

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	.	ALEXANDER, IL MISSISSIPPI, MO	67	1

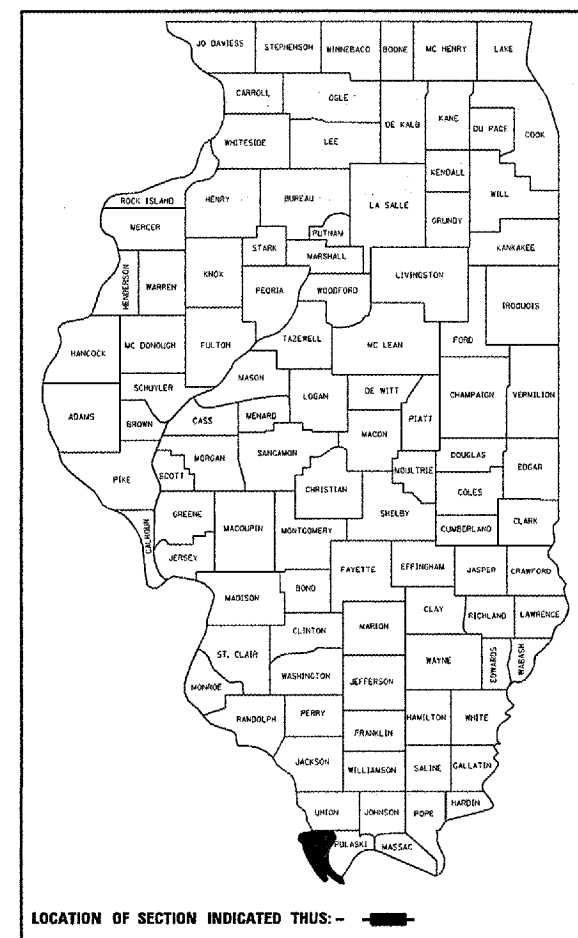
*(02-1B-1) P-1

FOR INDEX OF SHEETS, SEE SHEET NO. 2.
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4.

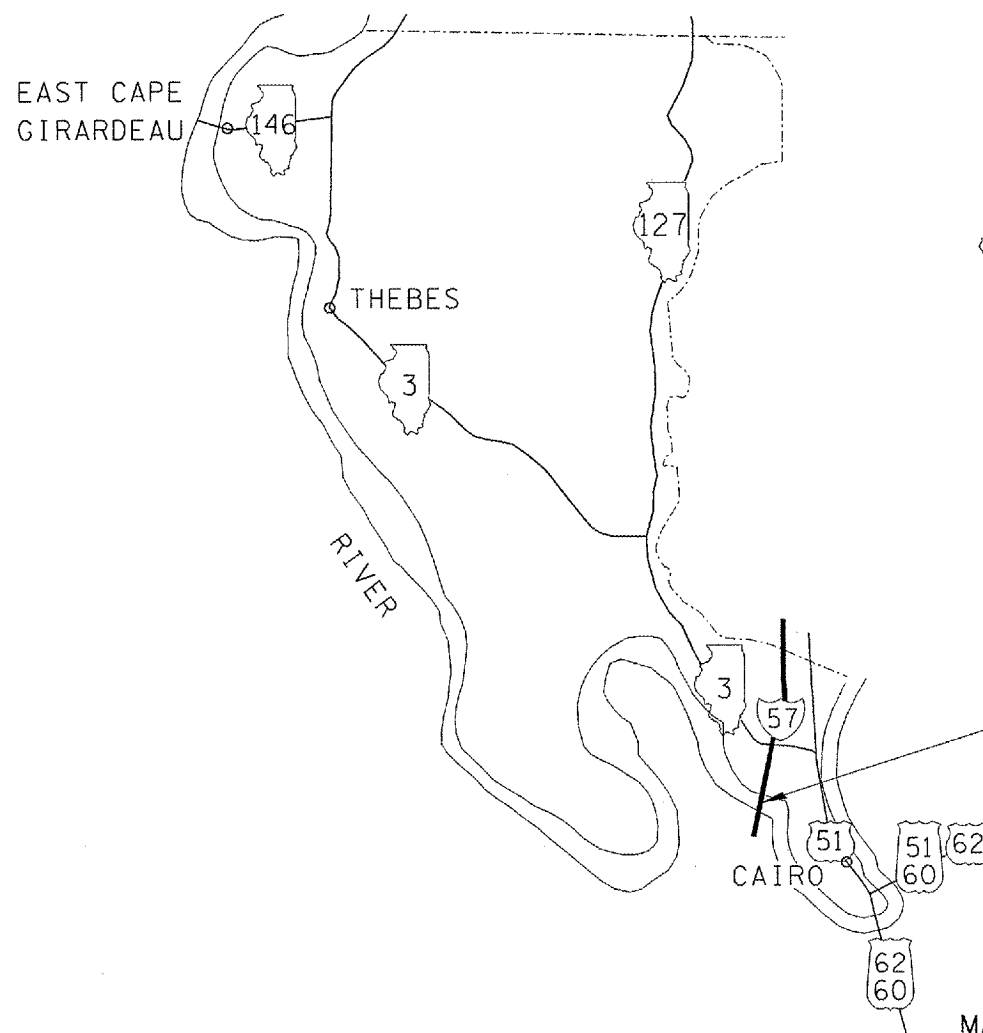
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.I. ROUTE 57 (INTERSTATE 57)
SECTION (02-1B-1) P-1
ALEXANDER COUNTY, ILLINOIS
MISSISSIPPI COUNTY, MISSOURI
C-99-003-06



LOCATION OF SECTION INDICATED THUS: - [shaded area]



IMPROVEMENT LOCATION
STRUCTURE 002-0022
PAINT STRUCTURAL STEEL
AT SPECIFIED LOCATIONS

CAIRO TOWNSHIP
ADT = 9900, 46% TRUCKS
POSTED SPEED = 55 M.P.H.
INVENTORY RATING HS 22.0
OPERATING RATING HS 35.1

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 or www.julie1call.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Mary C. Lamin 11/02/2005
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 2005
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 2005
Eric Harn
DEPUTY DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

CONTRACT NO. 98940

MAP NOT TO SCALE

PROJECT ENGINEER: CASEY TECKENBROCK PHONE: (618) 549-2171
SQUAD LEADER: RITA GAUTNEY CENTREX: 782-4554

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	ALEXANDER, IL MISSISSIPPI, MO	67	2
FED. ROAD DIST. NO. 7		ILLINOIS		

•(02-1B-1) P-1

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, SIGNATURES
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5-83	STRUCTURAL STEEL PLAN SHEETS FOR INFORMATION ONLY

STANDARDS

701400-02
701401-03
702001-05

AGREEMENTS

STATE OF MISSOURI

Approved: Mary C. Lamin
REGION 5 ENGINEER

DATE 11/02/2005

Prepared By: Shirley Snodgrass
DISTRICT OPERATIONS ENGINEER

Examined By: James H. Davis
ASSISTANT REGIONAL ENGINEER

Examined By: James H. Davis
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Joe Zdaniewicz
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Joseph Lewis
DISTRICT CONSTRUCTION ENGINEER

Examined By: Paul D. Smith
DISTRICT MATERIALS ENGINEER

Examined By: James H. Davis
DISTRICT PROJECT IMPLEMENTATION ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	.	ALEXANDER, IL MISSISSIPPI, MO	67	3
FED. ROAD DIST. NO. 7		ILLINOIS		

•(02-1B-1) P-1

GENERAL NOTES

The Contractor shall supply portable changeable message signs at least two weeks prior to any lane closure, as required by Traffic Control and Protection Standard 701400. The exact message to be displayed shall be provided by the Engineer.

The painting on this project is limited to structural steel which is located at or below the level of the bridge deck and within 5 feet of either side of a deck joint. The intention is to clean and paint structural steel which is exposed to road salt runoff.

The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4 / 8

Cleaning and painting shall conform to the requirements of special provision "Cleaning And Painting Existing Steel Structures". Near White Metal Blast Cleaning - SSPC - SP10 and Paint System 1 - OZ / E / U shall be used.

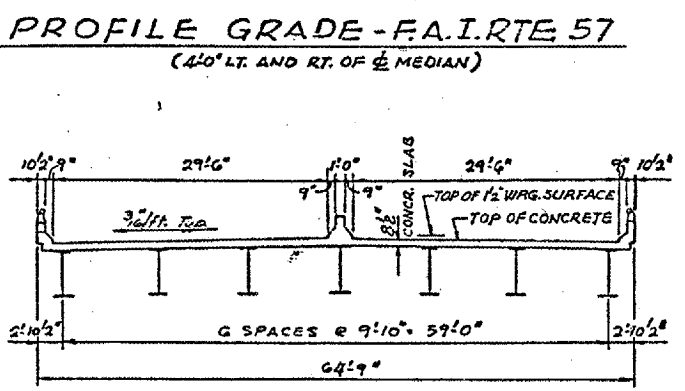
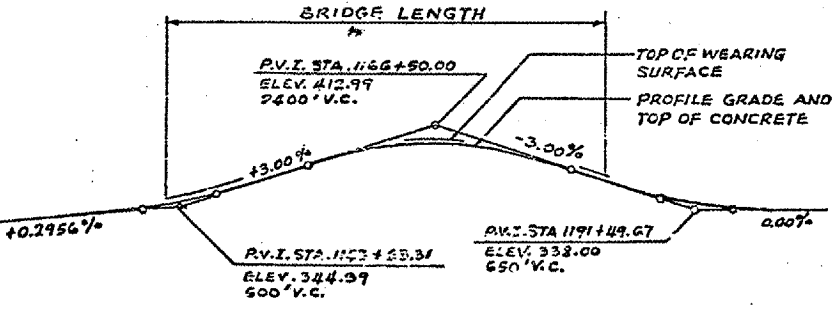
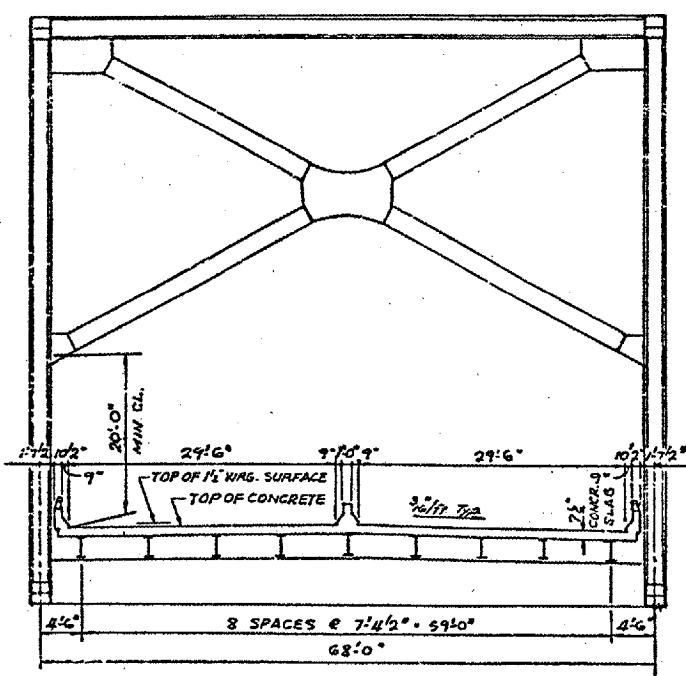
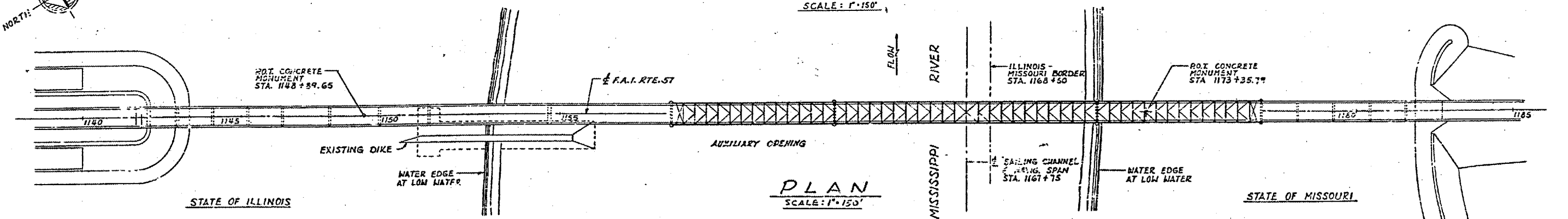
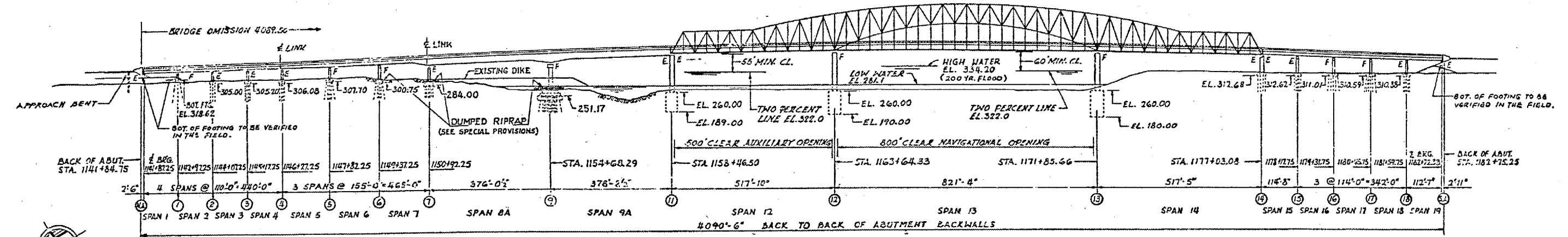
SSPC - QP1 and SSPC - QP2 Painting Contractor Certifications are not required.

The Contractor is advised that navigational illumination is present on this structure. All cable or conduit is to remain in service. Any cable or conduit which is damaged as a result of the Contractor's operations shall be replaced by the Contractor at the Contractor's expense. Replacement material and methods shall meet or exceed the original specifications for the wiring. Splicing will not be permitted.

The Contractor shall submit to the Illinois Department of Transportatin a work plan that includes a work schedule and containment details for each painting location over water. No work will be permitted prior to approval of the plan by the United States Coast Guard.

BENCH MARKS
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1148+89.65 ± MEDIAN EL. 317.12
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1173+35.79 ± MEDIAN EL. 319.31

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 5 OF 67



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
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3	FRAMING PLAN - SPANS 1, 2, 3 & 4
4	FRAMING PLAN - SPANS 1, 2, 3 & 4
5	FRAMING PLAN - SPANS 5, 6 & 7
6	FRAMING PLAN - SPANS 5, 6 & 7
7	FRAMING PLAN - SPANS 8A & 9A
8	FRAMING PLAN - SPANS 15 TO 19
9	GIRDER CROSSFRAMES AND LINK DETAILS
10	GIRDER CROSSFRAMES AND BRACING DETAILS
11, 12, 13	STEEL DETAILS - SPANS 8A & 9A
14	FIELD SPICE AND DETAILS - SPANS 1 TO 9A & 15 TO 19
15	BEARING DETAILS - SPANS 1 TO 9A & 15 TO 19
16, 17	EXPANSION GUARD - PIERS 11 & 14
18	TRUSS LAYOUT & BLOCKING ORDINATES
19	FRAMING PLAN - SPANS 12, 13 & 14
20	FLOOR STEEL DETAILS - SPANS 12, 13 & 14
21	FLOOR BEAMS - SPANS 12, 13 & 14
22	TRUSS DETAILS - L ₁ TO L ₃ & U ₁ TO U ₃
23	TRUSS DETAILS - L ₄ TO L ₇ & U ₄ TO U ₇
24	TRUSS DETAILS - L ₈ TO L ₁₀ & U ₈ TO U ₁₀
25	TRUSS DETAILS - L ₁₁ TO L ₁₃ & U ₁₁ TO U ₁₃
26	TRUSS DETAILS - L ₁₄ , M ₁₅ , M ₁₆ & U ₁₄ TO U ₁₆
27	TRUSS DETAILS - M ₁₇ TO M ₁₉ & U ₁₇ TO U ₁₉
28	TRUSS DETAILS - M ₂₀ TO M ₂₂ & U ₂₀ TO U ₂₂
29	TRUSS DETAILS - M ₂₃ TO M ₂₅ & U ₂₃ TO U ₂₅
30	TRUSS DETAILS - L ₁₅ TO L ₂₅
31	TRUSS DETAILS - MISCELLANEOUS
32	SWAY FRAMES - SPANS 12, 13 & 14
33	PORTALS - SPANS 12, 13 & 14
34	TRUSS BEARINGS AT PIERS 12 & 13
35	TRUSS BEARINGS AT PIERS 11 & 14
36	NAVIGATION & AVIATION OBSTRUCTION LIGHTS
37	PIER LIGHT, LADDER & RAILING DETAILS
38	CENTER OF CHANNEL NAVIGATION LIGHT DETAILS
39	AVIATION OBSTRUCTION LIGHT DETAILS
40	DRAINAGE DETAILS

HIGHWAY CLASSIFICATION
 F.A.I. ROUTE 57, D.H.V. 1920, H.P.H. 70, DESIGNATION: B-1 (1987)

GENERAL NOTES
 STRUCTURAL STEEL SHALL BE FIELD PAINTED IN ACCORDANCE WITH SEC. 203 OF THE STD. SPECS.
 THE BASIC EPAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED
 Calculated weight of structural steel to be painted = 22,283,460 lbs.

SUMMARY OF QUANTITIES
 SECTION (02-1B-1) P1

QUANTITY	UNIT	ITEM	CODE NO.
1	L. SUM	PAINTING STRUCTURAL STEEL	X50904

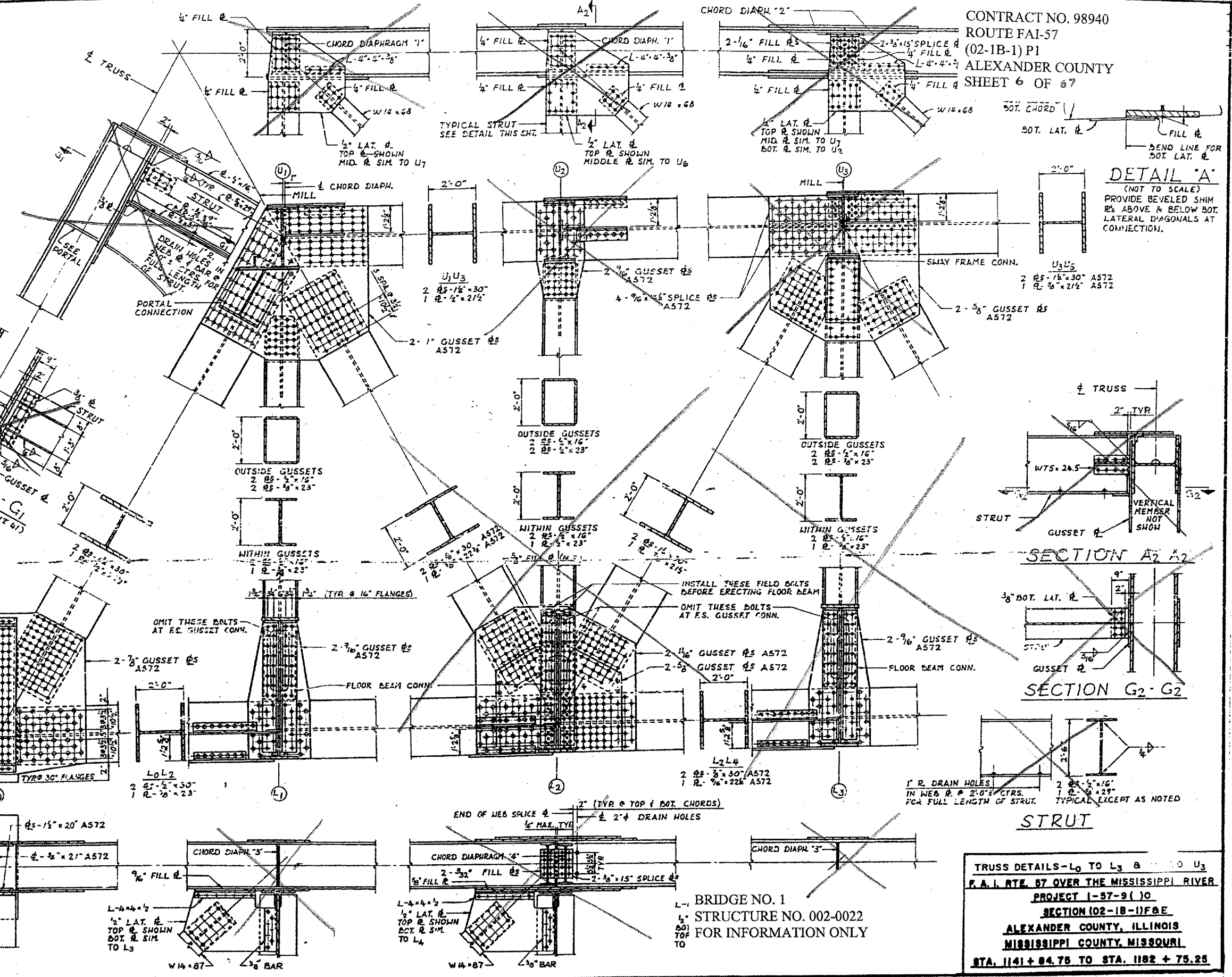
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 10 S. WABASH AVE. CHICAGO, ILLINOIS

GENERAL PLAN AND SECTION
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(6)0
 SECTION (02-1B-1) P1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141+84.75 TO STA. 1182+75.25

GENERAL NOTES ON TRUSS DETAILS

ALL MATERIAL SHALL BE ASTM A36 UNLESS NOTED.
 ALL SHOP FASTENERS (DENOTED THUS: ⚙) AND FIELD FASTENERS (DENOTED THUS: +) SHALL BE 1" ASTM A325 HIGH STRENGTH BOLTS. SHOP & FIELD CONNECTIONS MAY BE INTERCHANGED.
 FOR DETAILS OF WEB TO FLANGE FILLET WELDS IN TRUSS MEMBERS AND DETAILS AT CHANGE OF SECTION IN TRUSS MEMBERS (WHERE SECTIONS "WITHIN GUSSETS" AND "OUTSIDE GUSSETS" ARE DIFFERENT) SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39
 FOR DETAILS OF GUSSET PLATE STIFFENERS, GUSSET PLATE DIAPHRAGMS, AND CHORD DIAPHRAGMS SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39
 FOR TOP LATERAL CONNECTIONS ALONG & OF BRIDGE SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39
 FOR BOTTOM LATERAL CONNECTIONS ALONG & OF BRIDGE SEE FLOOR BEAMS, SHT. 29
 FOR DETAILS OF FLOOR BEAM CONNECTIONS SEE SHT. 29
 FOR DETAILS OF SWAY FRAME CONNECTIONS SEE SHT. 40
 FOR DETAILS OF PORTAL CONNECTIONS SEE SHT. 41
 FOR DETAILS OF WEB PLATE CUT-OFF AT ENDS OF DIAGONAL TRUSS MEMBERS, SEE SHT. 37
 ALL NOMINALLY VERTICAL TRUSS MEMBERS AND THE NOMINALLY VERTICAL & OF ALL FLOOR BEAMS ARE TO BE PERPENDICULAR TO A STRAIGHT LINE THROUGH PANEL POINTS L₀ AND L₃.
 THE WIDTH OF TRUSS MEMBERS, OUT-TO-OUT OF FLANGES, SHALL BE AS FOLLOWS:
 CHORDS: 2'-0" (+1/4", -0")
 DIAGONALS: 2'-0" (+0", -1/4")
 VERTICALS: 2'-0" (+0", -1/4")

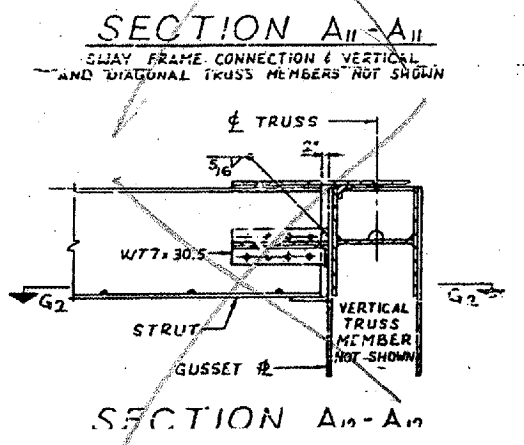
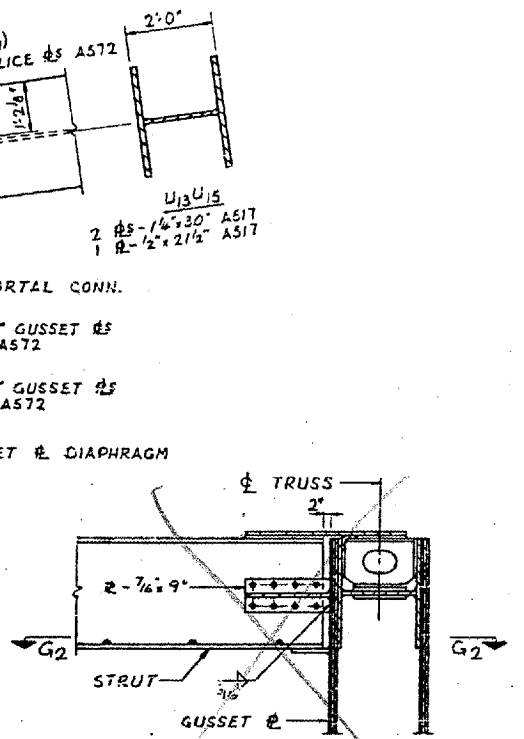
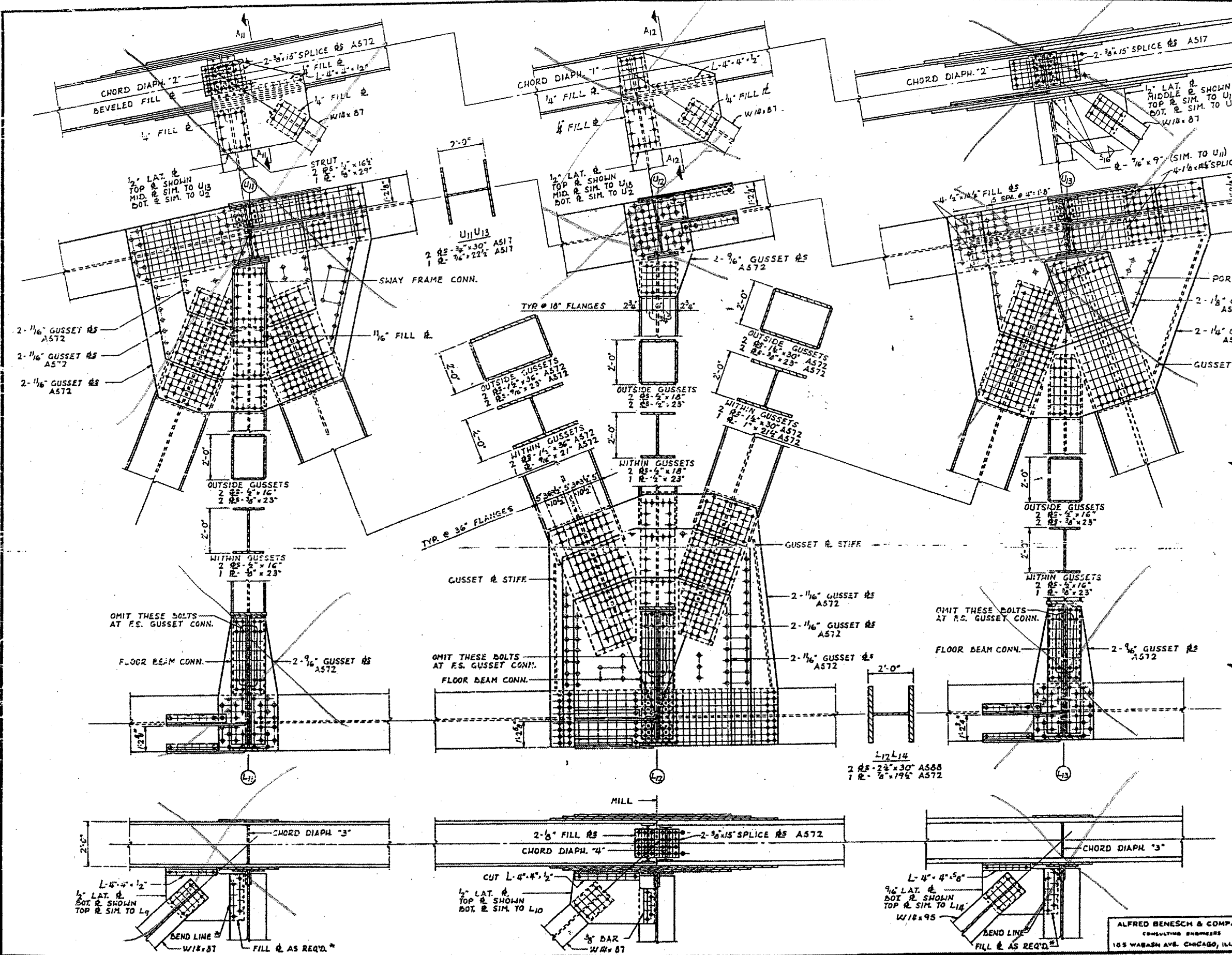


DETAIL 'A'
 (NOT TO SCALE)
 PROVIDE BEVELED SHIM RE ABOVE & BELOW BOT. LATERAL DIAGONALS AT CONNECTION.

TRUSS DETAILS-L₀ TO L₃ & U₁ TO U₃
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (10)
 SECTION 02-1B-11F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 9 OF 67

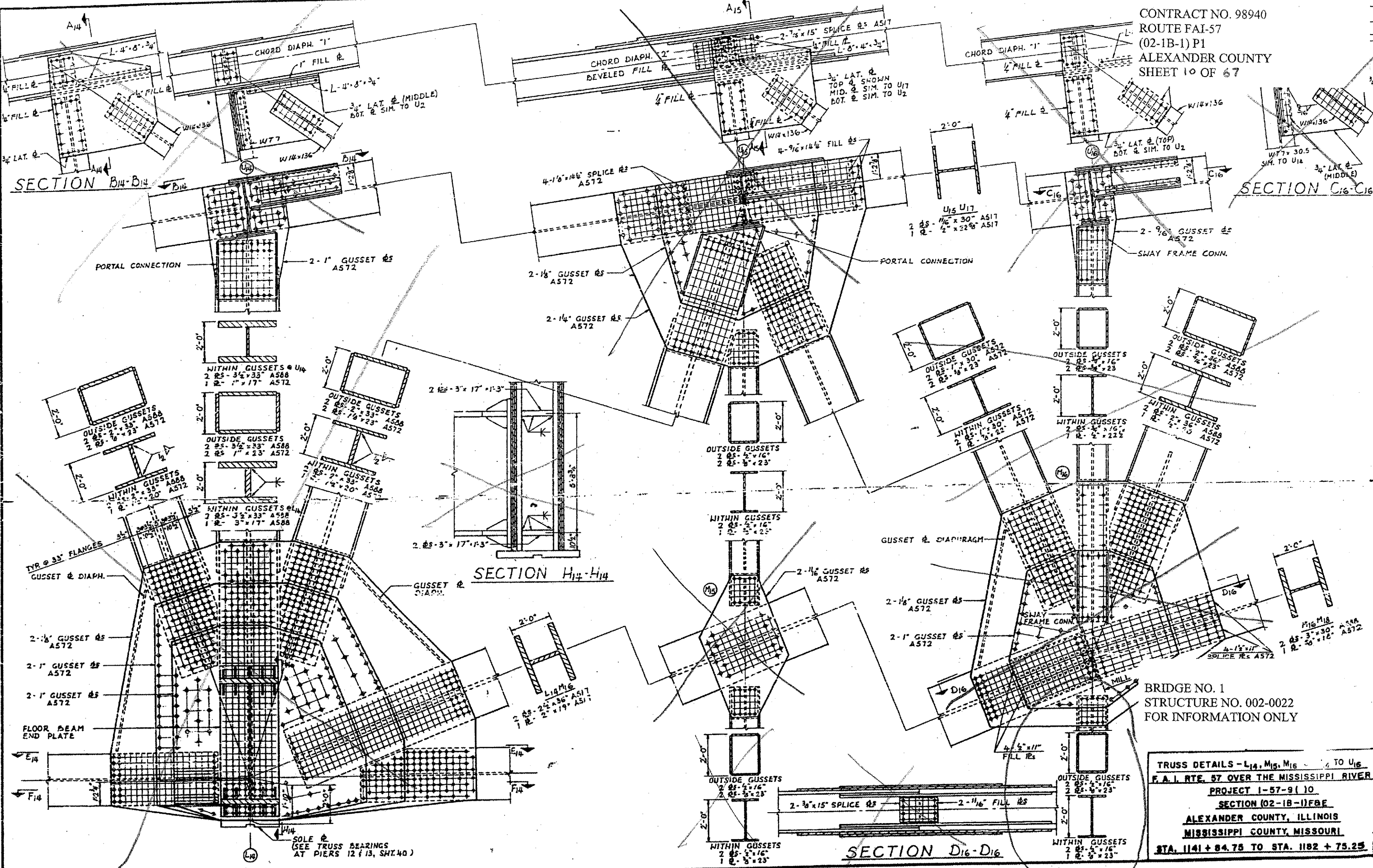


BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - L11 TO L13 & U11 TO U13
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-91.10
 SECTION (02-1B-1) P1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1162 + 75.25

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE. CHICAGO, ILLINOIS

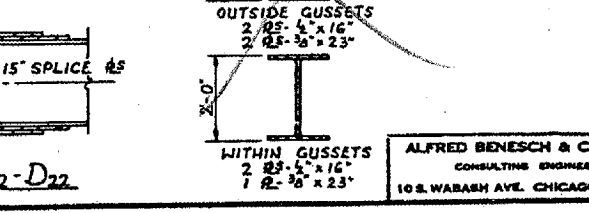
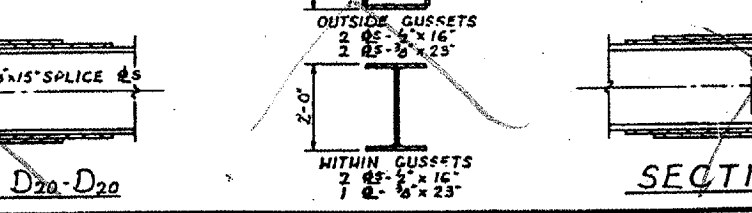
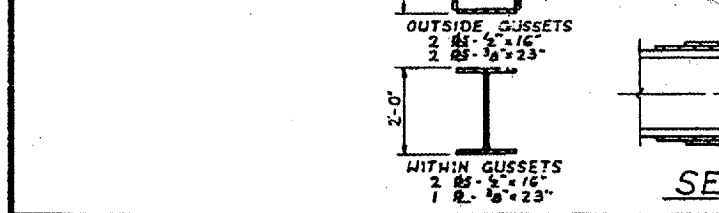
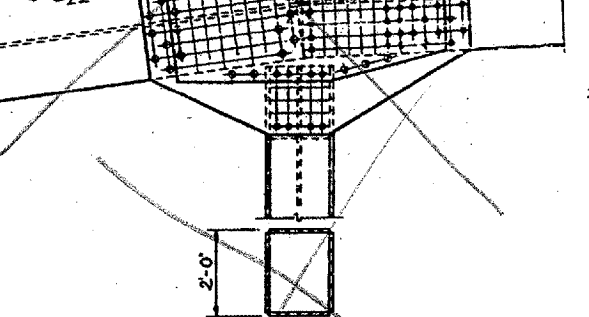
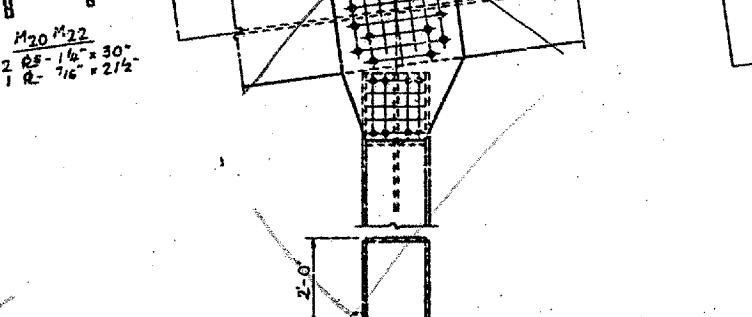
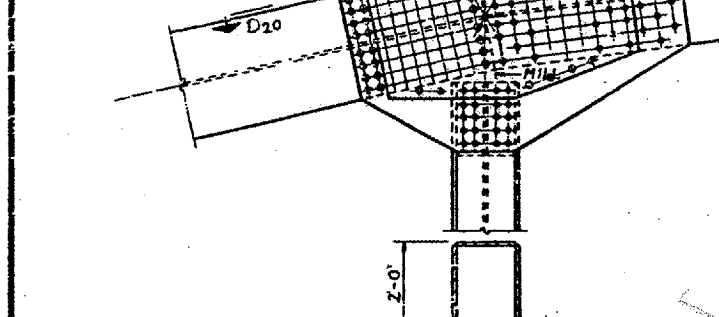
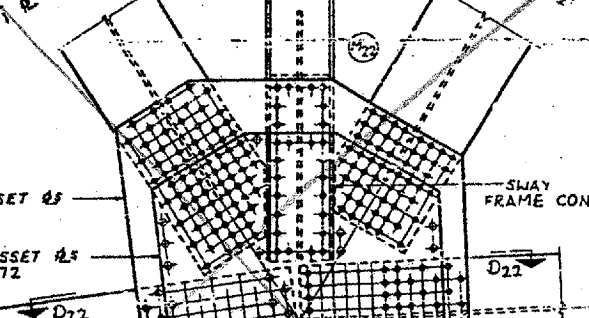
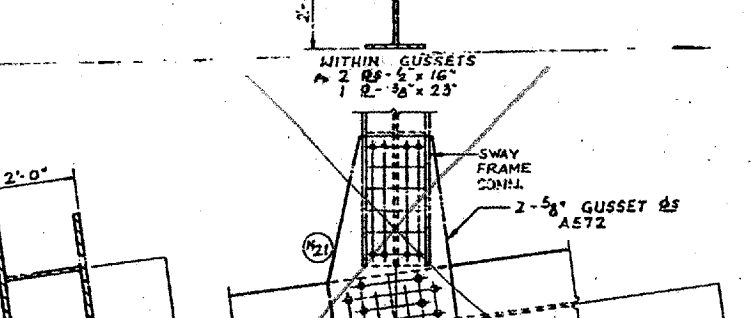
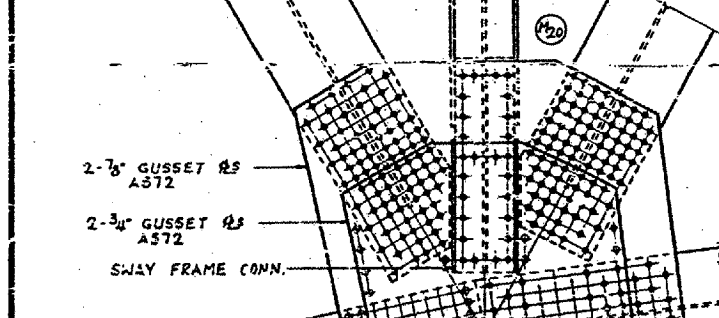
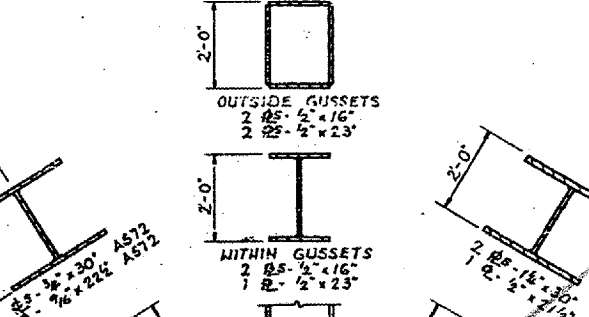
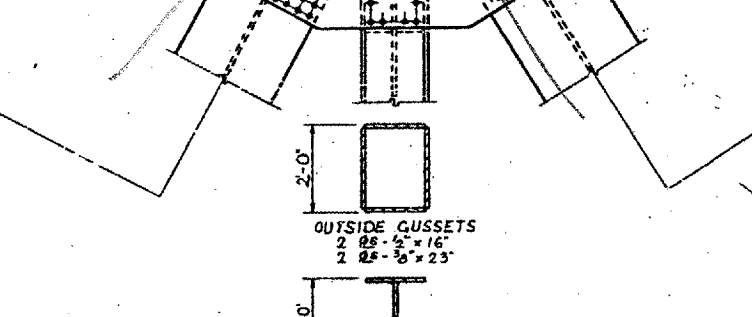
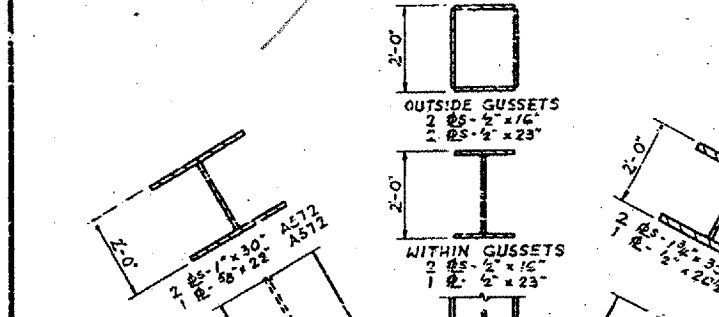
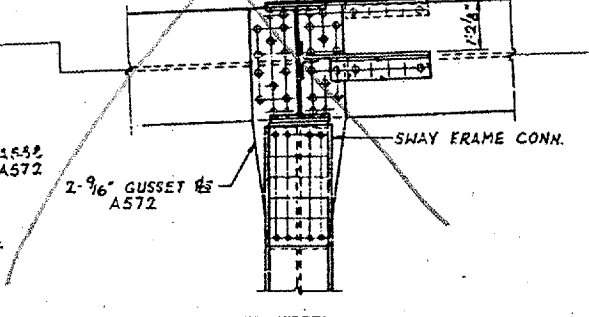
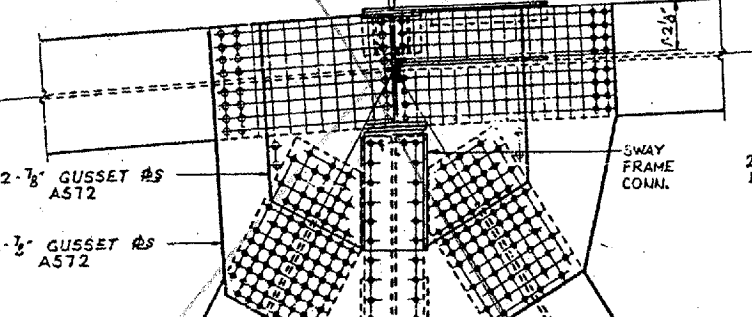
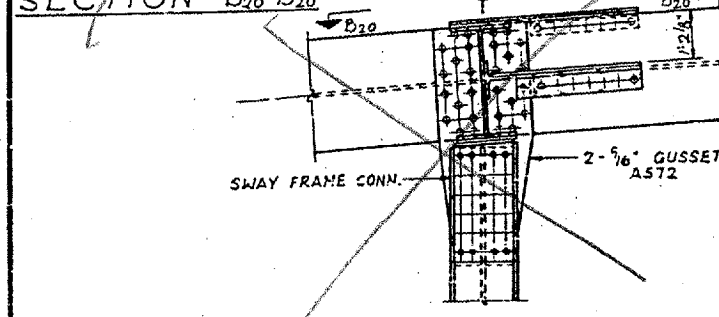
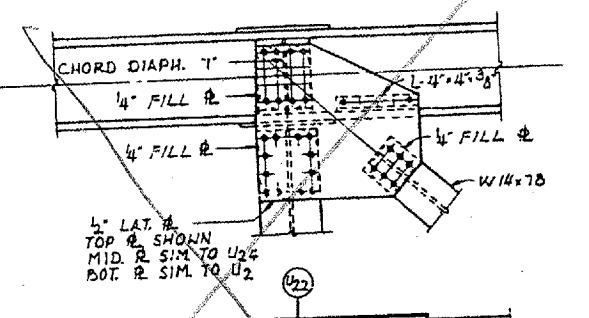
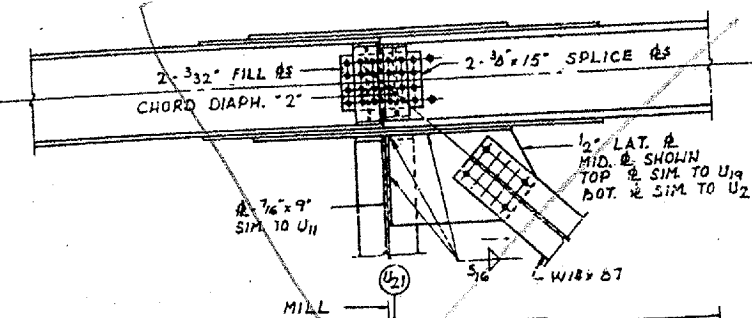
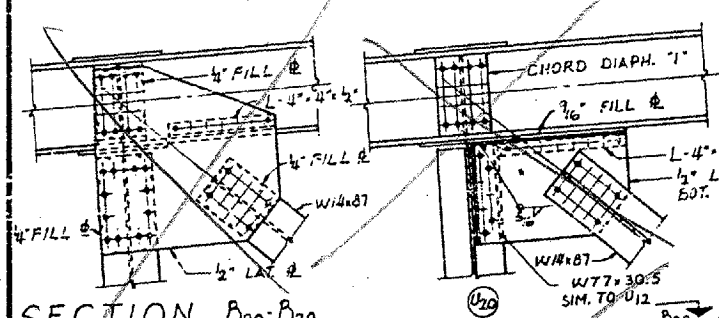
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 10 OF 67



BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - L14, M15, M16 TO U16
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-91 (10)
 SECTION (02-1B-1)FB
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 11 OF 67



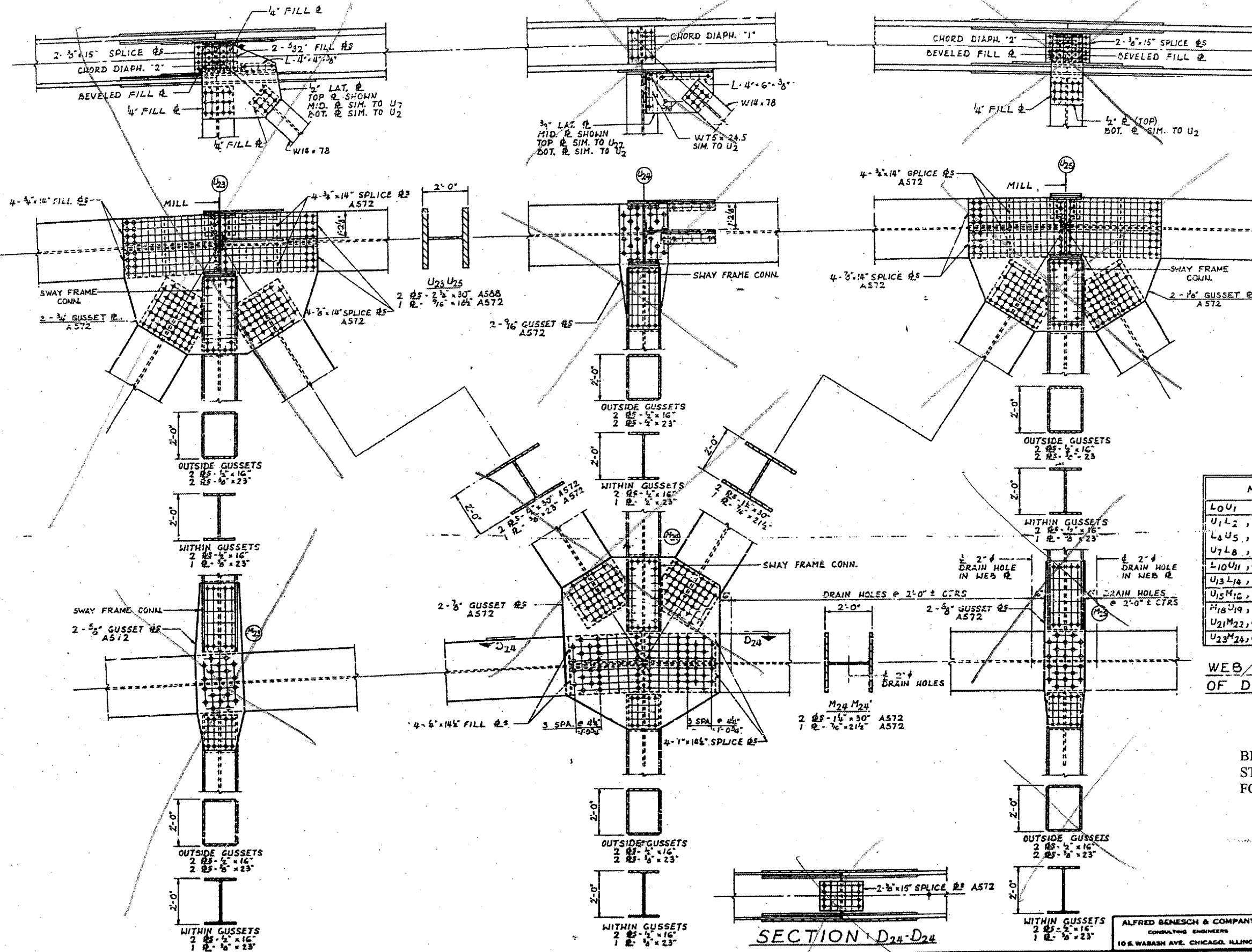
SECTION D20-D20

SECTION D22-D22

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 10 S. WABASH AVE. CHICAGO, ILLINOIS

TRUSS DETAILS - M20 TO M22 & U20 TO U22
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1)0
 SECTION (02-1B-1)0
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



MEMBER	AT LOWER END	AT UPPER END
L0U1	1'-3"	0'-0"
U1L2, L2U3, L4U5, U5L6, L6U7, U7L8, L8U9, U9L10	1'-3"	1'-3"
L10U11, U11L12, L12U13	1'-6"	1'-6"
U13L14, L14U15, U15L16	0'-0"	0'-0"
U15L16, M16U17, U17M18	1'-6"	1'-6"
M18U19, U19M20, M20U21	1'-3"	1'-3"
U21M22, M22U23	1'-0"	1'-0"
U23M24, M24U25	1'-0"	1'-0"

WEB PLATE CUT-OFF AT ENDS
 OF DIAGONAL TRUSS MEMBERS

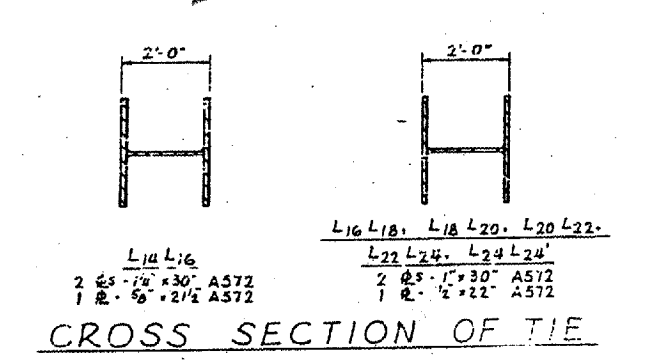
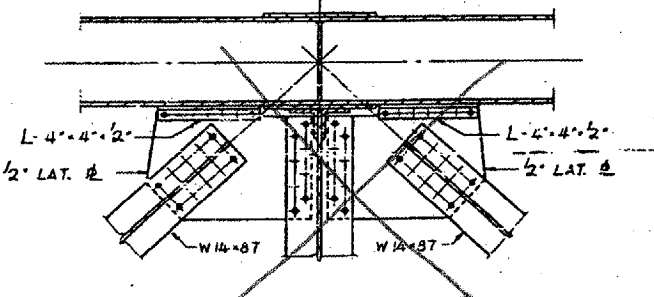
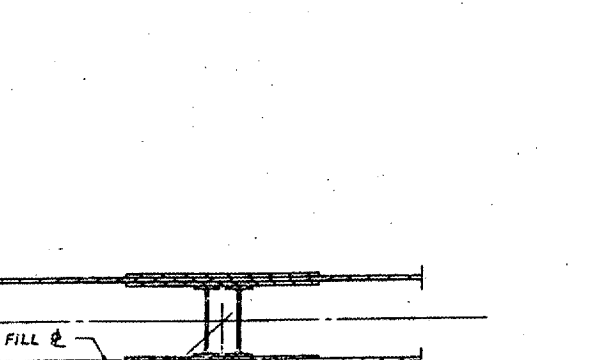
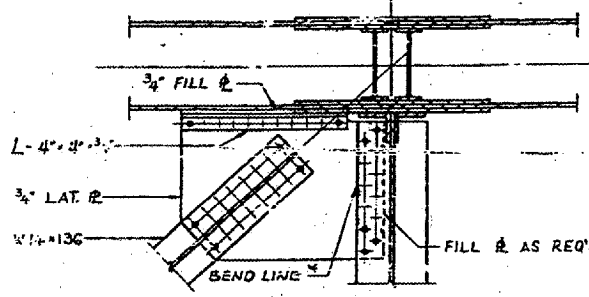
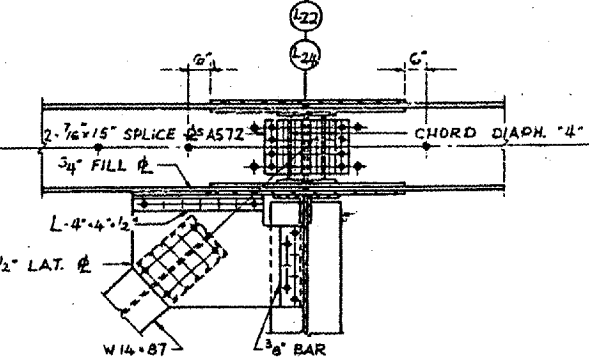
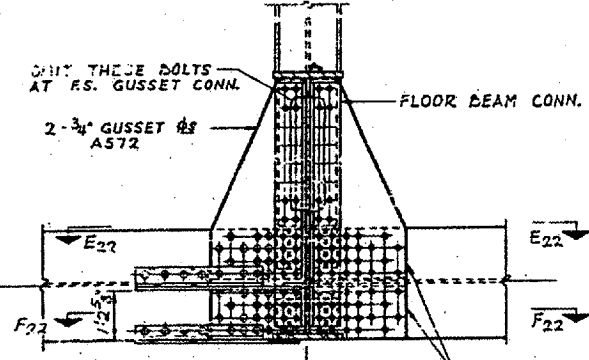
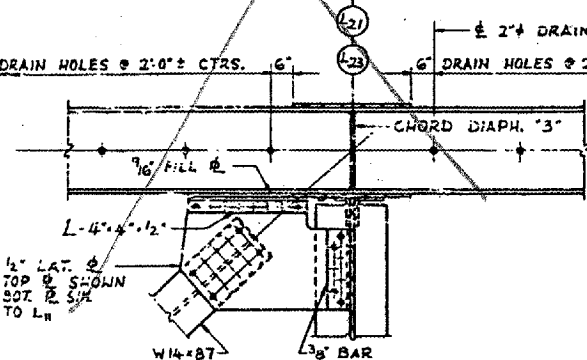
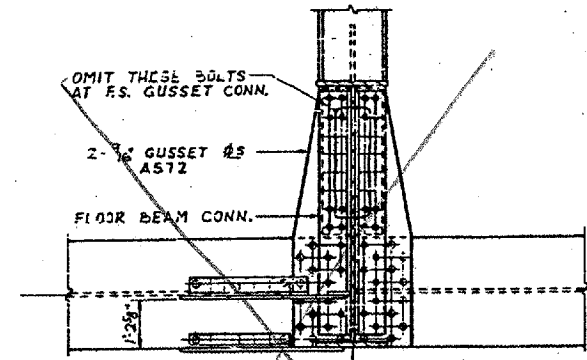
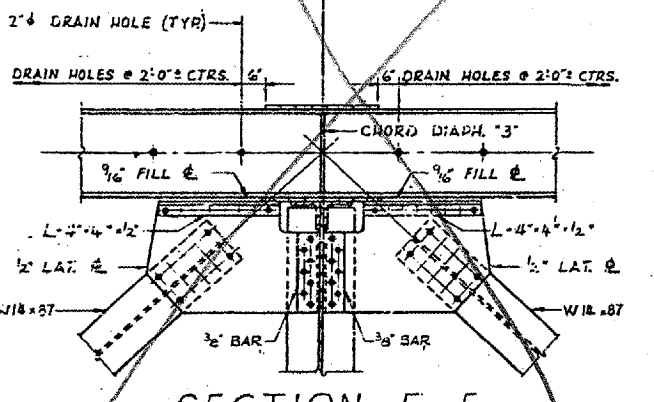
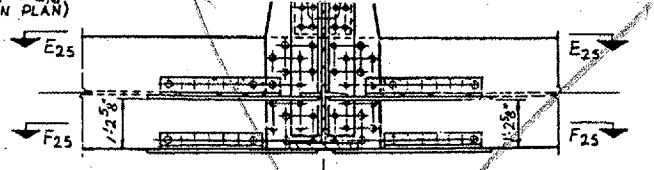
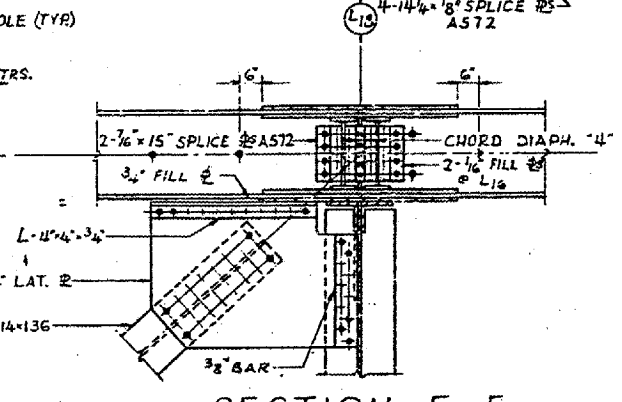
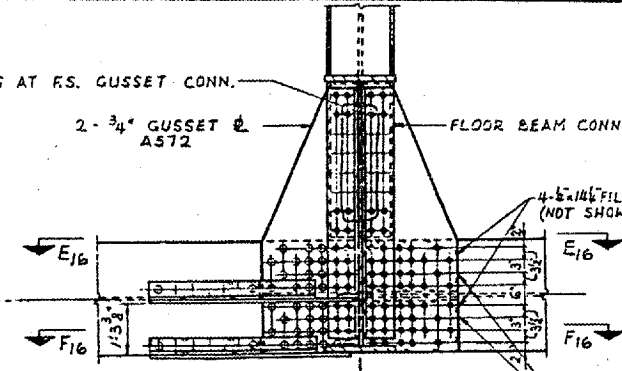
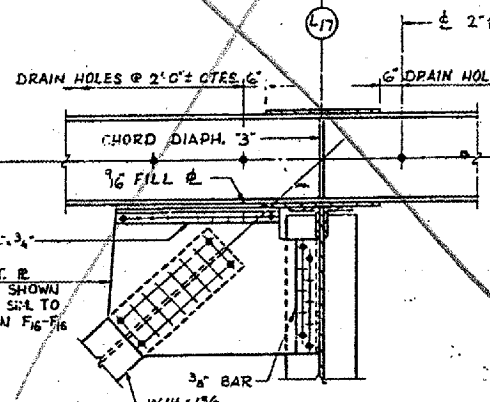
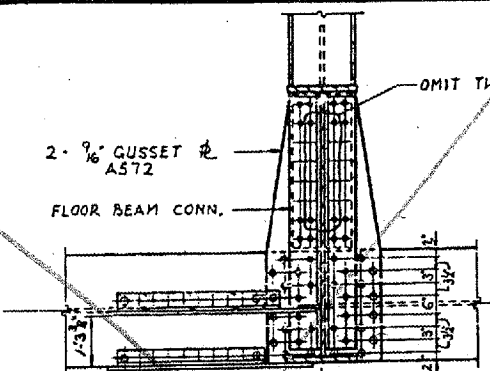
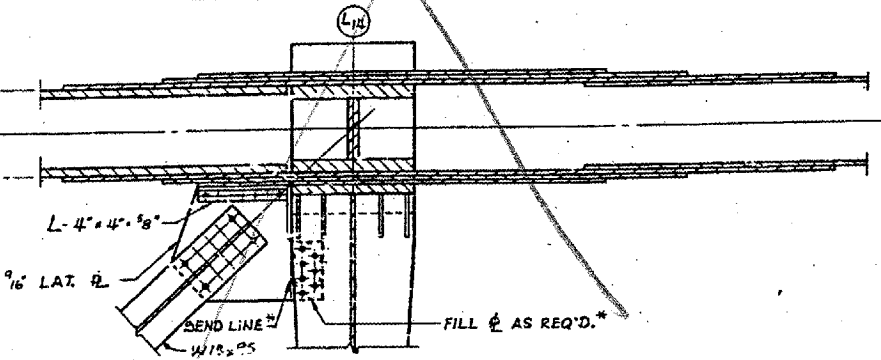
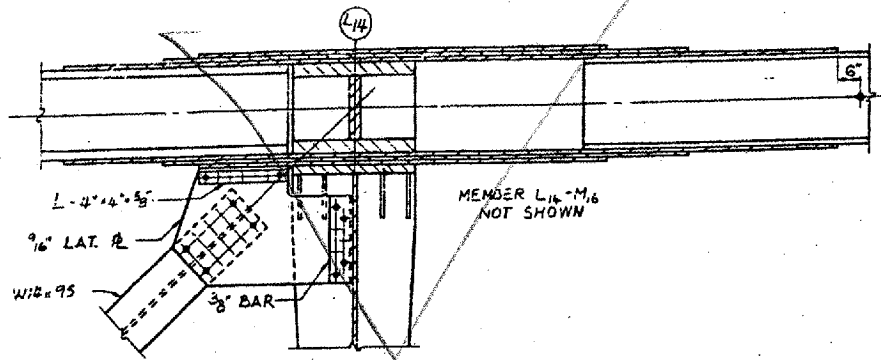
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - M23 TO M25 & U23 TO
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1) F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 10 S. WABASH AVE. CHICAGO, ILLINOIS

SECTION D24-D24

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 15 OF 67



L16 L16
 2 ϕ 5 - 1/2" x 30" A572
 1 ϕ 5 - 5/8" x 2 1/2" A572

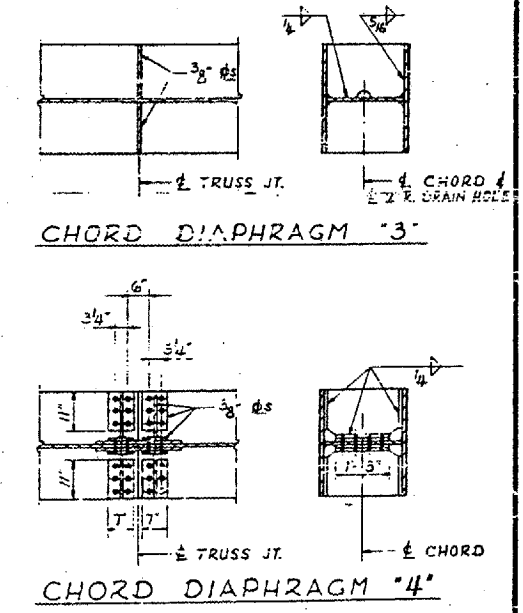
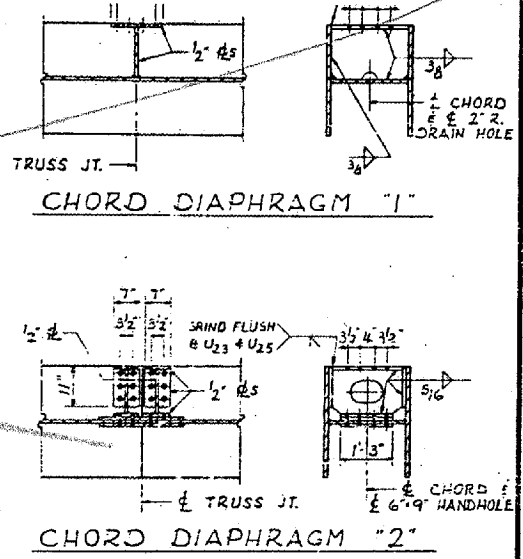
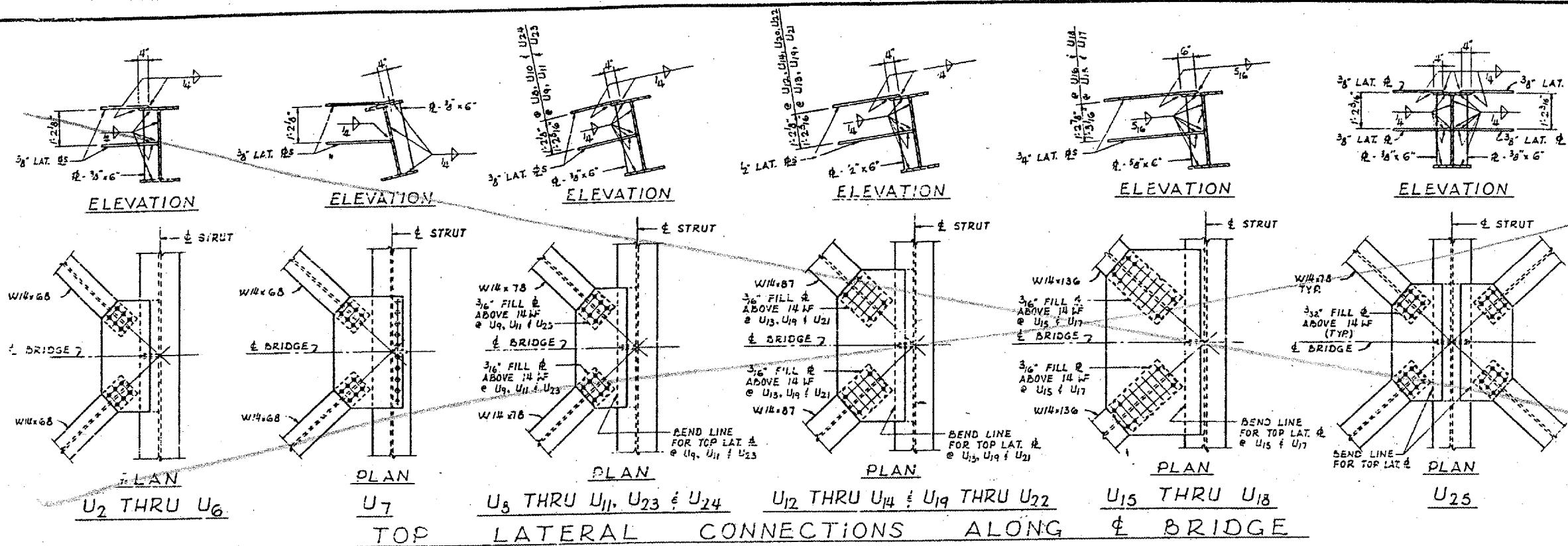
L18 L18, L18 L20, L20 L22
 L22 L24, L24 L24
 2 ϕ 5 - 1/2" x 30" A572
 1 ϕ 5 - 5/8" x 2 1/2" A572

CROSS SECTION OF TIE

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

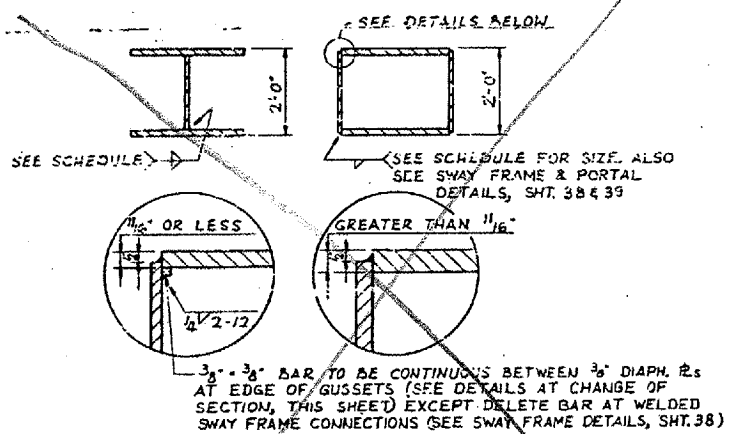
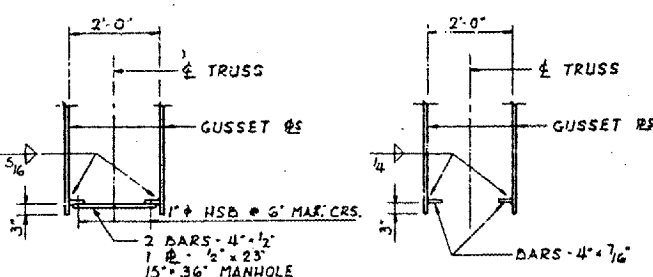
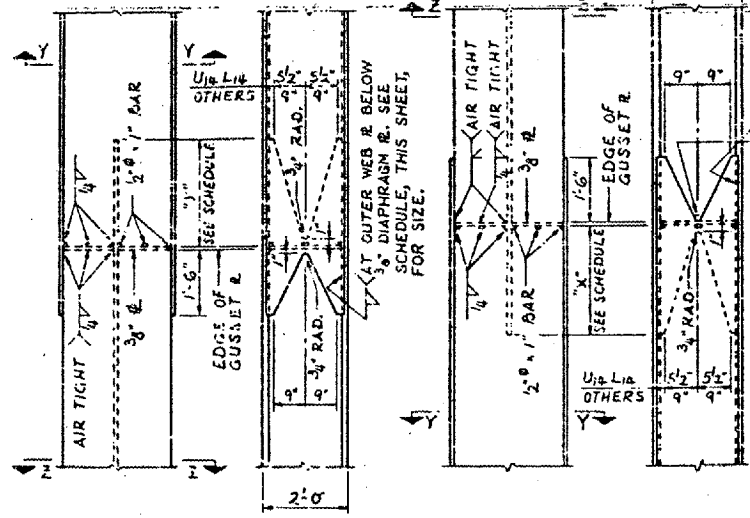
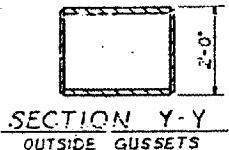
TRUSS DETAILS - L1 - L25
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1)0
 SECTION (02-1B-1) F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 64.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 14 OF 67



SCHEDULE OF "X" DIMENSIONS

MEMBER	"X"
L ₃ U ₉	3'-0"
U ₉ L ₁₀	2'-0"
L ₁₀ U ₁₁	3'-0"
U ₁₁ L ₁₂	2'-0"
L ₁₂ U ₁₃	3'-0"
U ₁₃ L ₁₄	3'-0"
L ₁₄ U ₁₅	3'-0"
U ₁₅ M ₁₆	3'-0"
M ₁₆ U ₁₇	2'-0"
U ₁₇ M ₁₈	3'-0"
M ₁₈ U ₁₉	2'-0"
U ₁₄ L ₁₄	3'-0"
ALL OTHERS	1'-6"



MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	SIZE OF FILLET WELD (IN.)
TO 3/8" INCL.	1/4
OVER 3/8" TO 1/2"	5/16
OVER 1/2" TO 3/4"	3/8
OVER 3/4"	

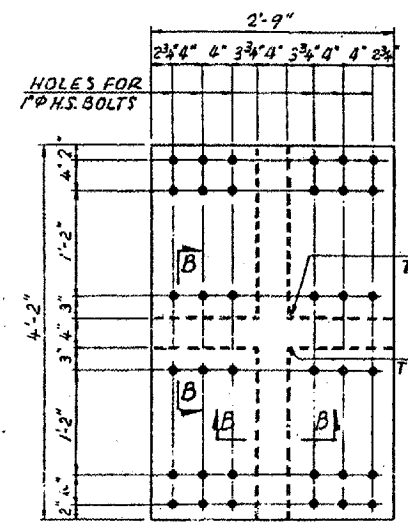
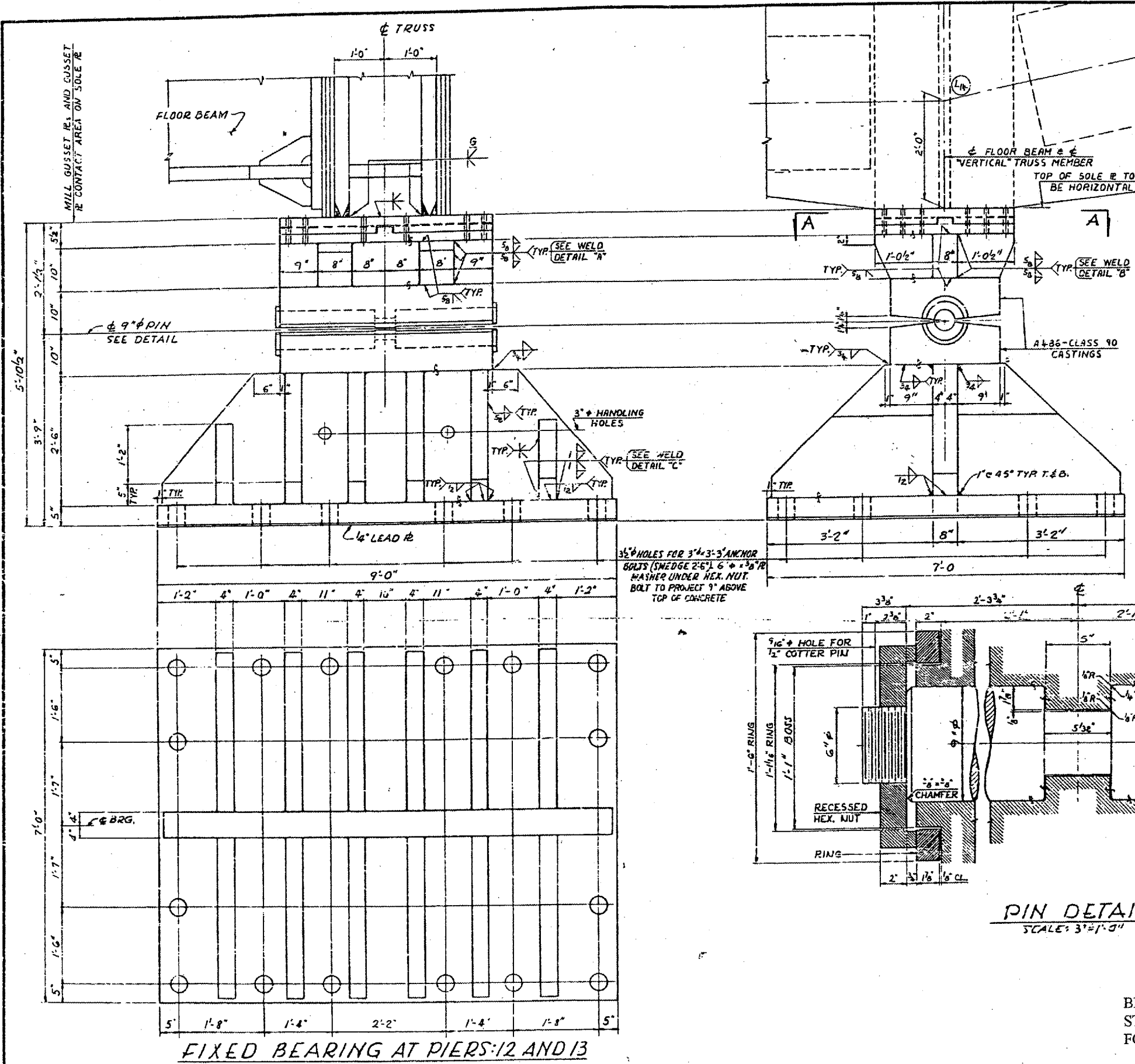
LOWER END
 UPPER END
 DETAILS AT CHANGE OF SECTION

GUSSET @ DIAPHRAGM
 GUSSET @ STIFFENER
 FOR LOCATIONS SEE ELEVATION OF TRUSS

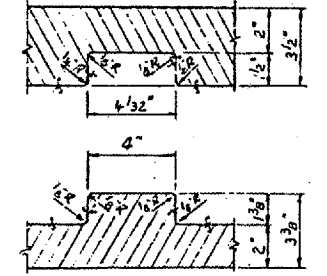
* UNLESS OTHERWISE
 WELD D
 BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - MISCELLANEOUS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1) D
 SECTION (02-1B-1) F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

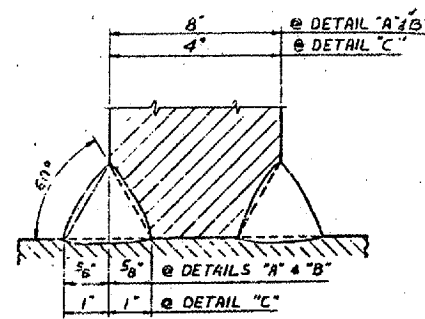
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 15 OF 67



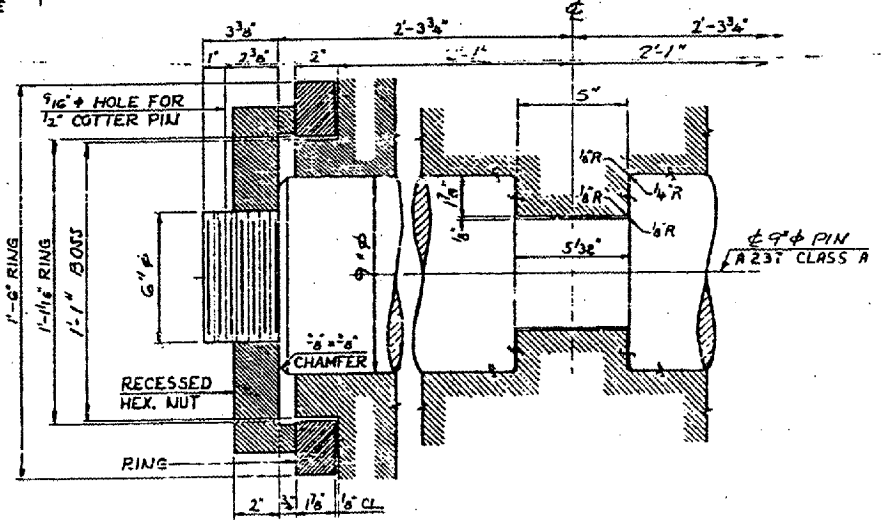
SECTION A-A
 SCALE: 1"=1'-0"



SECTION B-B
 SHOWING PLATES SEPARATED
 SCALE: 3"=1'-0"



WELD DETAILS "A", "B" & "C"



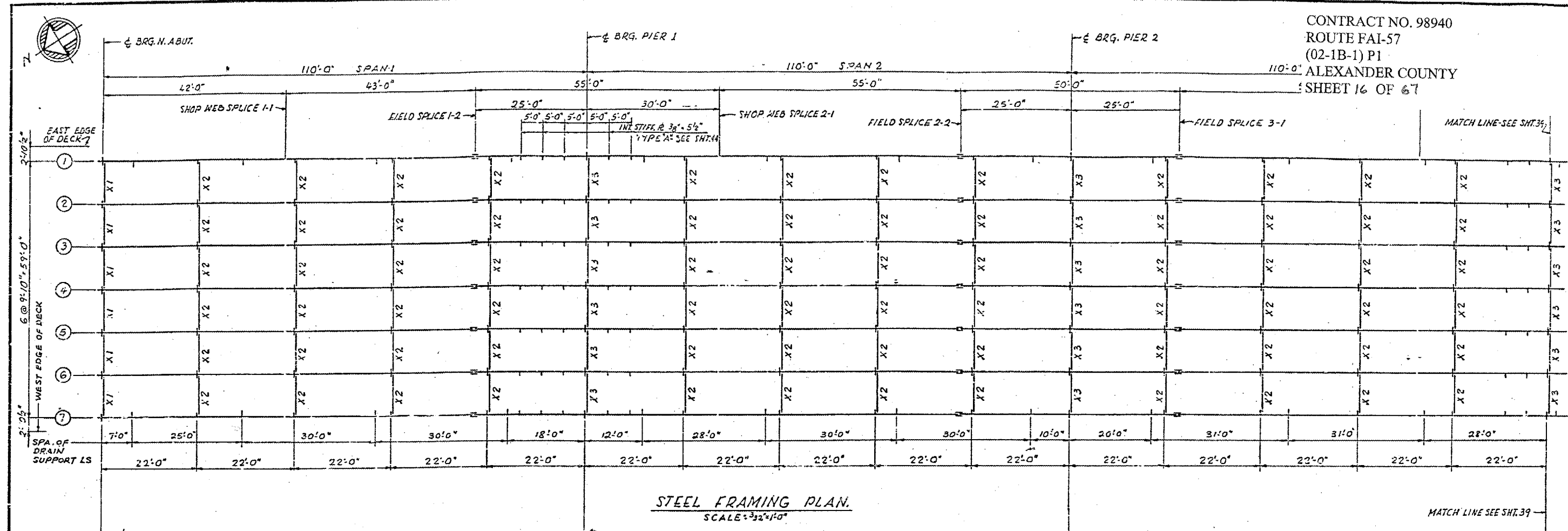
PIN DETAIL
 SCALE: 3"=1'-0"

NOTES:
 -ALL MATERIAL ASTM A36 UNLESS NOTED.
 -ALL WELDS SHALL BE BY THE SUBMERGED ARC PROCESS.
 -FINISHES PER USAS1, B46.1, PART I.
 -ASTM A486 (CLASS 90) CASTINGS OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR THE WELDMENTS COMPRISING THE BOLSTER AND TOP SHOE.
 -PLATES OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR CASTINGS.

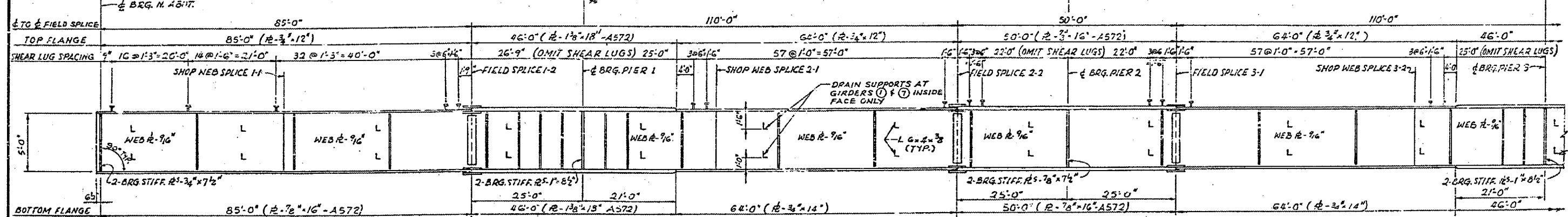
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS BEARINGS AT PIERS 12 & 13
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1) P1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.28

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 16 OF 67



STEEL FRAMING PLAN
 SCALE: 3/32"=1'-0"



ELEVATION
 NO SCALE
 GIRDER (1) SHOWN

NOTE:
 MATERIAL - A36 - EXCEPT AS NOTED.
 ALL DIMENSIONS SHOWN ARE
 IN A HORIZONTAL PLANE.
 SHEAR LUGS ARE TO BE FURNISHED
 AND INSTALLED UNDER SECTION
 (02-1B-1) D.
 SHEAR LUGS ARE TO BE OMITTED AT
 SCUPPER LOCATIONS.

FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4
OVER 3/4" TO 1 1/2"	5/16

GIRDER ELEVATIONS-FOR FABRICATION ONLY

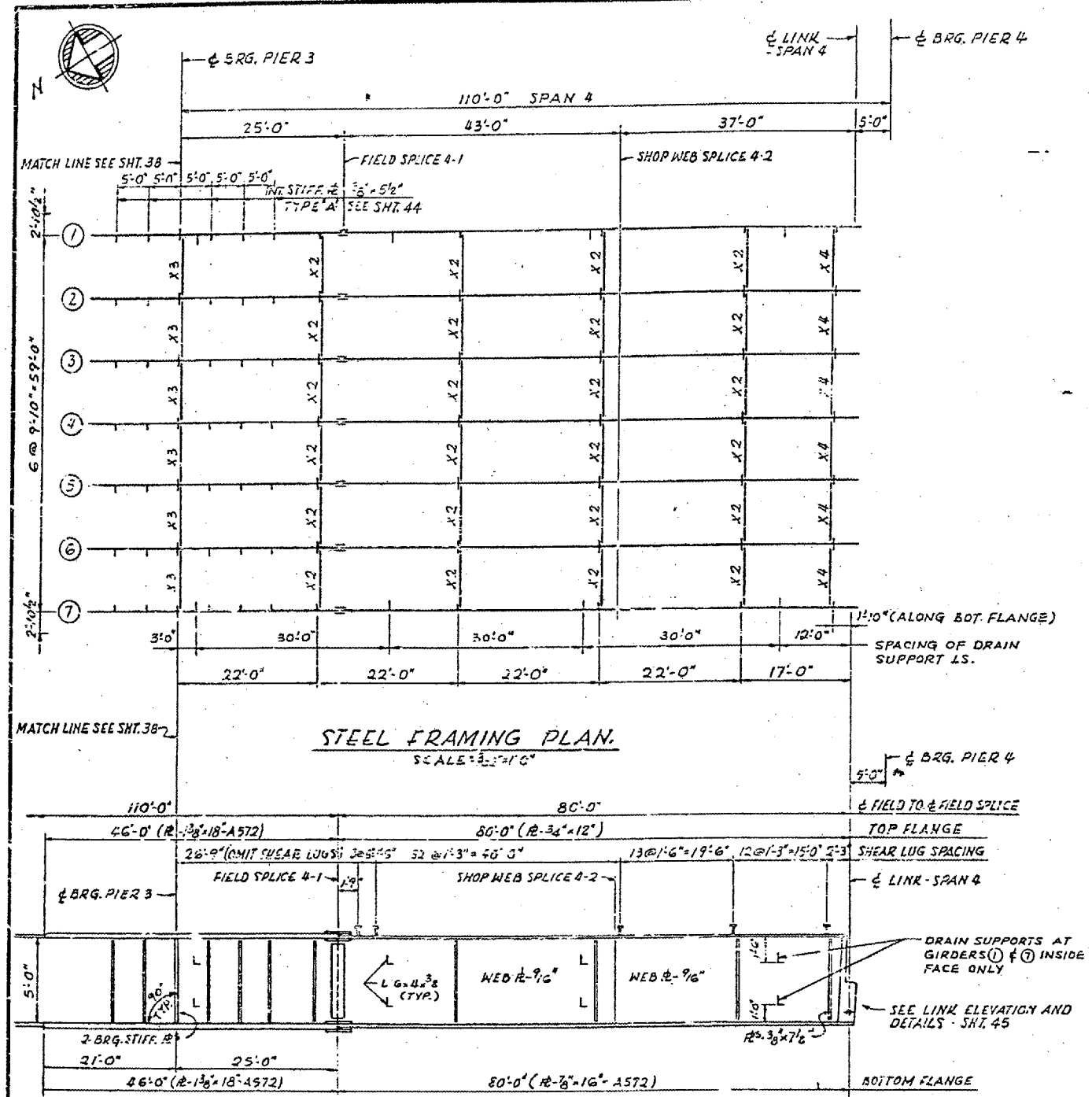
GIRDER	LOCATION	# BRG. N. ABUT.		S.W.S. I-1		F.S. I-2		PIER 1		S.W.S. I-2		F.S. I-2		PIER 2		F.S. I-3		S.W.S. I-3		F.S. I-3		S.W.S. I-4		F.S. I-4		LINK SPAN 0	
		1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2	1-1	1-2				
1		343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.258	348.858	350.125	350.877													
2		343.180	343.751	344.044	344.350	344.719	345.688	346.150	346.611	347.672	348.411	349.012	350.279	351.031													
3		343.334	343.904	344.198	344.504	344.872	345.841	346.304	346.764	347.826	348.565	349.165	350.432	351.184													
4		343.487	344.058	344.351	344.658	345.026	345.995	346.457	346.918	347.979	348.718	349.319	350.586	351.338													
5		343.334	343.904	344.198	344.504	344.872	345.841	346.304	346.764	347.826	348.565	349.165	350.432	351.184													
6		343.334	343.904	344.198	344.504	344.872	345.841	346.304	346.764	347.826	348.565	349.165	350.432	351.184													
7		343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.258	348.858	350.125	350.877													

ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE.

