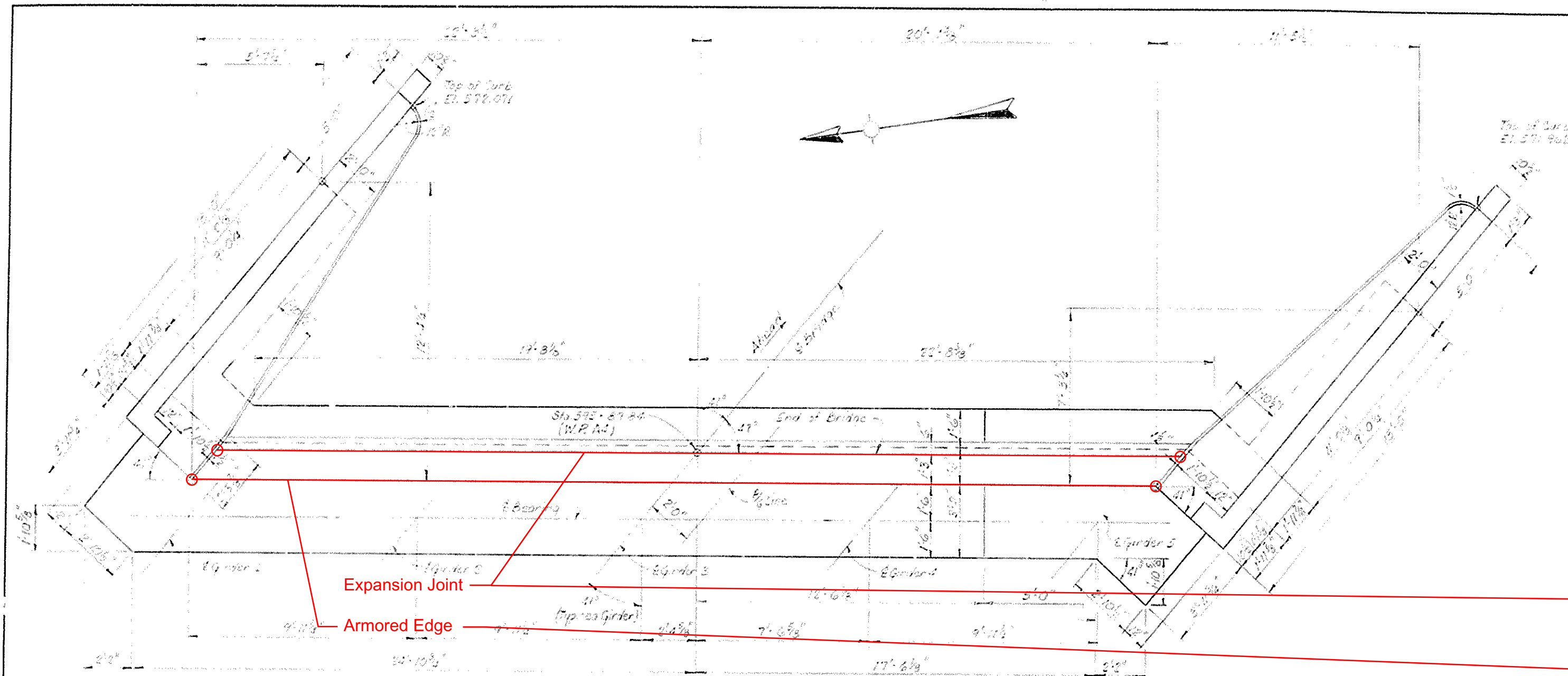
ABUTMENT 1 U

Commonwealth of Kentucky
Department of Highways
Frankfort
County of
JEFFERSON
Louisville - Covington
Road

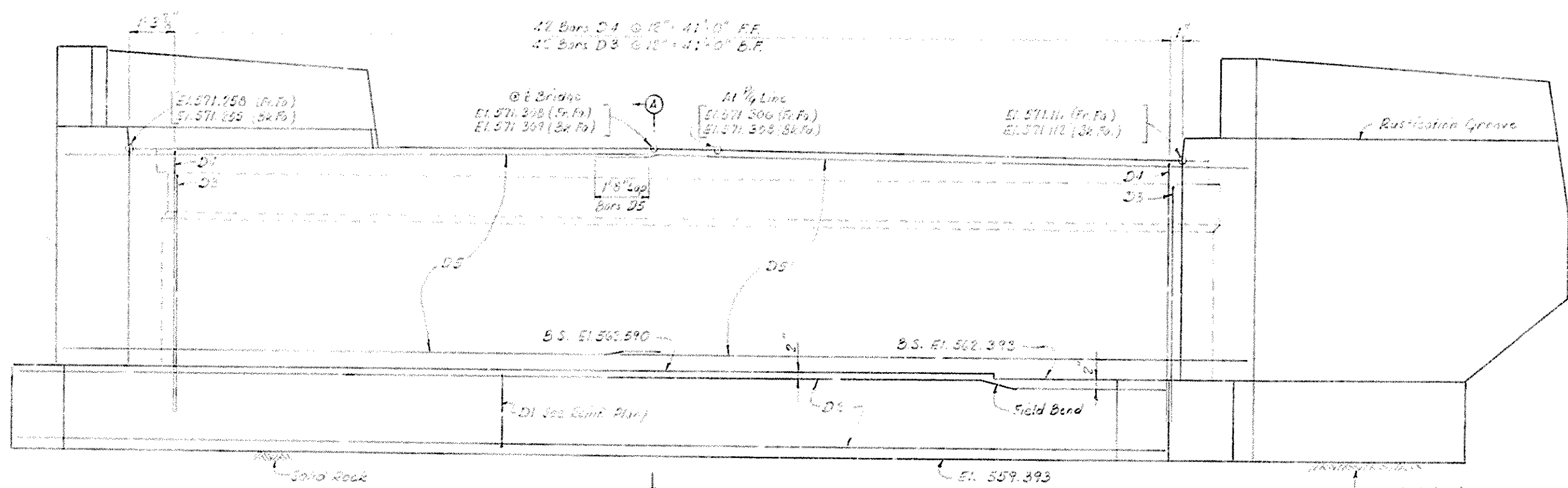
STATION 101+00 to 102+00 PROJECT NO. 16346
BRIDGE NUMBER NO. INDEX

BRIDGE

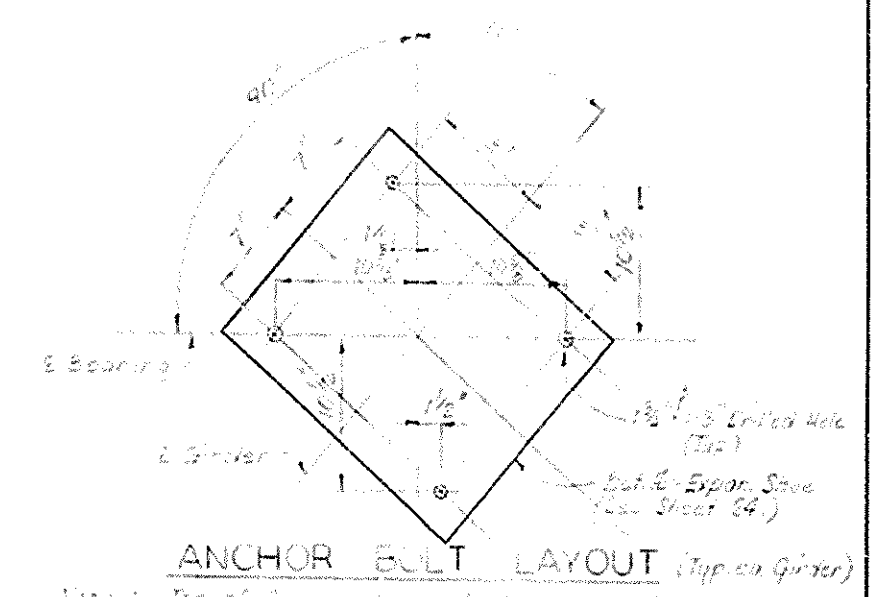
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FED. AID FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN
(Showing Dimensions)

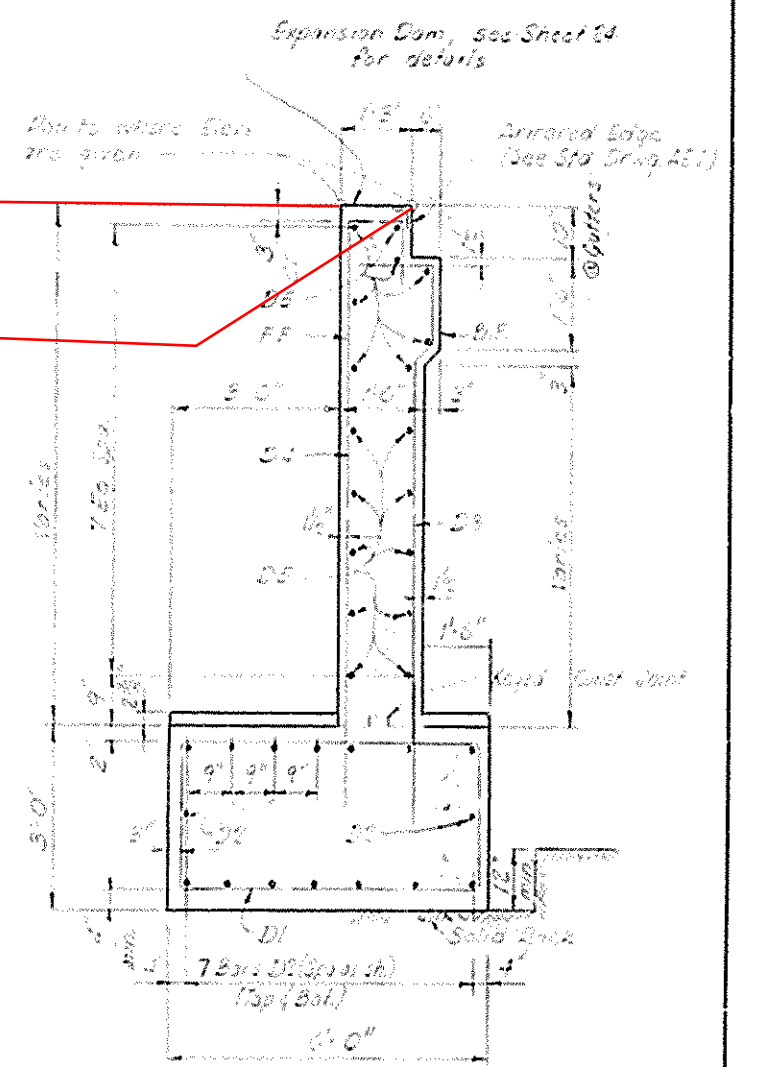


ELEVATION



ANCHOR BOLT LAYOUT (Top of Girder)

Note: Top of Girder and to be accurately located in accordance with the plans so that they will not interfere with drilling anchor bolt holes.