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

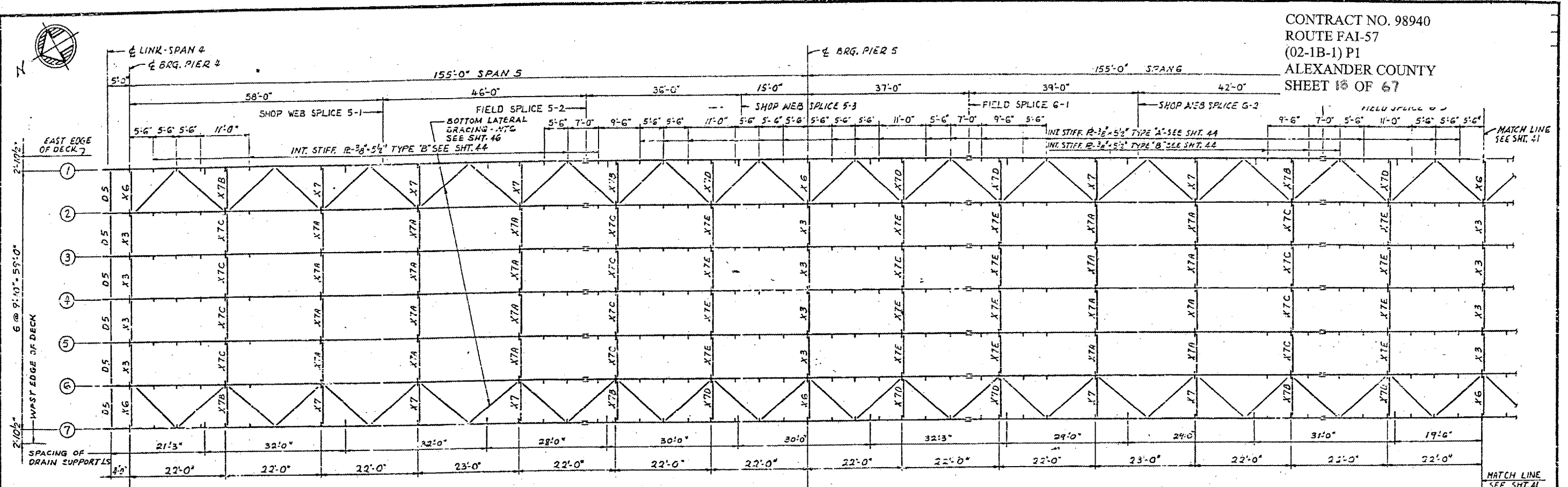
FRAMING PLAN - SPANS 1, 2, 3 & 4
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (5)0
 SECTION 02-1B-11D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 17 OF 67

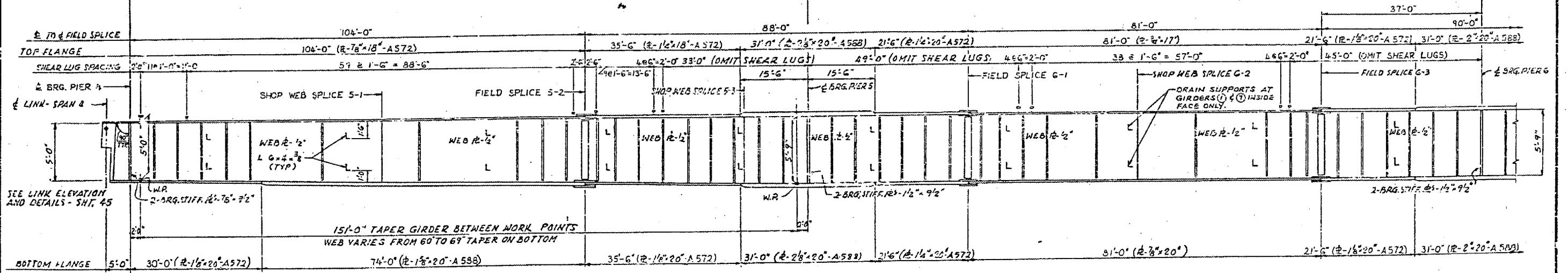


BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 3 & 4
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)0
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



STEEL FRAMING PLAN
 SCALE = 3/32" = 1'-0"



ELEVATION
 NO SCALE
 GIRDER SHOWN

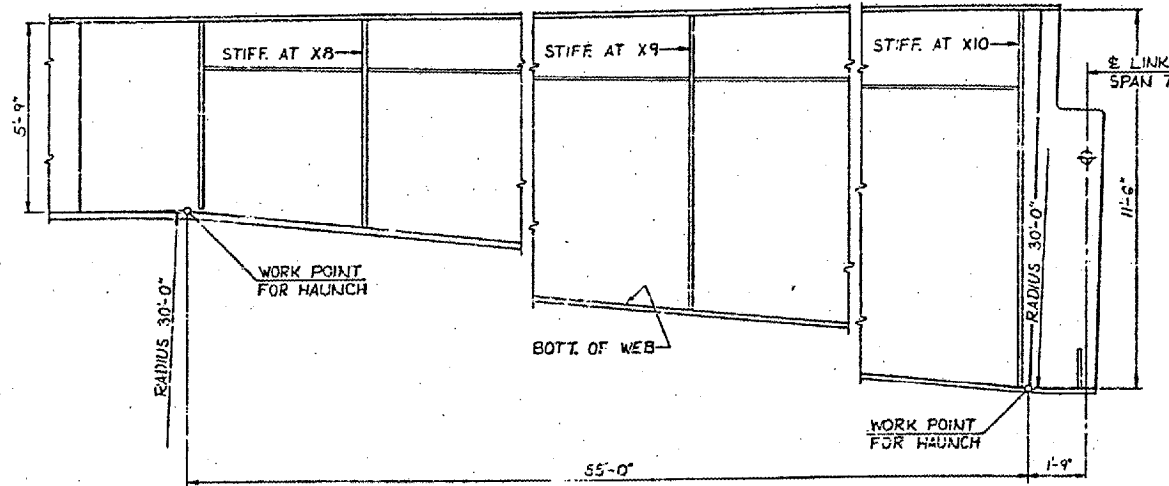
NOTES:
 MATERIAL - A36 - EXCEPT AS NOTED.
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
 SHEAR LUGS ARE TO BE FURNISHED AND INSTALLED UNDER SECTION (02-1B-1) D.

FILLET WELD TABLE

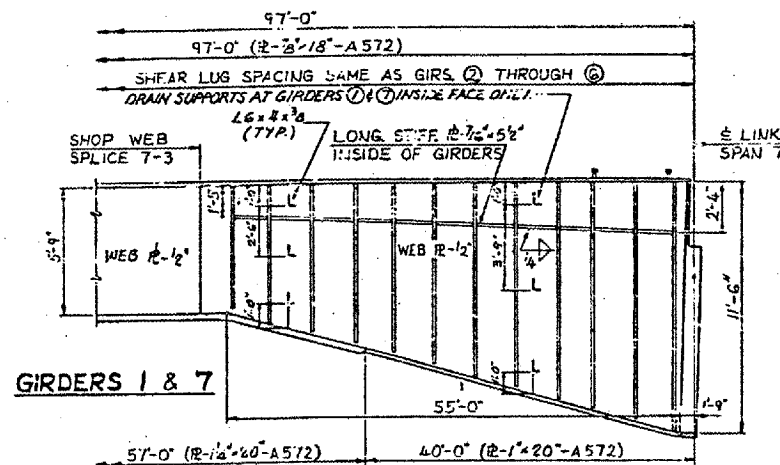
FLANGE THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/2
OVER 3/4" TO 1 1/2"	5/16
OVER 1 1/2" TO 2 1/4"	3/8

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

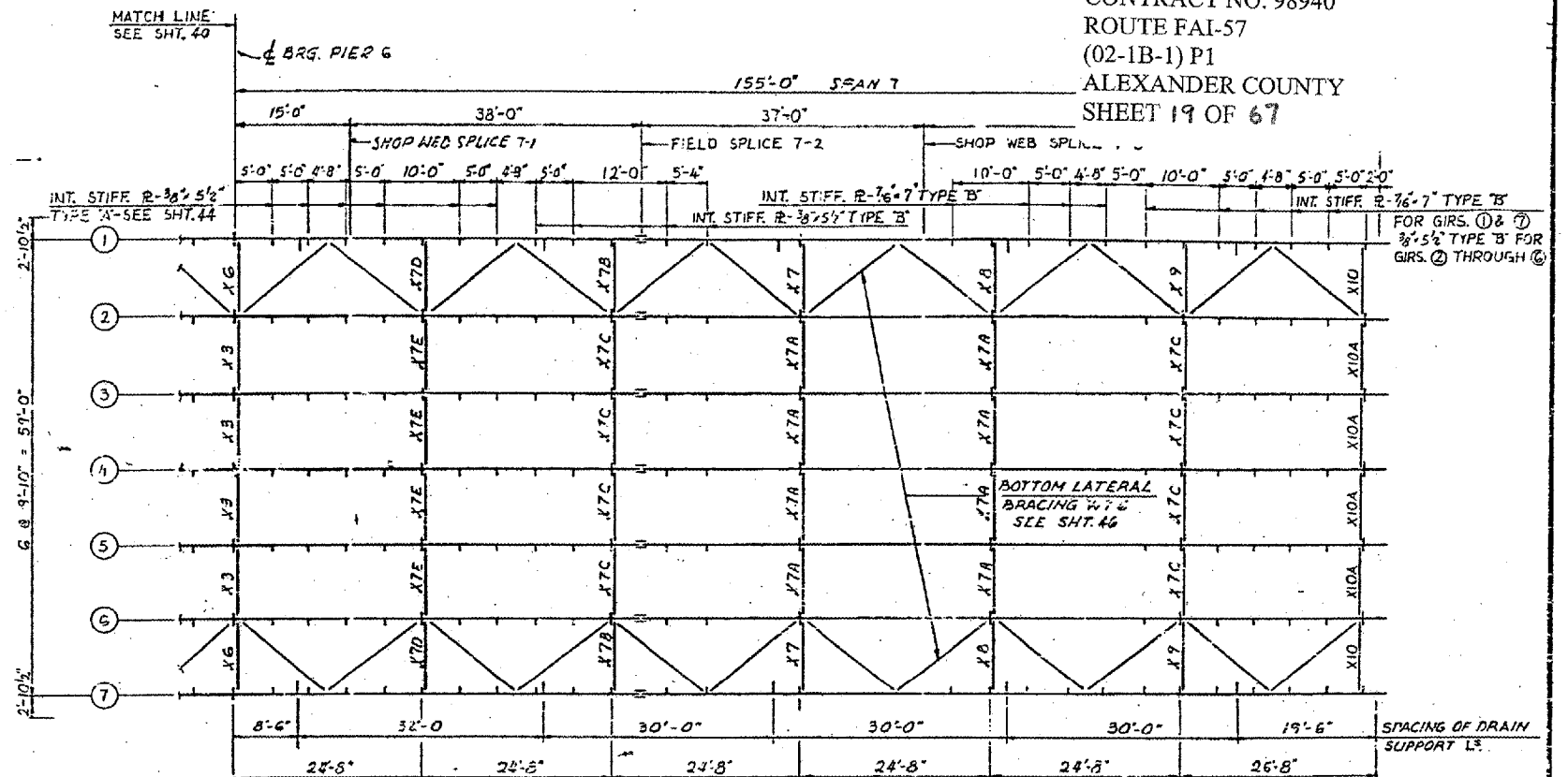
FRAMING PLAN - SPANS 5, 6 AND 7
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(510)
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



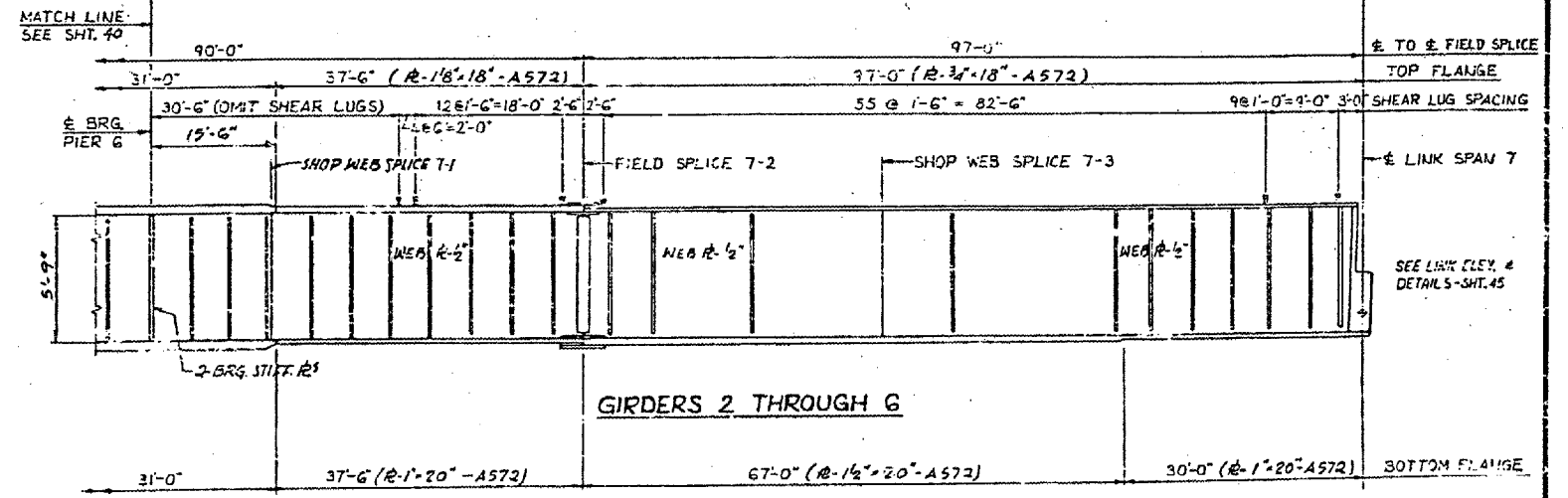
DETAIL OF HAUNCH
 FOR GIRDERS 1 & 7 ONLY



GIRDERS 1 & 7



STEEL FRAMING PLAN



GIRDERS 2 THROUGH 6

GIRDER ELEVATIONS-FOR FABRICATION ONLY

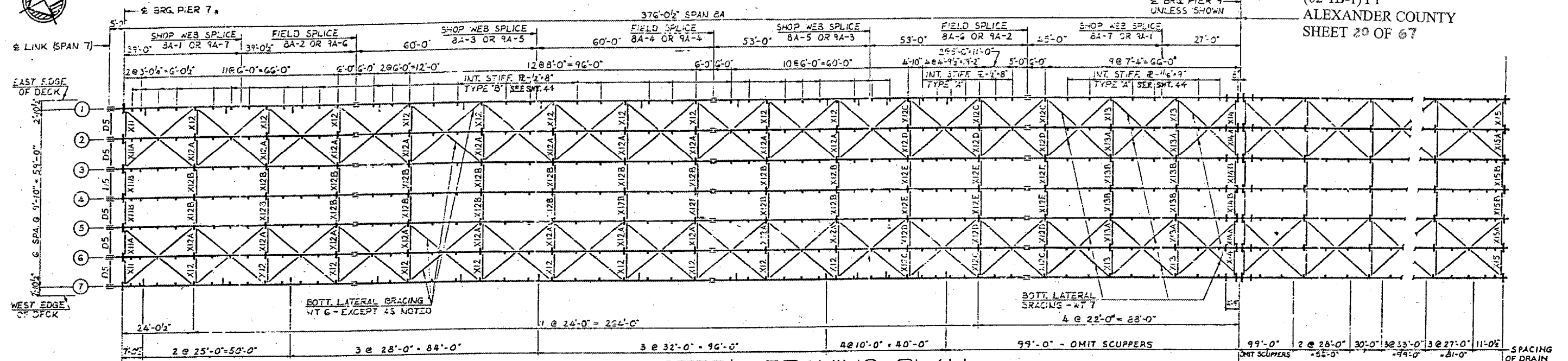
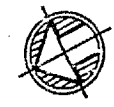
GIRDER	LOCATION	€ LINK SPAN #	S.W.S.=SHOP WEB SPLICE F.S.=FIELD SPLICE												€ LINK SPAN 7
			PIER 4	S-1	S-2	S-3	PIER 5	G-1	G-2	G-3	PIER 6	7-1	7-2	7-3	
1		350.877	351.062	353.177	354.391	355.193	355.612	356.646	357.975	359.089	360.267	360.745	362.125	363.328	364.761
2		351.031	351.216	353.331	354.544	355.347	355.766	356.800	358.129	359.242	360.421	360.899	362.279	363.482	364.914
3		351.186	351.370	353.485	354.698	355.500	355.919	356.953	358.283	359.396	360.575	361.052	362.433	363.636	365.068
4		351.338	351.523	353.638	354.852	355.654	356.073	357.107	358.436	359.550	360.728	361.206	362.586	363.789	365.222
5		351.184	351.370	353.485	354.698	355.500	355.919	356.953	358.283	359.396	360.575	361.052	362.433	363.636	365.068
6		351.031	351.216	353.331	354.544	355.347	355.766	356.800	358.129	359.242	360.421	360.899	362.279	363.482	364.914
7		350.877	351.062	353.177	354.391	355.193	355.612	356.646	357.975	359.089	360.267	360.745	362.125	363.328	364.761

ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE

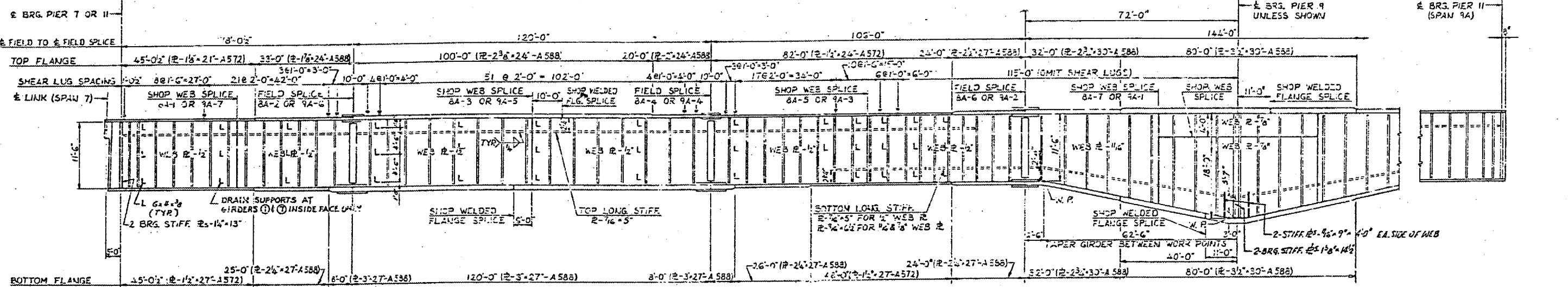
ELEVATION

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 5, 6 AND 7
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (5)0
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



STEEL FRAMING PLAN



ELEVATION
 GIRDER ① SHOWN

FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
OVER 3/8" TO 1/2"	5/16"
OVER 1/2" TO 2/4"	3/8"
OVER 2/4" TO 6"	1/2"

GIRDER ELEVATIONS - FOR FABRICATION ONLY

LOCATION GIRDER	E LINK SPAN 7	S.W.S. PIER 7	F.S. 8A-1	S.W.S. 8A-2	F.S. 8A-3	S.W.S. 8A-4	F.S. 8A-5	S.W.S. 8A-6	F.S. 8A-7	PIER 9	S.W.S. 9A-1	F.S. 9A-2	S.W.S. 9A-3	F.S. 9A-4	S.W.S. 9A-5	F.S. 9A-6	S.W.S. 9A-7	E BRG. PIER 11 SPAN 9A
1	364.761	364.964	366.552	367.840	369.939	371.596	372.965	373.981	375.245	376.050	376.854	378.215	382.231	381.908	383.424	384.497	385.203	385.620
2	364.914	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.384	382.437	382.062	383.671	384.718	385.398	385.773
3	365.068	365.272	366.860	369.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	382.591	382.216	383.825	384.872	385.553	385.928
4	365.222	365.425	367.013	369.371	370.489	372.140	373.478	374.453	375.702	376.511	377.315	378.692	382.744	382.369	383.978	385.025	385.706	386.081
5	365.068	365.272	366.860	369.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	382.591	382.216	383.825	384.872	385.553	385.928
6	364.914	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.384	382.437	382.062	383.671	384.718	385.398	385.773
7	364.761	364.964	366.552	367.840	369.939	371.596	372.965	373.981	375.245	376.050	376.854	378.215	382.231	381.908	383.424	384.497	385.203	385.620

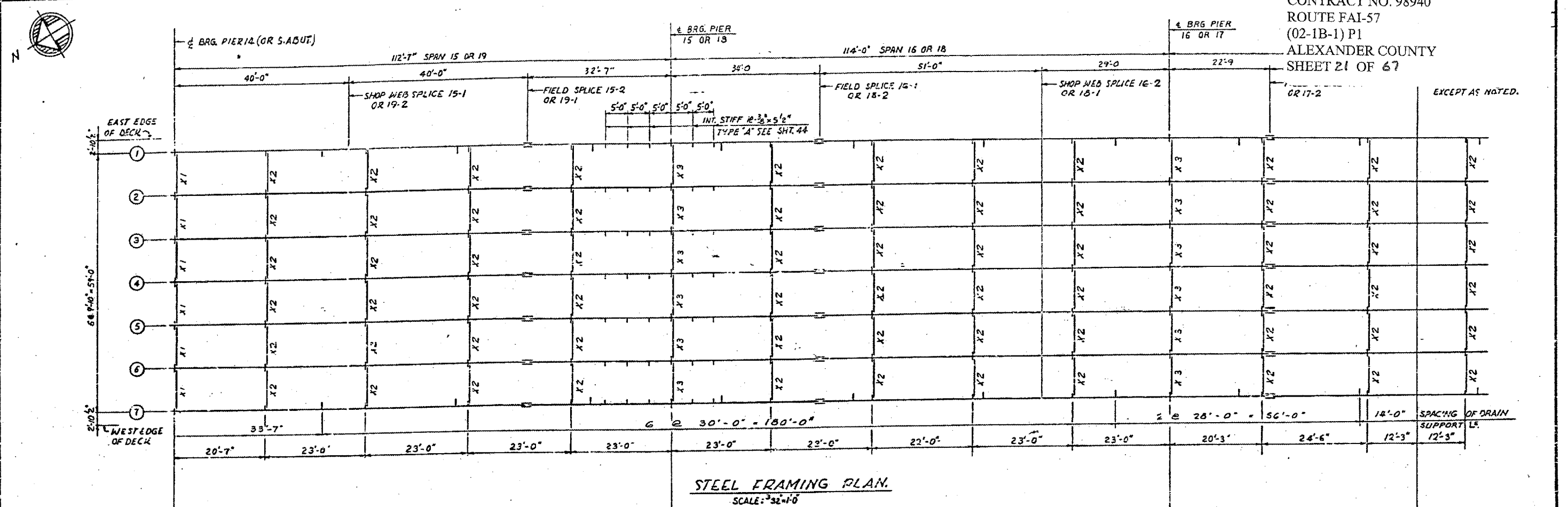
ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE
 F. S. = FIELD SPLICE
 S. W. S. = SHOP WEB SPLICE

NOTES:

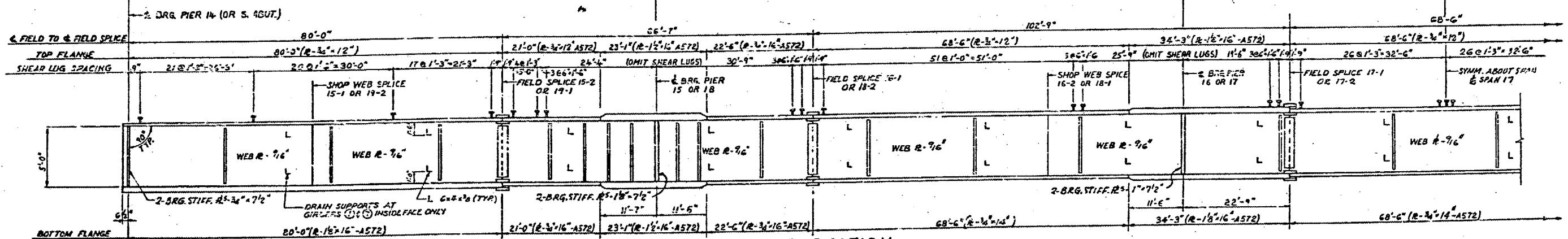
- ALL MATERIAL ASTM A36 - EXCEPT AS NOTED.
- ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
- SHEAR LUGS ARE TO BE FURNISHED & INSTALLED UNDER SECTION 102-1B-110.
- LONGIT. OPPOS. SHEAR BRIDGE NO. 1 STRUCTURE NO. 002-0022 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 8A AND 9A
F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
PROJECT 1-57-9(5)0
SECTION (02-1B-1)D
ALEXANDER COUNTY, ILLINOIS
MISSISSIPPI COUNTY, MISSOURI
STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 21 OF 67



STEEL FRAMING PLAN.
 SCALE: 3/8"=1'-0"



ELEVATION
 NO SCALE
 GIRDER SHOWN

NOTES:
 MATERIAL - A36 - EXCEPT AS NOTED.
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
 SHEAR LUGS ARE TO BE FURNISHED AND INSTALLED UNDER SECTION (02-1B-1) D.
 SHEAR LUGS ARE TO BE OMITTED AT SCUPPER LOCATIONS.

GIRDER ELEVATIONS - FOR FABRICATION ONLY

S.W.S. = SHOP WEB SPLICE
 F.S. = FIELD SPLICE

GIRDER	LOCATION	BRG. PIER 14	S.W.S. 15-1	F.S. 15-2	PIER 15	F.S. 16-1	S.W.S. 16-2	PIER 16	F.S. 17-1	F.S. 17-2	PIER 17	S.W.S. 18-1	F.S. 18-2	PIER 18	F.S. 19-1	S.W.S. 19-2	BRG. S.ABUT.
1		379.882	379.773	377.697	376.692	375.644	374.160	373.316	372.654	370.599	369.896	369.000	367.410	366.445	365.521	364.516	363.130
2		380.036	379.147	377.851	376.846	375.798	374.314	373.470	372.807	370.752	370.050	369.154	367.564	366.599	365.674	364.669	363.283
3		380.190	379.301	378.004	376.999	375.951	374.467	373.623	372.961	370.906	370.203	369.307	367.717	366.752	365.828	364.823	363.437
4		380.343	379.454	378.157	377.153	376.105	374.621	373.777	373.115	371.060	370.357	369.461	367.871	366.906	365.982	364.977	363.591
5		380.190	379.301	378.004	376.999	375.951	374.467	373.623	372.961	370.906	370.203	369.307	367.717	366.752	365.828	364.823	363.437
6		380.036	379.147	377.851	376.846	375.798	374.314	373.470	372.807	370.752	370.050	369.154	367.564	366.599	365.674	364.669	363.283
7		379.882	378.993	377.697	376.692	375.644	374.160	373.316	372.654	370.599	369.896	369.000	367.410	366.445	365.521	364.516	363.130

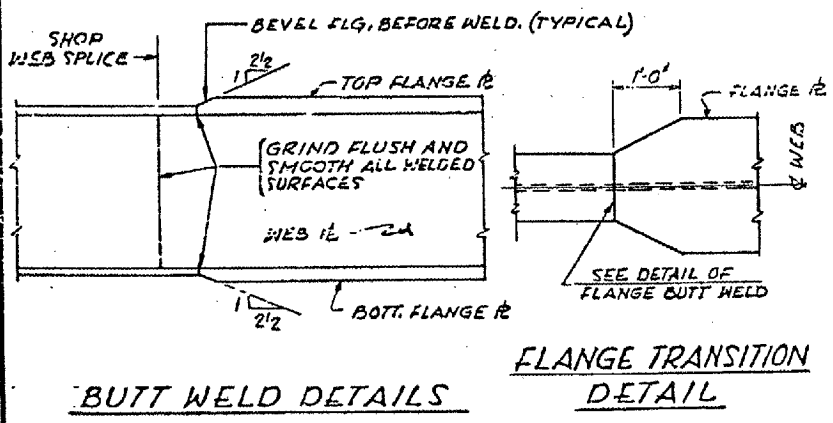
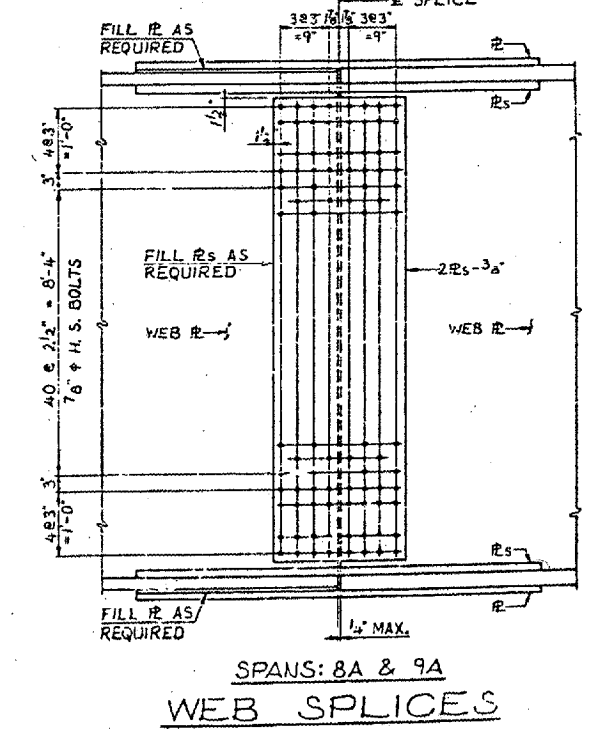
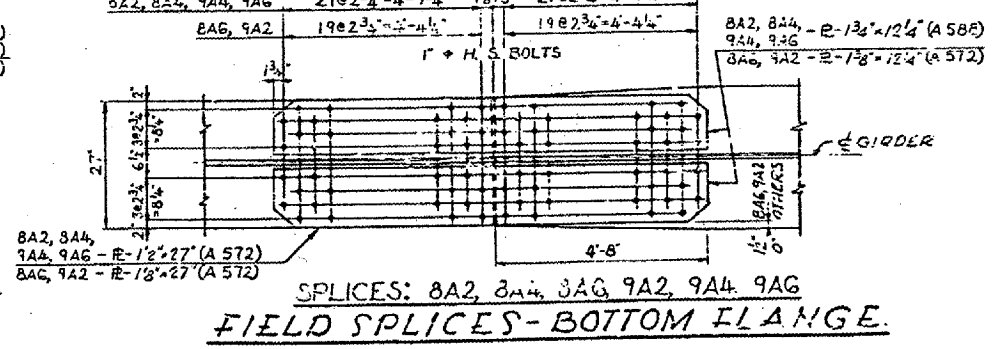
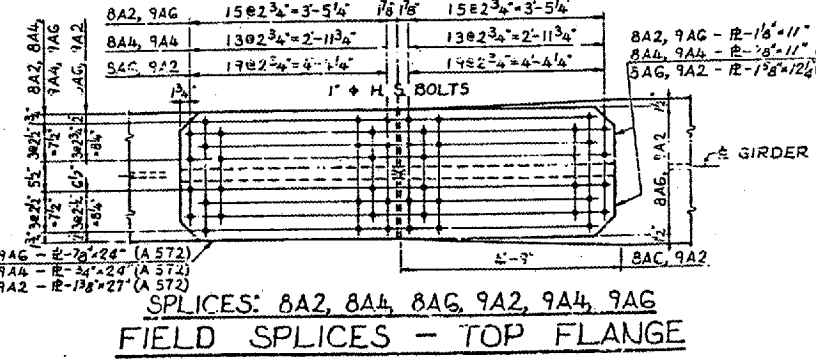
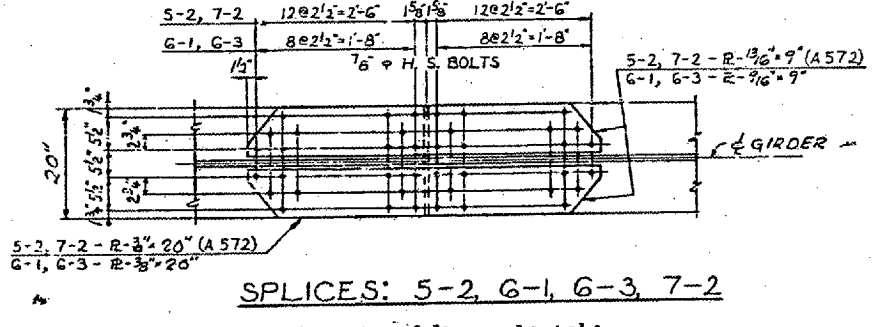
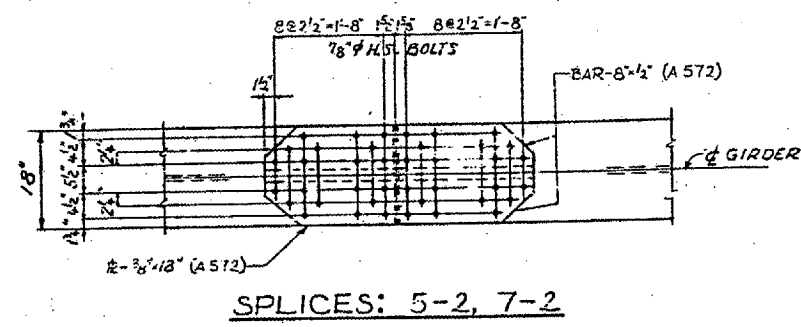
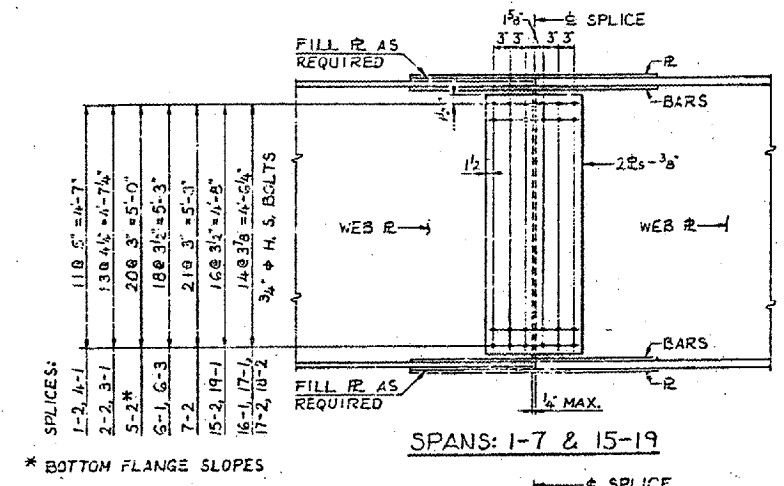
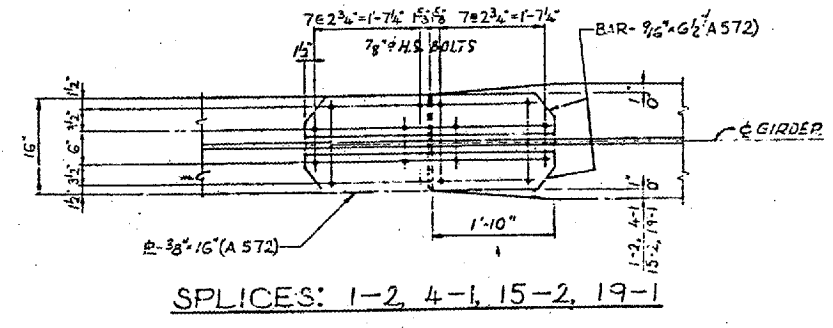
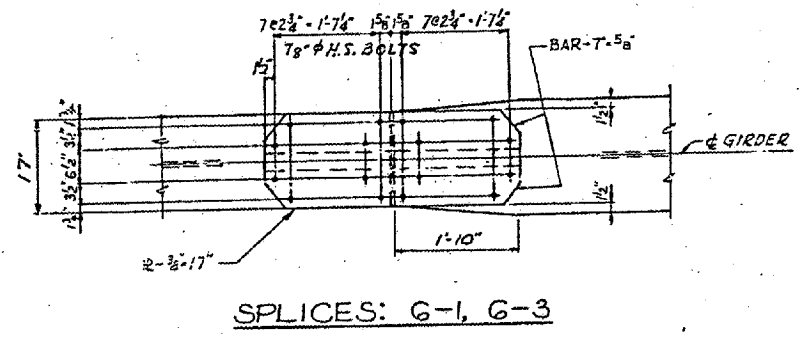
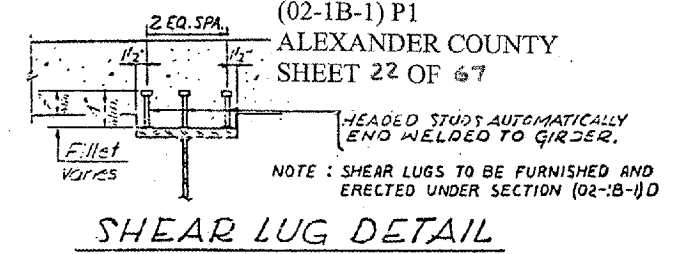
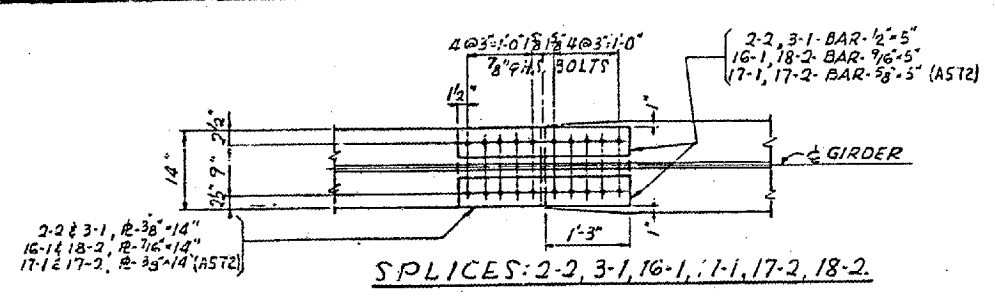
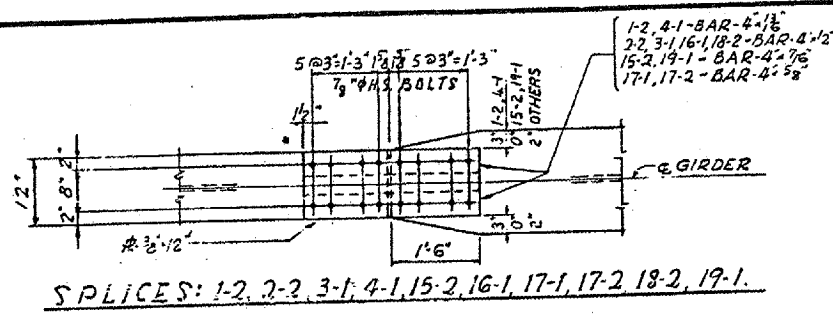
ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE.

FILLET WELD TABLE

FLANGE THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4
OVER 3/4" TO 1 1/2"	5/16

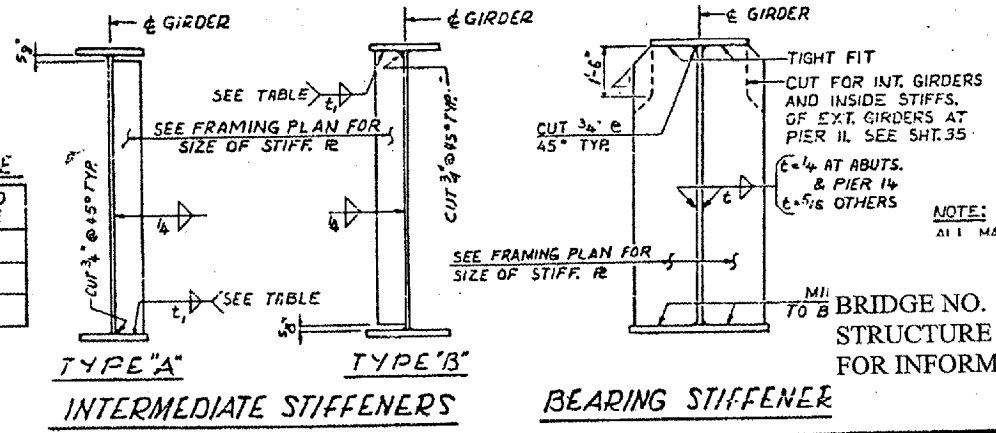
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 15 TO 19
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)D
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



FILLET WELD (L) TABLE

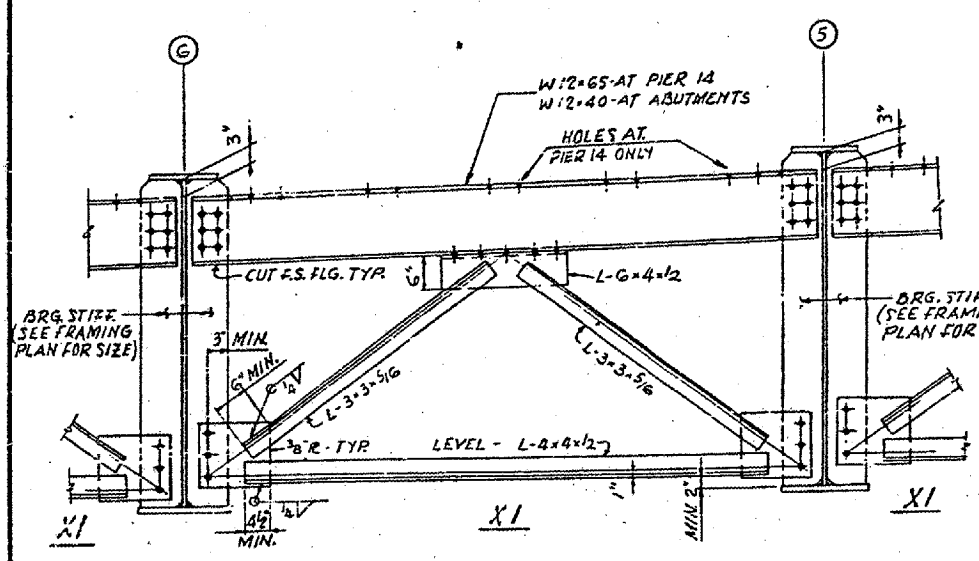
FLANGE R THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	5/16"
OVER 1 1/2" TO 2 1/4"	3/8"



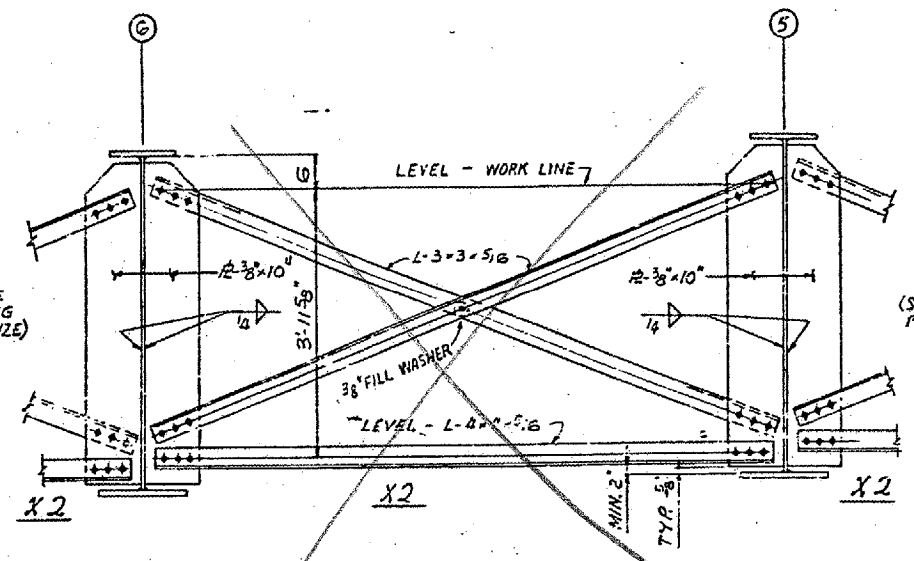
NOTE: ALL MATERIAL ASTM & AISI UNLESS NOTED

FIELD SPLICES & DETAILS - SPANS 1 TO 15 TO 19
 P.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(510)
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

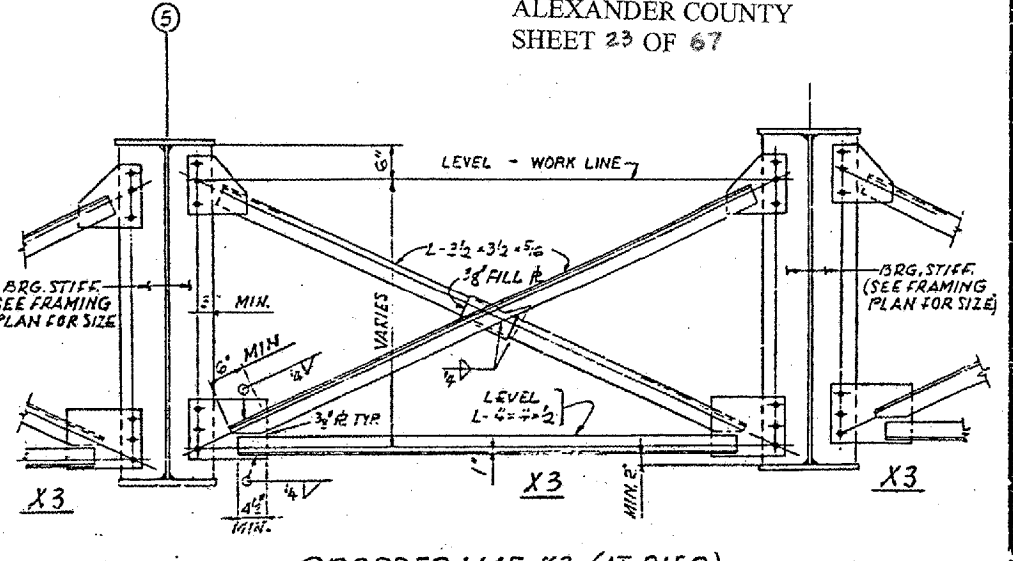
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY



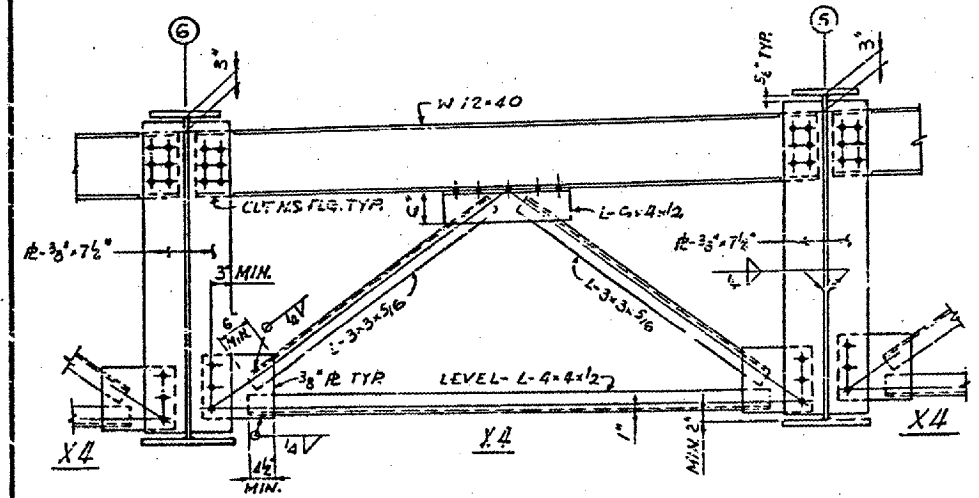
CROSSFRAME X1 (AT ABUTMENT & PIER)
 SCALE: 3/4" = 1'-0"



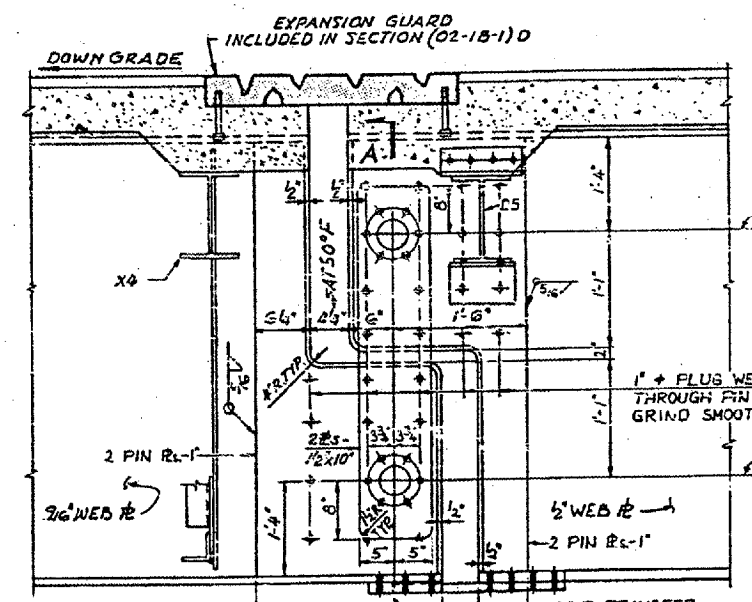
INTERMEDIATE CROSSFRAME X2
 SCALE: 3/4" = 1'-0"



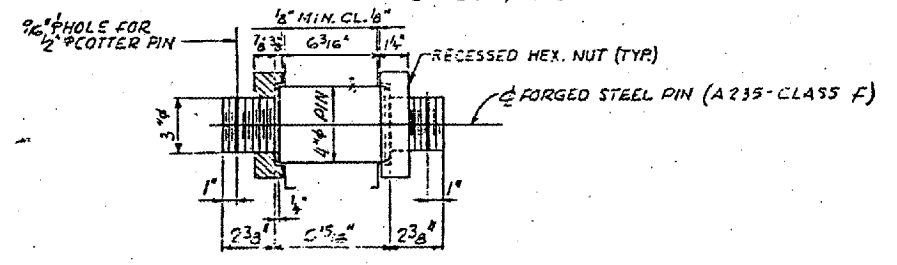
CROSSFRAME X3 (AT PIER)
 SCALE: 3/4" = 1'-0"



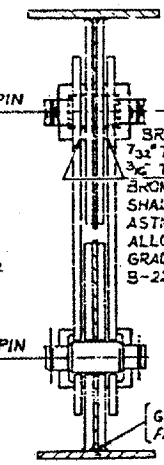
CROSSFRAME X4 (AT LINK)
 SCALE: 3/4" = 1'-0"



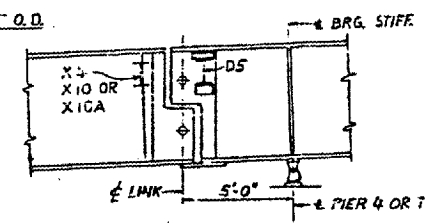
LINK DETAILS - SPAN 14



PIN DETAIL
 NUTS SHALL BE SHUDDERED UP FINGER TIGHT AGAINST SHOULDERS OF PIN. TOTAL NO. OF PINS REQUIRED = 14.



SECTION A-A



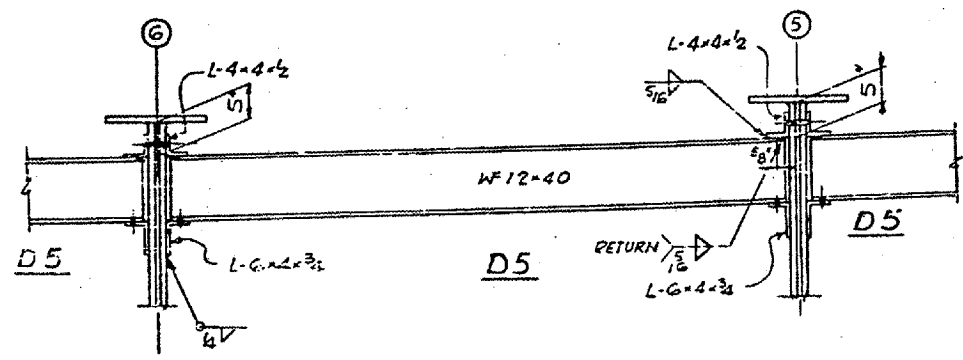
LINK SETTING ELEVATION
 LINK IN SPAN 4 SHOWN. LINK IN SPAN 7 SIMILAR.

NOTE: LINK SHALL BE TRULY VERTICAL AT 50°F. CROSSFRAMES & DIAPHRAGMS SHALL BE AT RIGHT ANGLES TO GIRDER FLANGE.

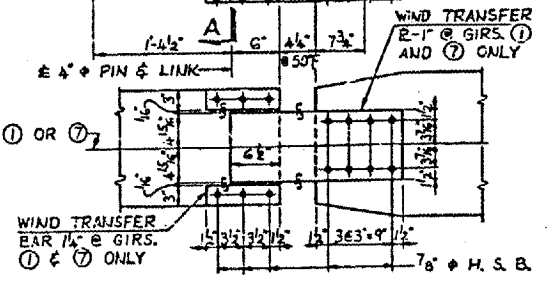
NOTES: ALL FASTENERS SHALL BE 3/4\"/>

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

GIRDER CROSSFRAMES AND LINK DETAILS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (5)0
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1102 + 75.55

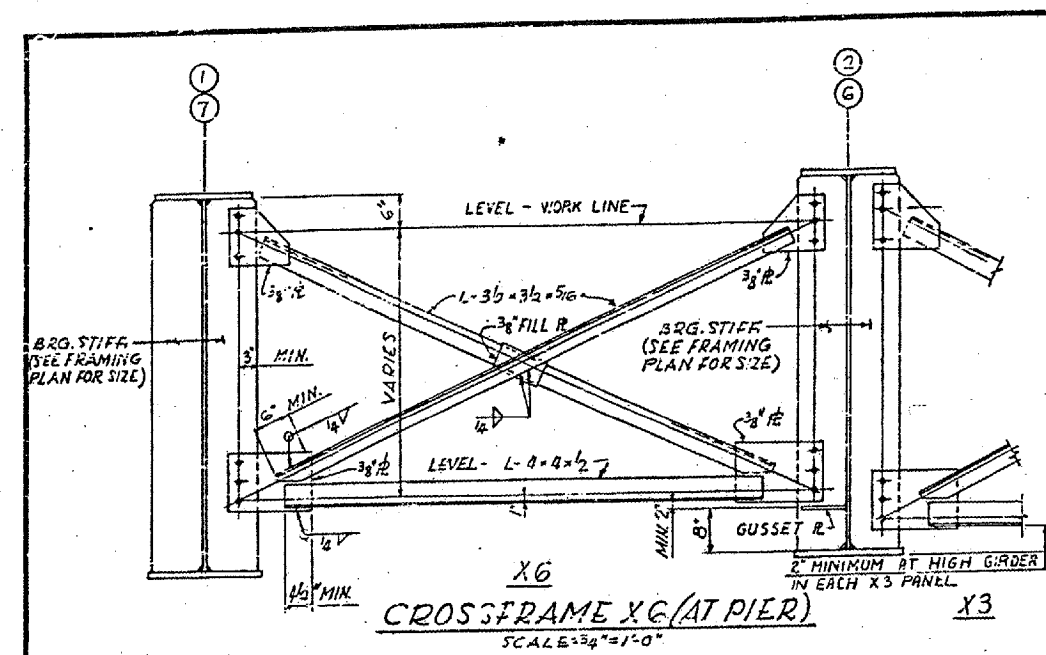


DIAPHRAGM D5 (AT LINK)
 SCALE: 3/4" = 1'-0"

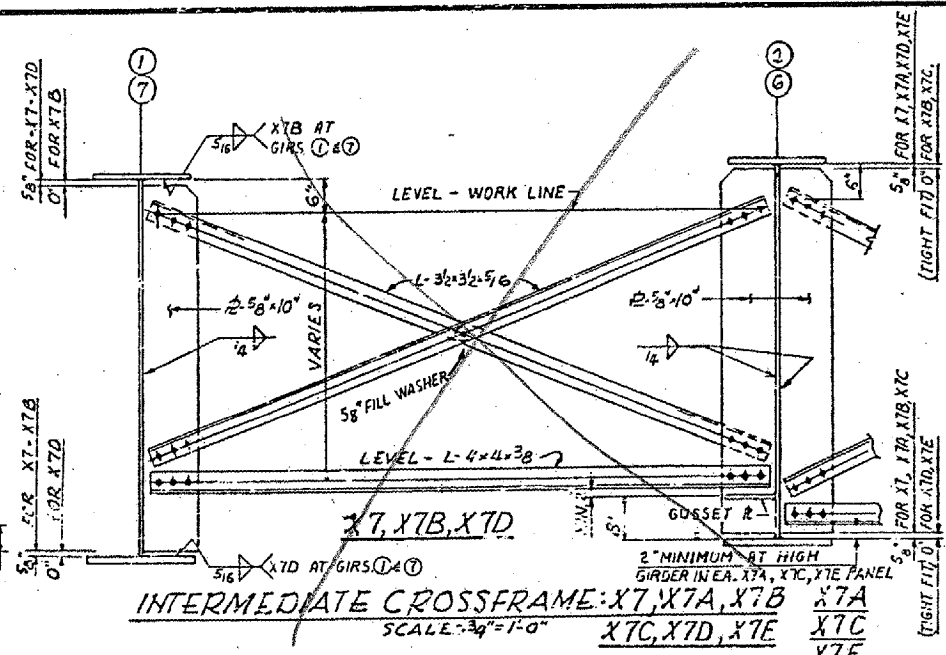


WIND TRANSFER BAR 1\"/>

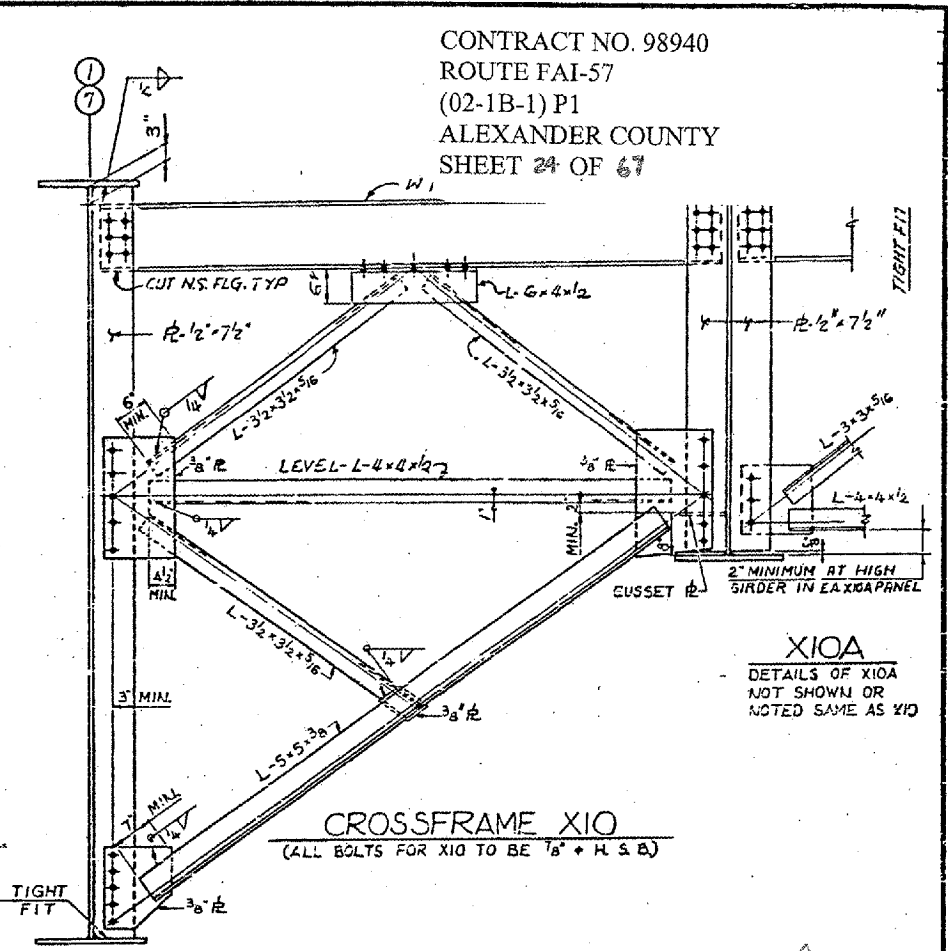
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 24 OF 67



CROSSFRAME X6 (AT PIER)
 SCALE: 3/4" = 1'-0"

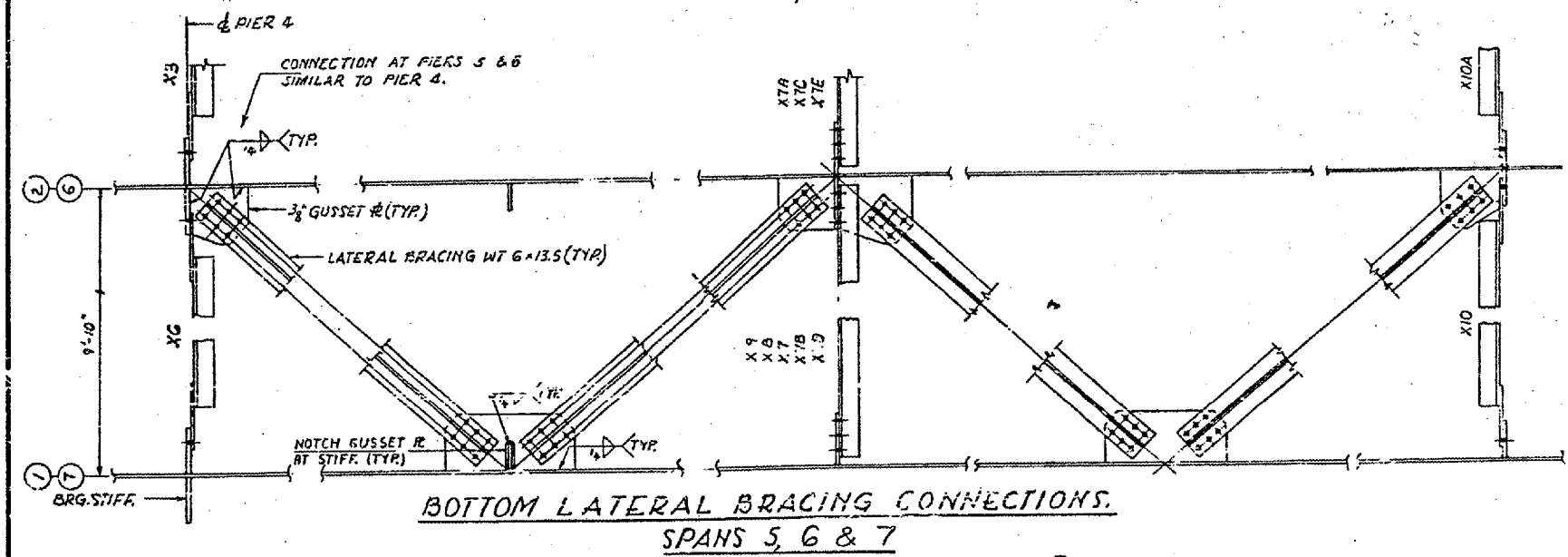


INTERMEDIATE CROSSFRAME: X7, X7A, X7B, X7C, X7D, X7E
 SCALE: 3/4" = 1'-0"



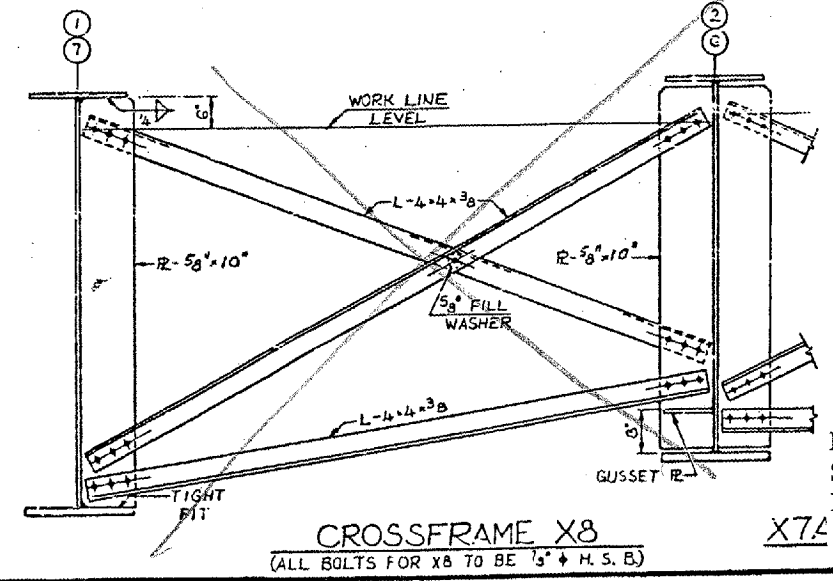
CROSSFRAME X10
 (ALL BOLTS FOR X10 TO BE 1/2" + H. S. B.)

X10A
 DETAILS OF X10A NOT SHOWN OR NOTED SAME AS X10

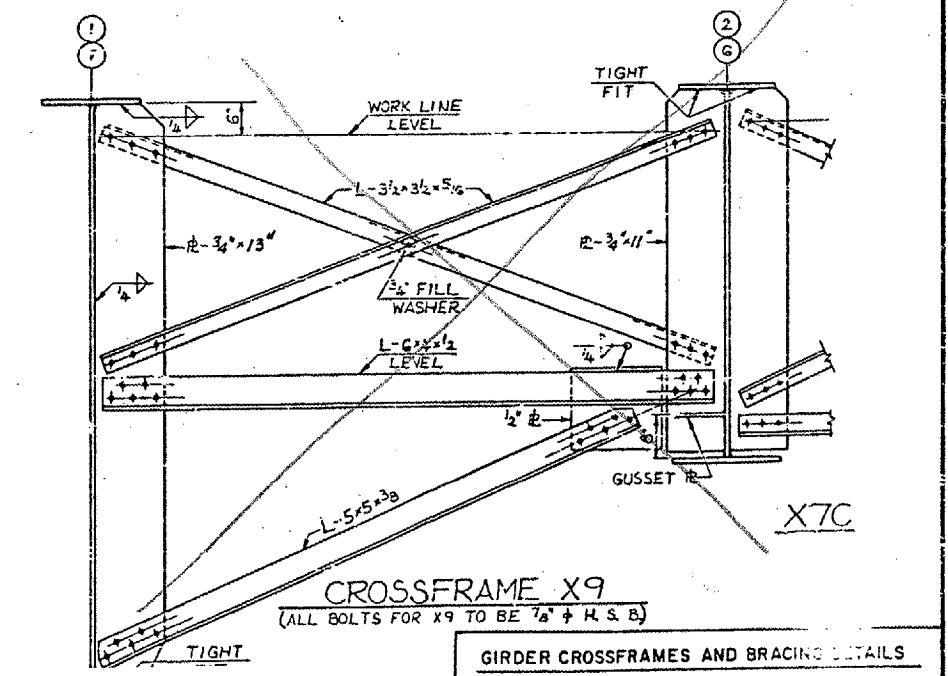


BOTTOM LATERAL BRACING CONNECTIONS. SPANS 5, 6 & 7

NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL FASTENERS SHALL BE 3/4" + ASTM A325 HIGH STRENGTH BOLTS UNLESS NOTED.
 FOR DETAIL OF STIFFENERS, SEE SHT. 44



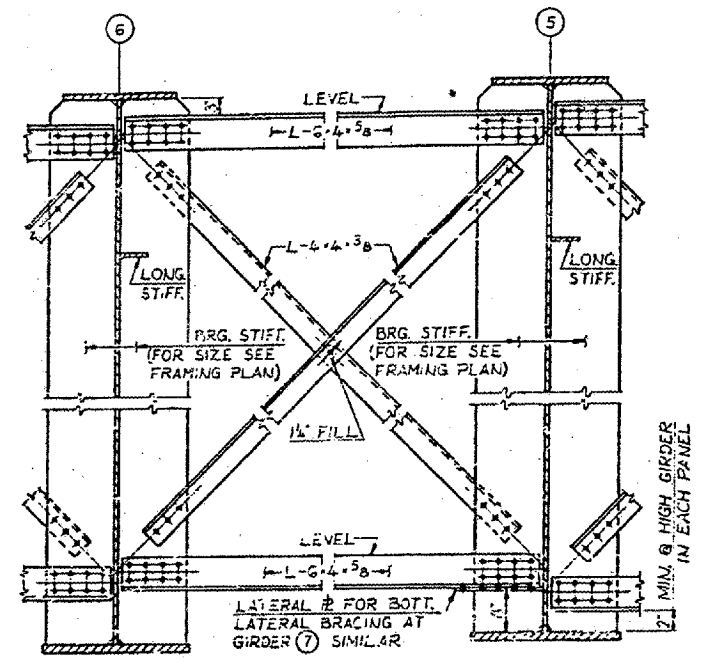
CROSSFRAME X8
 (ALL BOLTS FOR X8 TO BE 1/2" + H. S. B.)



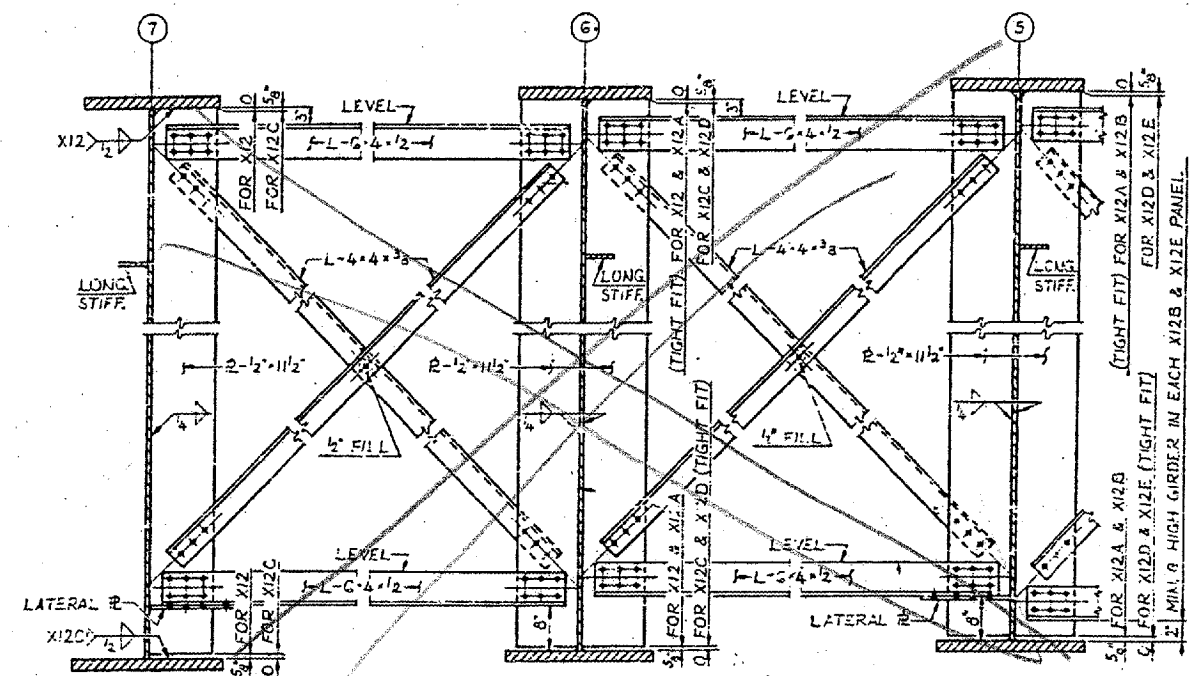
CROSSFRAME X9
 (ALL BOLTS FOR X9 TO BE 1/2" + H. S. B.)

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

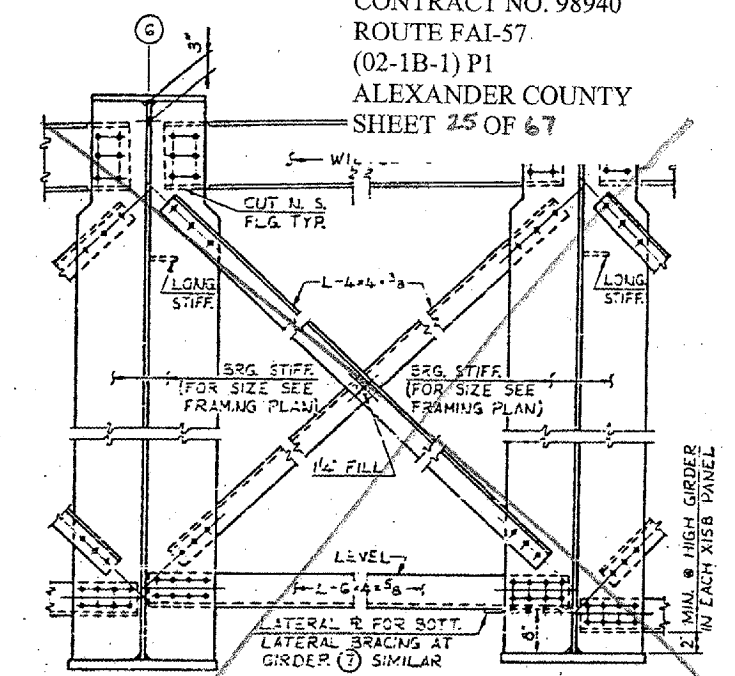
GIRDER CROSSFRAMES AND BRACING DETAILS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)10
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



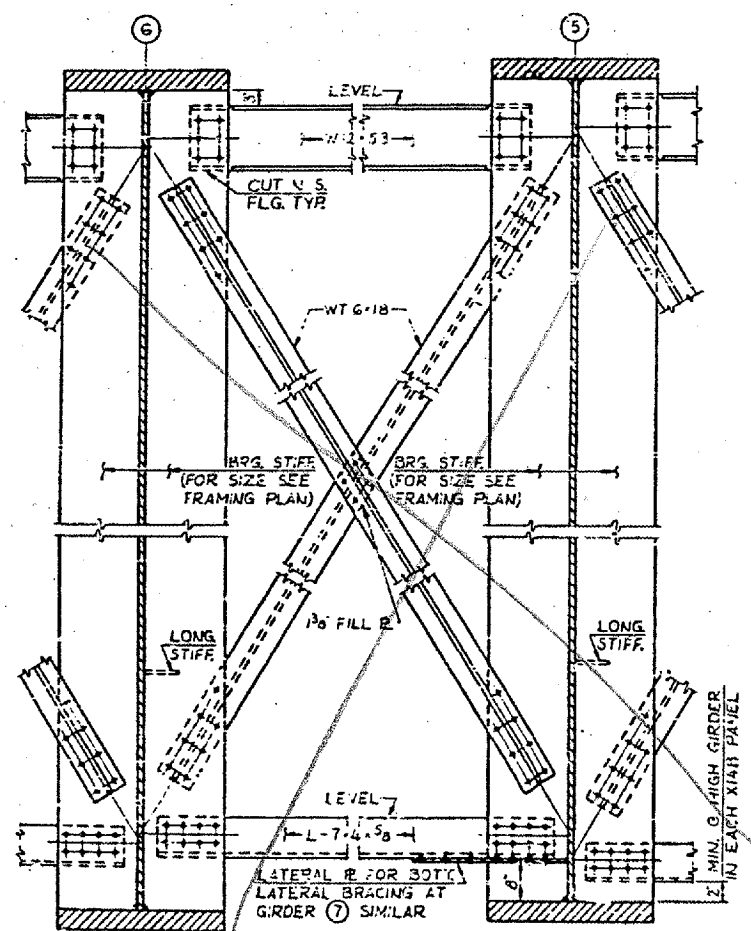
XII XIII XIII B
CROSSFRAME XII, XIII & XIII B
 DETAILS OF XII & XIII B NOT SHOWN OR NOTED, SIMILAR TO XIII



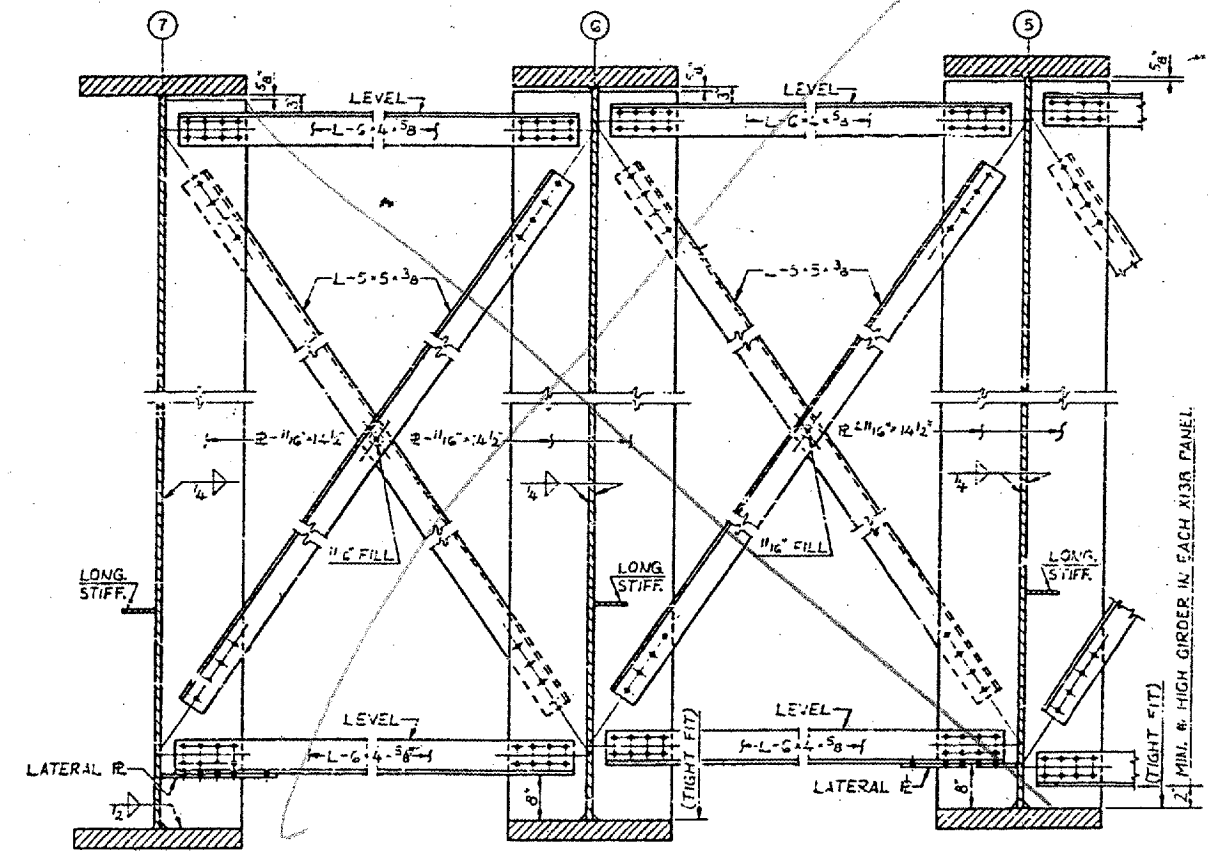
XII 2 & XII 2 C XII 2 A & XII 2 D XII 2 B & XII 2 E
INTERMEDIATE CROSSFRAME XII 2, XII 2 A, XII 2 B, XII 2 C, XII 2 D & XII 2 E
 DETAILS OF XII 2 B & XII 2 E NOT SHOWN OR NOTED, SIMILAR TO XII 2 A & XII 2 C



XIV XIV A XIV B
CROSSFRAME XIV, XIV A & XIV B
 DETAILS OF XIV & XIV B NOT SHOWN OR NOTED, SIMILAR TO XIV A



XV XV A XV B
CROSSFRAME XV, XV A & XV B
 DETAILS OF XV & XV B NOT SHOWN OR NOTED, SIMILAR TO XV A

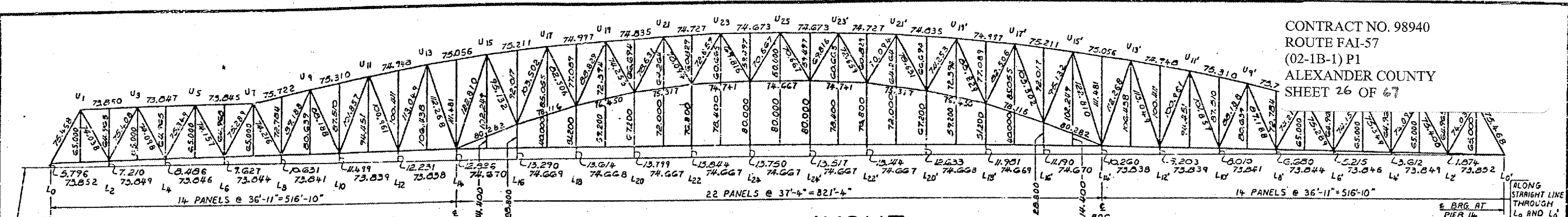


XVI XVI A XVI B
INTERMEDIATE CROSSFRAME XVI, XVI A & XVI B
 DETAILS OF XVI B NOT SHOWN OR NOTED, SIMILAR TO XVI A

NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL FASTENERS SHALL BE 7/8\"/>

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STEEL DETAILS - SPANS 84 AND 92
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)0
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

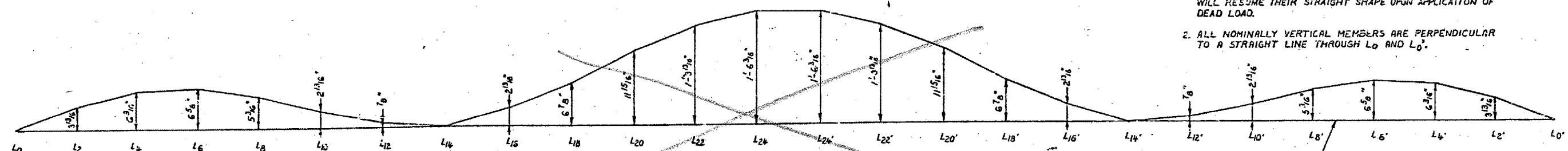


TRUSS LAYOUT

SHOWING THEORETICAL LENGTHS OF MEMBERS AND FINAL POSITION OF BOTTOM CHORD. THIS CONFIGURATION IS TO BE ATTAINED AFTER ALL DEAD LOAD DEFLECTION (EXCEPT THAT CAUSED BY THE WEIGHT OF THE INITIAL WEARING SURFACE) HAS TAKEN PLACE. ALL THE LENGTHS AND OFFSETS SHOWN ARE IN FEET. SCALE: 1"=60'-0"

NOTES:

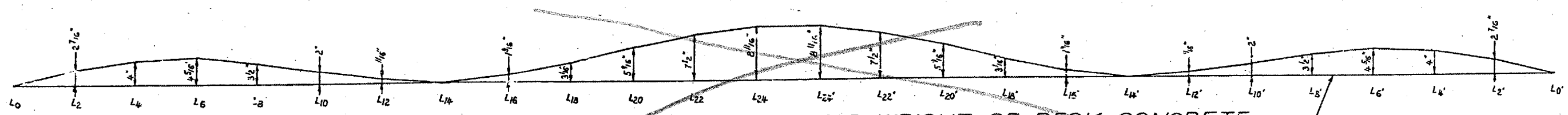
1. WITH THE TRUSS IN ITS FINAL POSITION (AFTER DEAD LOAD DEFORMATION HAS TAKEN PLACE), ALL MEMBERS ARE TO BE STRAIGHT. ALL MEMBERS SHALL BE FABRICATED STRAIGHT. THE FABRICATED LENGTHS OF MEMBERS ARE SUCH THAT SOME CHORD MEMBERS WILL HAVE TO BE FORCED INTO A CURVED POSITION DURING ERECTION; THESE MEMBERS WILL RESUME THEIR STRAIGHT SHAPE UPON APPLICATION OF DEAD LOAD.
2. ALL NOMINALLY VERTICAL MEMBERS ARE PERPENDICULAR TO A STRAIGHT LINE THROUGH L₀ AND L₀'.