SECTION A-A

Ramp E 171, I-75 over Ramps 8/5, I-75 Sheet 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD

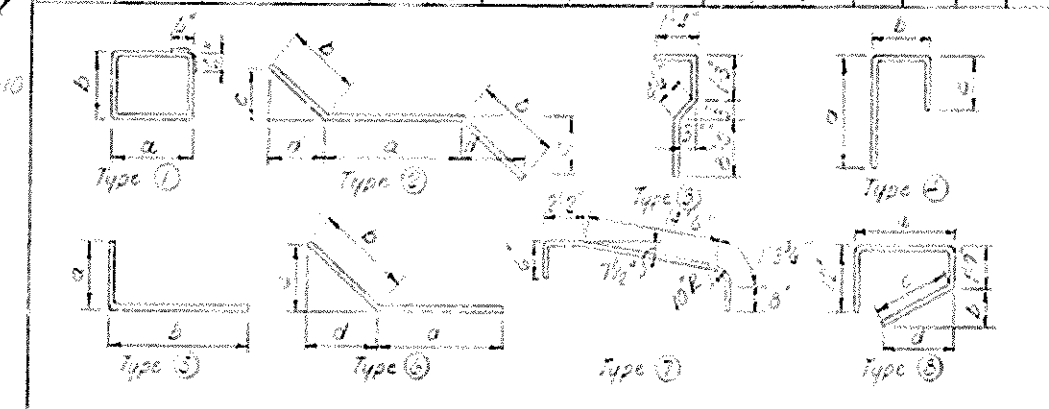
STATION 25+12.51 to 25+13.46 (Ramp I-75) PROJECT NO. SP12-013-12

BRIDGE NUMBER	DRAWING NO.	SHEET NO.
	6846	19

ABUTMENT 2U

BRIDGE

BILL OF REINFORCEMENT									
MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	1	2	3	4
D1	1	25	#3	10	Cap	1	1	1	1
D2	2	25	#3	10	Cap	1	1	1	1
D3	3	25	#3	10	Cap	1	1	1	1
D4	4	25	#3	10	Cap	1	1	1	1
D5	5	25	#3	10	Cap	1	1	1	1
D6	6	25	#3	10	Cap	1	1	1	1
D7	7	25	#3	10	Cap	1	1	1	1
D8	8	25	#3	10	Cap	1	1	1	1
D9	9	25	#3	10	Cap	1	1	1	1
D10	10	25	#3	10	Cap	1	1	1	1
D11	11	25	#3	10	Cap	1	1	1	1
D12	12	25	#3	10	Cap	1	1	1	1
D13	13	25	#3	10	Cap	1	1	1	1
D14	14	25	#3	10	Cap	1	1	1	1
D15	15	25	#3	10	Cap	1	1	1	1
D16	16	25	#3	10	Cap	1	1	1	1
D17	17	25	#3	10	Cap	1	1	1	1
D18	18	25	#3	10	Cap	1	1	1	1
D19	19	25	#3	10	Cap	1	1	1	1
D20	20	25	#3	10	Cap	1	1	1	1
D21	21	25	#3	10	Cap	1	1	1	1
D22	22	25	#3	10	Cap	1	1	1	1
D23	23	25	#3	10	Cap	1	1	1	1
D24	24	25	#3	10	Cap	1	1	1	1
D25	25	25	#3	10	Cap	1	1	1	1
D26	26	25	#3	10	Cap	1	1	1	1
D27	27	25	#3	10	Cap	1	1	1	1
D28	28	25	#3	10	Cap	1	1	1	1
D29	29	25	#3	10	Cap	1	1	1	1
D30	30	25	#3	10	Cap	1	1	1	1
D31	31	25	#3	10	Cap	1	1	1	1
D32	32	25	#3	10	Cap	1	1	1	1
D33	33	25	#3	10	Cap	1	1	1	1
D34	34	25	#3	10	Cap	1	1	1	1
D35	35	25	#3	10	Cap	1	1	1	1
D36	36	25	#3	10	Cap	1	1	1	1
D37	37	25	#3	10	Cap	1	1	1	1
D38	38	25	#3	10	Cap	1	1	1	1
D39	39	25	#3	10	Cap	1	1	1	1
D40	40	25	#3	10	Cap	1	1	1	1
D41	41	25	#3	10	Cap	1	1	1	1
D42	42	25	#3	10	Cap	1	1	1	1
D43	43	25	#3	10	Cap	1	1	1	1
D44	44	25	#3	10	Cap	1	1	1	1
D45	45	25	#3	10	Cap	1	1	1	1
D46	46	25	#3	10	Cap	1	1	1	1
D47	47	25	#3	10	Cap	1	1	1	1
D48	48	25	#3	10	Cap	1	1	1	1
D49	49	25	#3	10	Cap	1	1	1	1
D50	50	25	#3	10	Cap	1	1	1	1



ESTIMATE OF QUANTITIES	
Item	
Concrete, Class 2 (Cu Kys.)	55.8
Reinforcement (lbs.)	6471

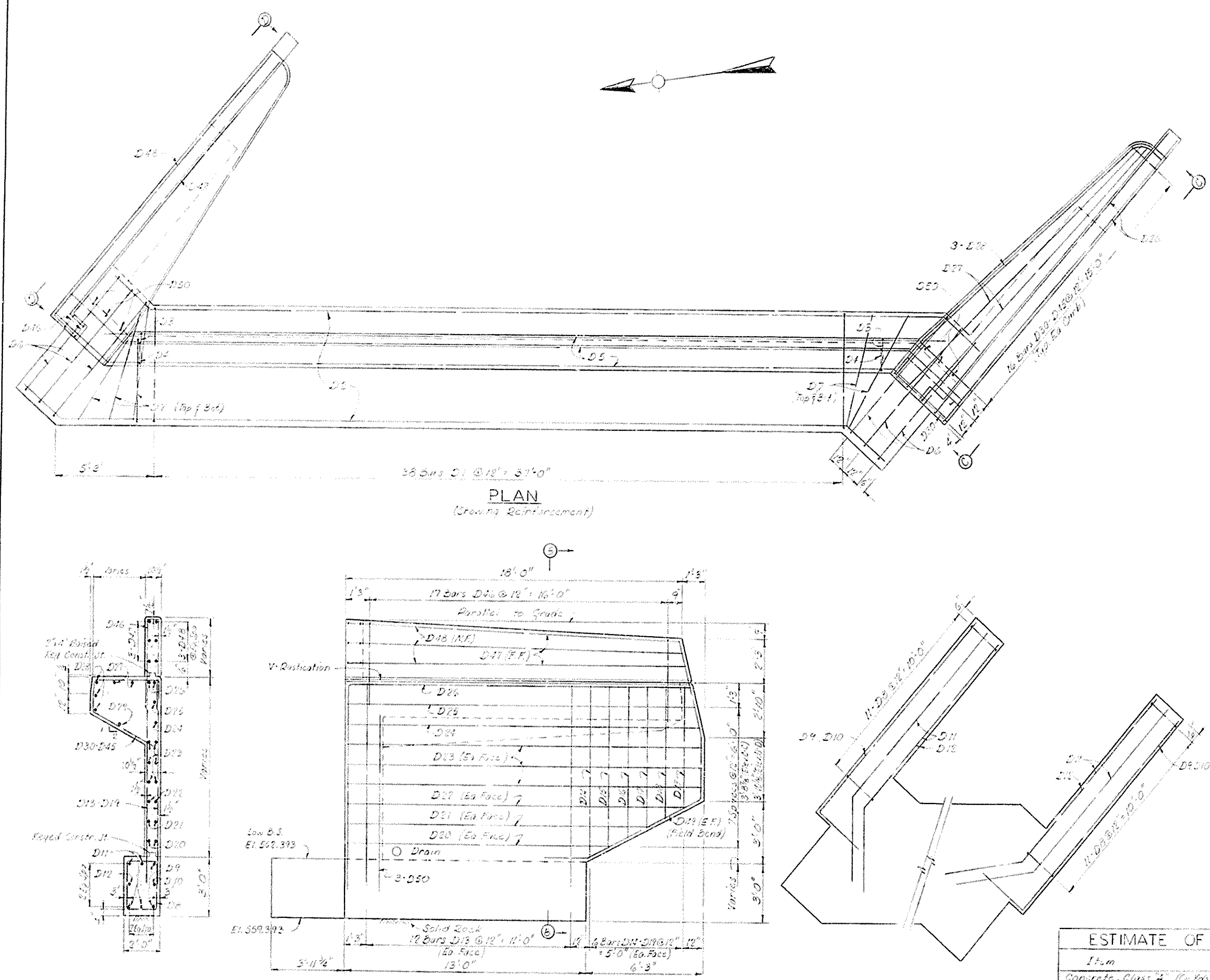
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 28+50.13 (Ramp E-W) PROJECT NO. SP 50-312-11
 BRIDGE NUMBER 0346 INDEX NO.

ABUTMENT 2U

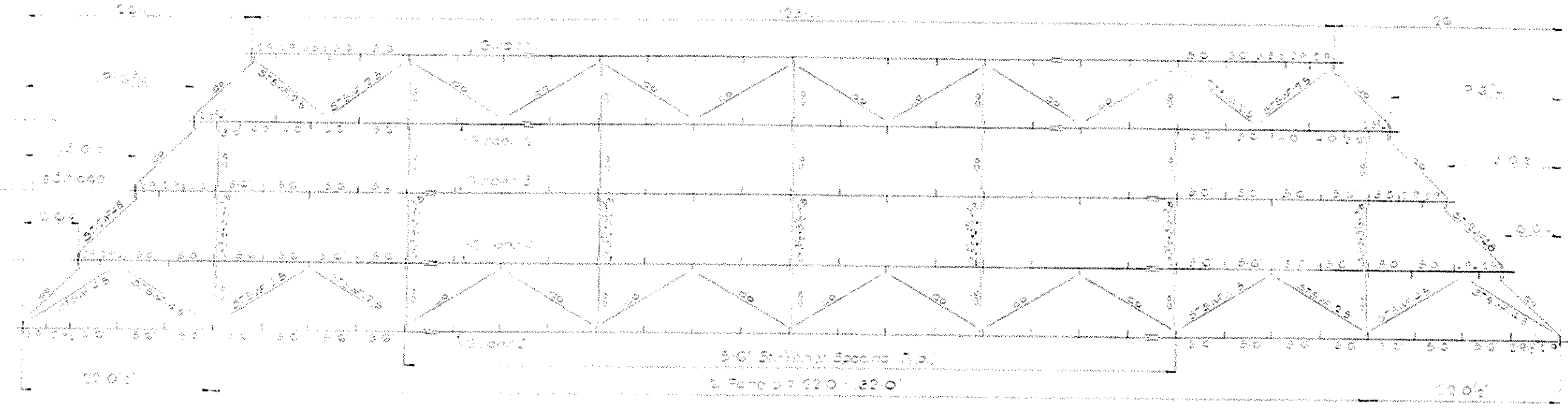
WING CAP PLAN
(Showing Reinforcement)

ELEVATION C-C
ELEVATION D-D (Opposite Hand)

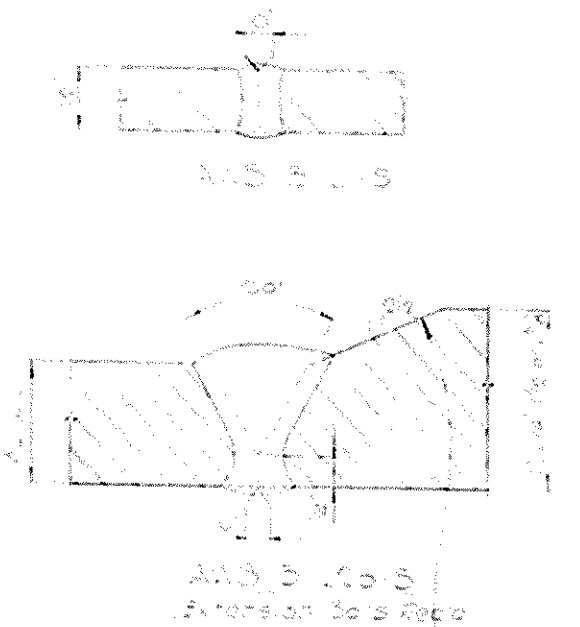
SECTION B-B



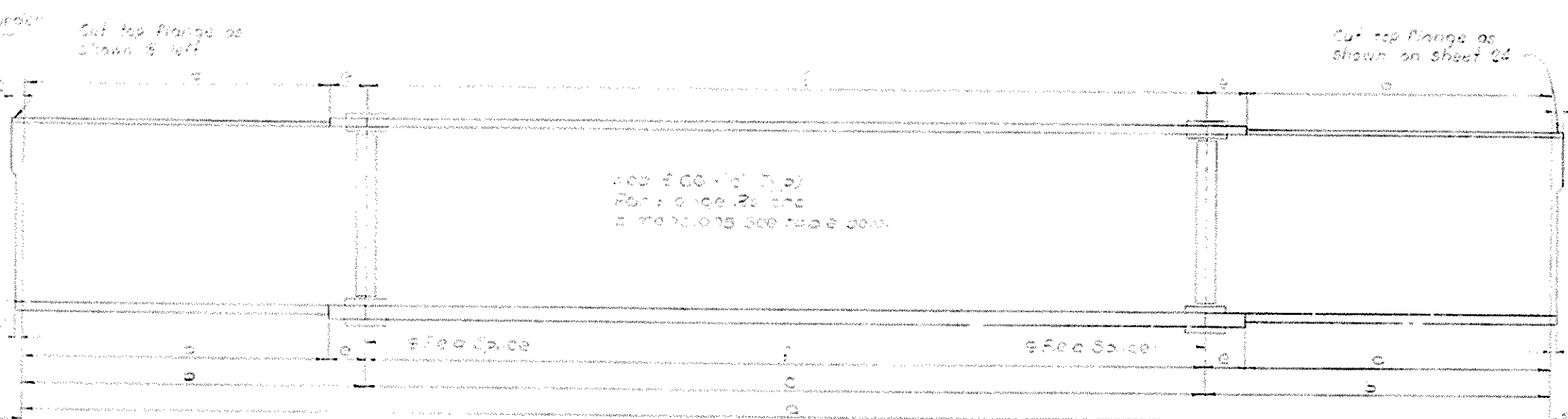
DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: [Date]
 DRAWN BY: [Signature]
 DATE: [Date]