BLOCKING ORDINATES FOR TOTAL DEAD LOAD *

ORDINATES ARE SHOWN RELATIVE TO THE FINAL POSITION OF THE BOTTOM CHORD * EXCLUDING WEIGHT OF INITIAL WEARING SURFACE

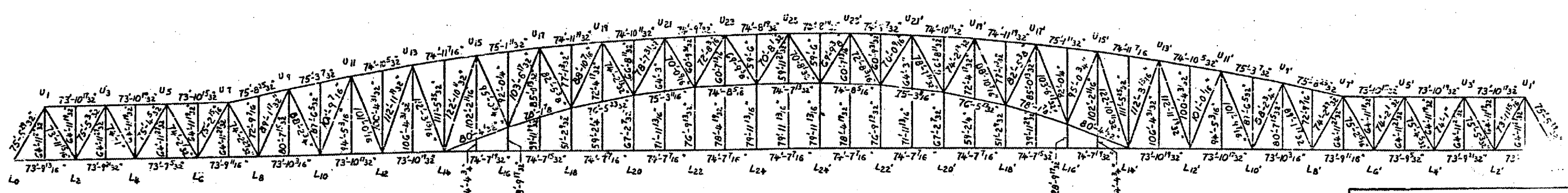
REFERENCE LINE REPRESENTING FINAL POSITION OF BOTTOM CHORD (SHOWN STRAIGHT FOR CONVENIENCE)



BLOCKING ORDINATES FOR WEIGHT OF DECK CONCRETE

ORDINATES ARE SHOWN RELATIVE TO THE FINAL POSITION OF THE BOTTOM CHORD

REFERENCE LINE REPRESENTING FINAL POSITION OF BOTTOM CHORD (SHOWN STRAIGHT FOR CONVENIENCE)

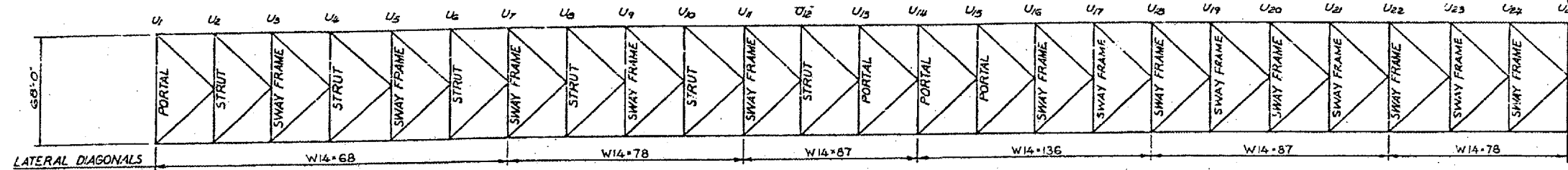


FABRICATED LENGTHS

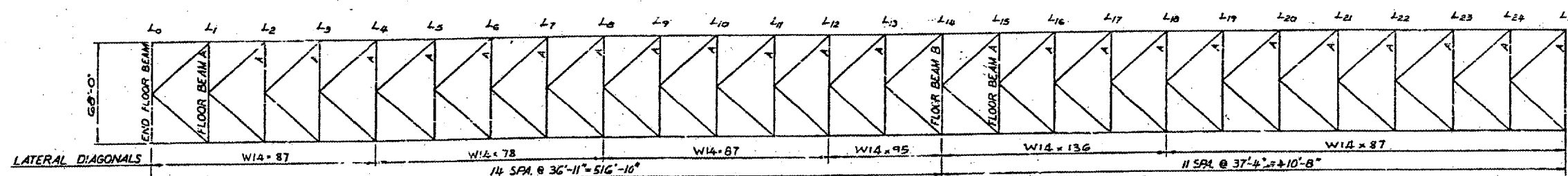
THE LENGTHS SHOWN ARE THE THEORETICAL LENGTHS OF MEMBERS CORRECTED FOR DEFORMATION DUE TO DEAD LOAD. SCALE: 1"=60'-0"

BRIDGE NO 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

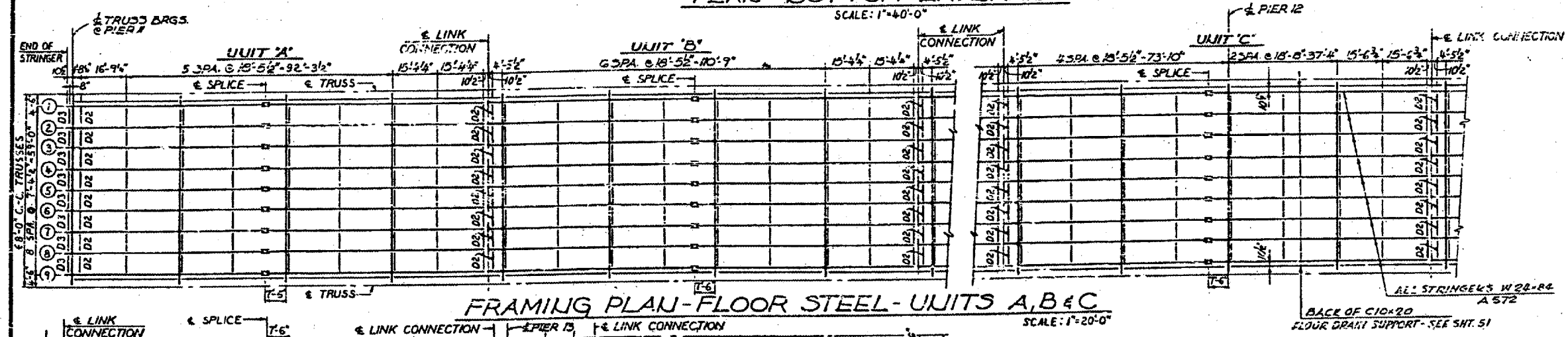
TRUSS LAYOUT & BLOCKING ORDINATES
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)0
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



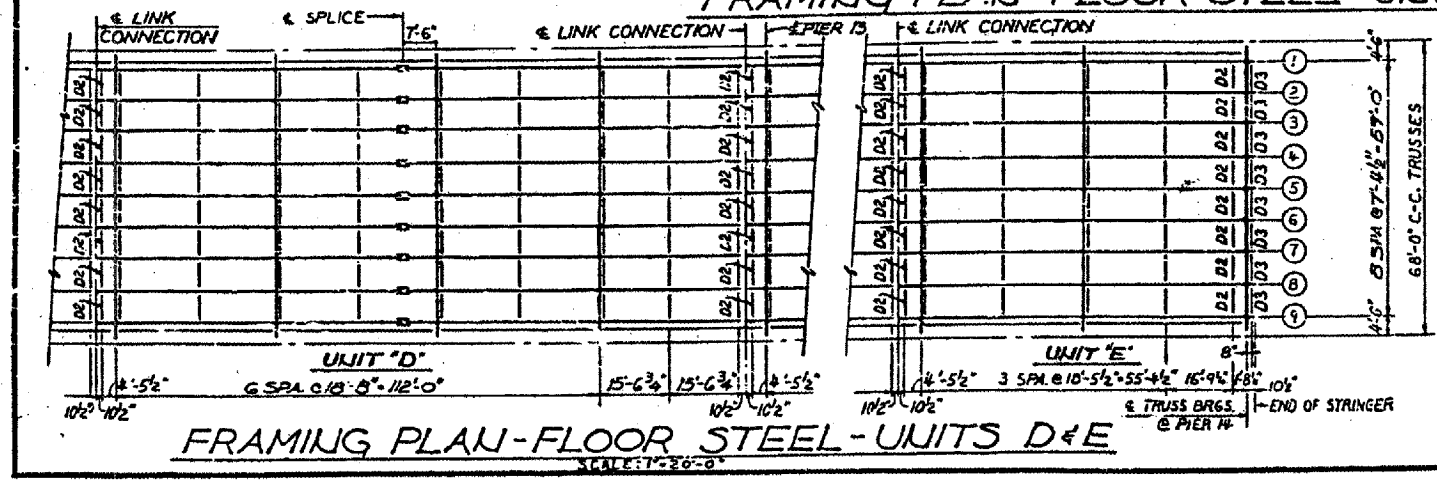
PLAN - TOP LATERAL SYSTEM
 SCALE: 1"=40'-0"



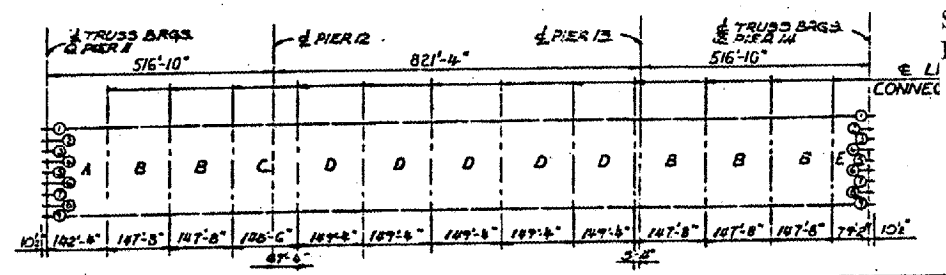
PLAN - BOTTOM LATERALS
 SCALE: 1"=40'-0"



FRAMING PLAN - FLOOR STEEL - UNITS A, B & C
 SCALE: 1"=20'-0"



FRAMING PLAN - FLOOR STEEL - UNITS D & E
 SCALE: 1"=20'-0"



KEY PLAN

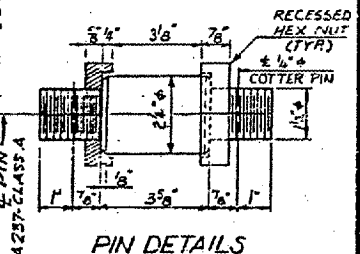
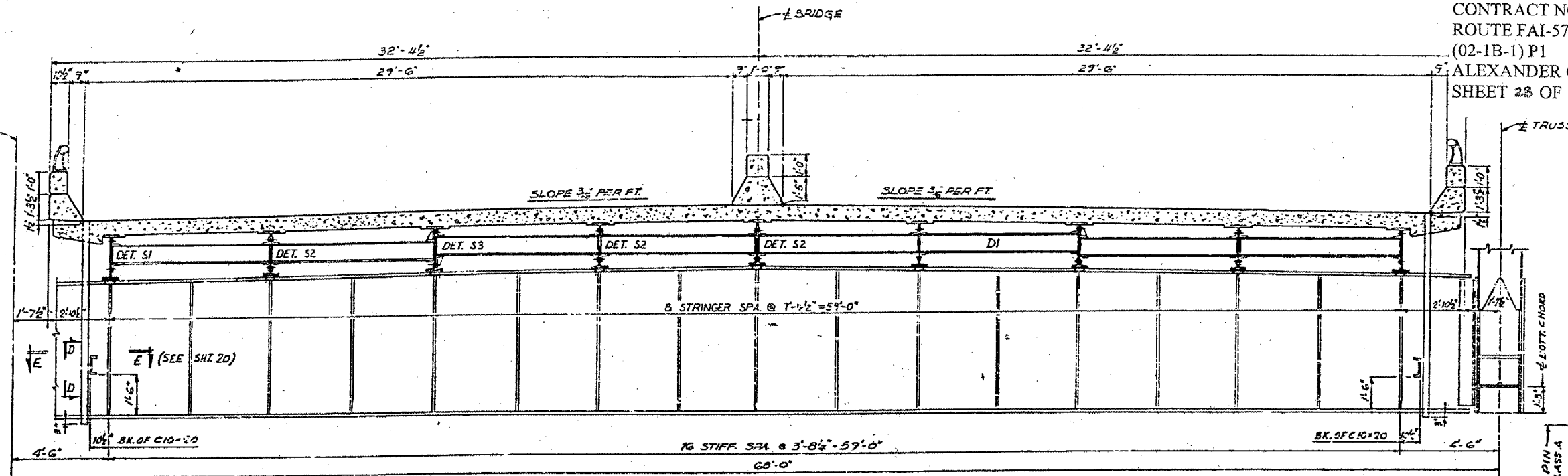
NOTES:
 ALL DIAPHRAGMS ARE D1 UNLESS NOTED.
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL DIMENSIONS PERPENDICULAR TO TRUSS
 ARE HORIZONTAL.

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 12, 13 & 14
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (5)0
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

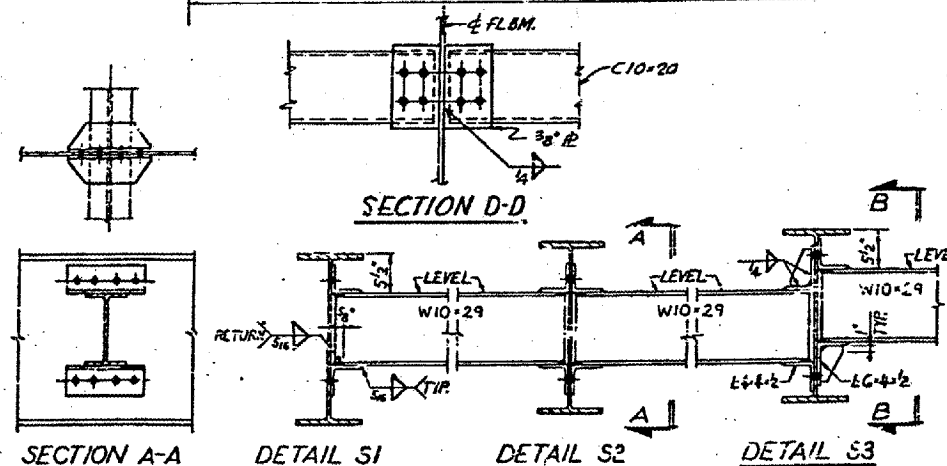
ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE CHICAGO, ILLINOIS

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 28 OF 67



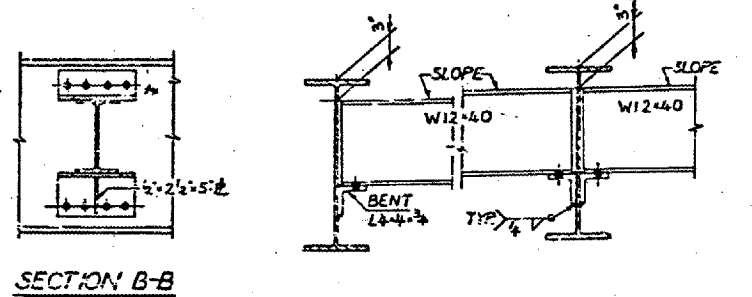
TYPICAL CROSS - SECTION

SCALE: 3/8"=1'-0"



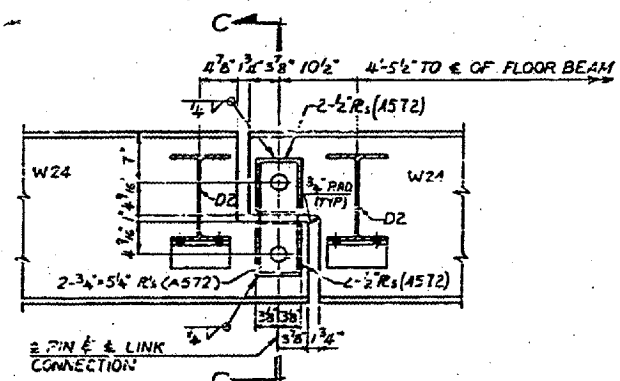
DIAPHRAGM D1 DETAILS

SCALE: 1"=1'-0"



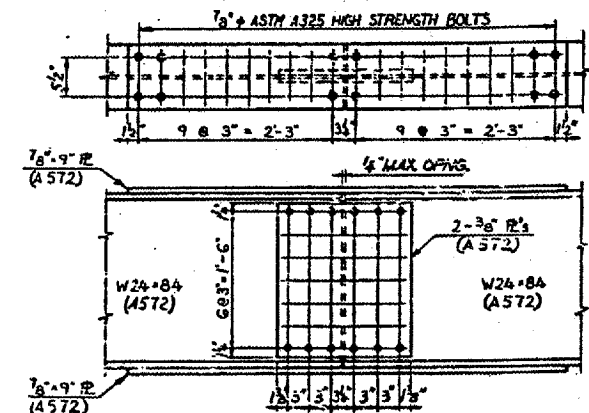
DIAPHRAGM D2 DETAILS

SCALE: 1"=1'-0"



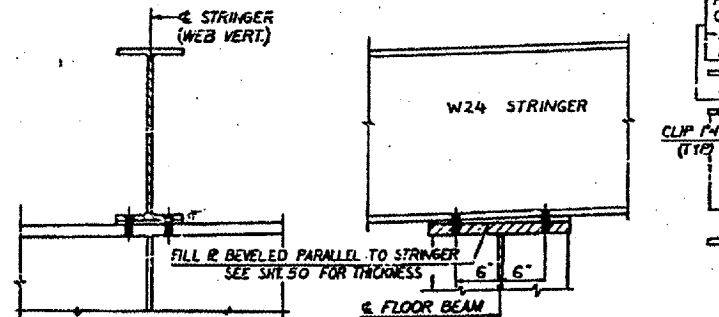
LINK CONNECTION

SCALE: 1"=1'-0"



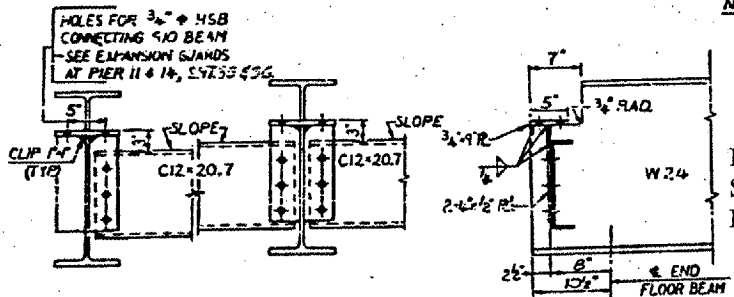
TYPICAL STRINGER SPLICE

SCALE: 1"=1'-0"



CONNECTION OF STRINGER TO FLOOR BEAM

SCALE: 1"=1'-0"



DIAPHRAGM D3 DETAILS

SCALE: 1"=1'-0"

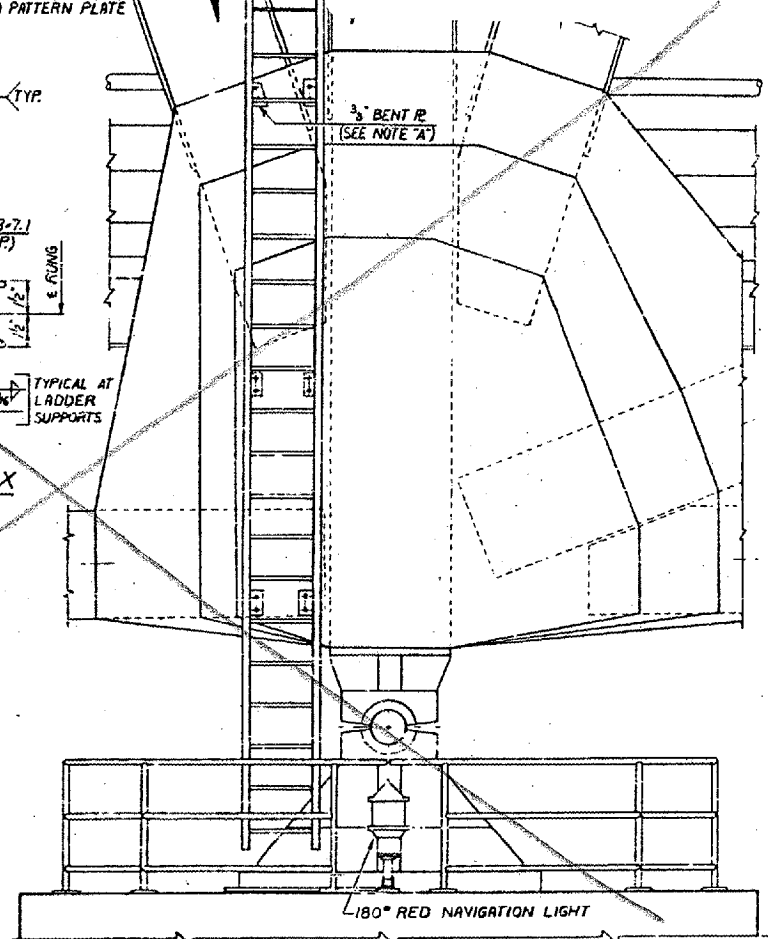
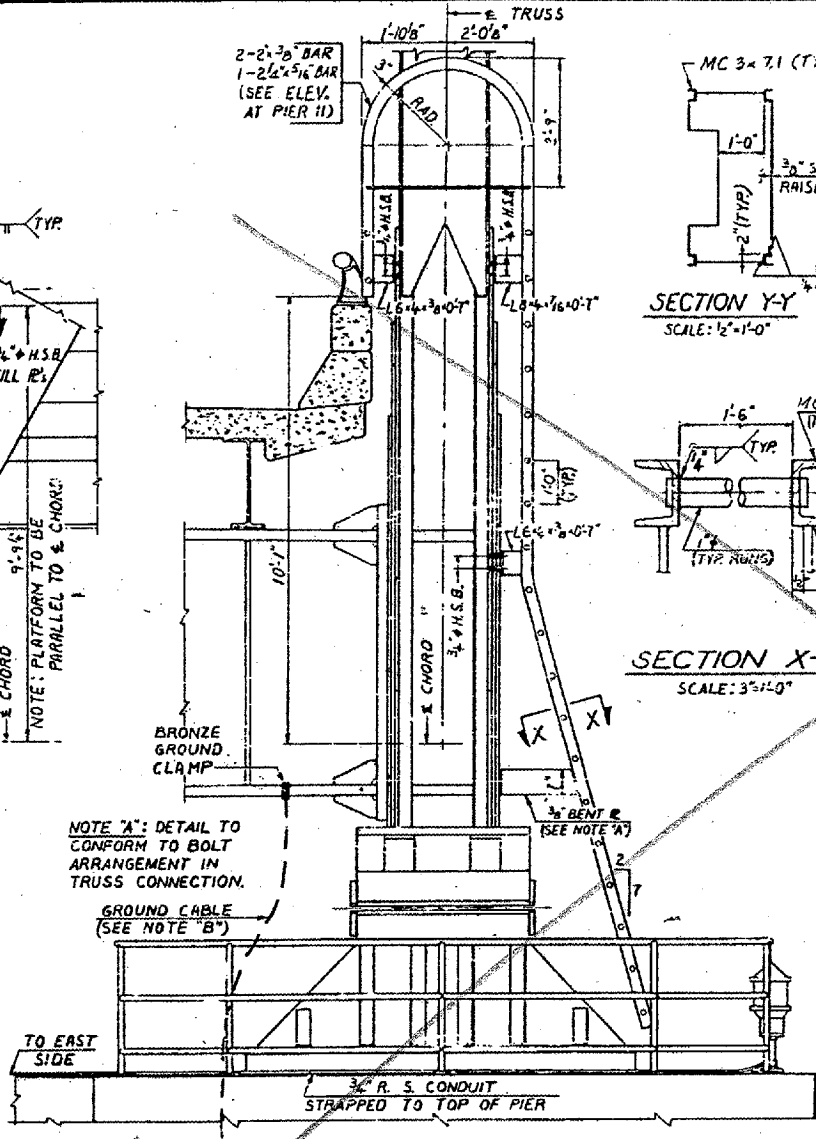
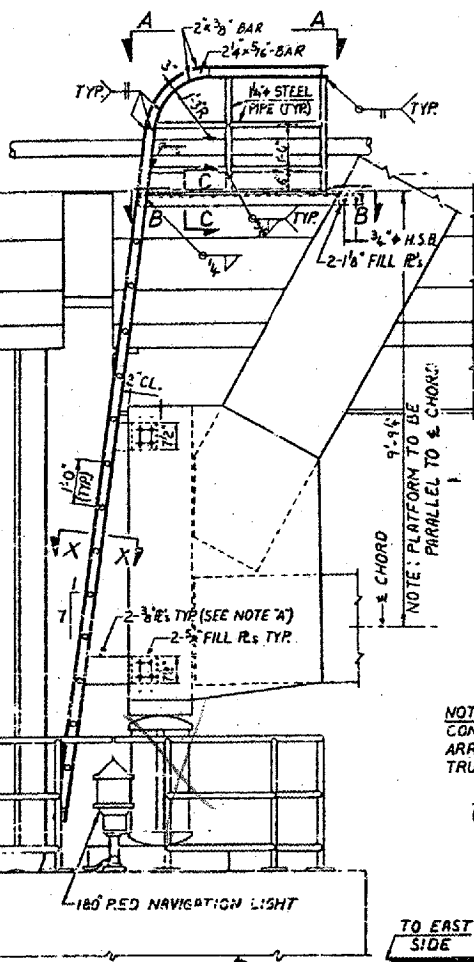
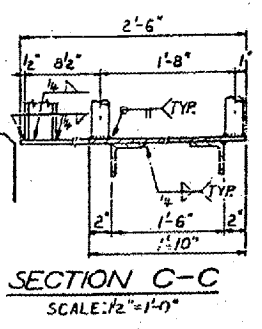
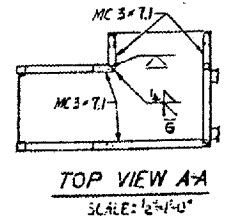
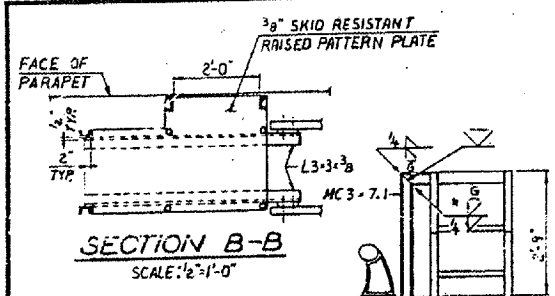
NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED
 ALL FASTENERS SHALL BE 3/4" ASTM A325
 HIGH STRENGTH BOLTS UNLESS NOTED.
 FOR FLOOR BEAMS, SEE SHIT. 52

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

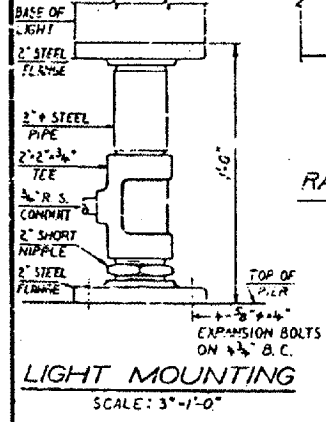
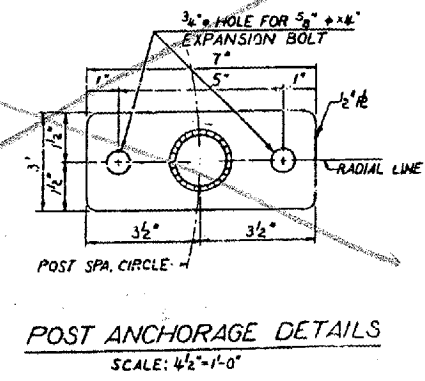
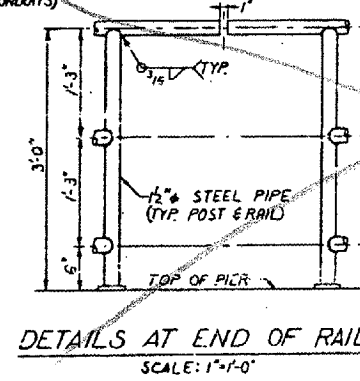
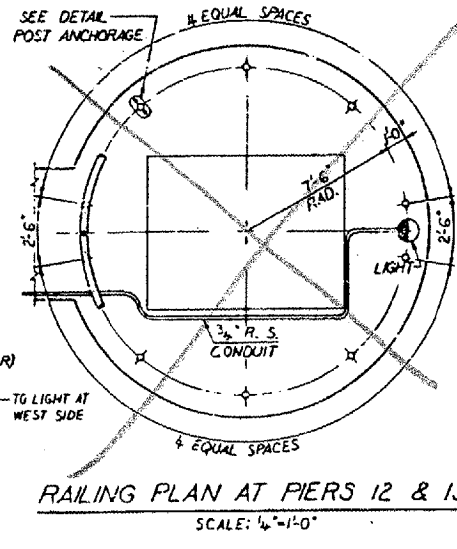
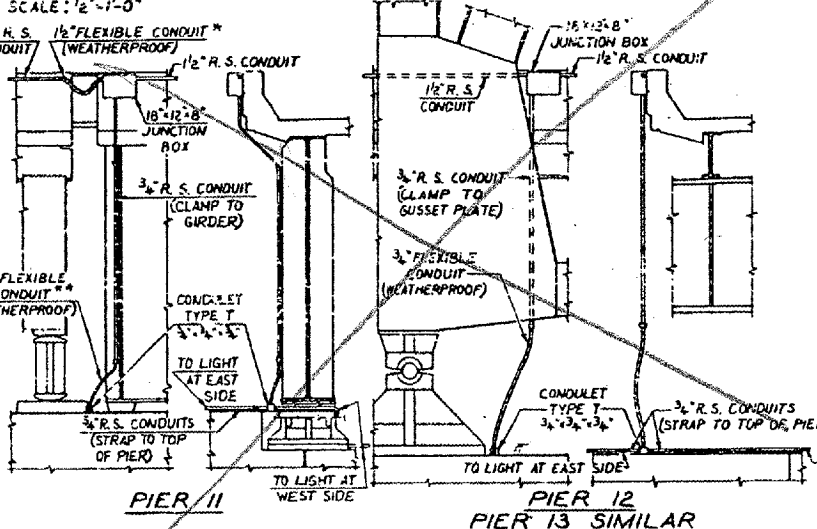
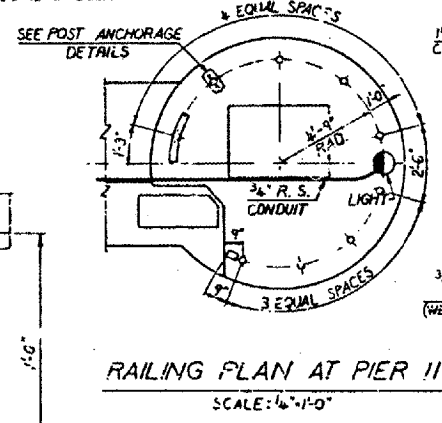
FLOOR STEEL DETAILS - SPANS 12, 13 & 14
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)0
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 64.78 TO STA. 1182 + 75.25

ALFRED GENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE. CHICAGO, ILLINOIS

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 30 OF 67



NOTE "B": CONTRACTOR FOR SECTION (02-1B-1)B WILL FURNISH & INSTALL GROUND CABLES AT PIERS 11, 12, 13 & 14 AS SHOWN ON SHTS. 68, 69, 70 & 71. CONTRACTOR FOR SECTION (02-1B-1)D SHALL CONNECT GROUND CABLES TO FLOOR BEAMS.



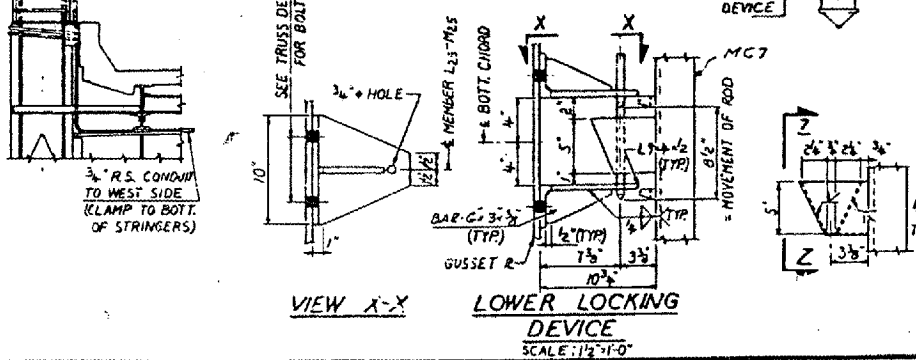
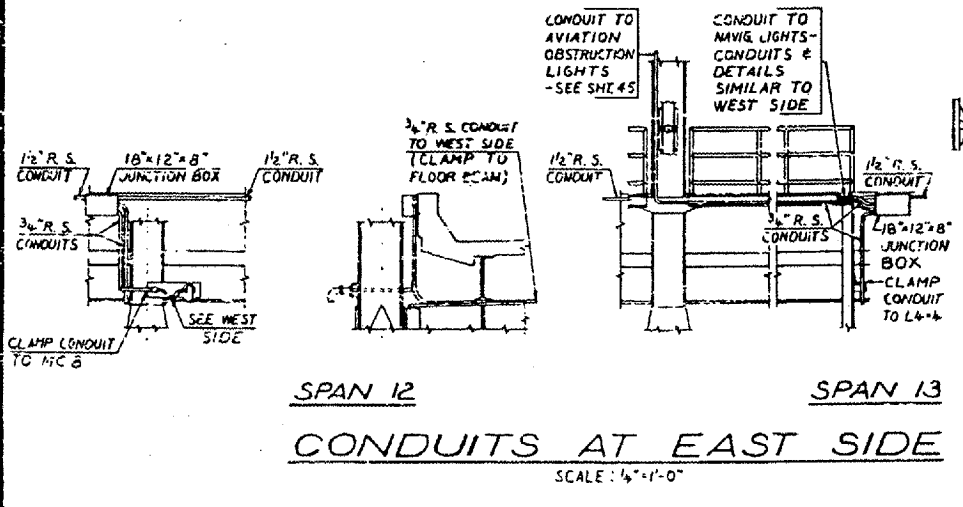
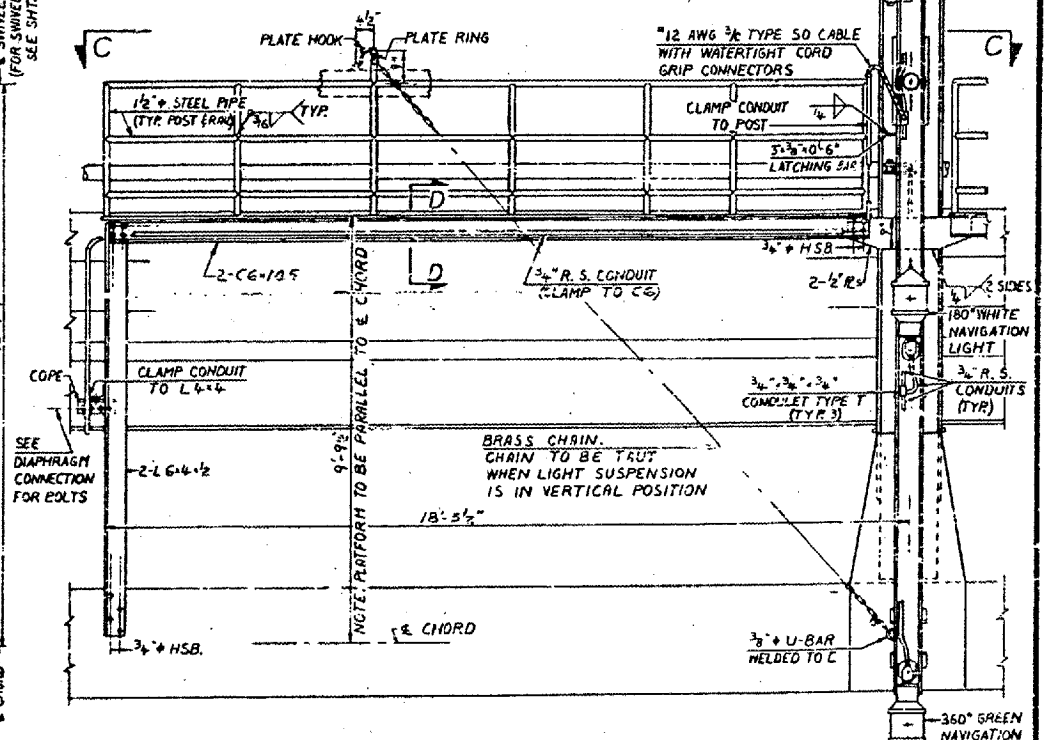
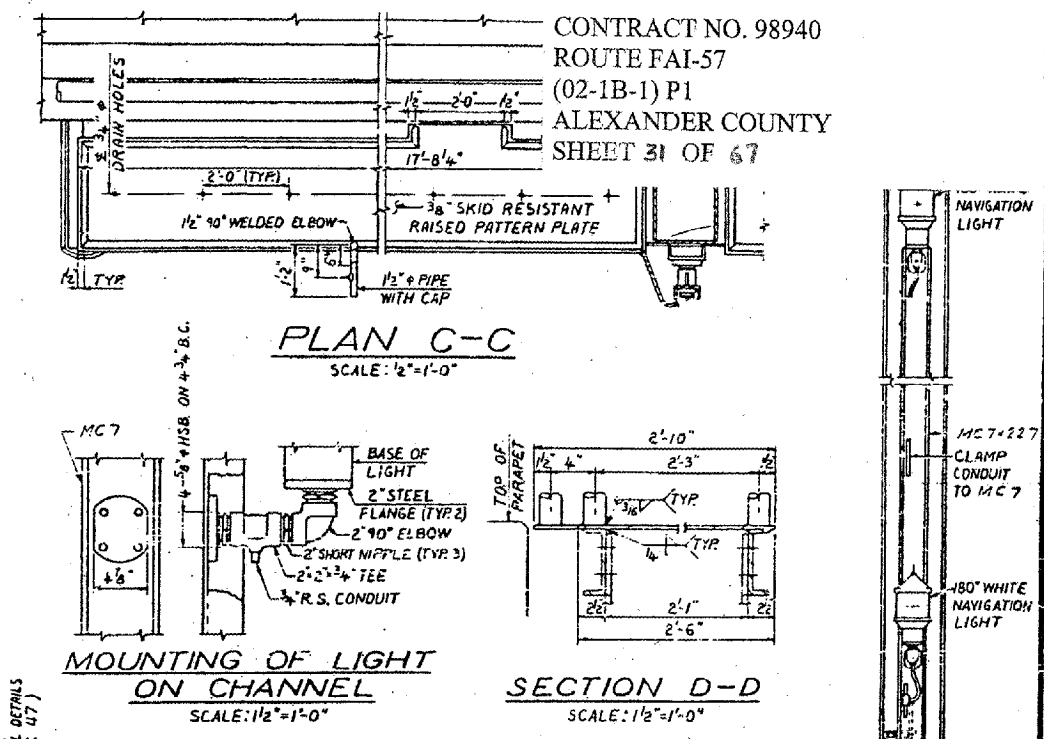
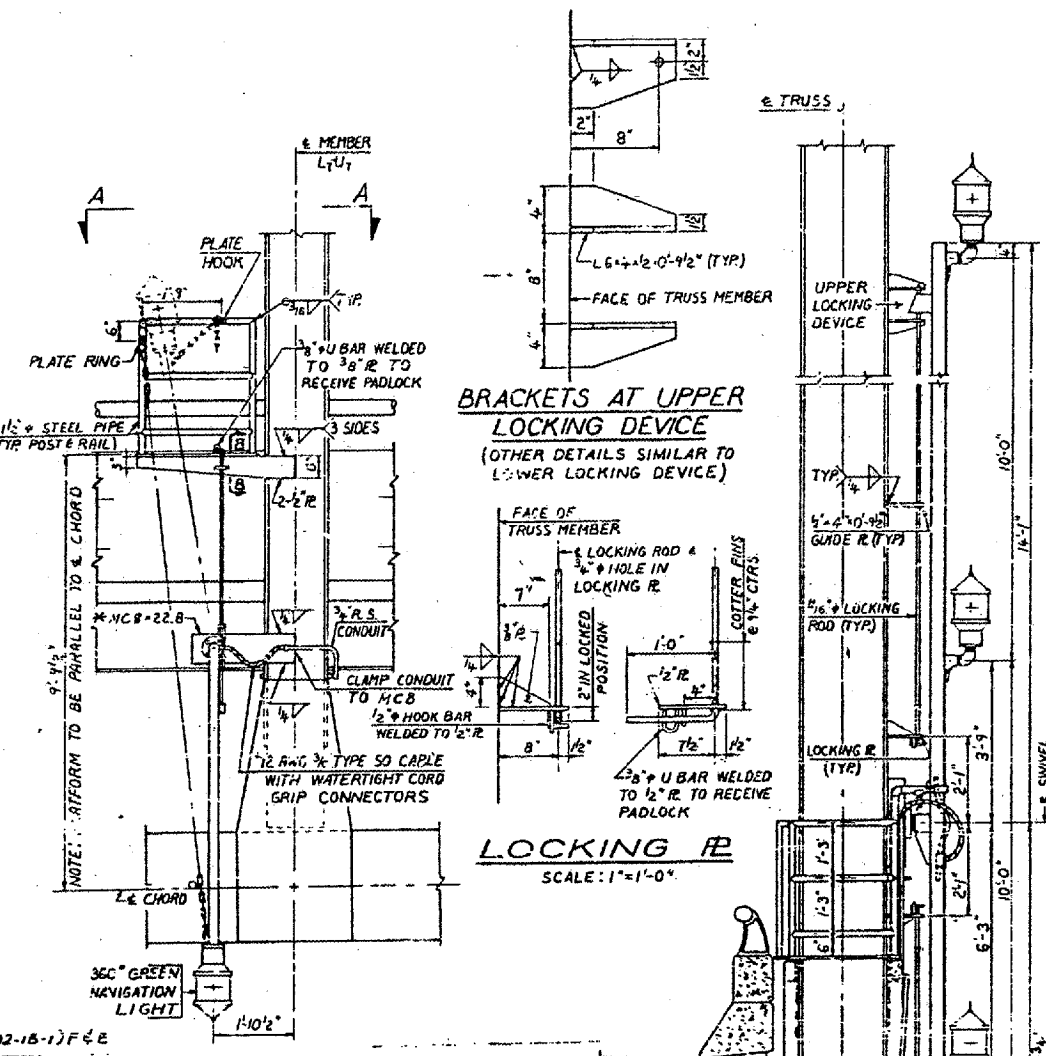
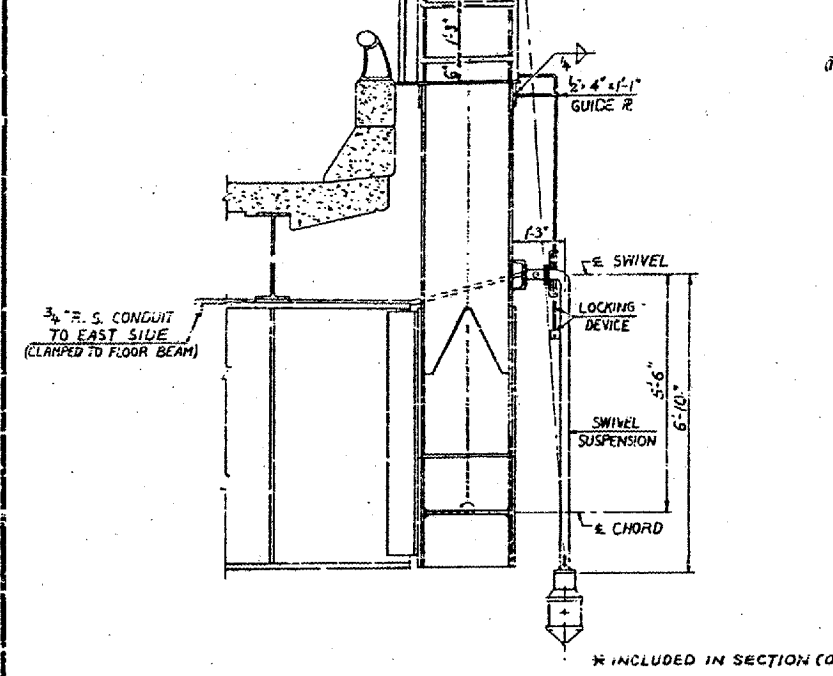
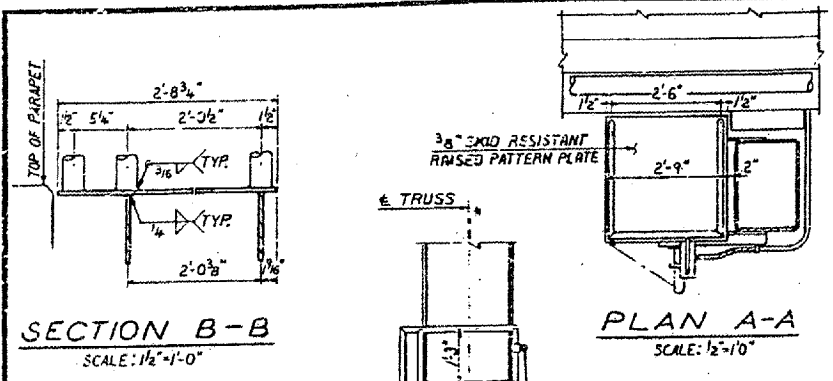
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

* MAX. HORIZONTAL MOVEMENT BETWEEN ENDS = 1'-10"
 ** MAX. HORIZONTAL MOVEMENT BETWEEN ENDS = 7"