FRAMING PLAN

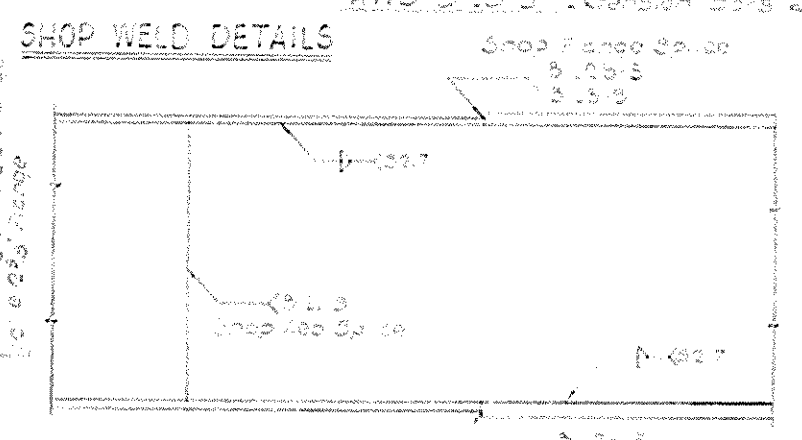


NOTE:
 See American Institute of Steel Construction, Inc. Specification for Structural Steel Buildings, 9th Edition for proper weld connections here.
 Flange to web weld to be single pass submerged arc (SMA) weld in the flat position. Parts are to be assembled with edge of web B tight against flange B before welding.

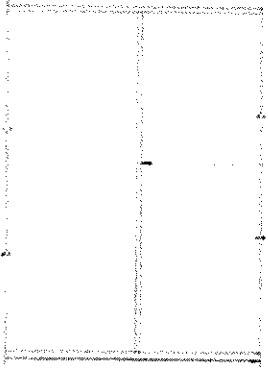


TYPICAL GIRDER ELEVATION

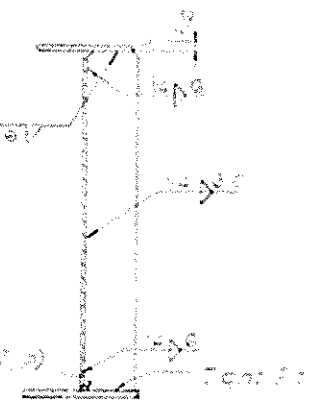
GIRDER	D	C	B	LENGTH	FLANGE A SIZE	LENGTH	FLANGE B SIZE	LENGTH	FLANGE C SIZE
1	23.0	3.0	60.0	27.0	Top 10" x 1/2"	3.0	Top 10" x 1/2"	60.0	Top 10" x 1/2"
2	30.0	3.0	60.0	3.0	Top 10" x 1/2"	4.0	Top 10" x 1/2"	20.0	Top 10" x 1/2"
3	60.0	3.0	60.0	3.0	Top 10" x 1/2"	3.0	Top 10" x 1/2"	20.0	Top 10" x 1/2"
4	63.0	3.0	60.0	3.0	Top 10" x 1/2"	3.0	Top 10" x 1/2"	20.0	Top 10" x 1/2"
5	70.0	3.0	60.0	3.0	Top 10" x 1/2"	3.0	Top 10" x 1/2"	20.0	Top 10" x 1/2"



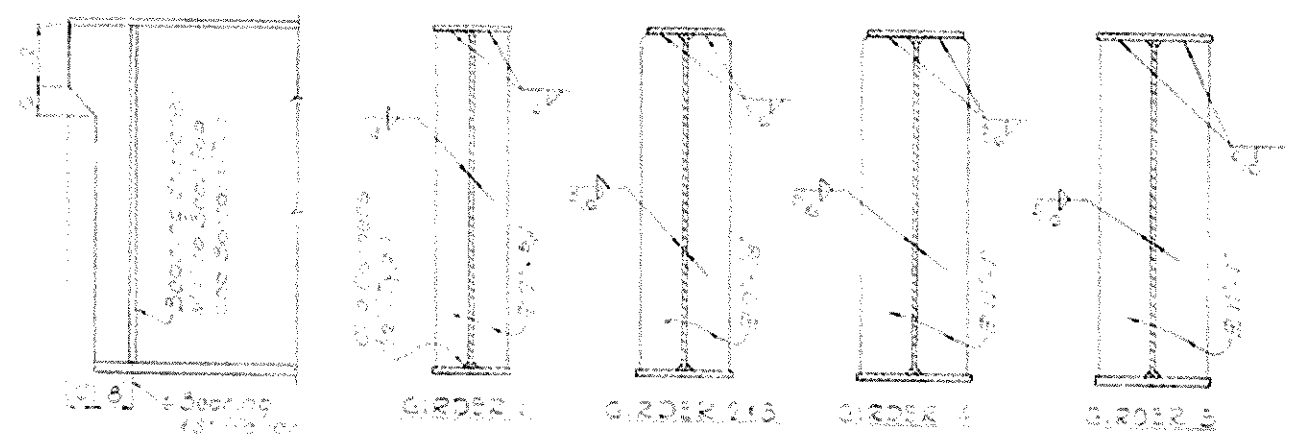
SHOP WELD DETAILS



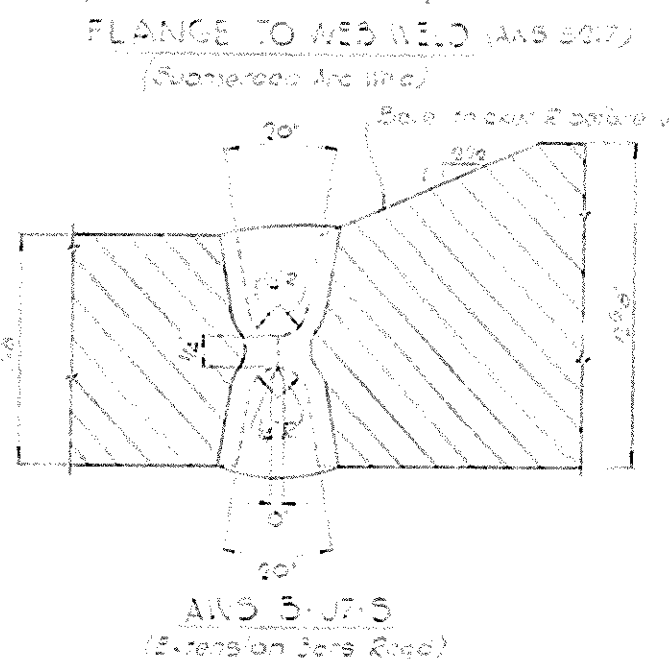
INTERMEDIATE STIFFENERS



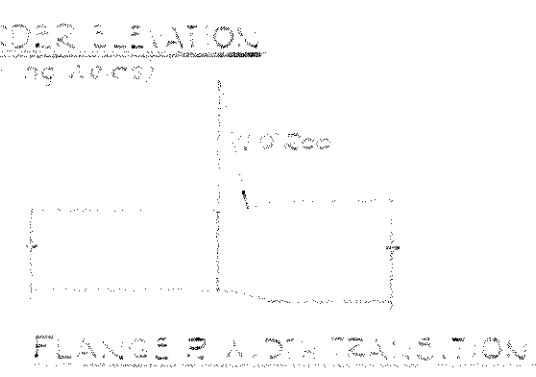
HORIZONTAL STIFFENERS (Outside of Girders 1 & 5 only)



BEARING STIFFENERS



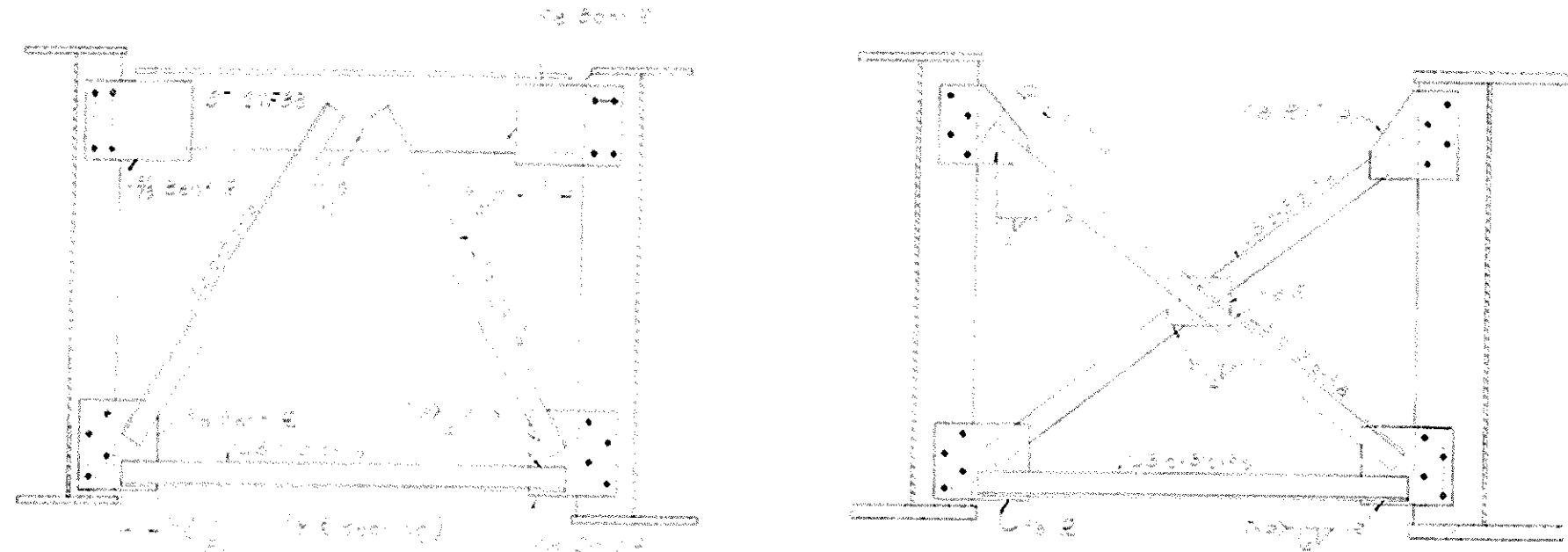
FLANGE TO WEB WELD (AWS B-1.5)



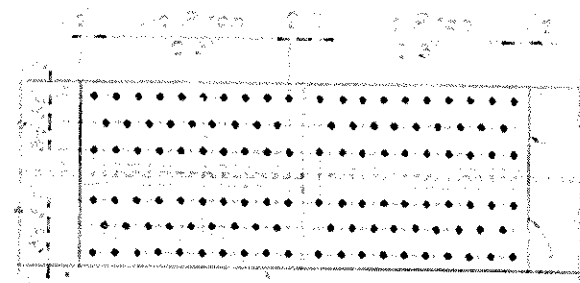
PART GIRDER ELEVATION

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 10+575+13.50 (Ramp Exit) PROJECT NO. SP 50-313-12
 BRIDGE NUMBER 10324