NOTE: AT PIER 14 PROVIDE LADDERS & RAILINGS

PIER LIGHT, LADDER & RAILING DETAILS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

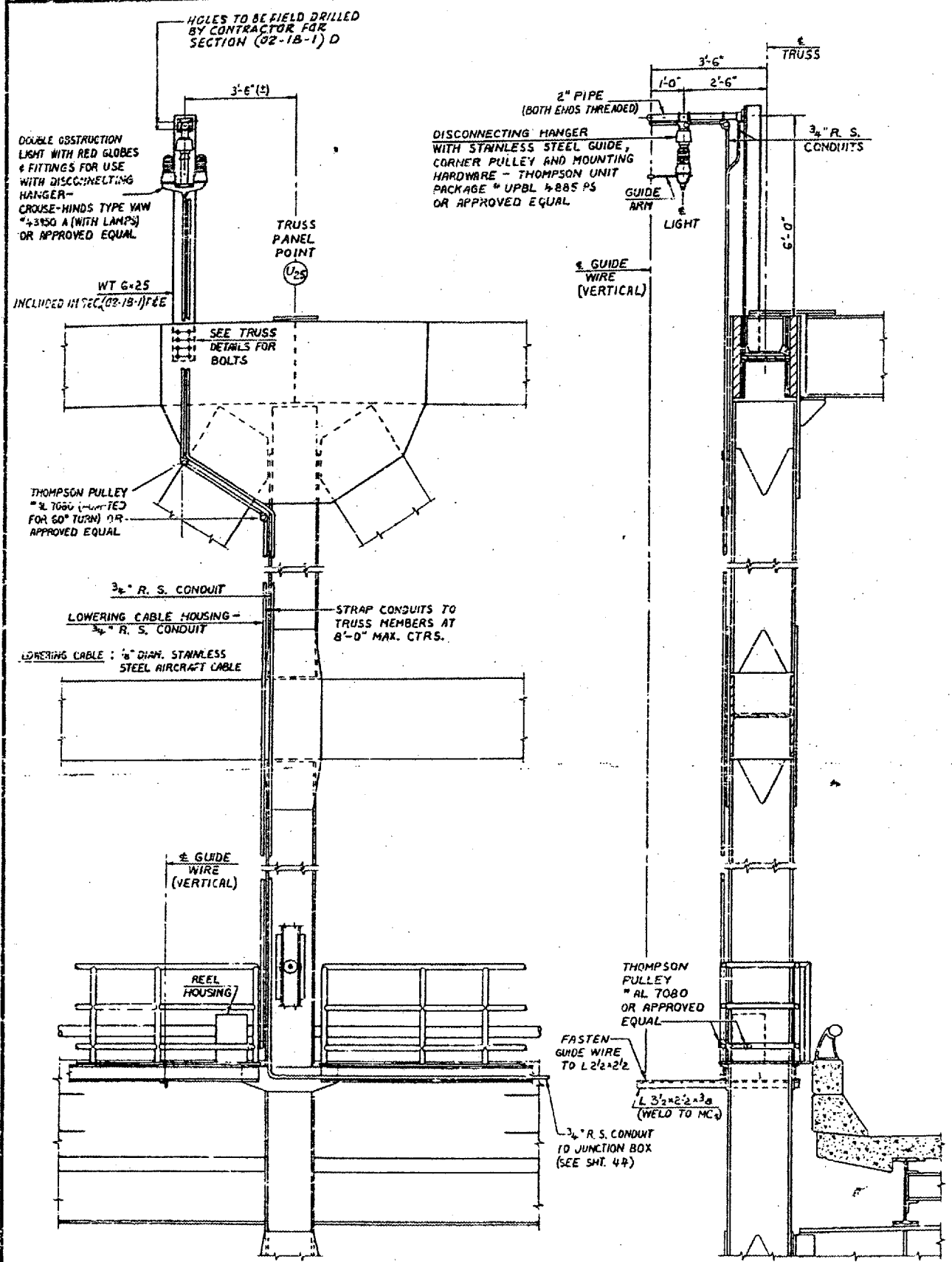
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 31 OF 67



BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

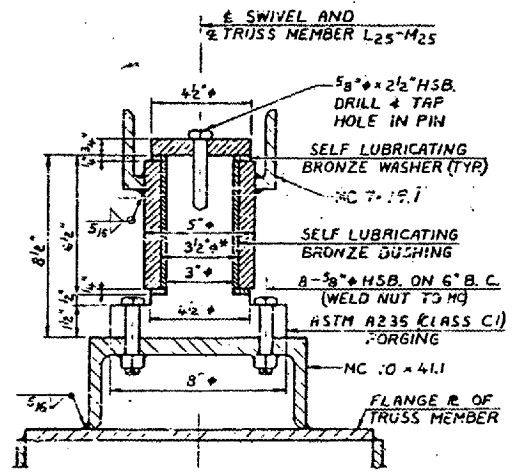
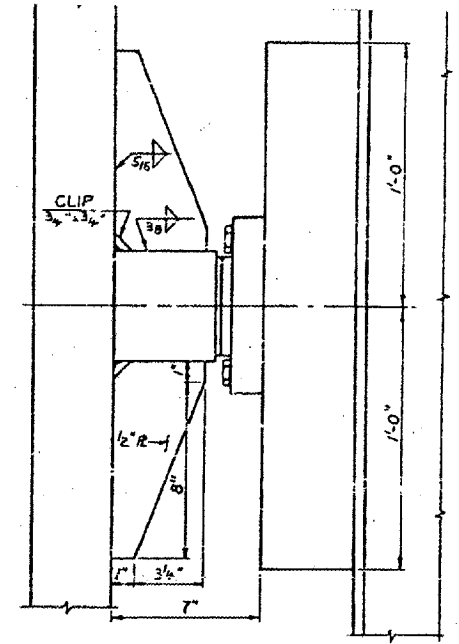
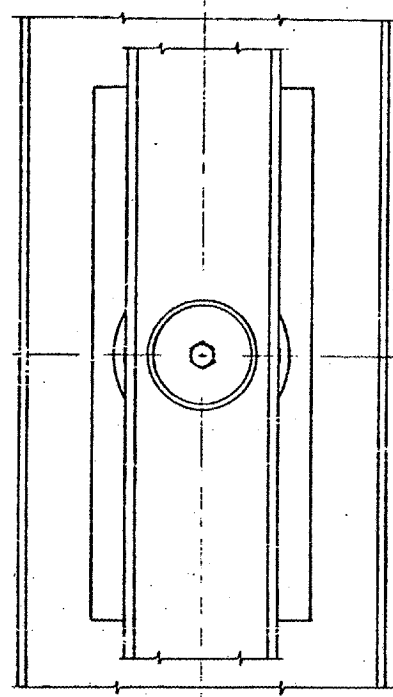
CENTER OF CHANNEL NAVIGATION LIGHT DETAILS F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER PROJECT 1-57-9(10) SECTION (02-1B-1) F&E ALEXANDER COUNTY, ILLINOIS MISSISSIPPI COUNTY, MISSOURI STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 32 OF 67



AVIATION OBSTRUCTION LIGHTING DETAILS

ON EAST SIDE OF BRIDGE
 SCALE: 1/2"=1'-0"



CLEARANCES AND SURFACE FINISHES SHALL BE AS REQUIRED FOR PROPER OPERATION OF THE SELF LUBRICATING BUSHING AND WASHERS

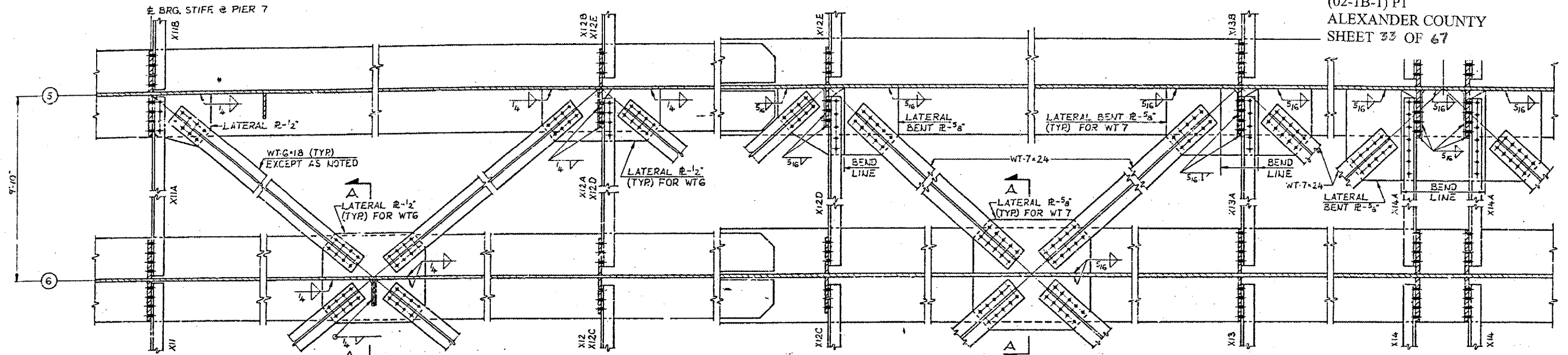
* INTERFERENCE FIT BETWEEN BUSHING & HOUSING

SWIVEL FOR NAVIGATION LIGHT SUSPENSION IN SPAN 13

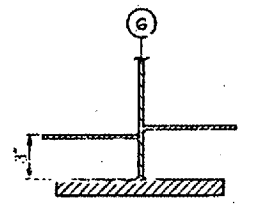
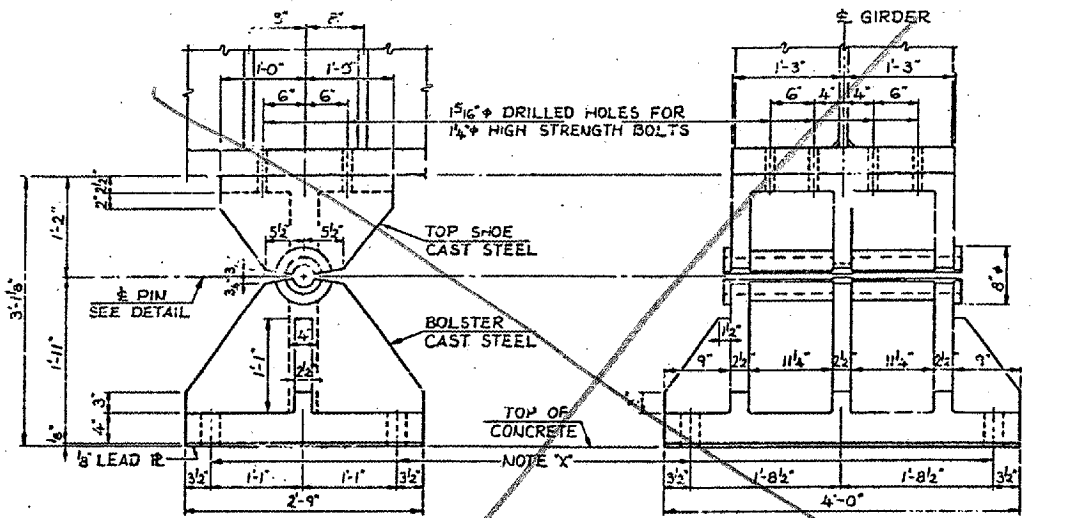
SCALE: 3/4"=1'-0"

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

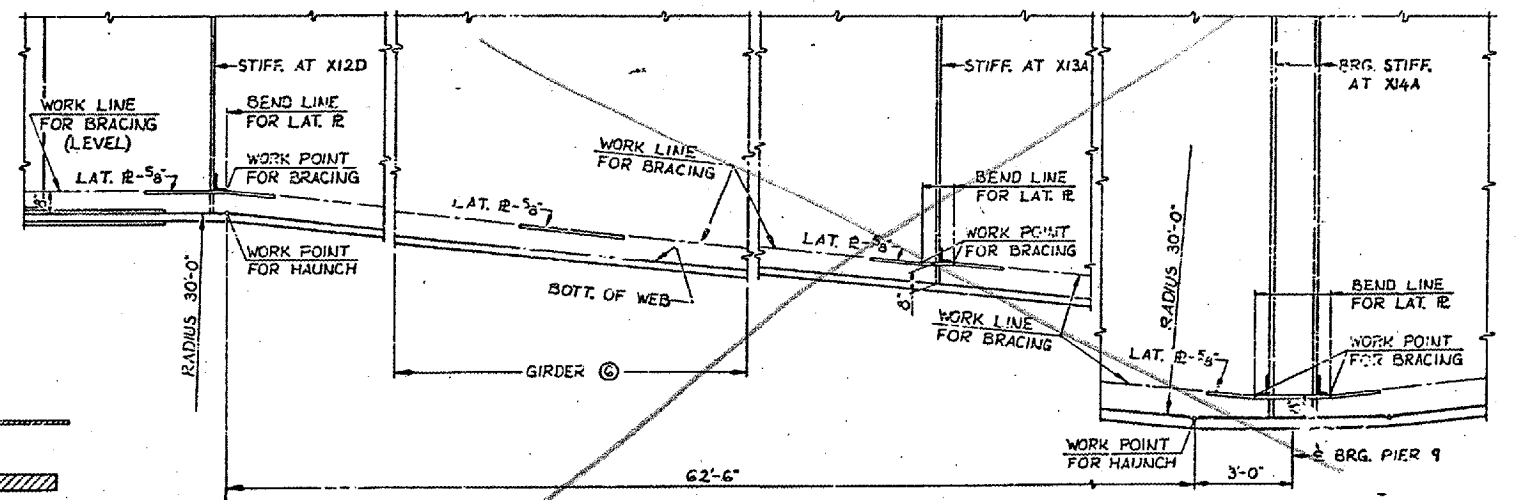
AVIATION OBSTRUCTION LIGHT TAILS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



BOTTOM LATERAL BRACING CONNECTIONS

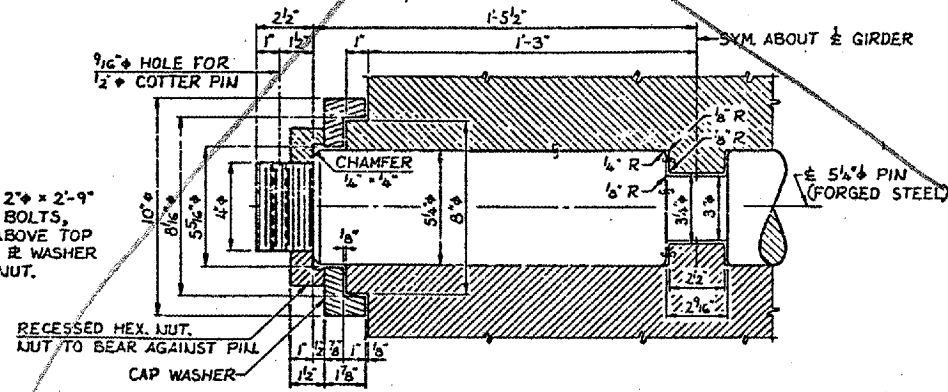


SECTION A-A



DETAIL OF HAUNCH
 GIRDER ⑥ SHOWN EXCEPT AS NOTED

NOTE 'X'
 2 1/2" HOLES FOR 2" x 2'-9" SWEDGE ANCHOR BOLTS, TO PROJECT 7/8" ABOVE TOP OF CONC. WITH 3/8" R WASHER AND HEAVY HEX. NUT.

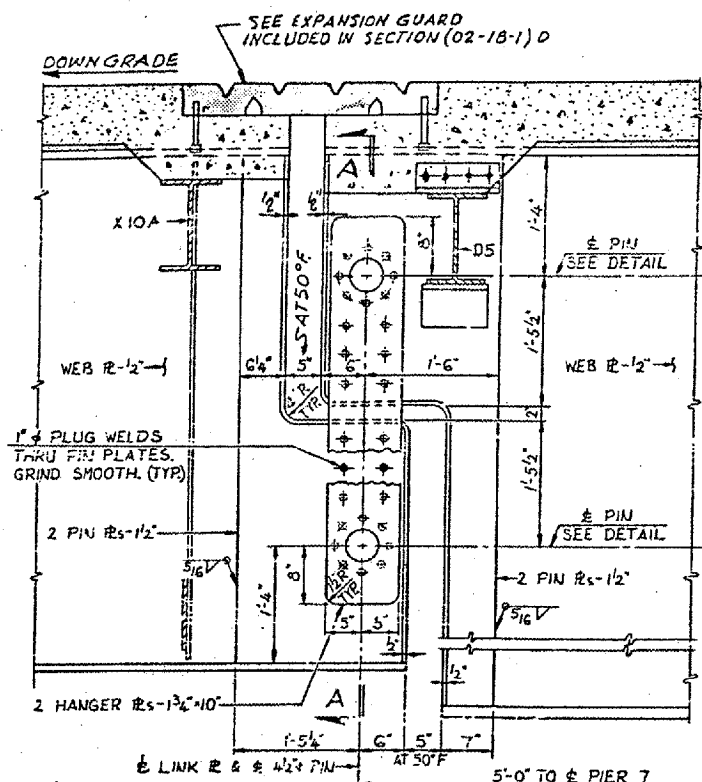


PIN DETAIL
FIXED BEARING AT PIER 9

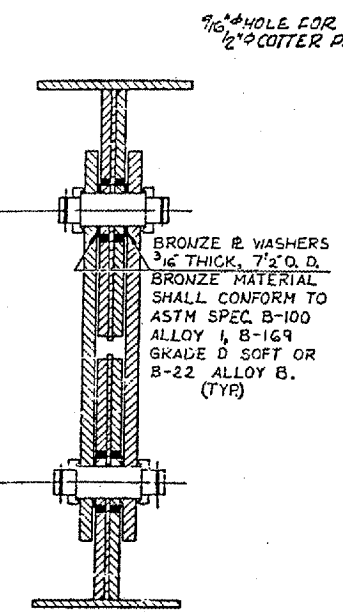
NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL FASTENERS SHALL BE 7/8" ASTM A325 HIGH STRENGTH BOLTS UNLESS NOTED.
 FOR BEARING NOTES SEE SH. 15.

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

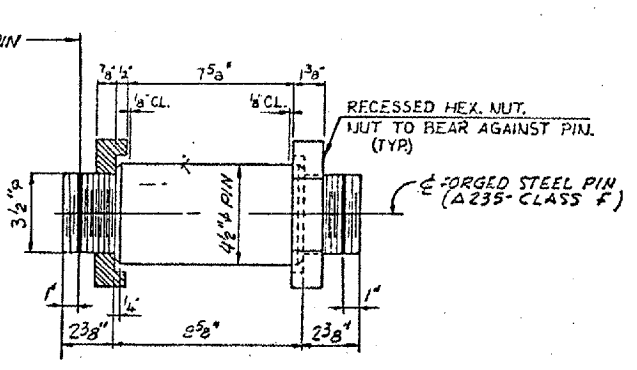
STEEL DETAILS - SPANS 8A 8B
F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
PROJECT 1-57-9(6)O
SECTION (02-1B-1)P
ALEXANDER COUNTY, ILLINOIS
MISSISSIPPI COUNTY, MISSOURI
STA. 1141 + 84.75 TO STA. 1182 + 75.25



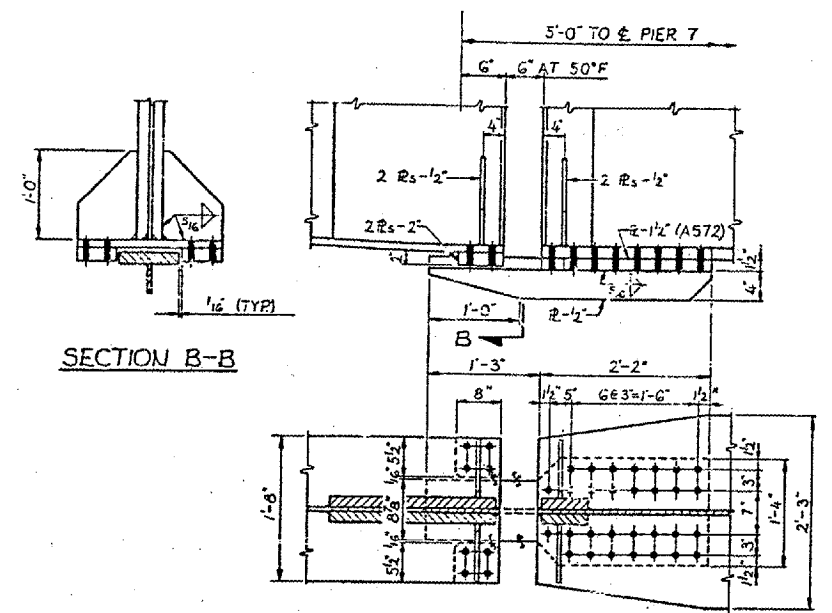
LINK DETAILS - SPAN 7
 GIRDER 2 TO 6 SHOWN
 GIRDERS 1 & 7 SIMILAR EXCEPT FOR WIND BRACING



SECTION A-A



PIN DETAIL
 NUTS SHALL BE SNUGGED UP FINGER
 TIGHT AGAINST SHOULDERS OF PIN
 TOTAL NO. OF PINS REQUIRED = 14.

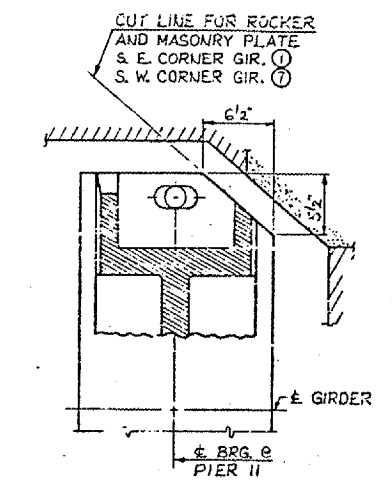
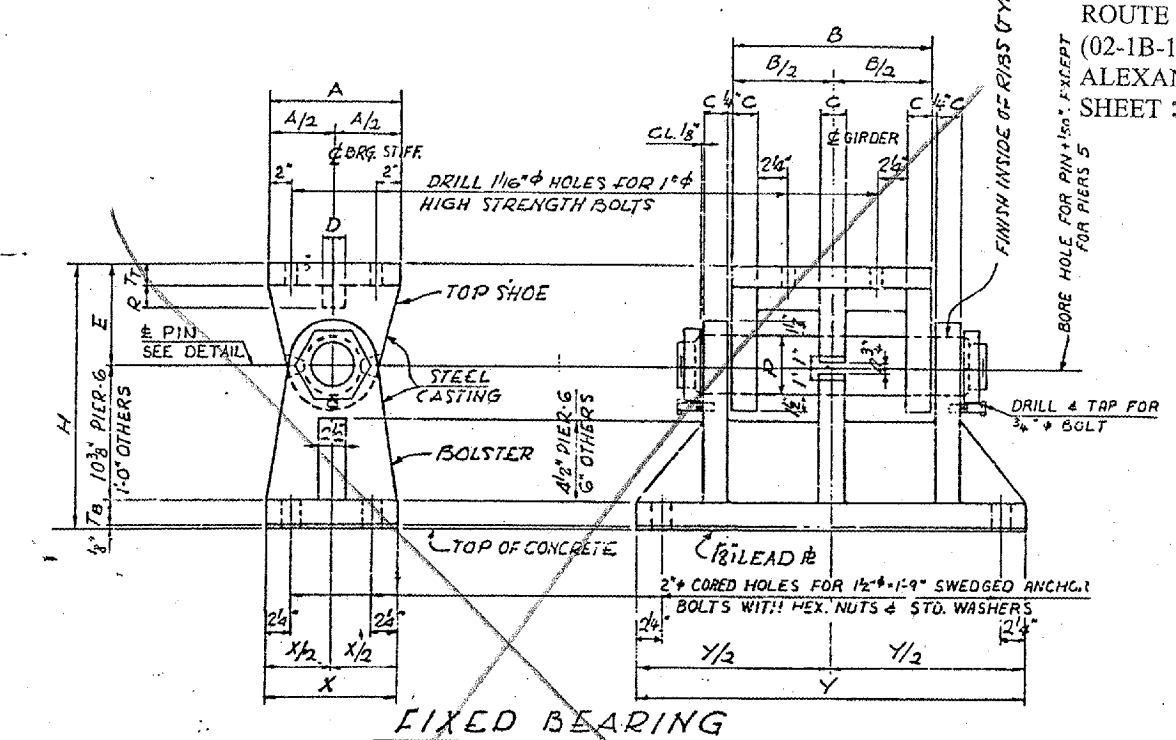
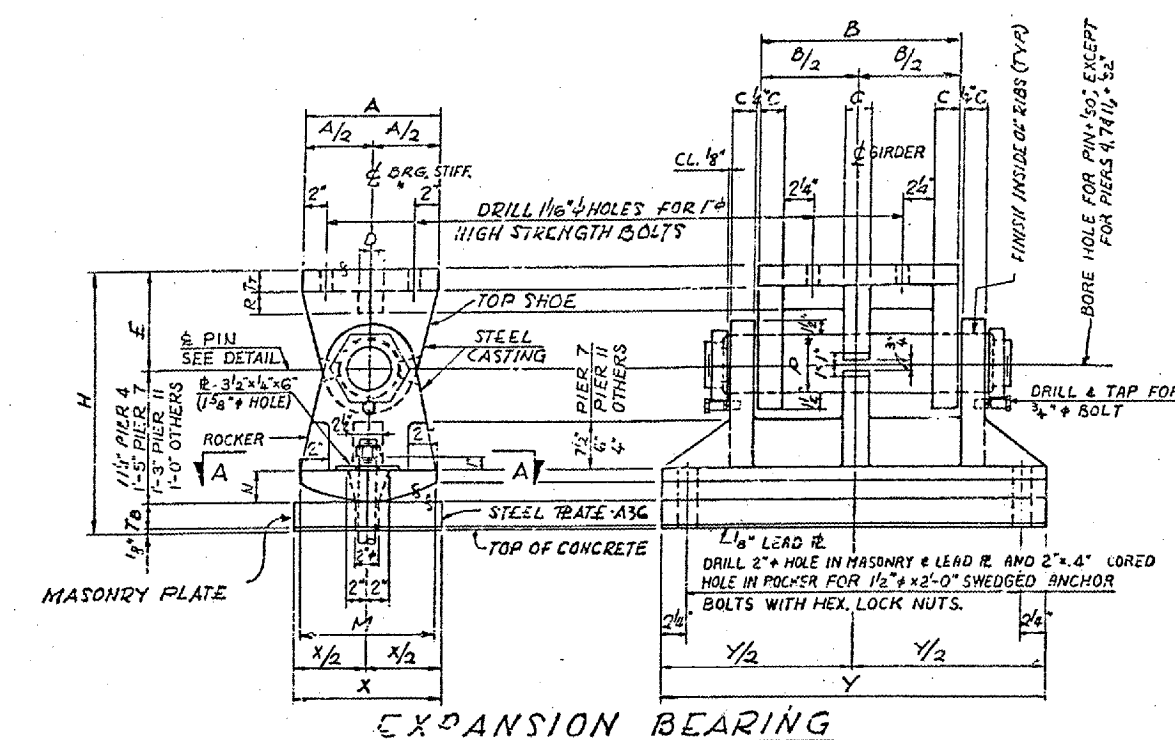


WIND BRACING AT LINK-SPAN 7
 GIRDER 1 & 7

- NOTES:**
- ALL MATERIAL, ASTM A36 UNLESS NOTED.
 - ALL FASTENERS SHALL BE 7/8\"/>

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

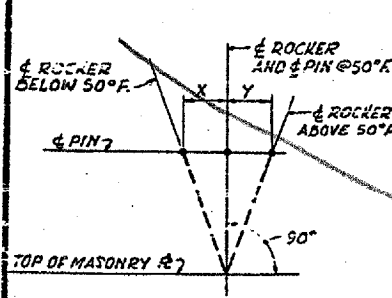
STEEL DETAILS - SPANS 8 TO 9A
F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
PROJECT 1-57-9(6)0
SECTION (02-1B-1)P
ALEXANDER COUNTY, ILLINOIS
MISSISSIPPI COUNTY, MISSOURI
STA. 1141 + 84.75 TO STA. 1182 + 75.25



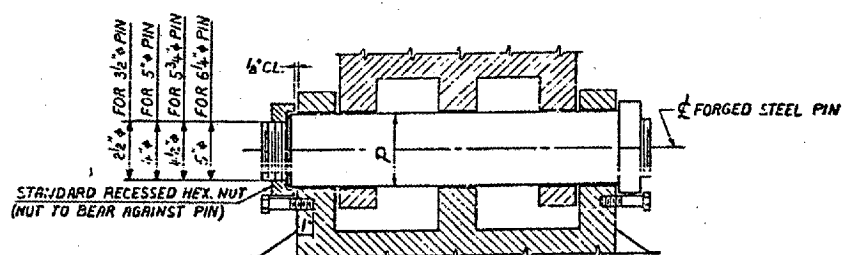
SECTION A-A
 FOR GIRDERS ① & ② @ PIER 11 ONLY

LOCATION	TOP SHOE								PIN φ		ROCKER		MASONRY PLATE			
	A	B	T	C	D	E	R	P	M	N	X	Y	TB	H		
NORTH ABUTMENT	1'-0"	1'-4"	1/2"	1/2"	1/2"	9"	2"	3 1/2"	1'-0"	2 1/2"	1'-0"	2'-7"	1/2"	1'-10 5/8"		
PIER 2	1'-0"	1'-4"	2"	2 1/2"	2"	9"	2"	5"	1'-0"	2 1/2"	1'-0"	2'-9"	2"	1'-11 3/8"		
PIER 3	1'-0"	1'-6"	2"	2 1/2"	2"	9"	2"	5"	1'-0"	2 3/4"	1'-1"	2'-11"	2 1/2"	1'-11 3/8"		
PIER 4	1'-3"	1'-8"	2"	2 1/2"	2"	9"	2 1/2"	5 3/4"	1'-0"	2 3/4"	1'-3"	3'-2"	2 1/2"	1'-10 5/8"		
PIER 7	1'-3"	2'-3"	2 1/2"	3 1/2"	3 1/2"	10 1/2"	4 1/2"	6 1/2"	1'-3"	2 1/2"	1'-10"	4'-0"	3 1/2"	2'-7 1/8"		
PIER 11-SPAN 9A	1'-3"	2'-0"	2"	2 1/2"	2 1/2"	9"	3 1/2"	5 3/4"	1'-3"	3 1/2"	1'-6"	3'-7"	2 3/4"	2'-2 1/8"		
PIER 14-SPAN 15	1'-0"	1'-4"	1 1/2"	1 1/2"	1 1/2"	9"	2"	3 1/2"	1'-0"	2 1/2"	1'-0"	2'-7"	1 1/2"	1'-10 5/8"		
PIER 15	1'-0"	1'-4"	2"	2 1/2"	2"	9"	2"	5"	1'-0"	2 1/2"	1'-1"	2'-9"	2 1/2"	1'-11 3/8"		
PIER 18	1'-0"	1'-4"	2"	2 1/2"	2"	9"	2"	5"	1'-0"	2 1/2"	1'-1"	2'-9"	2 1/2"	1'-11 3/8"		
SOUTH ABUTMENT	1'-0"	1'-4"	1 1/2"	1 1/2"	1 1/2"	9"	2"	3 1/2"	1'-0"	2 1/2"	1'-0"	2'-7"	1 1/2"	1'-10 5/8"		

LOCATION	TOP SHOE								PIN φ		BOLSTER			
	A	B	T	C	D	E	R	P	X	Y	TB	H		
PIER 1	1'-0"	1'-6"	2"	2 1/2"	2"	9"	2"	5"	1'-2"	2'-11"	2 1/2"	1'-11 5/8"		
PIER 5	1'-3"	1'-8"	2"	2 1/2"	2"	9"	2 1/2"	5 3/4"	1'-3"	3'-2"	2 3/4"	1'-11 7/8"		
PIER 6	1'-3"	1'-8"	2"	2 1/2"	2"	9"	2 1/2"	5 3/4"	1'-3"	3'-2"	2 3/4"	1'-10 1/4"		
PIER 16	1'-0"	1'-4"	2"	2 1/2"	2"	9"	2"	5"	1'-2"	2'-9"	2 1/2"	1'-11 5/8"		
PIER 17	1'-0"	1'-4"	2"	2 1/2"	2"	9"	2"	5"	1'-2"	2'-9"	2 1/2"	1'-11 5/8"		



LOCATION	X							X OR Y			Y		
	-10°F	10°F	30°F	50°F	70°F	90°F	110°F						
N. ABUT.	1/2"	3/8"	3/16"	0"	3/16"	3/8"	1/2"						
PIER 2	1/2"	3/8"	3/16"	0"	3/16"	3/8"	1/2"						
PIER 3	1"	3/4"	3/8"	0"	3/8"	3/4"	1"						
PIER 4	1 1/2"	3/4"	3/8"	0"	3/8"	3/4"	1 1/2"						
PIER 7	1 3/4"	1 1/2"	3/8"	0"	3/8"	1 1/2"	1 3/4"						
PIER 11-SPAN 9A	1 1/2"	1 1/2"	3/8"	0"	3/8"	1 1/2"	1 1/2"						
PIER 14-SPAN 15	1 1/2"	3/4"	3/8"	0"	3/8"	3/4"	1 1/2"						
PIER 15	1 1/2"	3/8"	3/8"	0"	3/8"	3/8"	1 1/2"						
PIER 18	1 1/2"	3/8"	3/8"	0"	3/8"	3/8"	1 1/2"						
S. ABUT.	1 1/2"	3/8"	3/8"	0"	3/8"	3/8"	1 1/2"						



PIN DETAIL

NOTES:

- FOR DETAILS OF FIXED BEARING AT PIER 9 SEE SH. 12
- CAST STEEL SHALL CONFORM TO A. S. T. M. A-86-65, CLASS 70, NORMALIZED.
- FORGED STEEL SHALL CONFORM TO A. S. T. M. A-235-65, CLASS F.
- ALL OTHER MATERIAL SHALL CONFORM TO A. S. T. M. A-36 EXCEPT AS OTHERWISE NOTED.
- STRUCTURAL STEEL WELDMENTS OF EQUAL SECTION AND STRENGTH MAY BE SUBSTITUTED FOR THE CASTINGS SUBJECT TO APPROVAL OF ENGINEER.
- CASTINGS, BEARING PLATES, LEAD PLATES, ANCHOR BOLTS AND MISCELLANEOUS ITEMS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. PLAN WEIGHT OF BEARINGS IS 189,785 POUNDS WHICH INCLUDES 131,740 POUNDS OF CAST STEEL.

CORRECTION FOR TEMPERATURE-ROCKER SETTING

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 103 S. WABASH AVE. CHICAGO, ILLINOIS

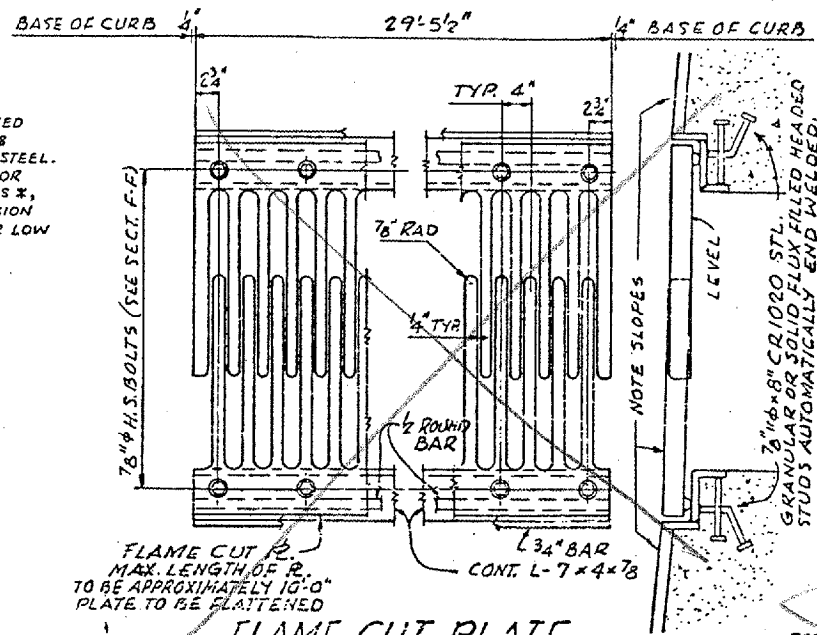
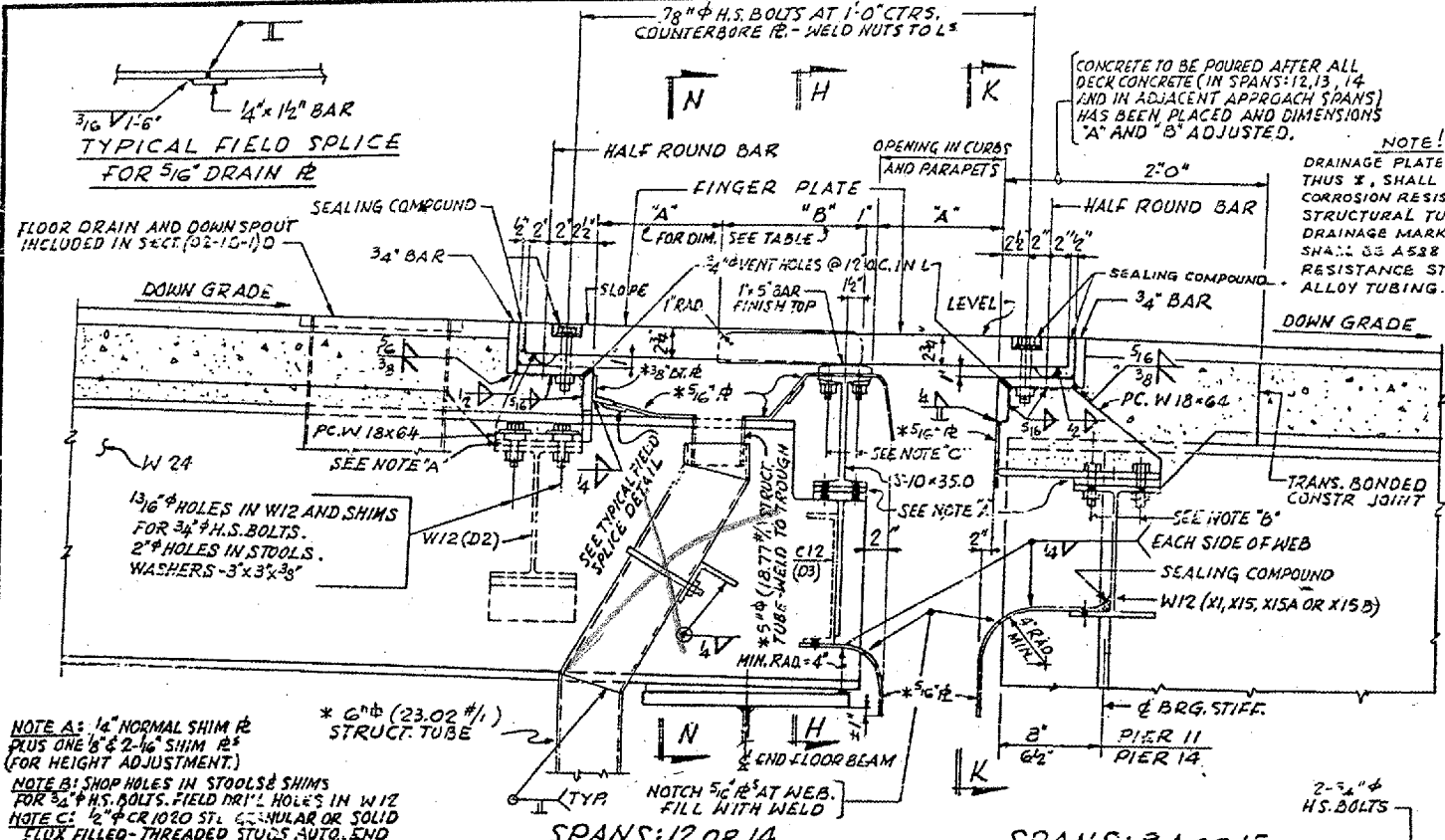
BEARING DETAILS - SPANS 1 TO 9A & 13
 F. A. I. RTE. 57 OVER THE MISSISS.
 PROJECT 1-57-9(610)
 SECTION (02-1B-1) P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 36 OF 67

TABLE OF "A" AND "B" DIMENSIONS

TEMP. (°F)	BEFORE DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED				AFTER DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED			
	PIER 11		PIER 14		PIER 11		PIER 14	
	A	B	A	B	A	B	A	B
130	6 ⁵ / ₁₆	10 ¹ / ₁₆	6 ⁷ / ₁₆	10 ⁹ / ₁₆	3 ³ / ₁₆	21 ³ / ₁₆	3 ⁵ / ₁₆	21 ¹ / ₁₆
110	8 ¹ / ₂	16 ¹ / ₁₆	8 ³ / ₁₆	16 ⁷ / ₁₆	5 ³ / ₁₆	19 ¹ / ₁₆	5 ⁹ / ₁₆	19 ³ / ₁₆
90	10 ³ / ₁₆	14 ³ / ₁₆	10 ¹ / ₁₆	14 ¹ / ₁₆	7 ¹ / ₁₆	17 ³ / ₁₆	7 ¹ / ₁₆	17 ³ / ₁₆
70	12 ¹ / ₁₆	12 ⁵ / ₁₆	12 ¹ / ₁₆	12 ¹ / ₁₆	9 ¹ / ₁₆	15 ¹ / ₁₆	9 ⁵ / ₁₆	15 ³ / ₁₆
50	14 ¹ / ₁₆	11 ¹ / ₁₆	14 ¹ / ₁₆	11 ¹ / ₁₆	11 ¹ / ₁₆	13 ¹ / ₁₆	11 ¹ / ₁₆	13 ¹ / ₁₆
30	15 ¹ / ₁₆	9 ¹ / ₁₆	15 ¹ / ₁₆	9 ¹ / ₁₆	13 ¹ / ₁₆	11 ¹ / ₁₆	13 ¹ / ₁₆	11 ¹ / ₁₆
-10	17 ¹ / ₁₆	7 ¹ / ₁₆	17 ¹ / ₁₆	7 ¹ / ₁₆	15 ¹ / ₁₆	9 ¹ / ₁₆	15 ¹ / ₁₆	9 ¹ / ₁₆
-30	19 ¹ / ₁₆	5 ¹ / ₁₆	19 ¹ / ₁₆	5 ¹ / ₁₆	17 ¹ / ₁₆	7 ¹ / ₁₆	17 ¹ / ₁₆	7 ¹ / ₁₆
	21 ¹ / ₁₆	3 ¹ / ₁₆	21 ¹ / ₁₆	3 ¹ / ₁₆	19 ¹ / ₁₆	5 ¹ / ₁₆	19 ¹ / ₁₆	5 ¹ / ₁₆

* TEMPERATURE AT TIME OF ADJUSTMENT OF EXPANSION GUARD

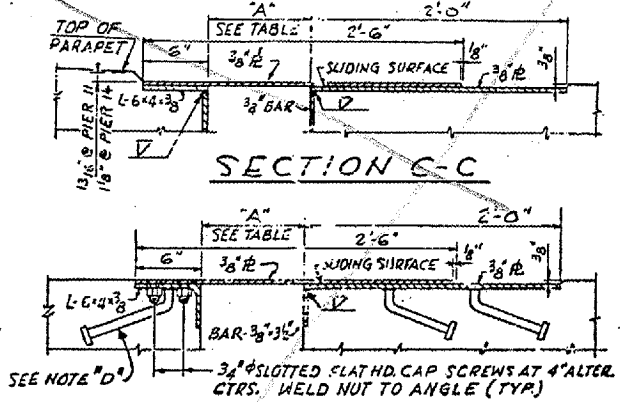
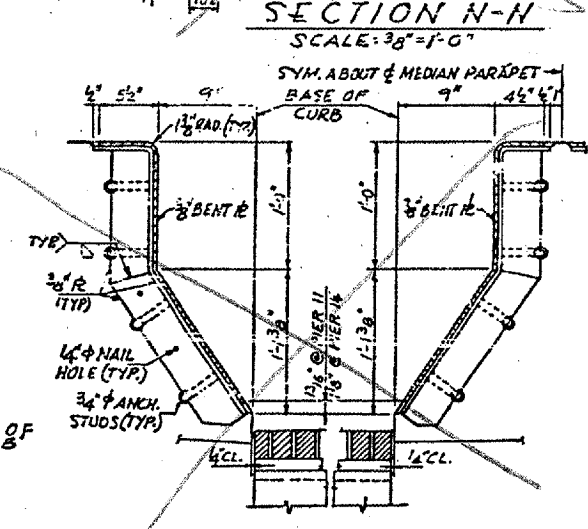
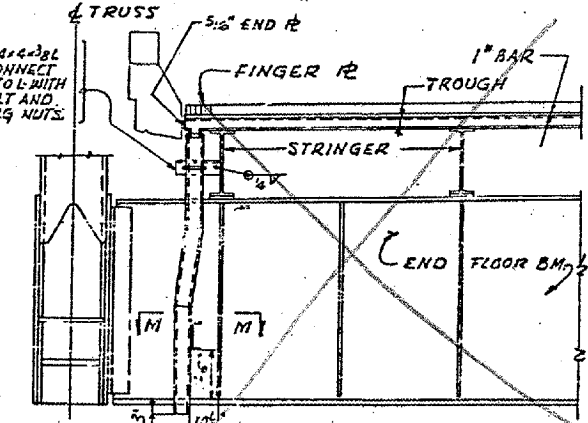
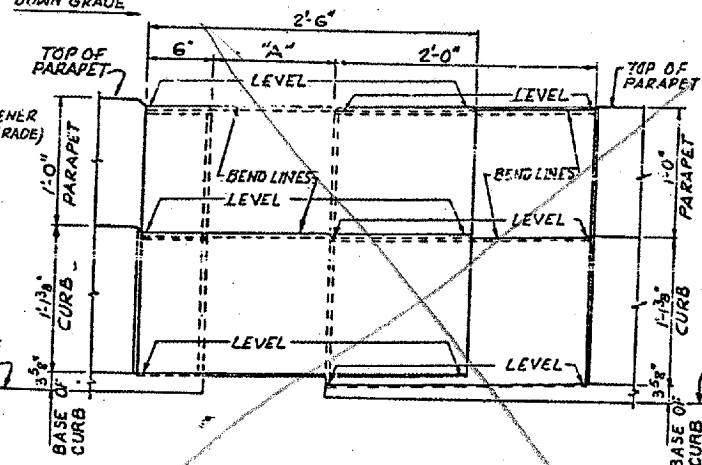
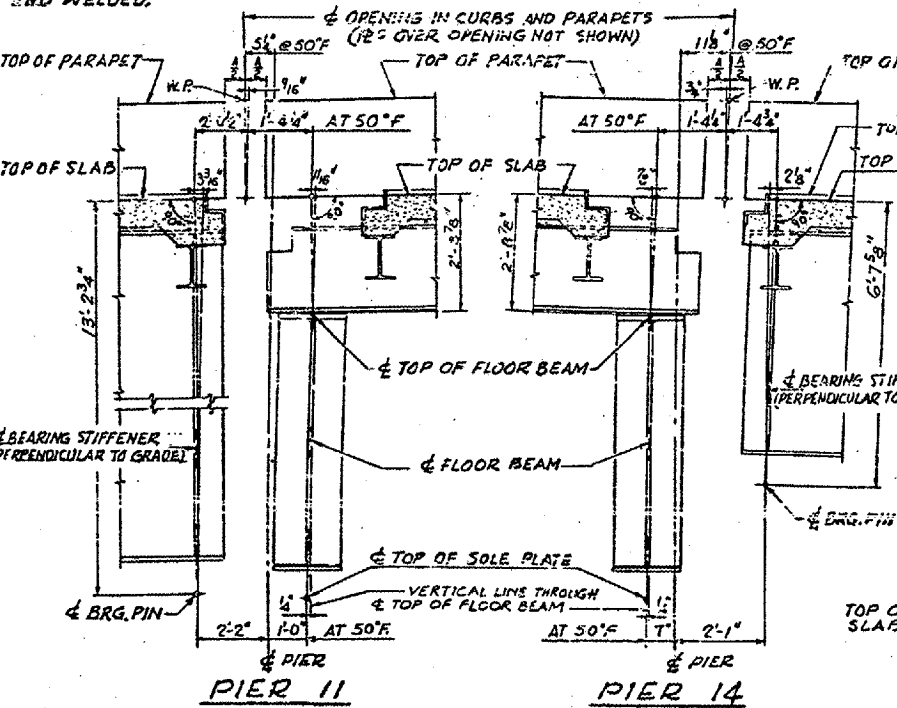


NOTE A: 1/4" NORMAL SHIM #2 PLUS ONE 1/8" & 2-1/4" SHIM #2 (FOR HEIGHT ADJUSTMENT.)