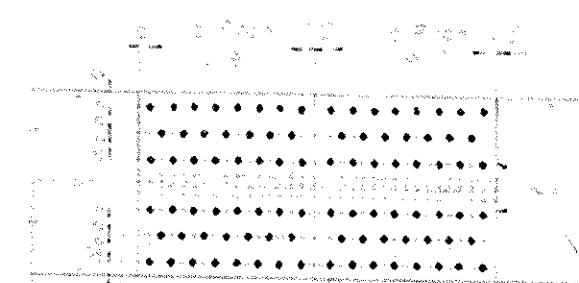
BRIDGE



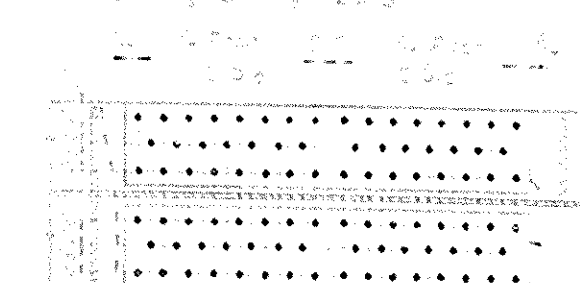
TOP CROSS FRAMES



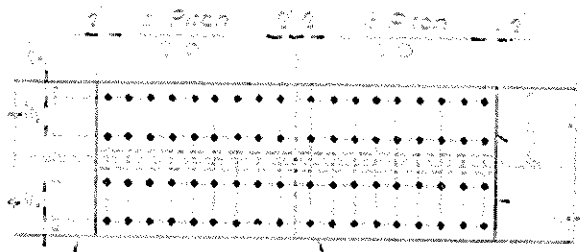
GIRDER 5 TOP FLANGE



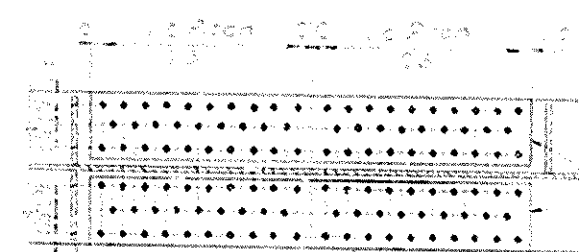
GIRDER 4 TOP FLANGE



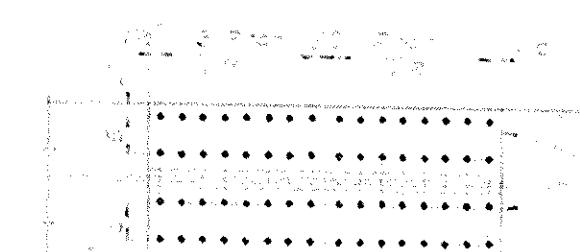
GIRDER 4 BOTTOM FLANGE



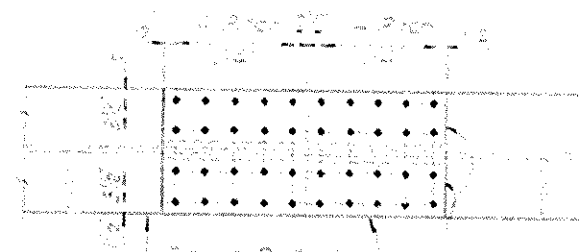
GIRDER 3 TOP FLANGE



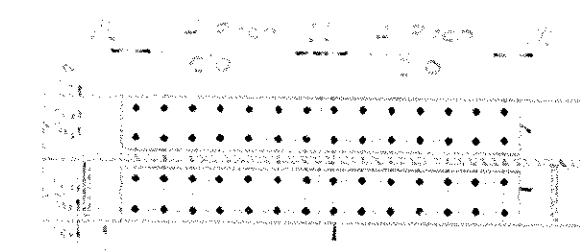
GIRDER 3 BOTTOM FLANGE



GIRDER 2 TOP FLANGE

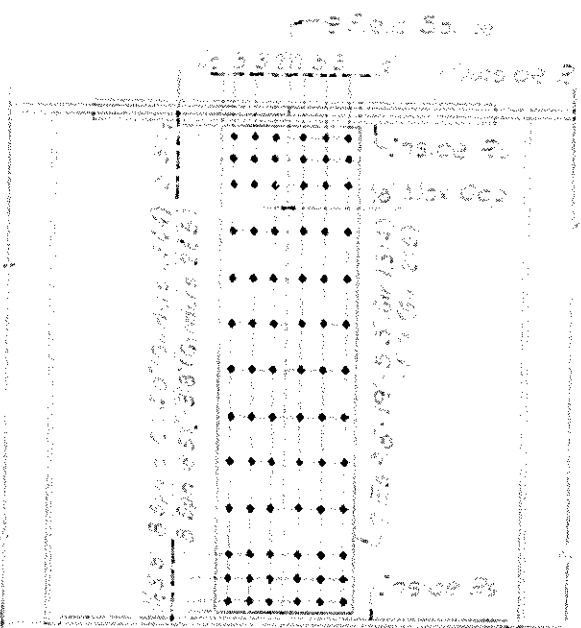


GIRDER 2 TOP FLANGE



GIRDER 2 BOTTOM FLANGE

FLANGE SPICES

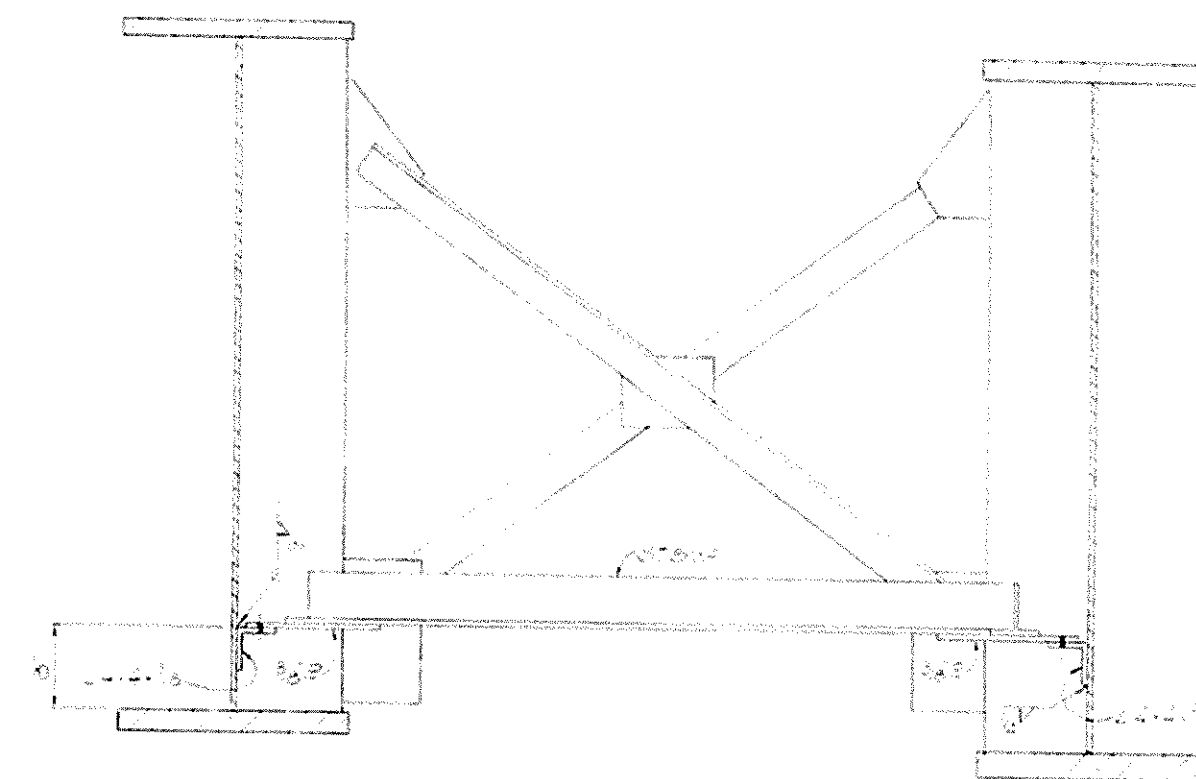
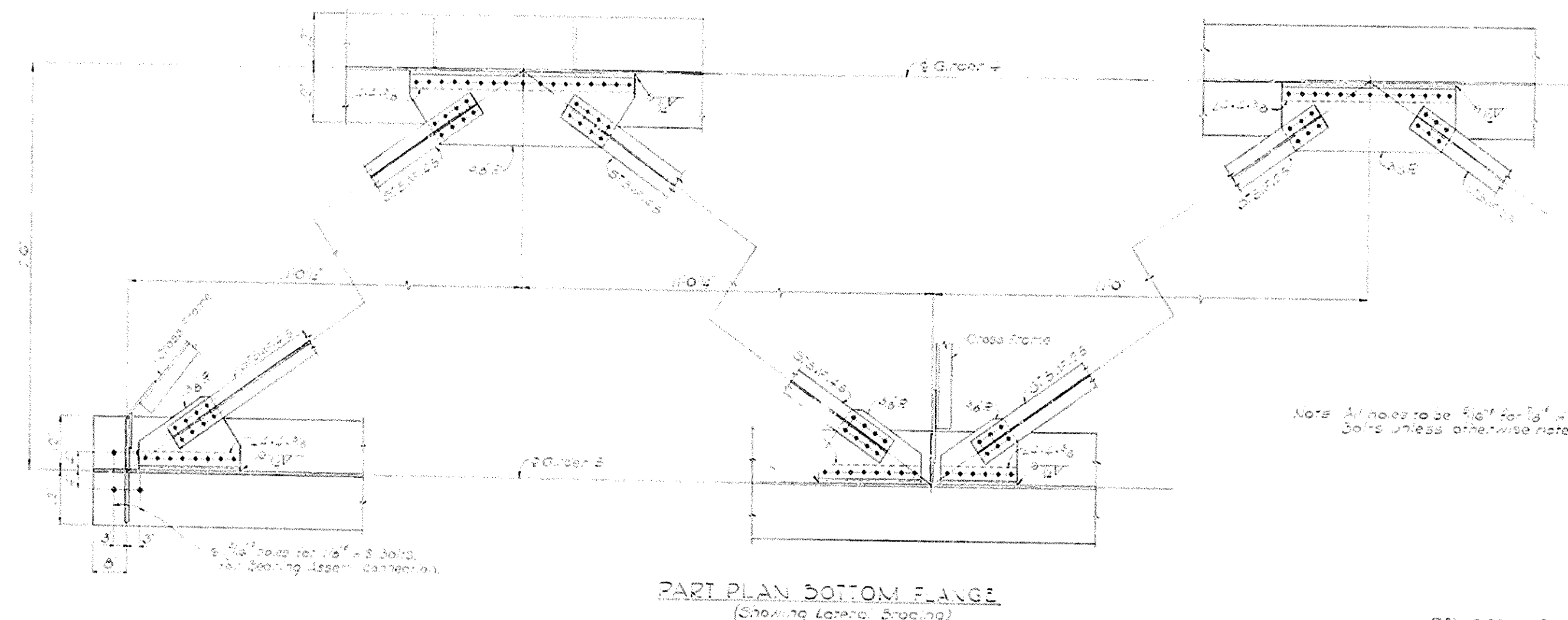


ELEVATION 1.23 FIELD BRIDGE

Note: All bolts to be 1/2" dia. A325.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 18+11.55 to 18+55.00
BRIDGE NUMBER 10346
PROJECT NO. 10346-1-1

BRIDGE

[illegible]

Technical drawing of a riveted lap joint. The drawing shows two plates of thickness t being joined by a double row of rivets. The pitch between rivets in the same row is P . The distance between the two rows of rivets is $P/2$. The distance from the center of a rivet to the edge of the plate is $P/4$. The total width of the joint is $2P$. The drawing is labeled with "Rivets" and "Space $2P$ between rivets".