NOTE B: SHOP HOLES IN STOODLS & SHIMS FOR 3/4" H.S. BOLTS. FIELD DRILL HOLES IN WIZ FLUX FILLED-THREADED STUDS AUTO. END WELDED AT 7/2" ALT. CTRS. 1/16" Φ HOLE IN FLG. OF S10. BEVELLED WASHERS AND SELF-LOCK NUTS.

NOTE C: 1/2" Φ CR 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.

NOTE D: 3/4" Φ CR 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.

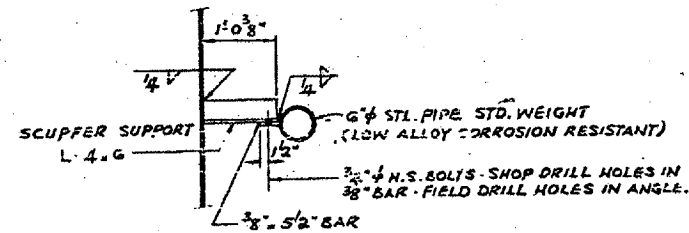
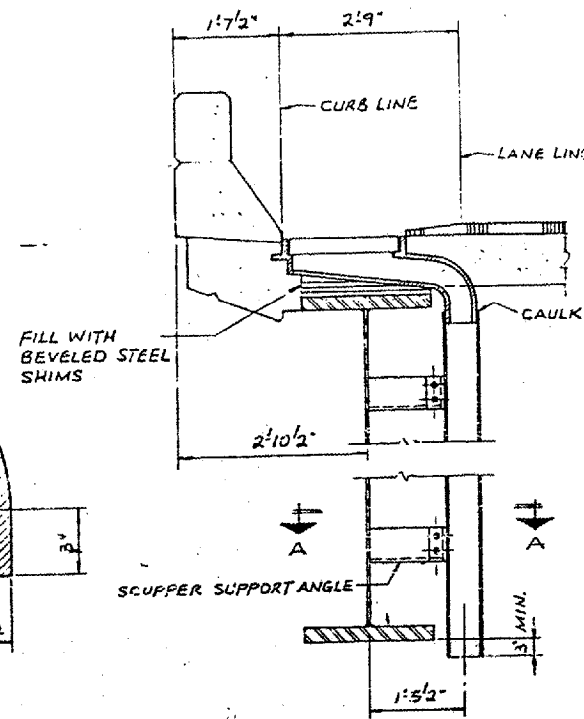
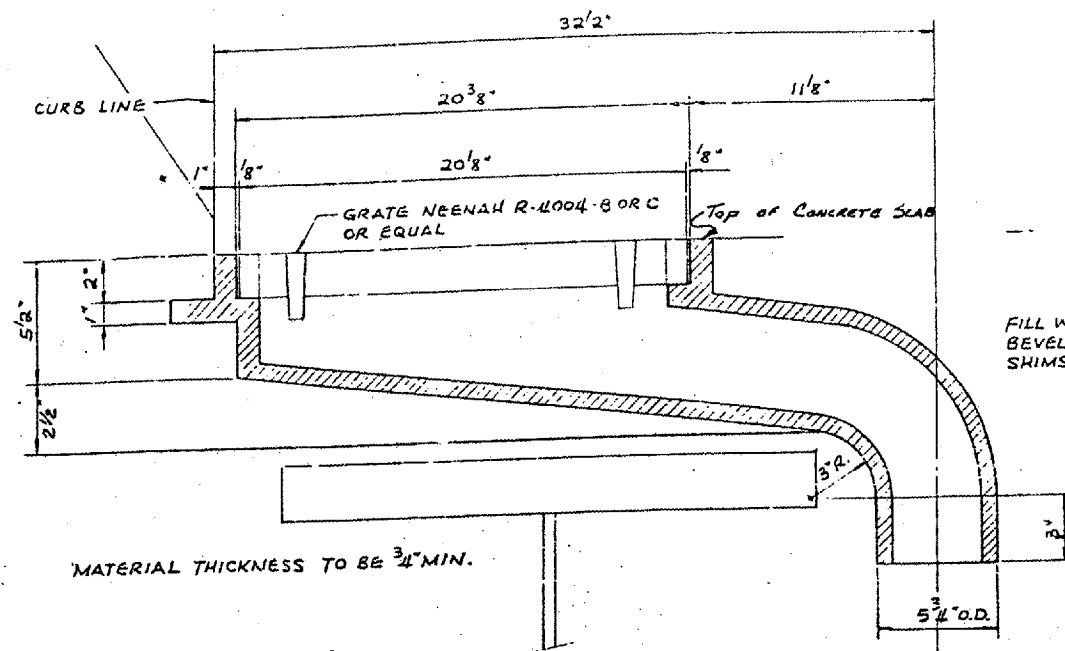


BRIDGE NO 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

EXPANSION GUARD - PIER 11 & 14
 F.A.I. RTE. 57 OVER THE M. PI RIVER
 PROJECT 1-57-9
 SECTION 02-1B-1P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 10 E. WABASH AVE. CHICAGO, ILLINOIS

STA. 1141 + 64.75 TO STA. 1182 + 75.25

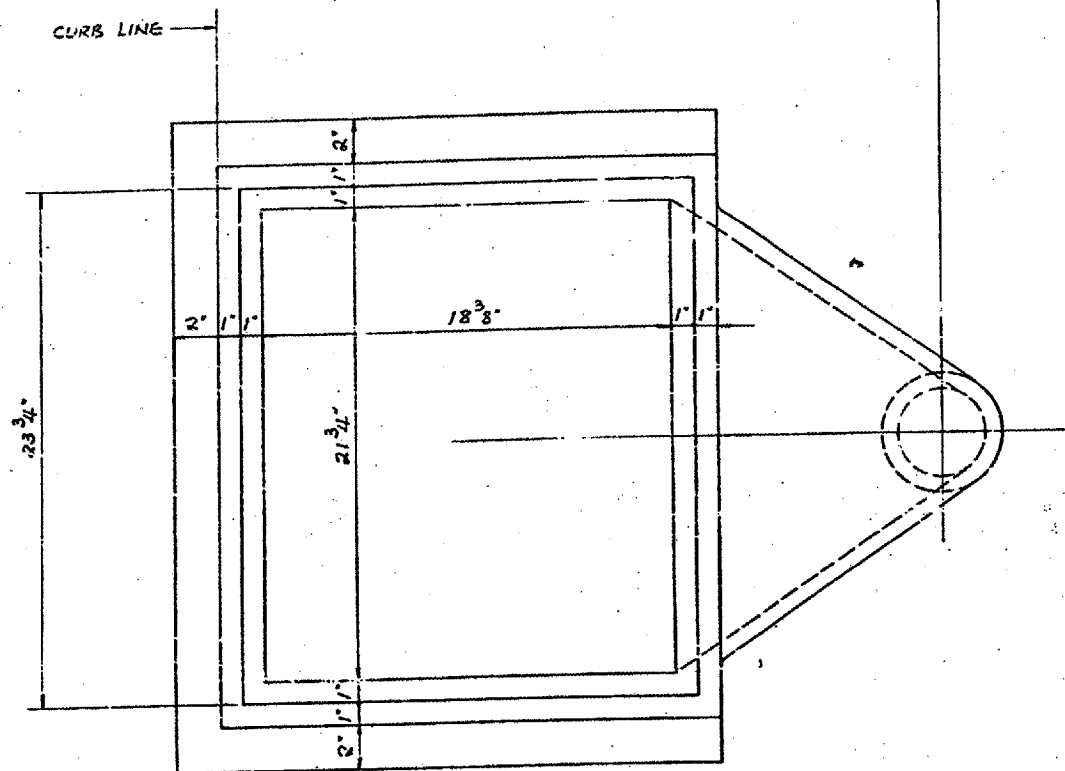


SECTION A-A

**DETAIL AT GIRDER SPANS
 SPANS 1 TO 9A & 15 TO 19**

NOTES:

FOR LOCATION OF SCUPPERS SEE FRAMING PLAN.
 SCUPPER SUPPORT ANGLES ARE TO BE FURNISHED AND ERECTED BY CONTRACTOR FOR SECTION (02-1B-1) F.C.E.
 ALL OTHER MATERIAL SHOWN ON THIS SHEET IS TO BE FURNISHED AND ERECTED BY CONTRACTOR FOR SECTION (02-1B-1) D.



DETAILS OF SCUPPER

BRIDGE NO 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

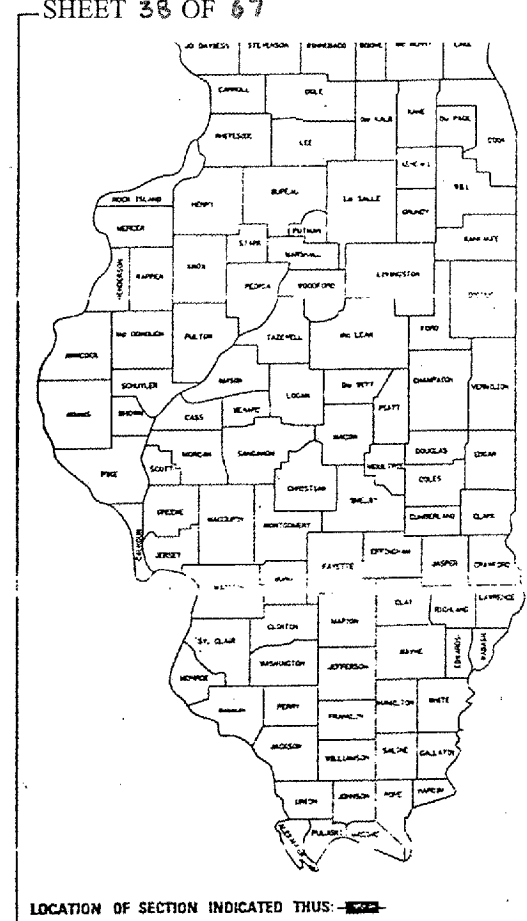
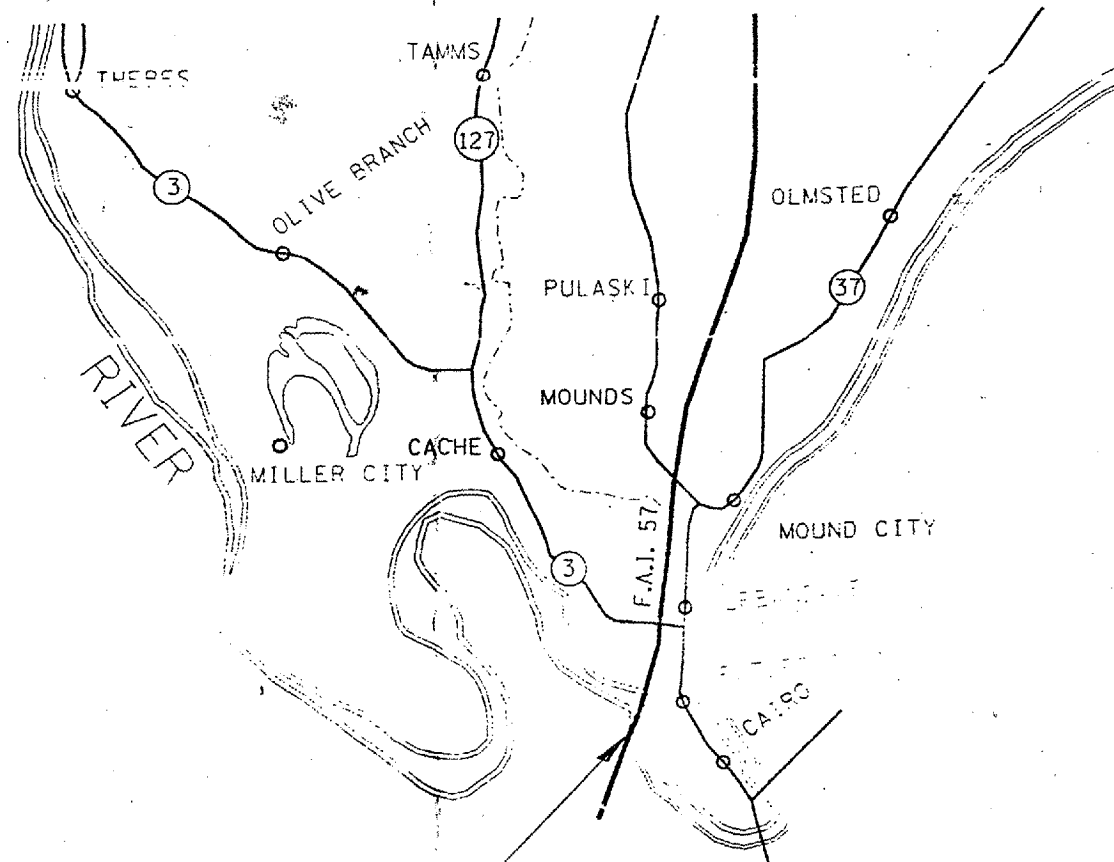
ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE CHICAGO, ILLINOIS

DRAINAGE DETAILS
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (e.c.)
 SECTION (02-1B-1) P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 PROJECT NO. 94G902**

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 38 OF 67

ROUTE: I-57
 COUNTY: ALEXANDER
 STRUCTURE NO.: 002-0022
 FLOOR BEAM REPAIR



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PREPARED BY: *Bill Stutz*
 DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *W. B. Stewart*
 DISTRICT PROJECT DEVELOPMENT ENGINEER

EXAMINED BY: *W. B. Stewart*
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

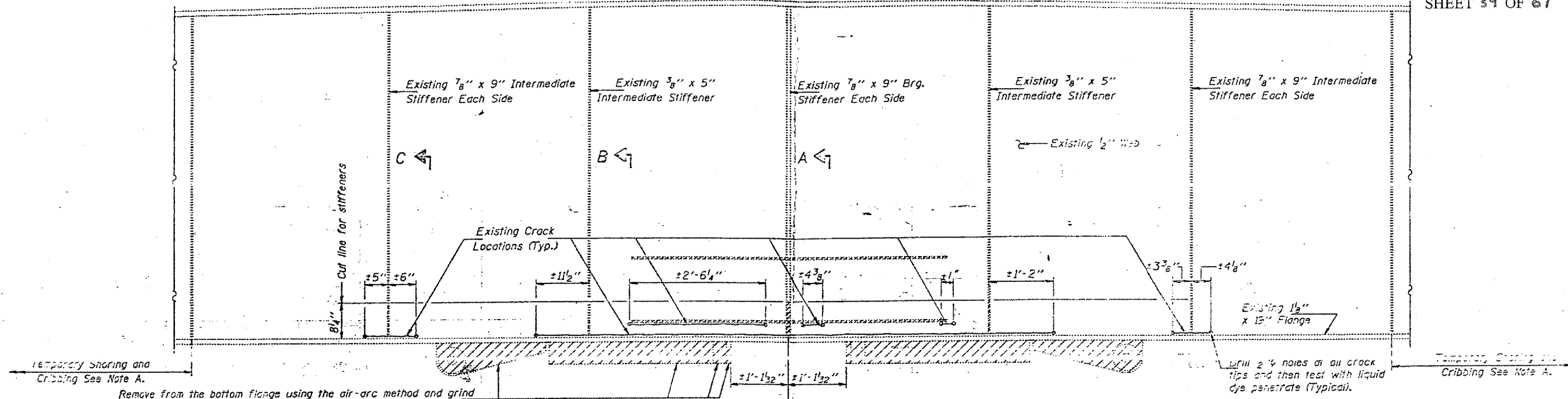
APPROVED: *April 16, 1995*
Paul D. Thompson
 DISTRICT ENGINEER

IMPROVEMENT LOCATION I-57 AT MISSISSIPPI RIVER
 STATION 1168+50

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 39 OF 67



Remove from the bottom flange using the air-arc method and grind smooth all weld material remaining on the bottom flange (Typical).

DRILL 2/4 holes on all crack tips and then test with liquid dye penetrate (Typical).

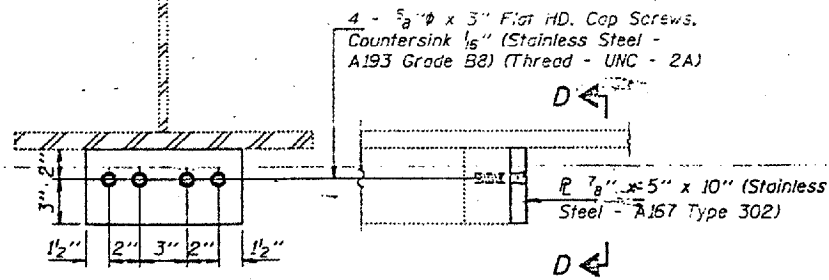
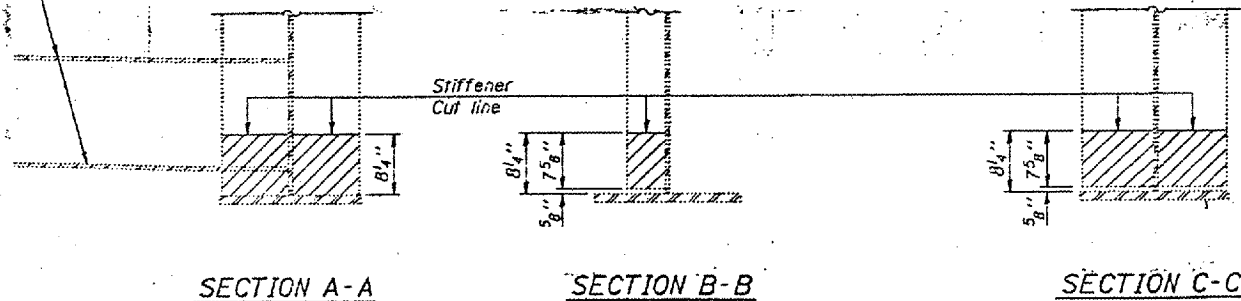
**PARTIAL ELEVATION
NORTH END FLOOR BEAM
AT PIER 11**
Hatched areas indicate removal.

Remove and replace existing stainless steel plate see detail A.

**PARTIAL ELEVATION
SOUTH END FLOOR BEAM
AT PIER 14**

Note A: At Pier 11, Temporary Shoring and Cribbing shall be placed between the existing floorbeam and the top of the pier during repair operations and traffic shall be restricted to lanes which are not directly over the area of the floorbeam being repaired.

Remove existing 1/2" gusset P's from the web using the air-arc method and grind smooth all weld material remaining on the web.



SECTION D-D - DETAIL A

Note: Cost of 5/8" x 3" Flat HD Cap Screws (Stainless Steel - A193 Grade B8) shall be incidental to Furnishing and Erecting Structural Steel.

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

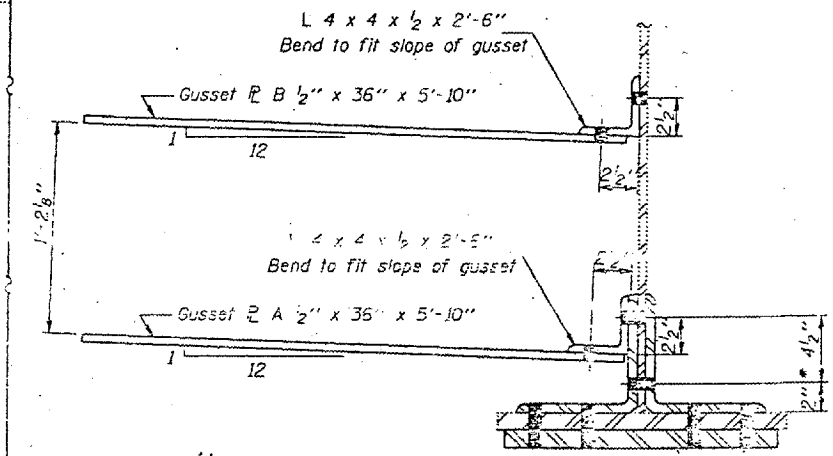
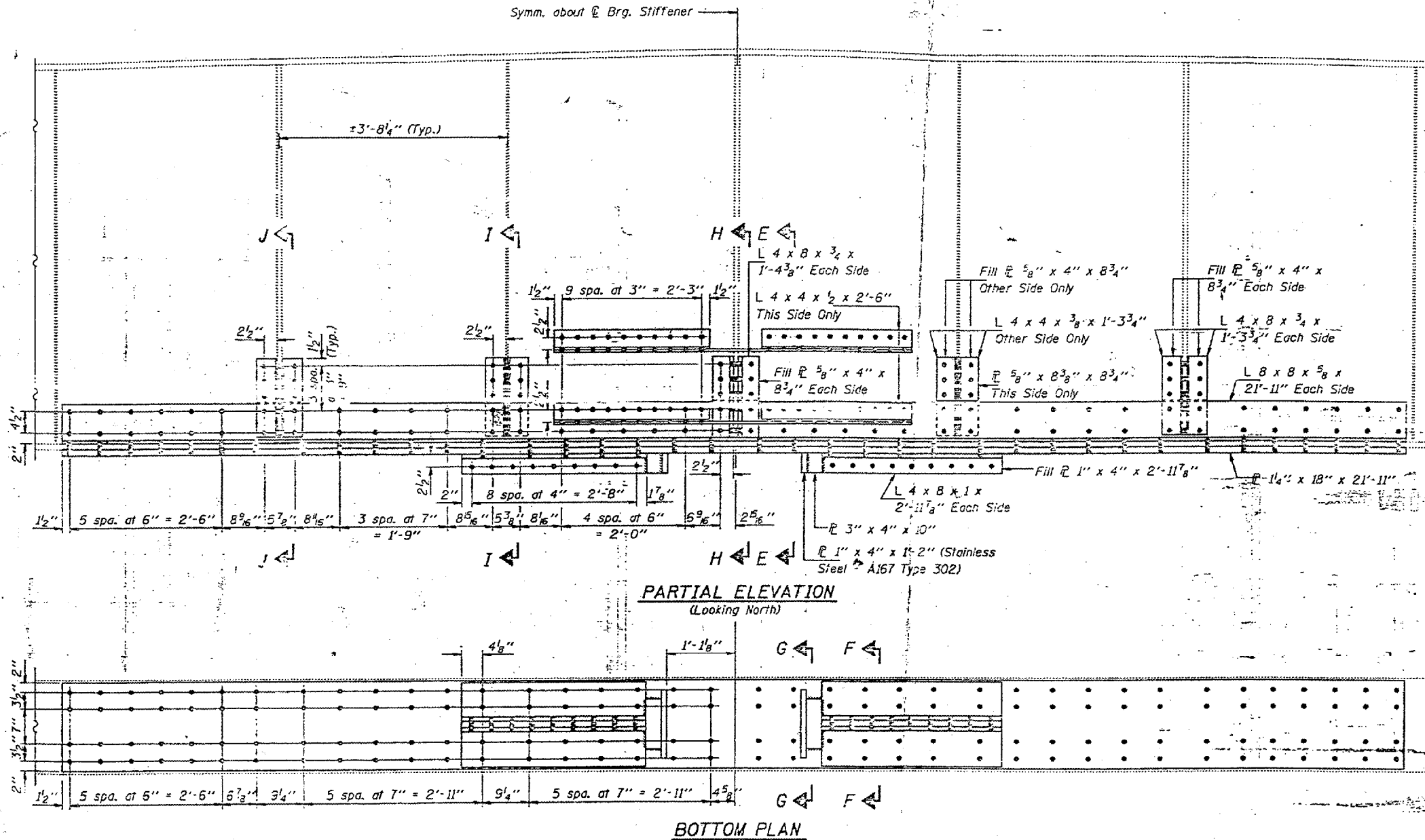
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-95)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

DESIGNED	Kenneth P. Stitt
CHECKED	CHM
DRAWN	Paul Summer
CHECKED	KPS CHM

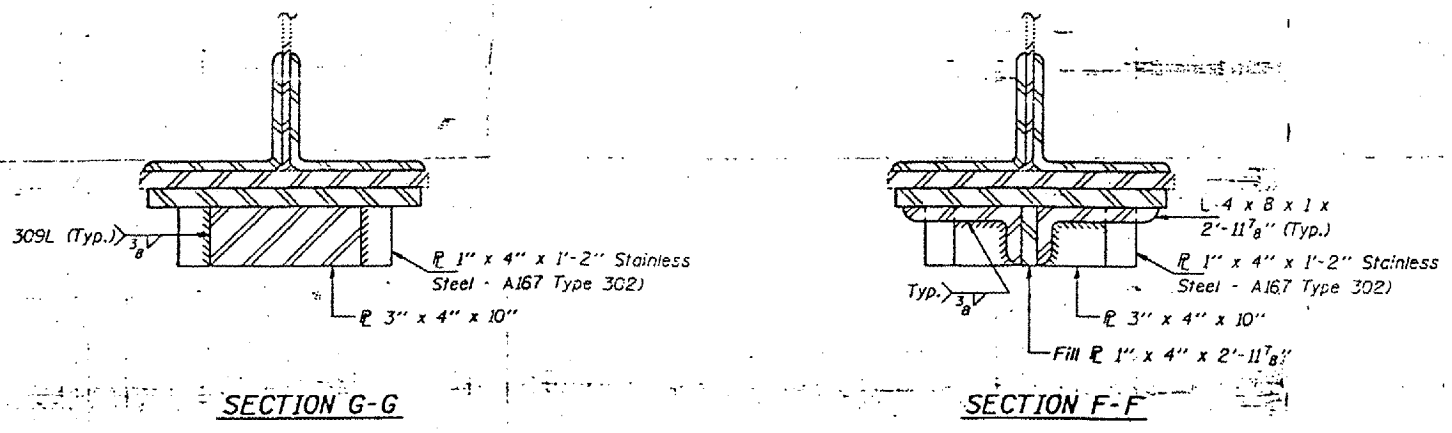
March 8 1993
EXAMINED Todd E. Adams ENGINEER OF STRUCTURAL SERVICES
PASSED
APPROVED DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 40 OF 67



SECTION E-E
For details of Gusset plates see Sheet 5.
Dimension should be specified to match existing Gusset Plate location.



BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

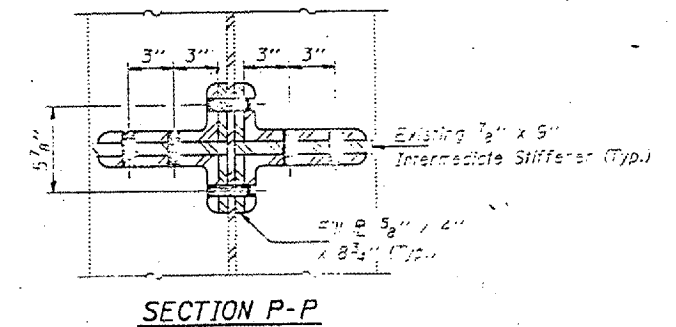
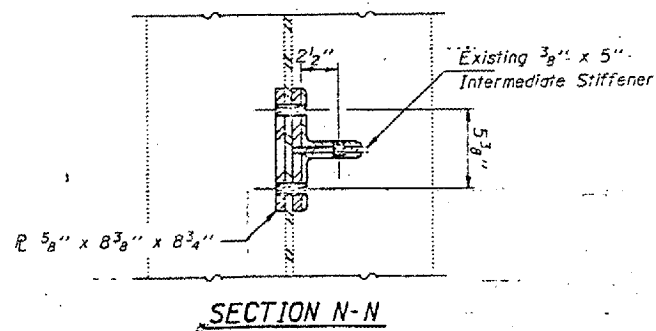
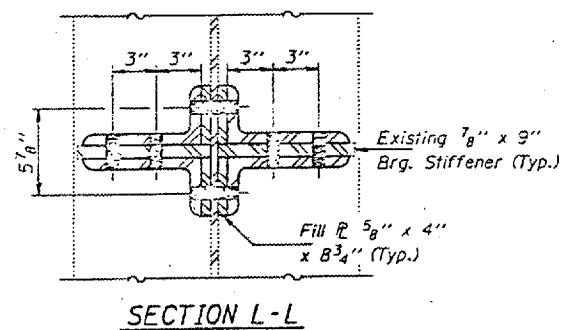
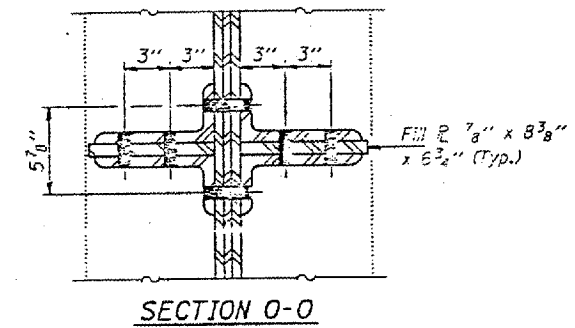
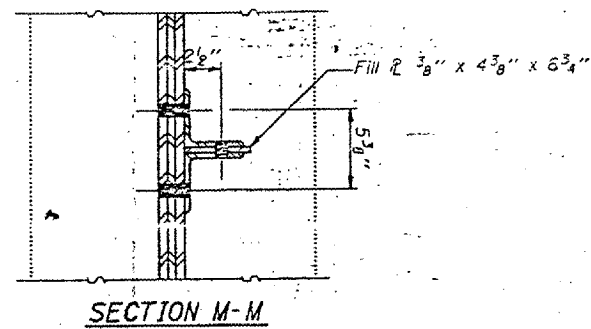
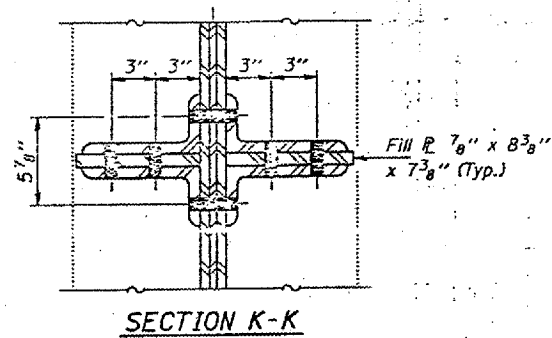
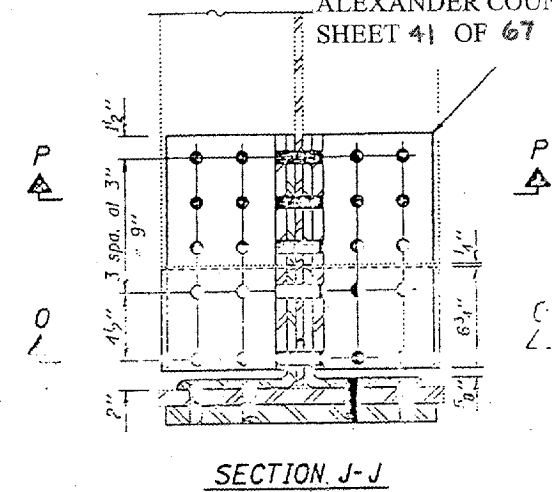
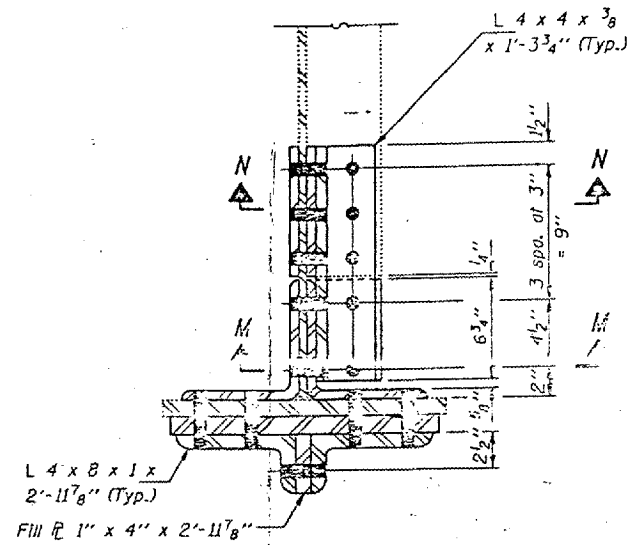
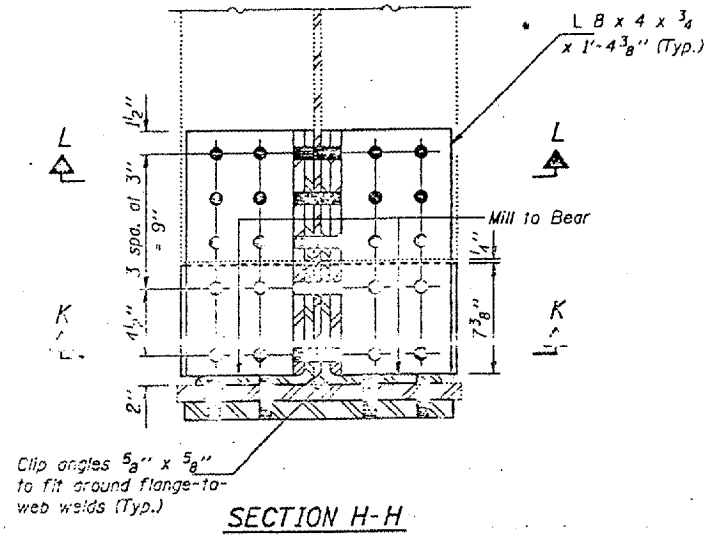
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

DESIGNED <i>Kenneth P. Statts</i>	EXAMINED <i>Joseph E. Adams</i>
CHECKED <i>CHM</i>	PASSED
DRAWN <i>Paul Summer</i>	APPROVED
CHECKED <i>KPI CHM</i>	