[illegible]

FLANGE SPLICES
Ramp 345.111 over Ramps 345.112 Shear 1204

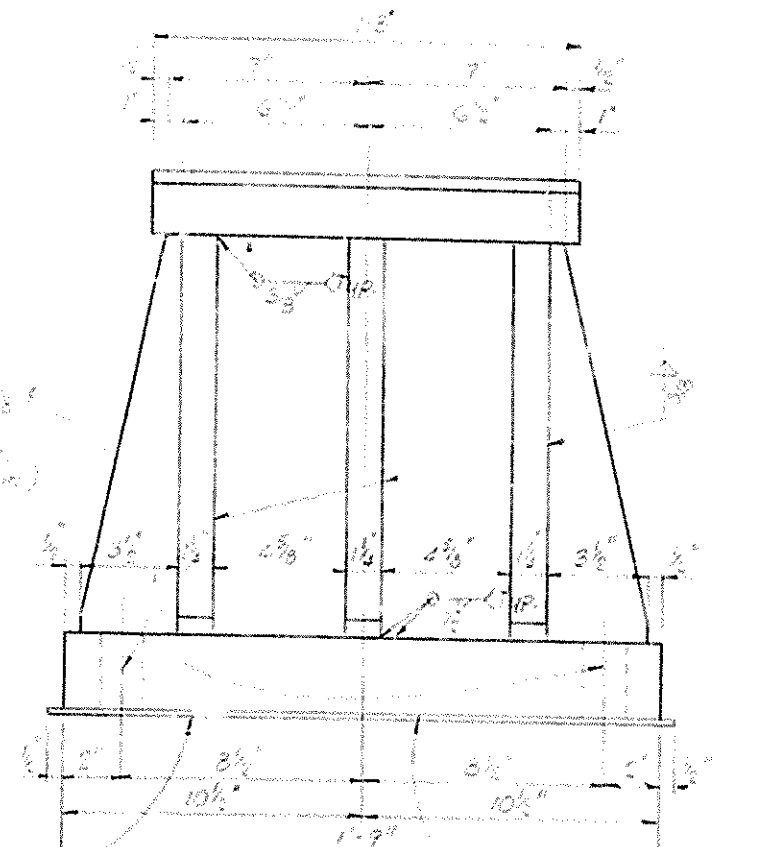
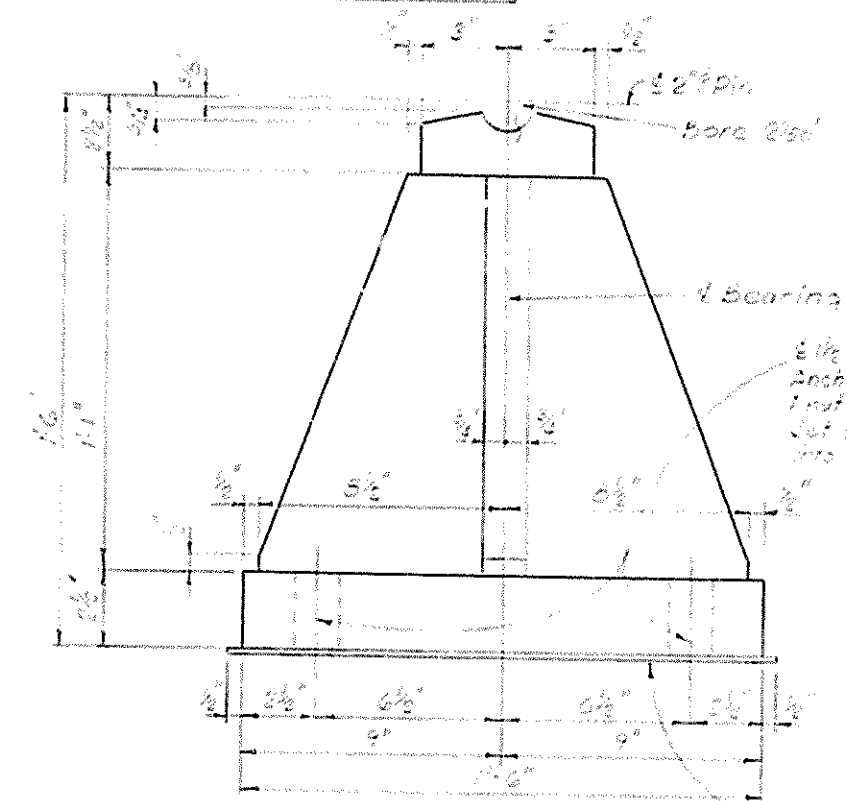
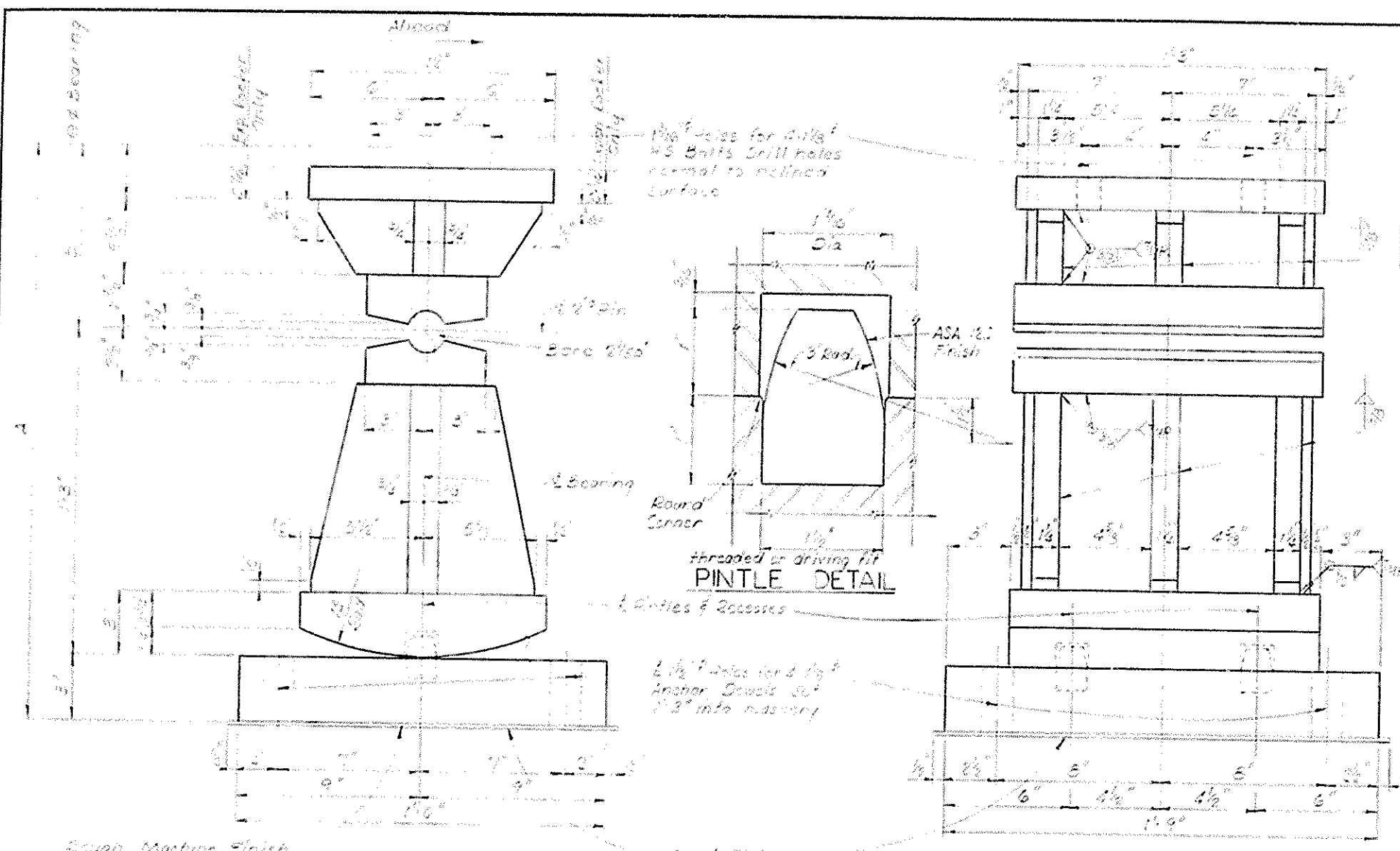
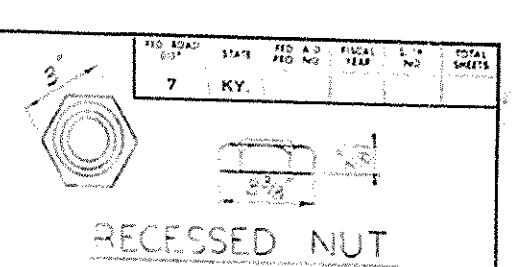
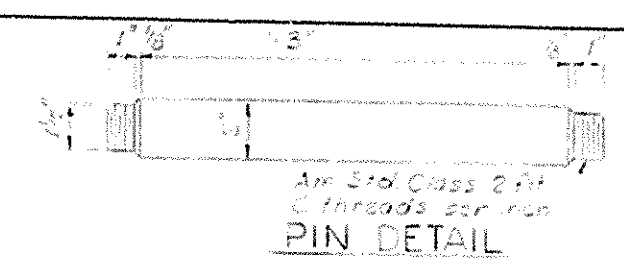
Note All holes to be 5/16" for 5/16" x 3/16" unless otherwise noted

STATION 10+50-300 PROJECT NO. 5046
BRIDGE NUMBER 16346 DRAWING NO.

REVISED LATERAL BRACING:
BOTTOM FLANGE SPLICE BEAM @ 5

BRIDGE

VARIABLE DIMENSIONS					
Exp. Shop	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5
A	2'-0"	2'-1 1/2"	2'-1 1/2"	2'-1 1/2"	2'-1 1/2"
B	7 1/4"	7 1/2"	7 1/2"	7 1/2"	7 1/2"
C	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Fixed Shoe					
A	2'-0 1/2"	2'-0 1/2"	2'-0 1/2"	2'-1 1/4"	2'-1 1/4"
B	8 1/2"	8 1/2"	8 1/2"	7 1/2"	7 1/2"
C	2 3/8"	2 1/4"	2 1/4"	1 1/2"	1 1/2"

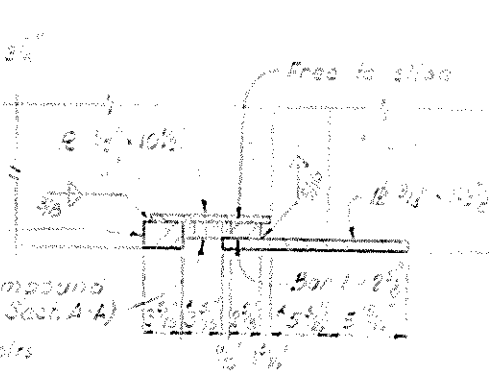
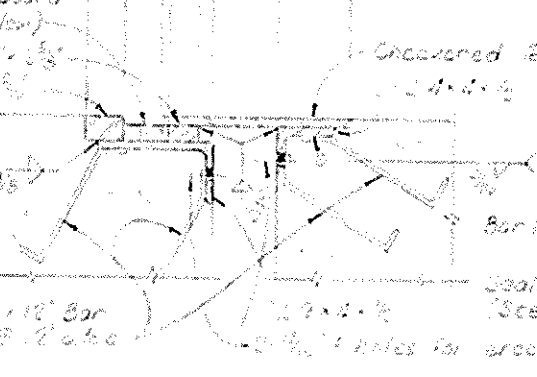
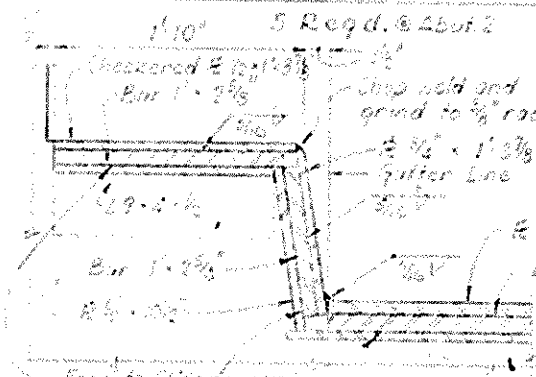
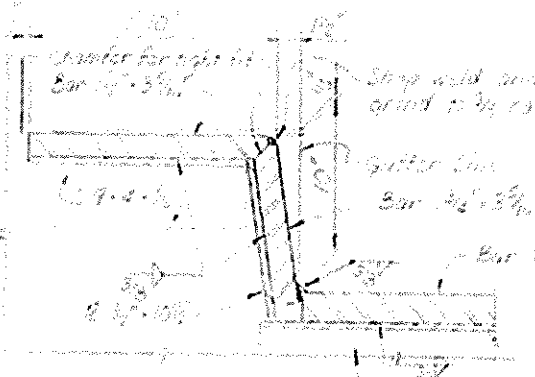


EXPANSION ROCKER

FIXED SHOE

NOTES

Preheat requirements of AWS Specifications shall be observed while welding bearing assemblies. Where preheating of the base metal 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 Specification 412. Finish machining shall be done subsequent to heat treatment.
 Stiffeners shall be held in full bearing tightly against bearing plates by proper welding throughout welding of stiffeners to bearing plates.

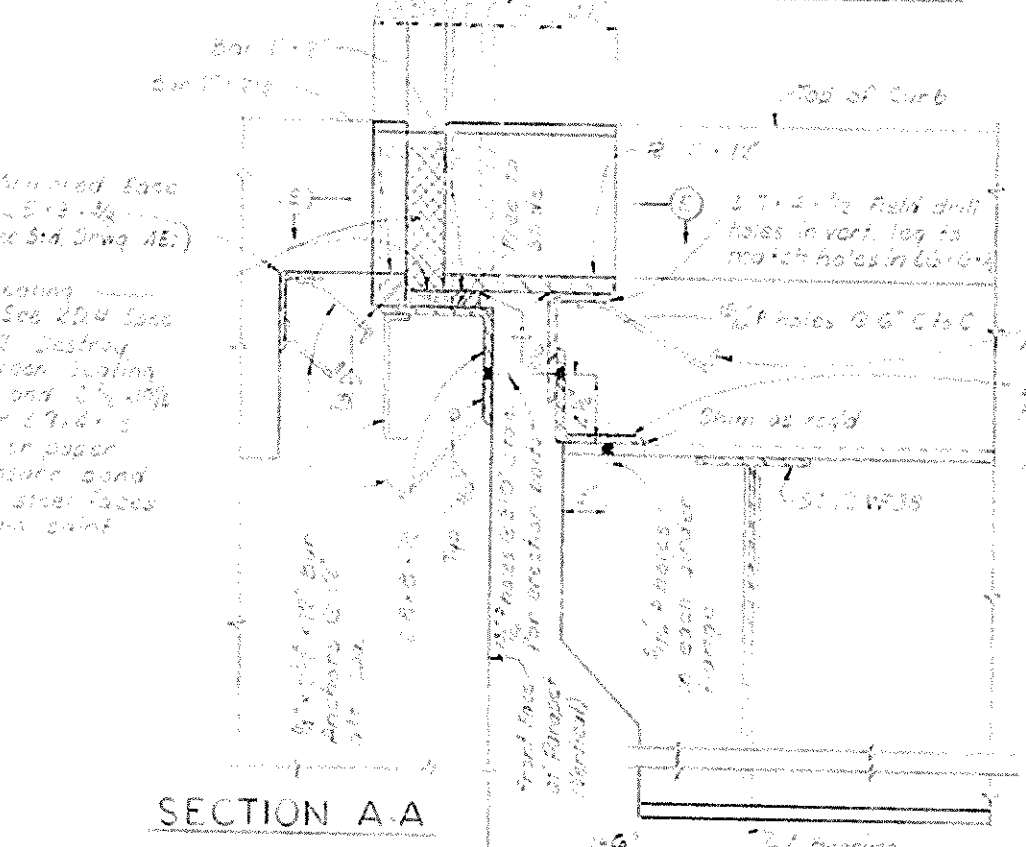


SECTION B-B

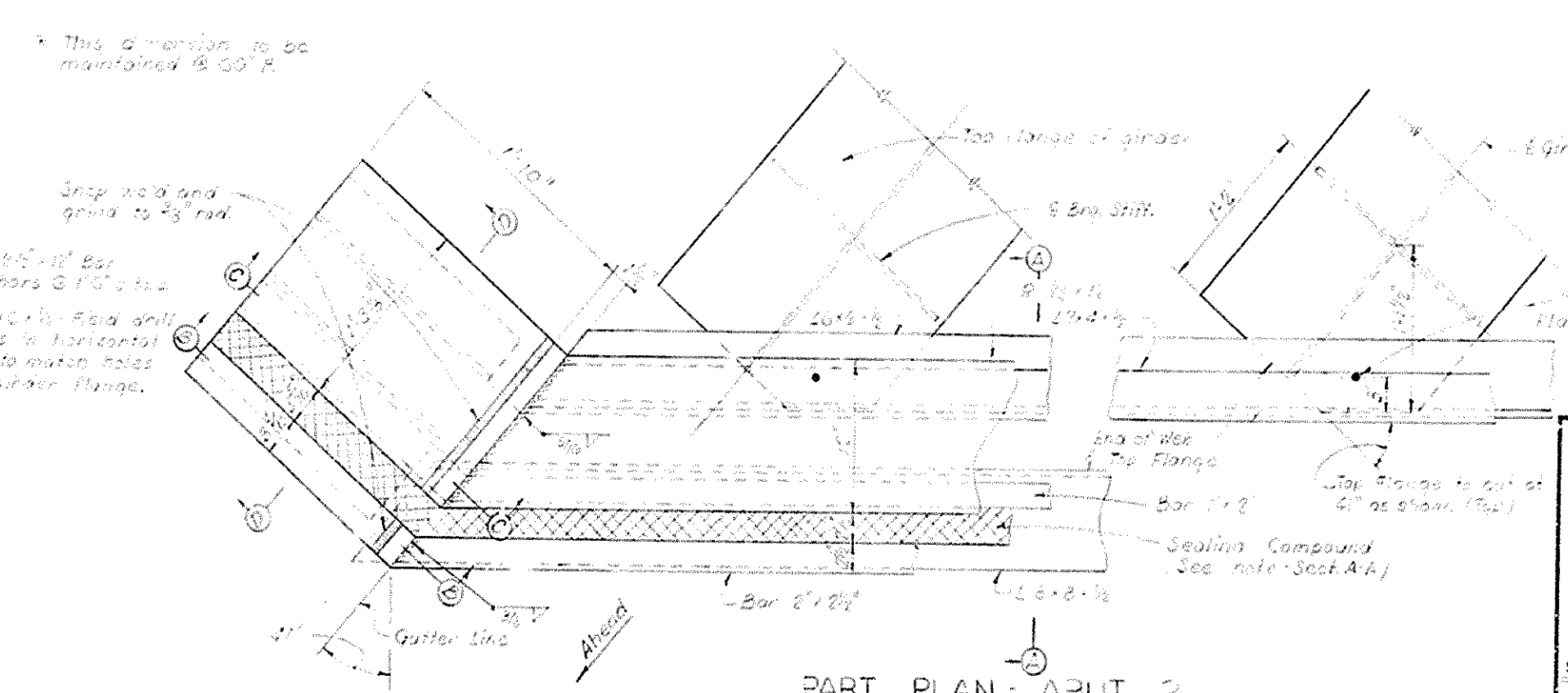
SECTION C-C

SECTION D-D

SECTION E-E



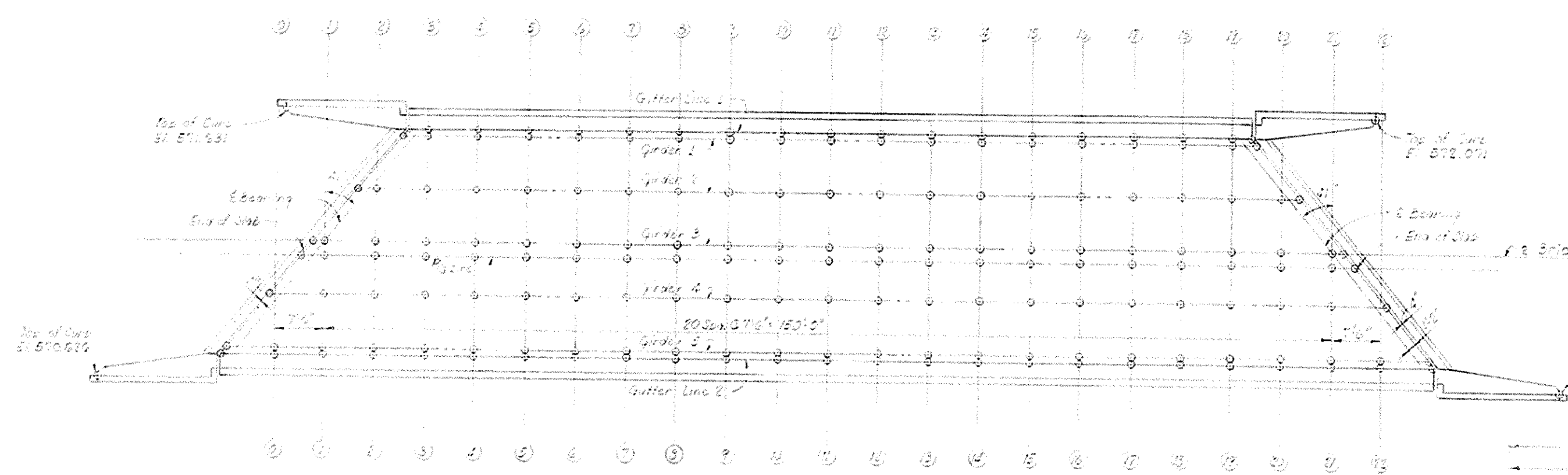
SECTION A-A



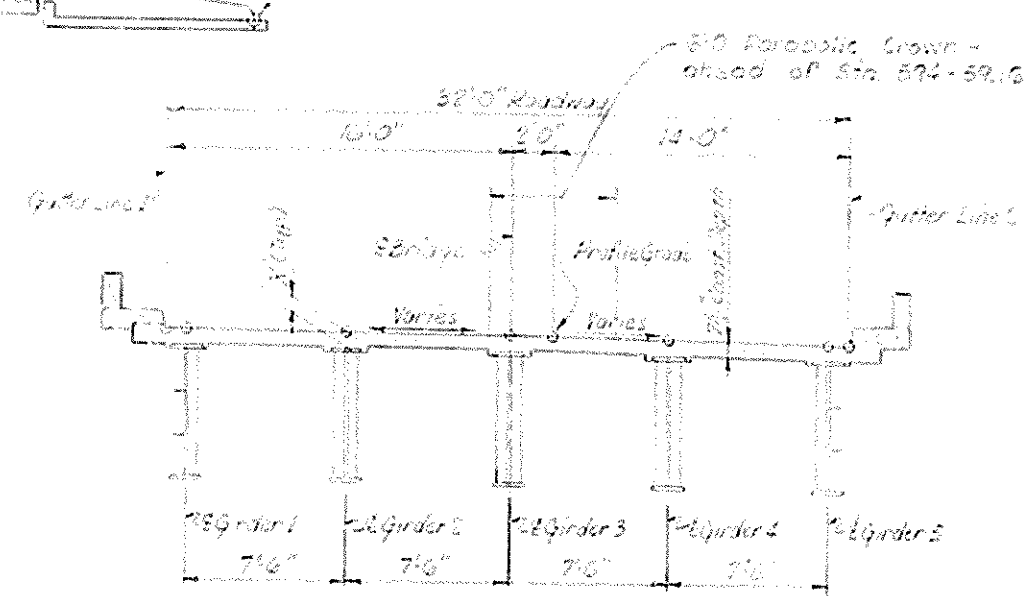
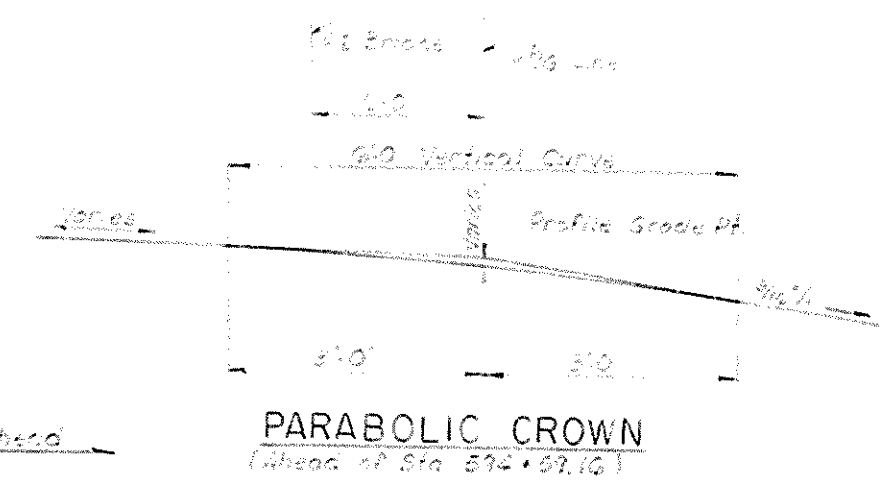
PART PLAN - ABUT. 2

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 281+595+13.56 Ramps 3&5, I-75
 PROJECT NO. SP86-313-1L
 BRIDGE NUMBER 10340
 SHEET 34

BRIDGE



PLAN
(Showing where Elevations are given)



TYPICAL SECTION THRU DECK
(Looking Ahead)

LOCATION	GUTTER LINE 1	GIRDER 1			GIRDER 2			GIRDER 3			S/C LINE	GIRDER 4			GIRDER 5			GUTTER LINE 2
		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"	
End of Sub 1-0	570.905	570.882			570.899			570.899			570.899	570.882			570.882			570.882
1-1																		
1-2																		
3-3	570.932	570.916			570.927			570.927			570.927	570.916			570.916			570.916
4-4	571.037	571.021			571.032			571.032			571.032	571.021			571.021			571.021
5-5	571.131	571.115			571.126			571.126			571.126	571.115			571.115			571.115
6-6	571.213	571.200			571.208			571.208			571.208	571.200			571.200			571.200
7-7	571.279	571.266			571.274			571.274			571.274	571.266			571.266			571.266
8-8	571.341	571.328			571.336			571.336			571.336	571.328			571.328			571.328
9-9	571.393	571.380			571.388			571.388			571.388	571.380			571.380			571.380
10-10	571.455	571.442			571.450			571.450			571.450	571.442			571.442			571.442
11-11	571.481	571.468			571.476			571.476			571.476	571.468			571.468			571.468
12-12	571.479	571.466			571.474			571.474			571.474	571.466			571.466			571.466
13-13	571.480	571.467			571.475			571.475			571.475	571.467			571.467			571.467
14-14	571.476	571.463			571.471			571.471			571.471	571.463			571.463			571.463
15-15	571.468	571.455			571.463			571.463			571.463	571.455			571.455			571.455
16-16	571.459	571.446			571.454			571.454			571.454	571.446			571.446			571.446
17-17	571.371	571.358			571.366			571.366			571.366	571.358			571.358			571.358
18-18	571.340	571.327			571.335			571.335			571.335	571.327			571.327			571.327
19-19	571.274	571.261			571.269			571.269			571.269	571.261			571.261			571.261
20-20																		
21-21																		
22-22																		
End of Sub	571.255	571.242			571.240			571.240			571.240	571.242			571.242			571.242

NOTES

Take elevations on top of steel at points indicated after cross frames 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, and future surfacing.

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.

Since elevation tolerances are based on delivery to the bridge site of fabricated steel having dimension and sweep tolerances meeting the requirements of ASTM Designation A6 for rolled beams or meeting the requirements of AWS Spec. for welded girders, and are based on erection of the steel undamaged.

DESIGNED BY: [Signature] CHECKED BY: [Signature] DATE: [Date]
 DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: [Date]
 REVISIONS: [Table with 3 columns: NO., DATE, DESCRIPTION]

ELEVATIONS ~ UPPER BRIDGE

Ramp E-W 1:71 over Ramps 3/5 1-71 Sheet 20

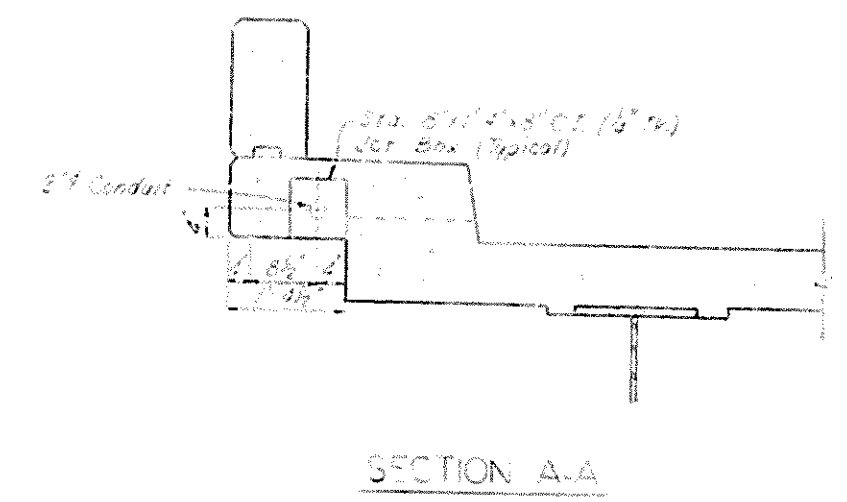
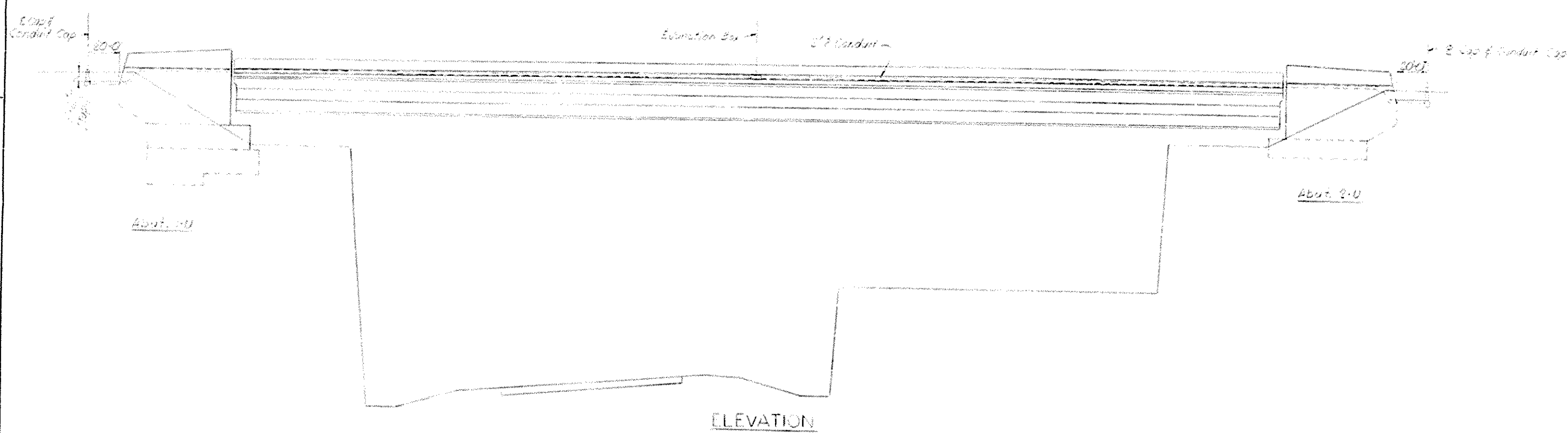
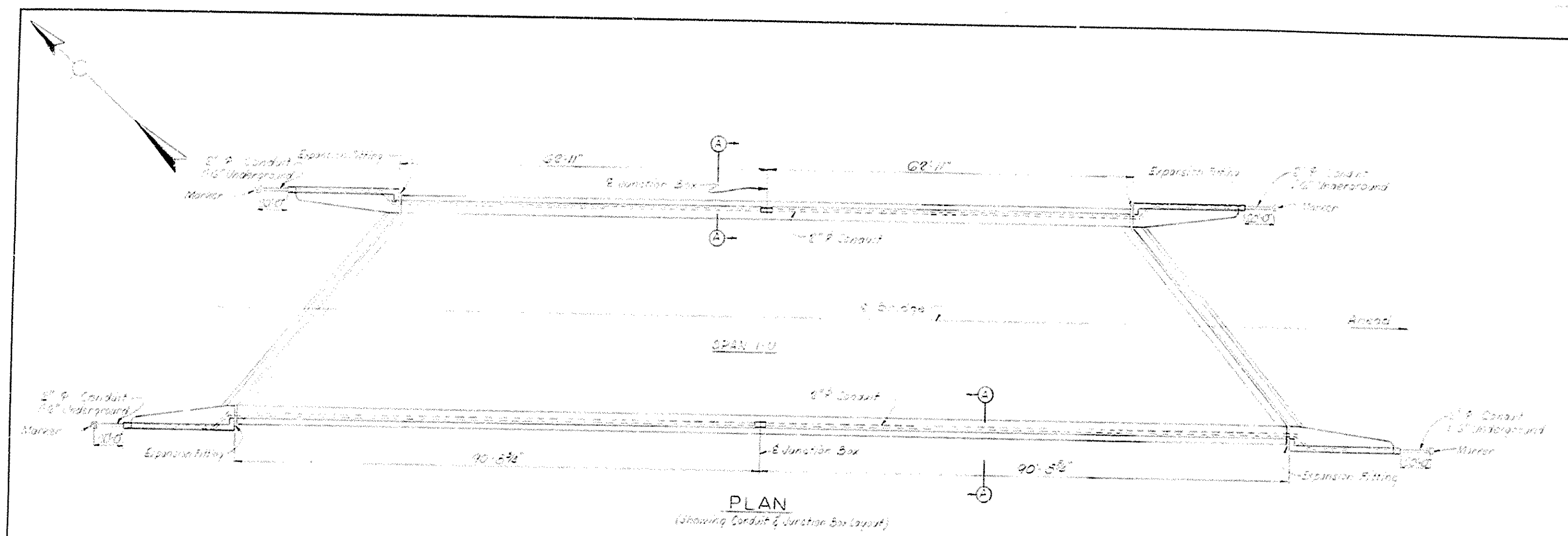
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD

STATION 28+24.50 to 29+15.50 Project No. SP50-3-5-0

BRIDGE NUMBER 16246

DRAWING NO. 16246

BRIDGE



BILL OF MATERIAL	
2" Rigid Galv. Conduit	480
3" x 5" x 1/4" Galv. Steel Box	250
2" Rigid Conduit Connection	150
2" Galv. Cap	40
Expansion Fittings	4
(Crouse-Hinds No. 64) with G.C. 100 ground straps or equivalent type	

Notes:
 Markers shall consist of 4" x 4" x 36" reinforced concrete posts with 4 #4 deformed steel reinforcing rods per post, and a 2" brass disc cast in the end of the post inscribed "End of Dist." Markers to be 2" above grade with disc exposed.

ELECTRICAL CONDUIT UPPER BRIDGE

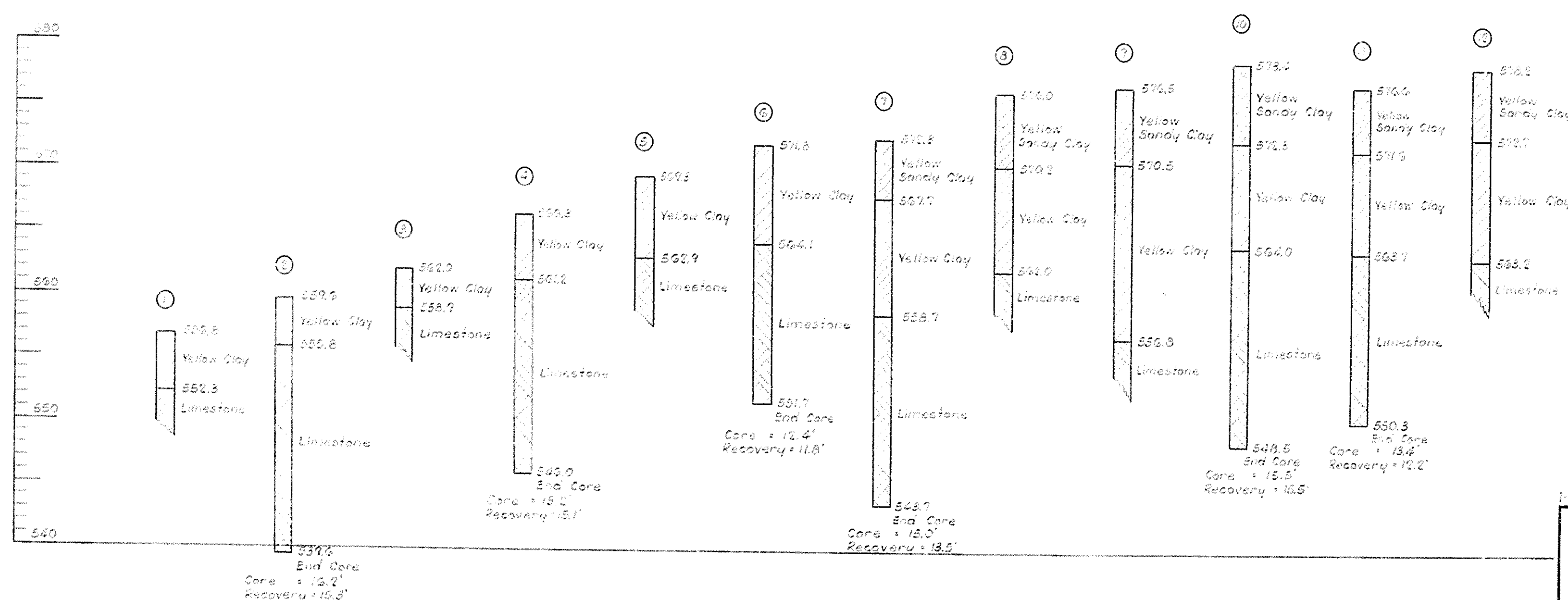
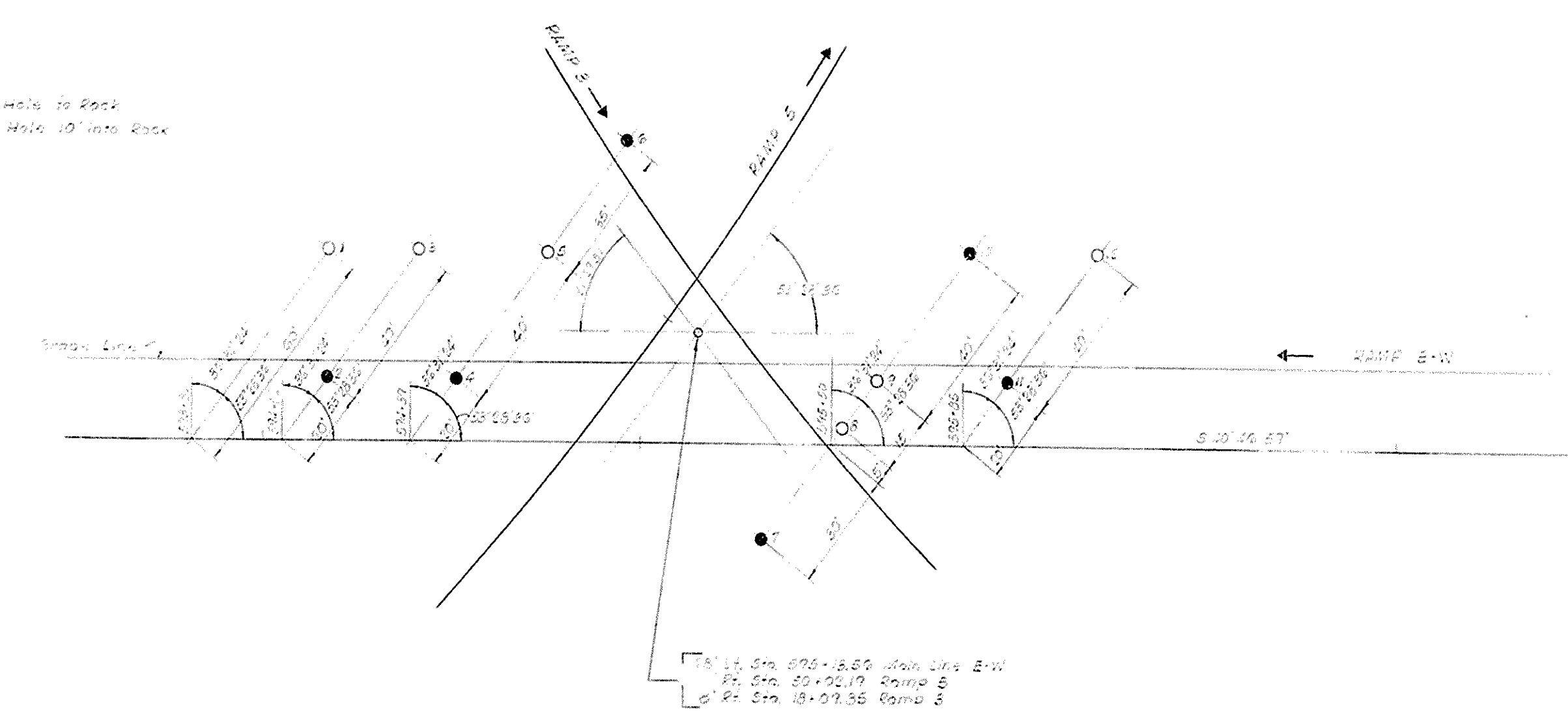
Ramp E-W, I-75 over Ramps 345, 173 Sheet 27

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 LOUISVILLE - COVINGTON
 ROAD
 STATION 201+50.00 (Ramp E-W) PROJECT NO. JPS-374L

BRIDGE NUMBER	DRAWING NO.	INDEX
	10346	

BRIDGE

○ Drilled Auger Hole to Rock
● Drilled Core Hole 10' into Rock



SOUNDINGS

171 Tri-level Interchange Sheet 23

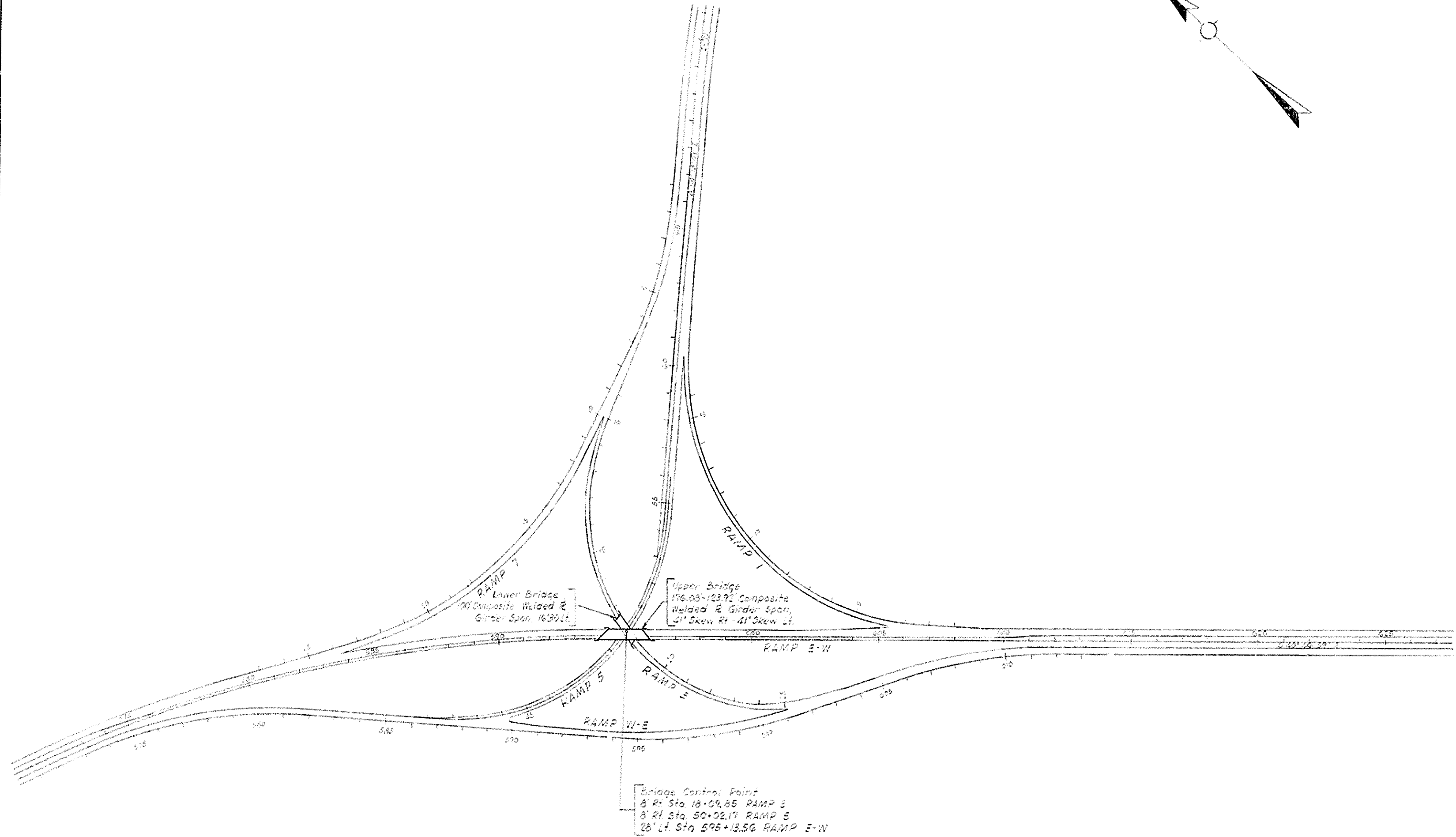
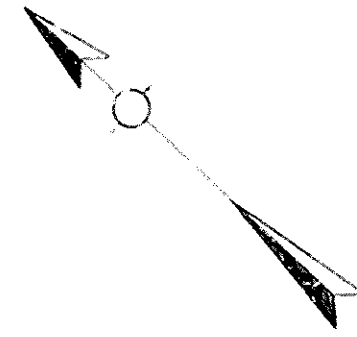
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 LOUISVILLE-COVINGTON
 ROAD
 STATION 28+11.50-13.56 (Ramp 3)
 PROJECT NO. 16502

BRIDGE NUMBER 16502

INDEX

BRIDGE

RD. ROAD DIST.	STATE	RD. A.D. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



DESIGNED BY	CHECKED BY	DATE	DESIGNED BY	CHECKED BY	DATE
NET					

Sheet 29

Tri level Interchange at Junction of I-76 & I-264

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 LOUISVILLE-COVINGTON
 ROAD

STATION 26+13.56 (Ramp W) PROJECT NO. 5856-213-11

BRIDGE NUMBER	DRAWING NO.	INDEX
	16346	

BRIDGE