March 8 1973
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 41 OF 67



DESIGNED	<i>Kenneth P. Smith</i>
CHECKED	CHM
DRAWN	Paul Summer
CHECKED	KPS CHM

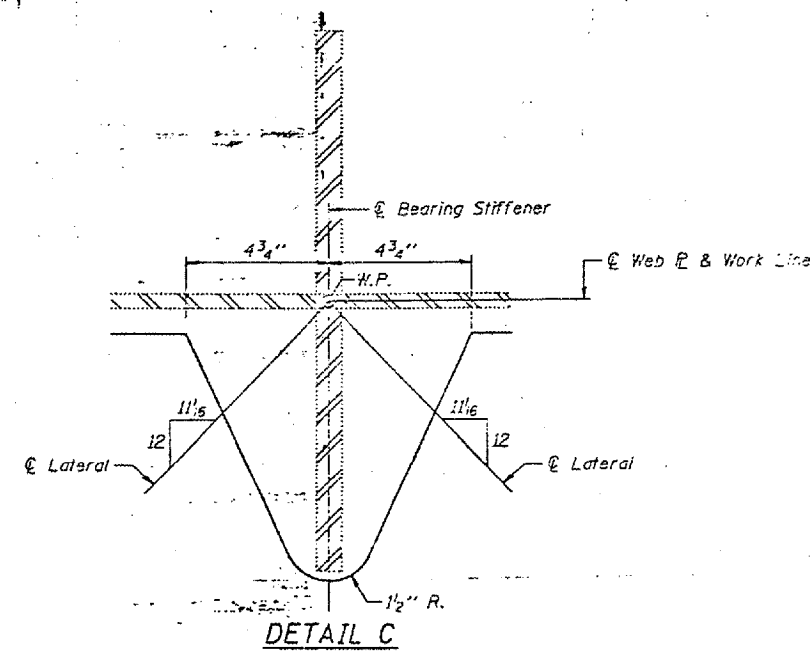
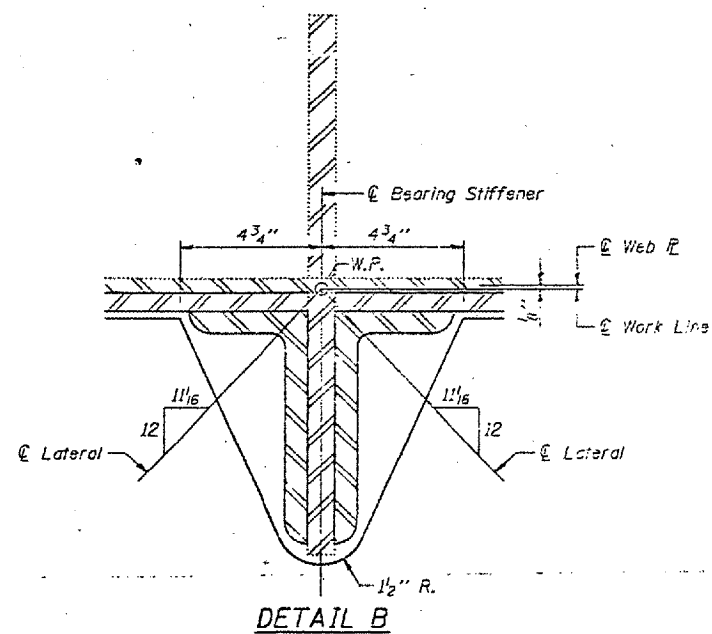
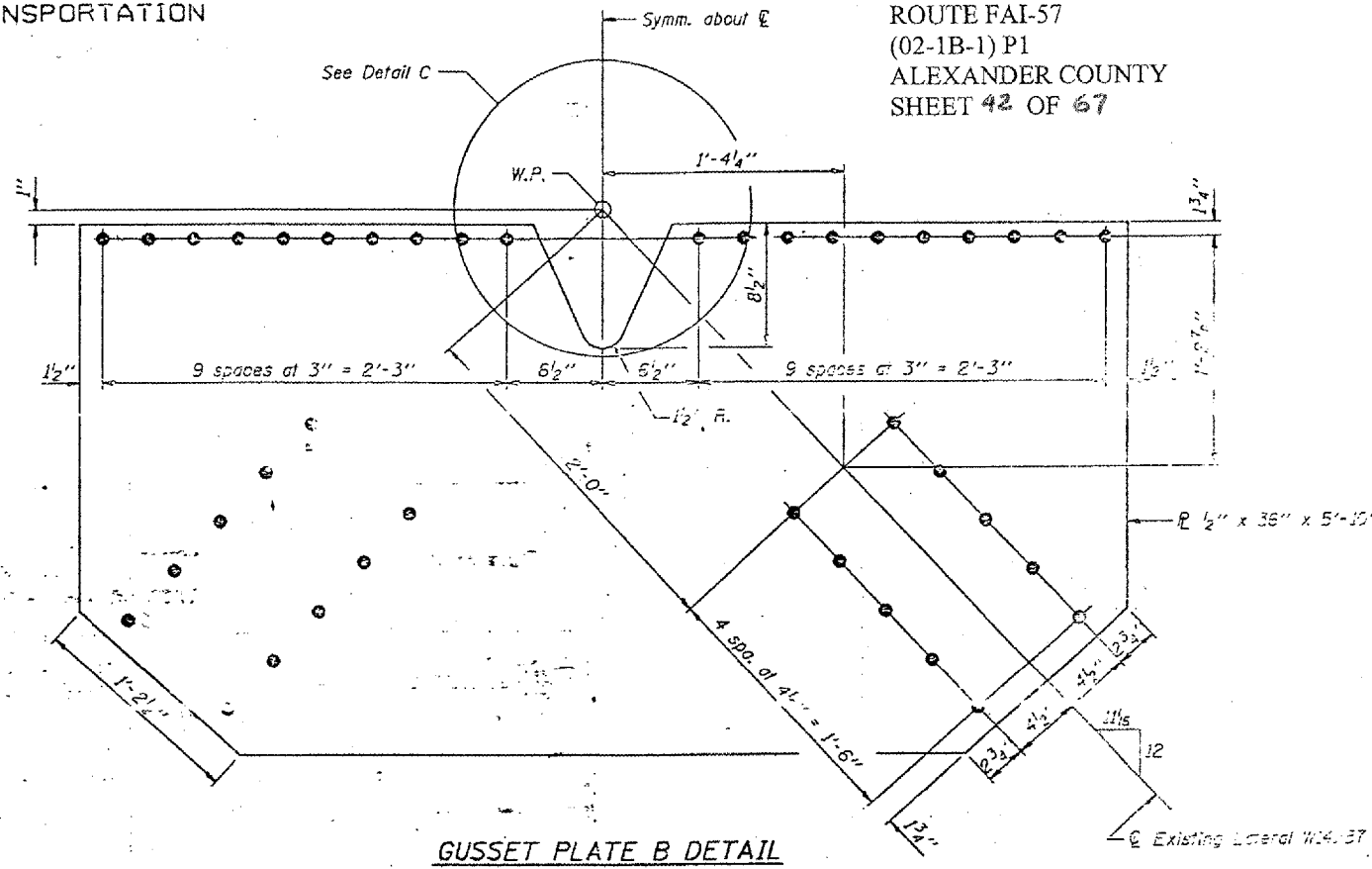
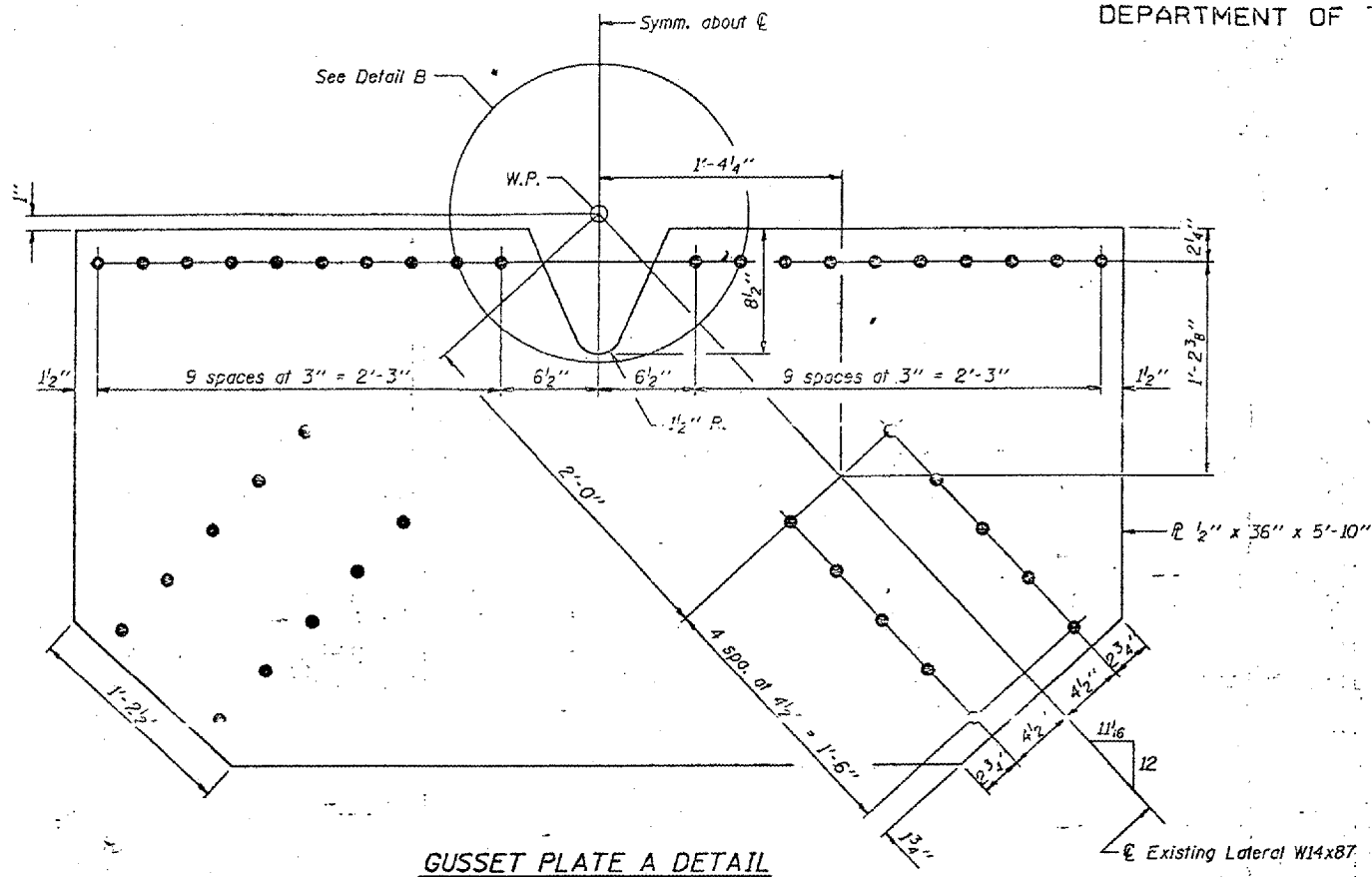
EXAMINED	<i>Joseph E. Adams</i>	March 8 1993
PASSED	ENGINEER OF STRUCTURAL SERVICES	
APPROVED	DIRECTOR OF BRIDGES AND STRUCTURES	
	DIRECTOR OF HIGHWAYS	

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-53)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

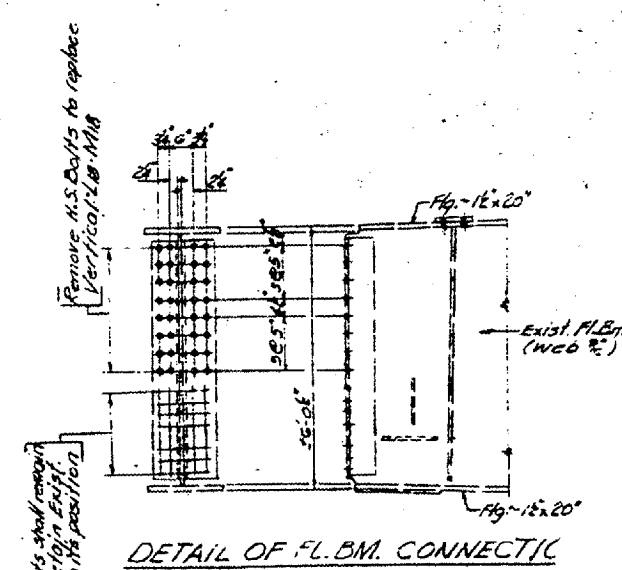
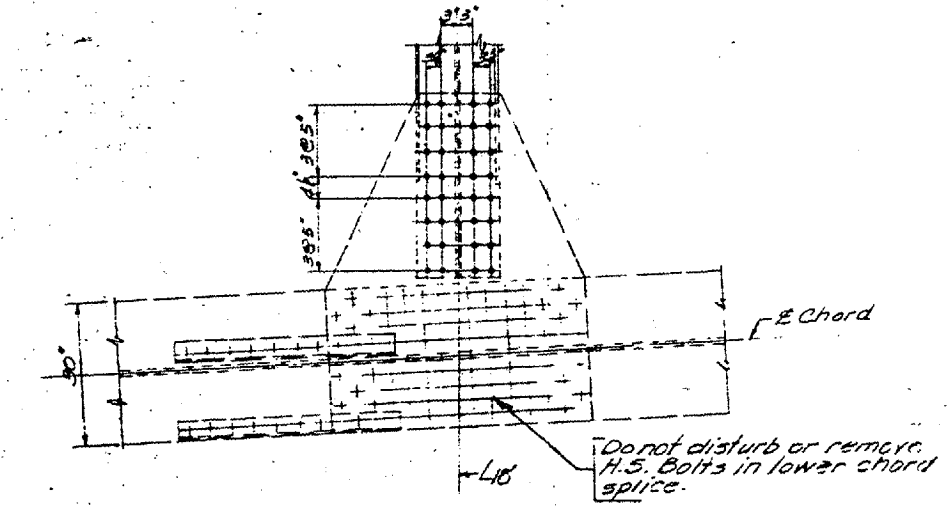
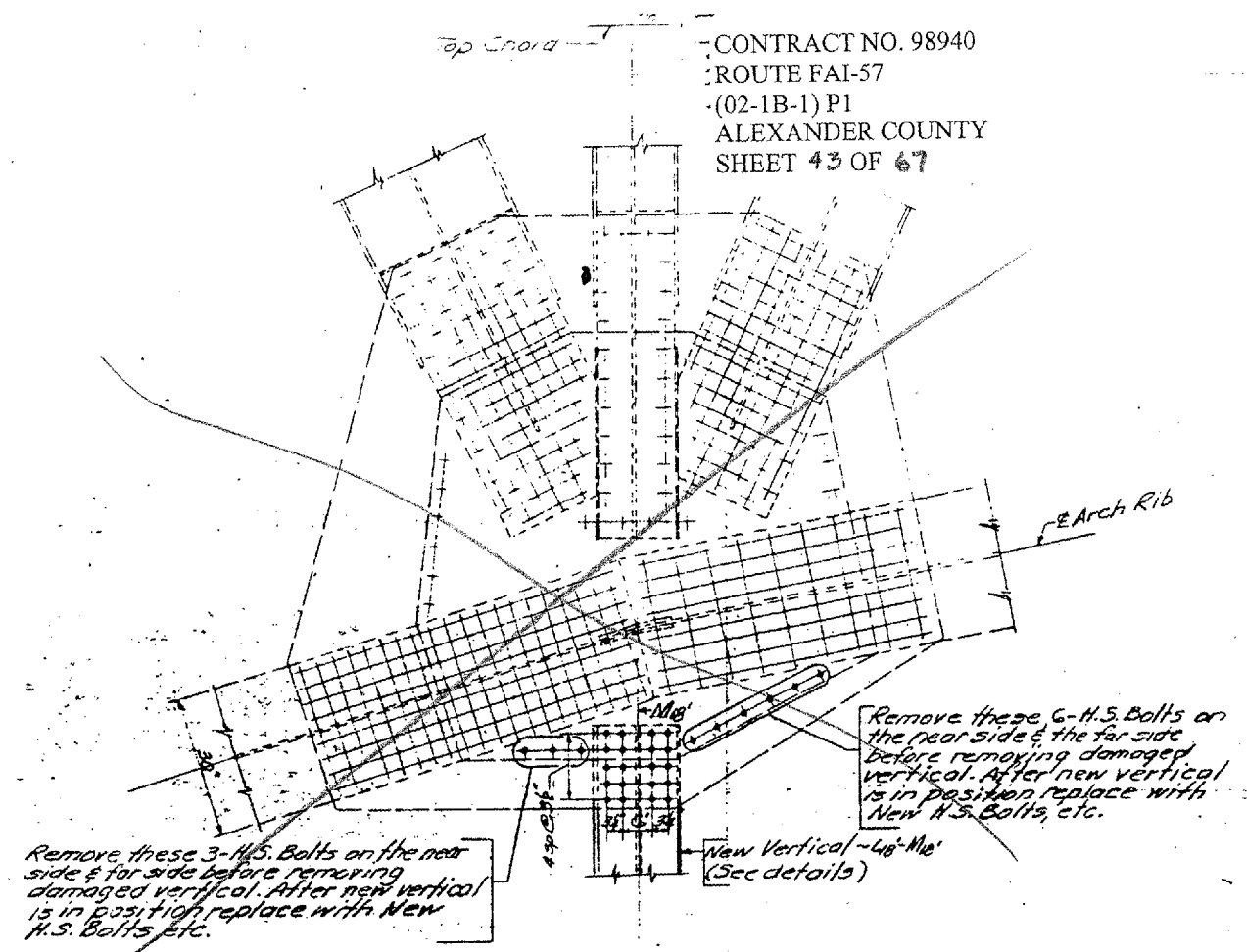
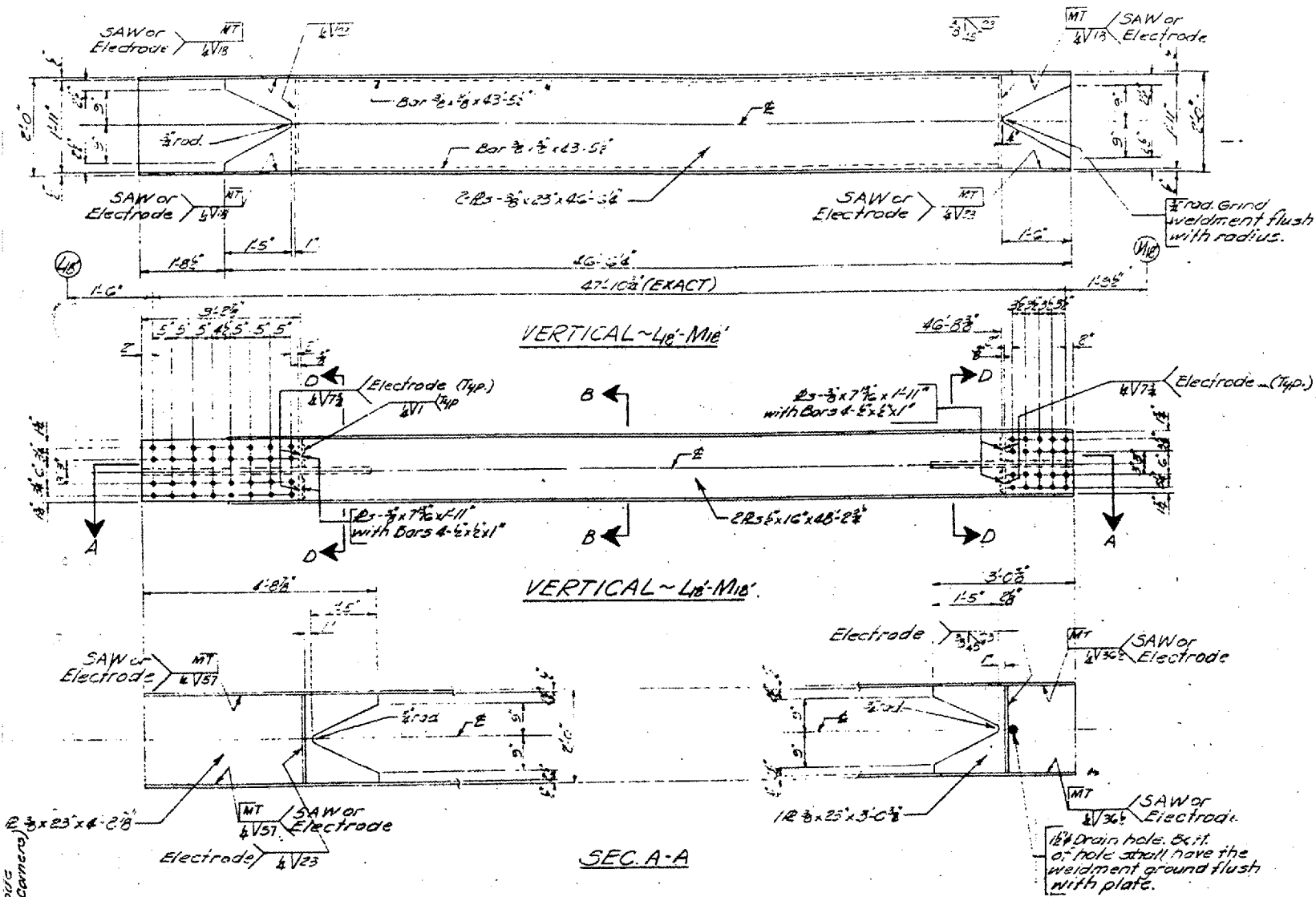
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 42 OF 67



DESIGNED <i>Kenneth P. Tuttle</i>	March 8 19 93
CHECKED <i>CHM</i>	EXAMINED <i>Joseph E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN <i>Paul Summer</i>	PASSED
CHECKED <i>KPS CHM</i>	APPROVED ENGINEER OF BRIDGES AND STRUCTURES
	DIRECTOR OF HIGHWAYS

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

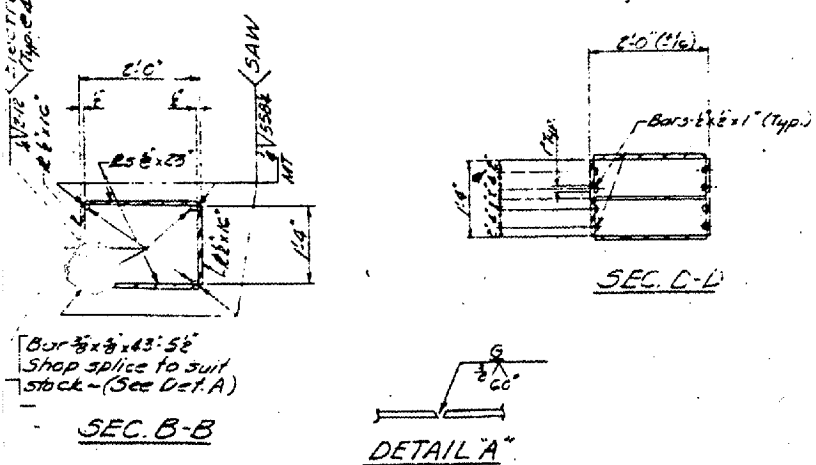
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022



- NOTES**
1. All connection holes in vertical L_{16} - M_{18} shall be subpunched or subdrilled $1 1/8$ " ϕ and reamed in the field to the same dia. as existing holes in gussets ($1 1/8$ " ϕ). Use New 1ϕ H.S. Bolts in connection
 2. Electrodes maybe E 7028 or E 7018.
 3. Member must be square at connections
 4. Dimensions & Details of L_{16} - M_{18} are from original contract fabrication plans.

BILL OF MATERIAL

Item	Unit	Total
Existing Structural Steel	Tons	6000
Erecting Structural Steel	Lbs.	6020



DESIGNED ENR

CHECKED A.P.N

DRAWN ENR

CHECKED A.P.N

Dec 17 1984

EXAMINED O.J. Rohrer

PASSED

APPROVED

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

L_{16} - M_{18} MEMBER & DETAILS
FAI-57 OVER MISSISSIPPI RIVER
F.A.I. RT. 57 SEC. 02-1B-1-I-DL-1
ALEXANDER COUNTY

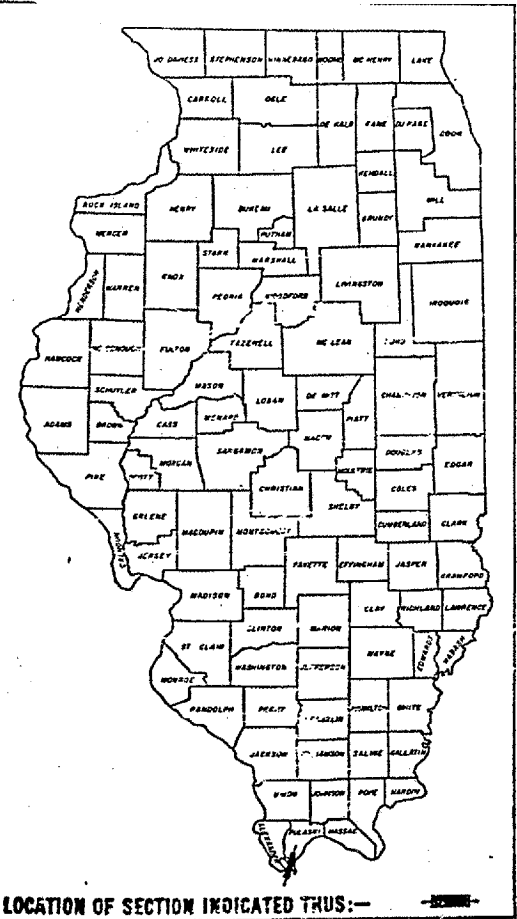
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MISSOURI
STATE HIGHWAY COMMISSION

PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY
BRIDGE OVER MISSISSIPPI RIVER

WEST OF CAIRO, ILLINOIS
ALEXANDER COUNTY, ILLINOIS - MISSISSIPPI COUNTY, MISSOURI
F.A.I. ROUTE 57 PROJECT 1-57-9(6)0
SUPERSTRUCTURE SECTION (02-1B-1) P

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 44 OF 67



ALFRED BEJESCH & COMPANY
CONSULTING ENGINEERS
10 SO. WABASH AVENUE
CHICAGO, ILLINOIS

PREPARED BY

EXAMINED BY *Harry D. Day*
DIST. DESIGN ENGINEER

EXAMINED BY *Arnold Kuehn*
DIST. CONST. ENGINEER

EXAMINED BY *Carl E. Johnson*
DIST. MAINT. ENGINEER

EXAMINED BY *A. E. Zaleski*
DIST. TRAFFIC ENGINEER

EXAMINED BY *F. J. McNeil*
DIST. M.T.S. ENGINEER

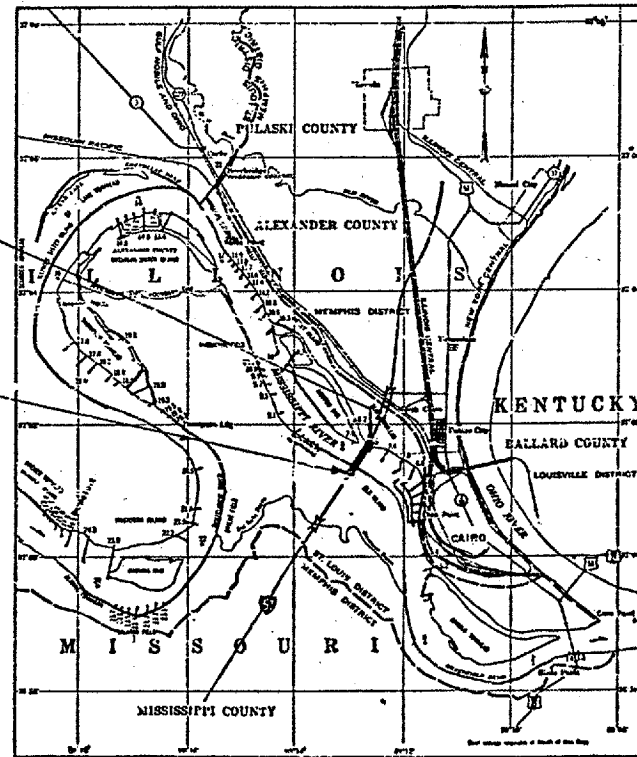
EXAMINED BY *F. J. McNeil*
DIST. R.O.W. ENGINEER

C-99-110-71

INDEX OF SHEETS, SHEET NO.2
SUMMARY OF QUANTITIES, SHEET NO.2

PROPOSED IMPROVEMENT BEGINS
PROJECT 1-57-9(6)0
SECTION (02-1B-1)P
STA. 1141+85.25

PROPOSED IMPROVEMENT ENDS
PROJECT 1-57-9(6)0
SECTION (02-1B-1)P
STA. 1182+74.75



LAYOUT

SECTION (02-1B-1)P INCLUDES FURNISHING ALL MATERIALS AND FIELD PAINTING ALL STRUCTURAL STEEL FOR (A) A PLATE GIRDER WITH CONCRETE DECK APPROACH STRUCTURE CONSISTING OF 9 SPANS (4 @ 110 FT, 3 @ 155 FT AND 2 @ 376 FT), (B) A THREE SPAN CONTINUOUS THROUGH TRUSS STRUCTURE OVER THE MAIN AND AUXILIARY NAVIGATION CHANNELS (518 FT, 821 FT AND 518 FT) (C) A PLATE GIRDER WITH CONCRETE DECK APPROACH STRUCTURE CONSISTING OF 5 SPANS OF 114 FT CARRYING F.A.I. ROUTE 57 OVER THE MISSISSIPPI RIVER AT CAIRO, ILLINOIS.

NET LENGTH OF PROJECT
4089.50 LIN. FT. = 0.7745 MILES

A-2000

MISSOURI
STATE HIGHWAY COMMISSION

DESIGNED BY *Nov. 1933*

EXAMINED BY *Nov. 1933*

APPROVED BY *Nov. 1933*

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Dec. 17, 1933*

DISTRICT ENGINEER *Nov. 1933*

EXAMINED BY *Nov. 1933*

ENGINEER OF PLANS AND CONTRACT *Nov. 1933*

ENGINEER OF WORKS *Nov. 1933*

APPROVED *Nov. 1933*

DIRECTOR OF HIGHWAYS

EXAMINED BY
Carl E. Johnson

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

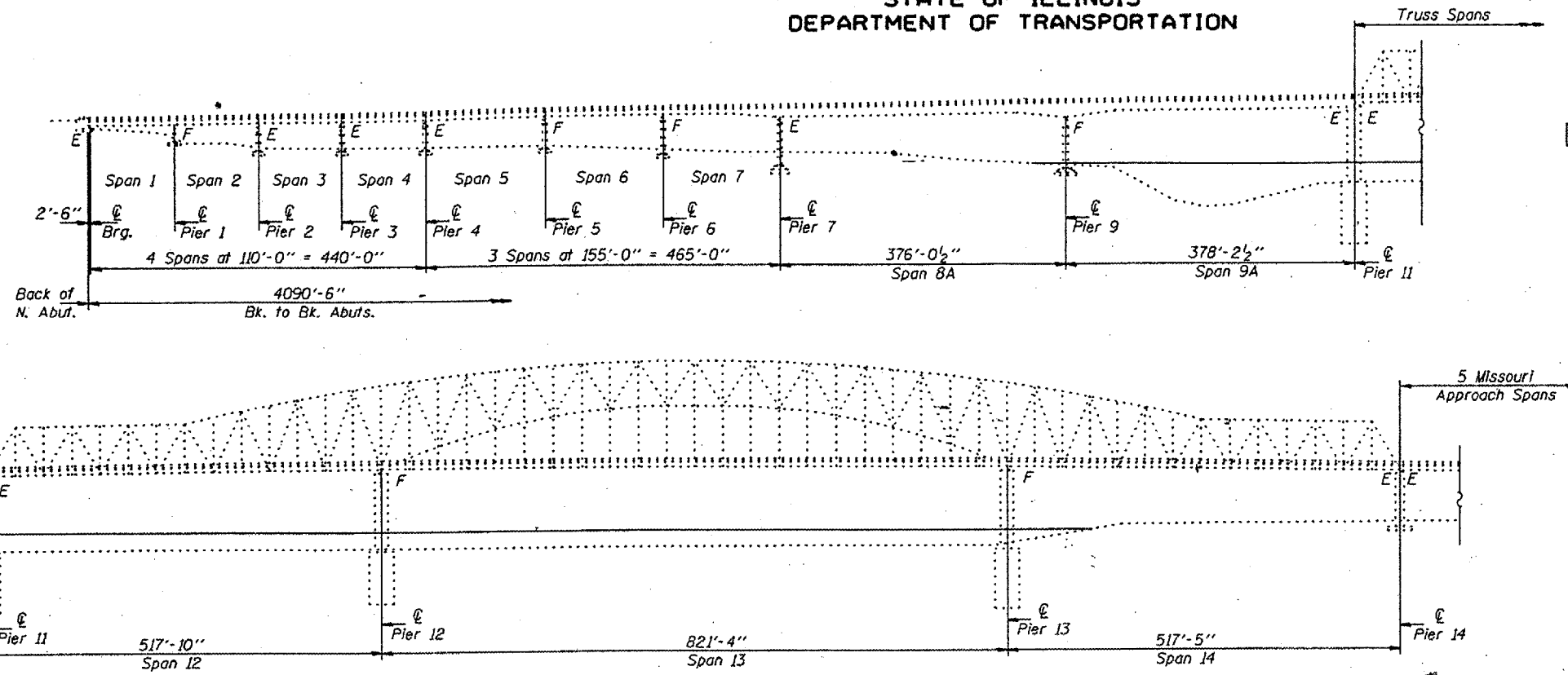
APPROVED

DIVISION ADMINISTRATOR DATE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 45 OF 67



PARTIAL ELEVATION

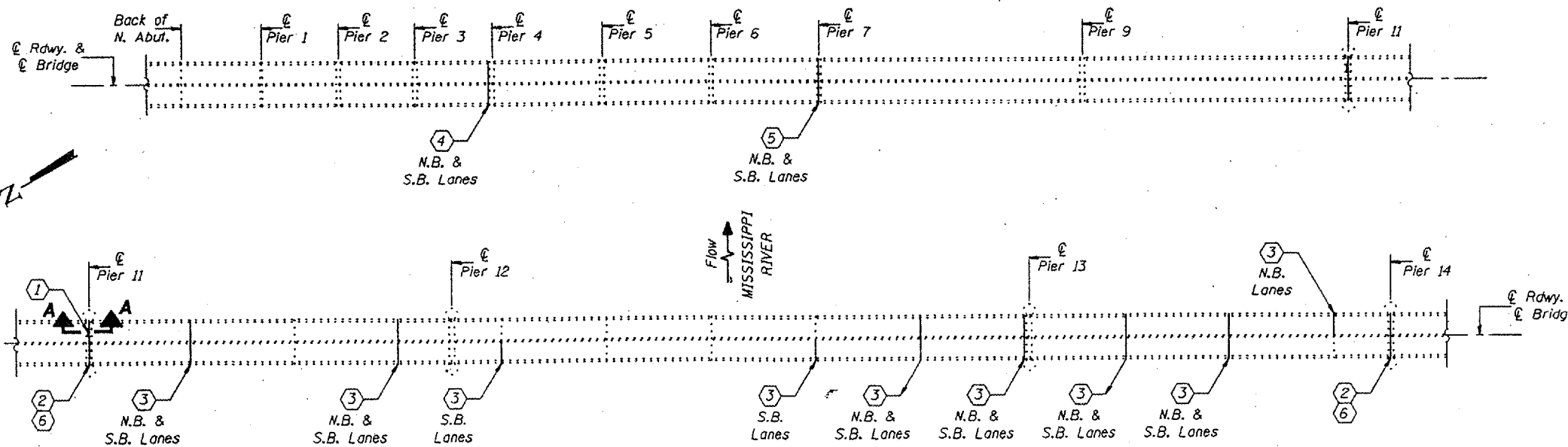
(Looking East)

- 1 All new structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
- All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled $\frac{1}{16}$ " ϕ and reamed in the field to $\frac{3}{16}$ " ϕ for $\frac{3}{4}$ " ϕ high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.
- The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/B. See Special Provisions "Cleaning and Painting Metal Structures".
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".
- Traffic control shall be determined by the District.

- Notes:
- 1 Replace center broken section of existing Finger \bar{P} on Approach side of expansion joint, N.B. Lanes. (For Section A-A, see Sheet 2)
 - 2 Install new catch drains and elastomeric mat, full length, under existing Finger Joints.
 - 3 Remove existing $2\frac{1}{2}$ " P.J.S. and replace with new $2\frac{1}{2}$ " P.J.S. (Removal shall be incidental to Preformed Joint Seal $2\frac{1}{2}$ ".)
 - 4 Remove existing Finger \bar{P} expansion device and replace with new 9" Waboflex Model SR9 neoprene expansion joint. Removal shall be incidental to Neoprene Expansion Joint (9").
 - 5 Remove existing 9" neoprene joint and replace with new 9" Waboflex Model SR9. (Removal shall be incidental to Neoprene Expansion Joint (9").)
 - 6 Remove existing Finger \bar{P} sections on each side of expansion joint, N.B. & S.B. Lanes, as necessary for height adjustment and re-install existing Finger \bar{P} sections.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	3,900
Traffic Control	L.S.	1
Reinf. Neoprene Expansion Jt. Treatment	Foot	127
Preformed Joint Seal $2\frac{1}{2}$ "	Foot	490
Neoprene Expansion Joint (9")	Foot	130
Drain System	L.S.	1
Finger Plate Adjustment	L.S.	1



PARTIAL DECK PLAN

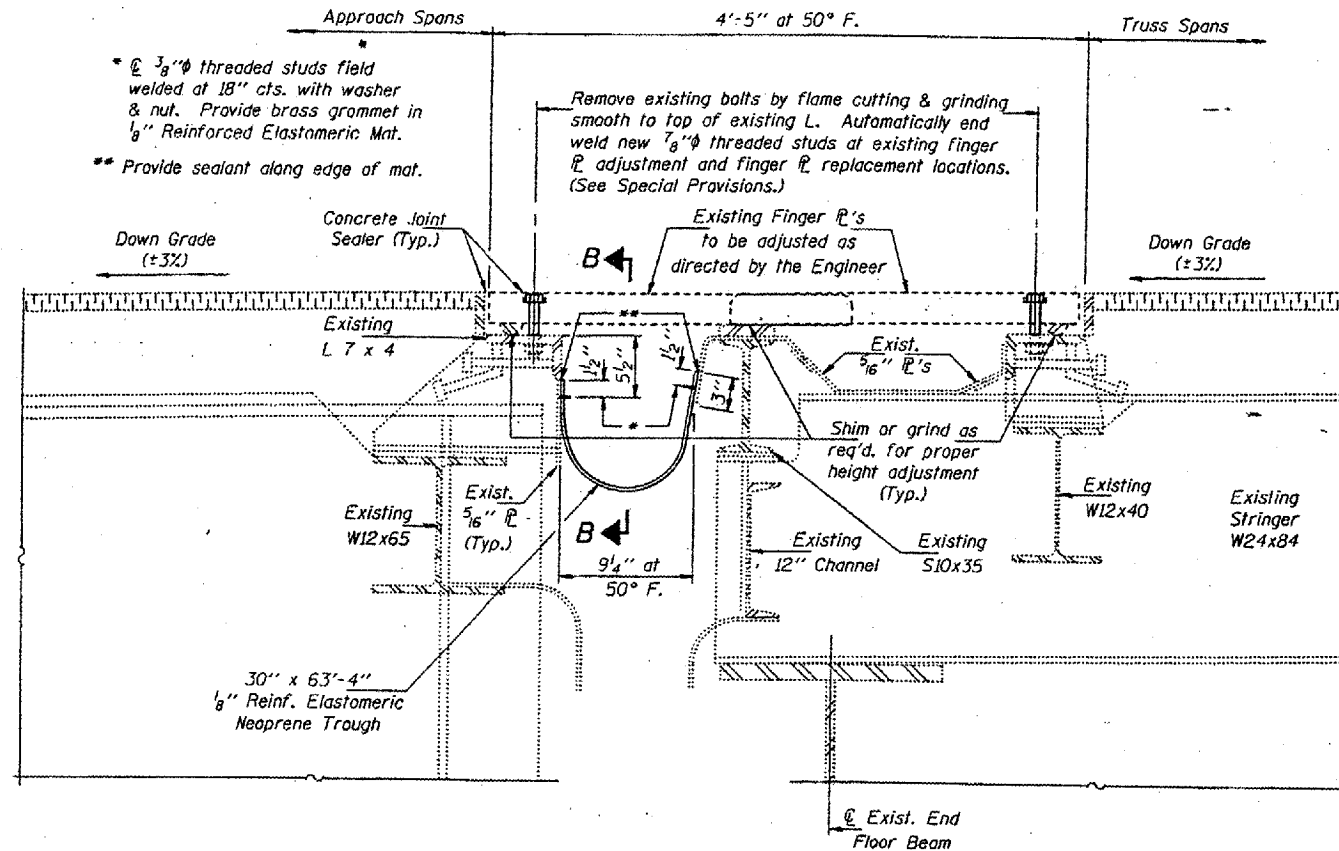
DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	
DRAWN	D-herbert	PASSED	ENGINEER OF STRUCTURAL SERVICES
CHECKED	NJS KPS		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

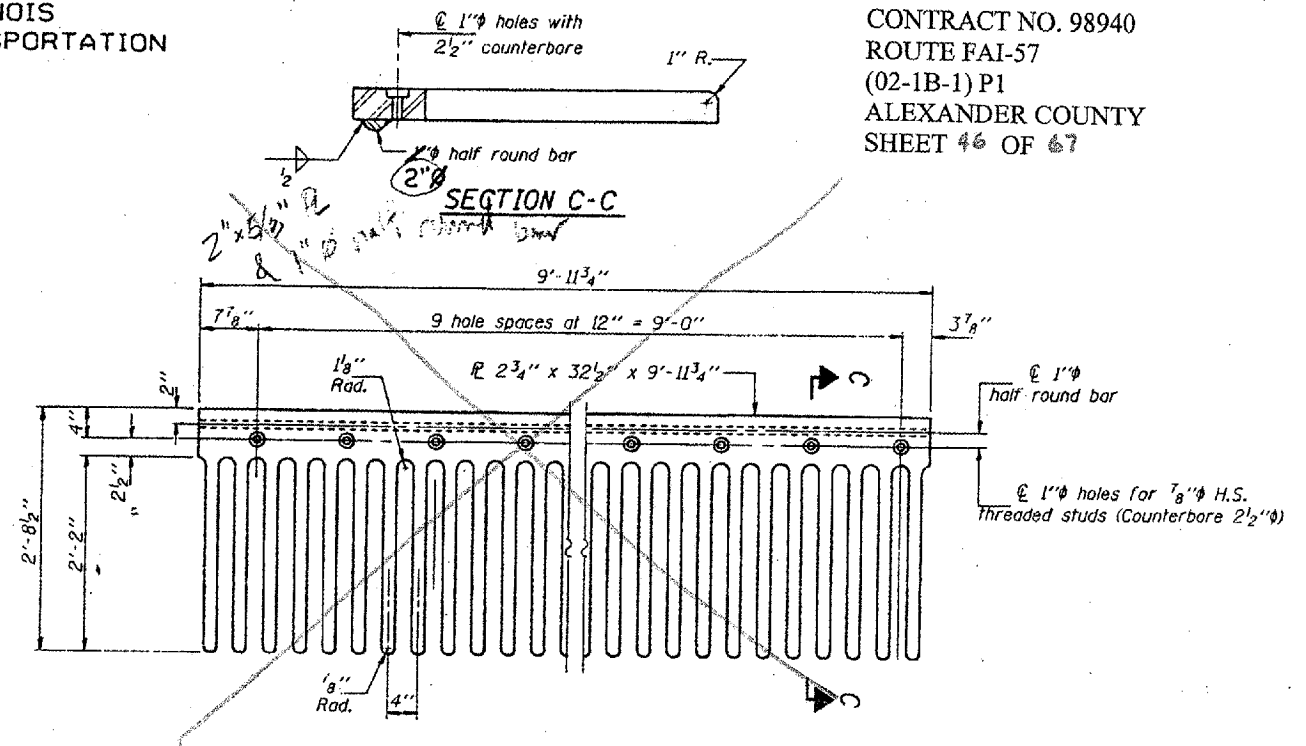
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 46 OF 67



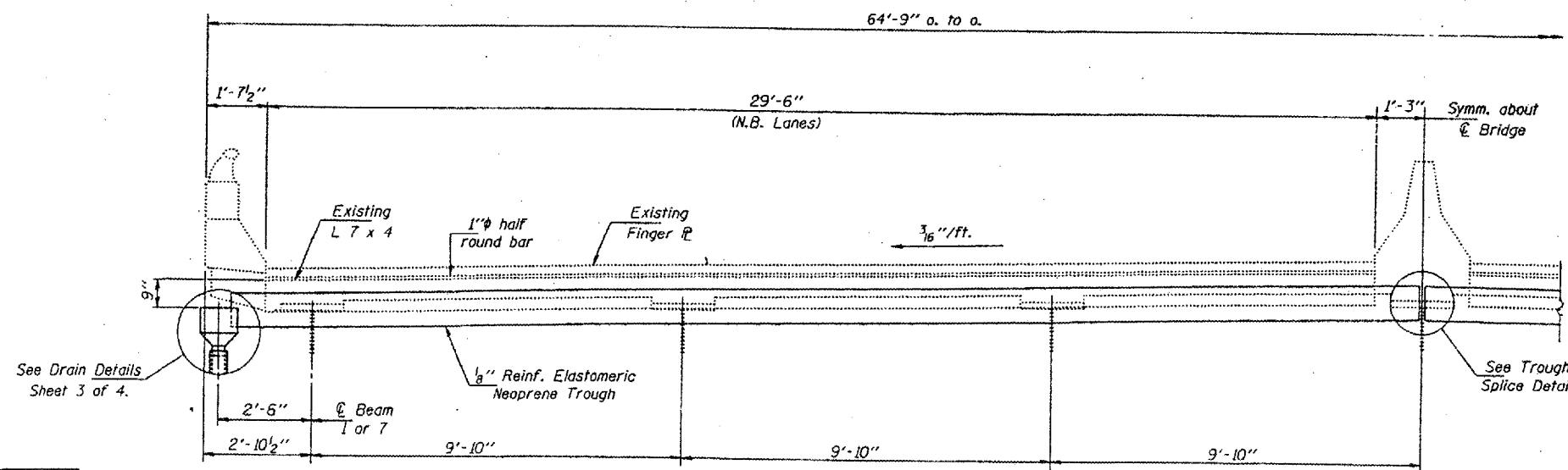
SECTION A-A

Pier II shown; Pier 14 similar

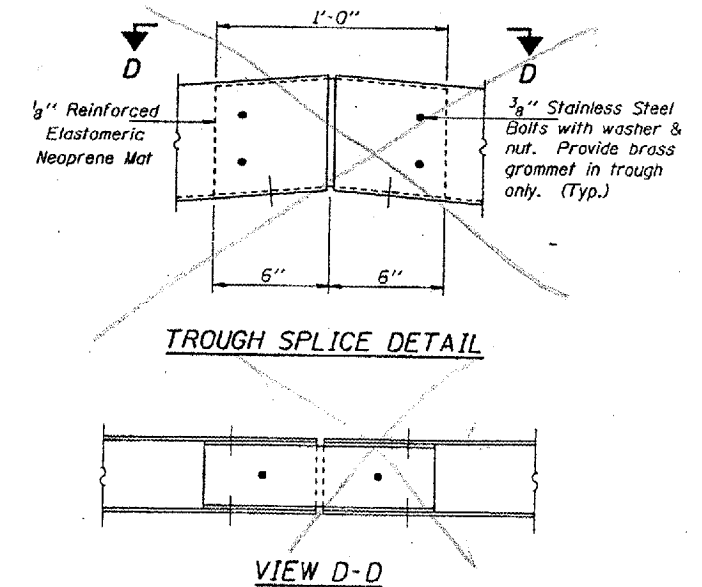


FINGERPLATE REPLACEMENT DETAIL

Req'd. - One (1) at Pier II, center section of N.B. Lane
Note: Field measure to verify dimensions before fabricating.



SECTION B-B



TROUGH SPLICE DETAIL

VIEW D-D

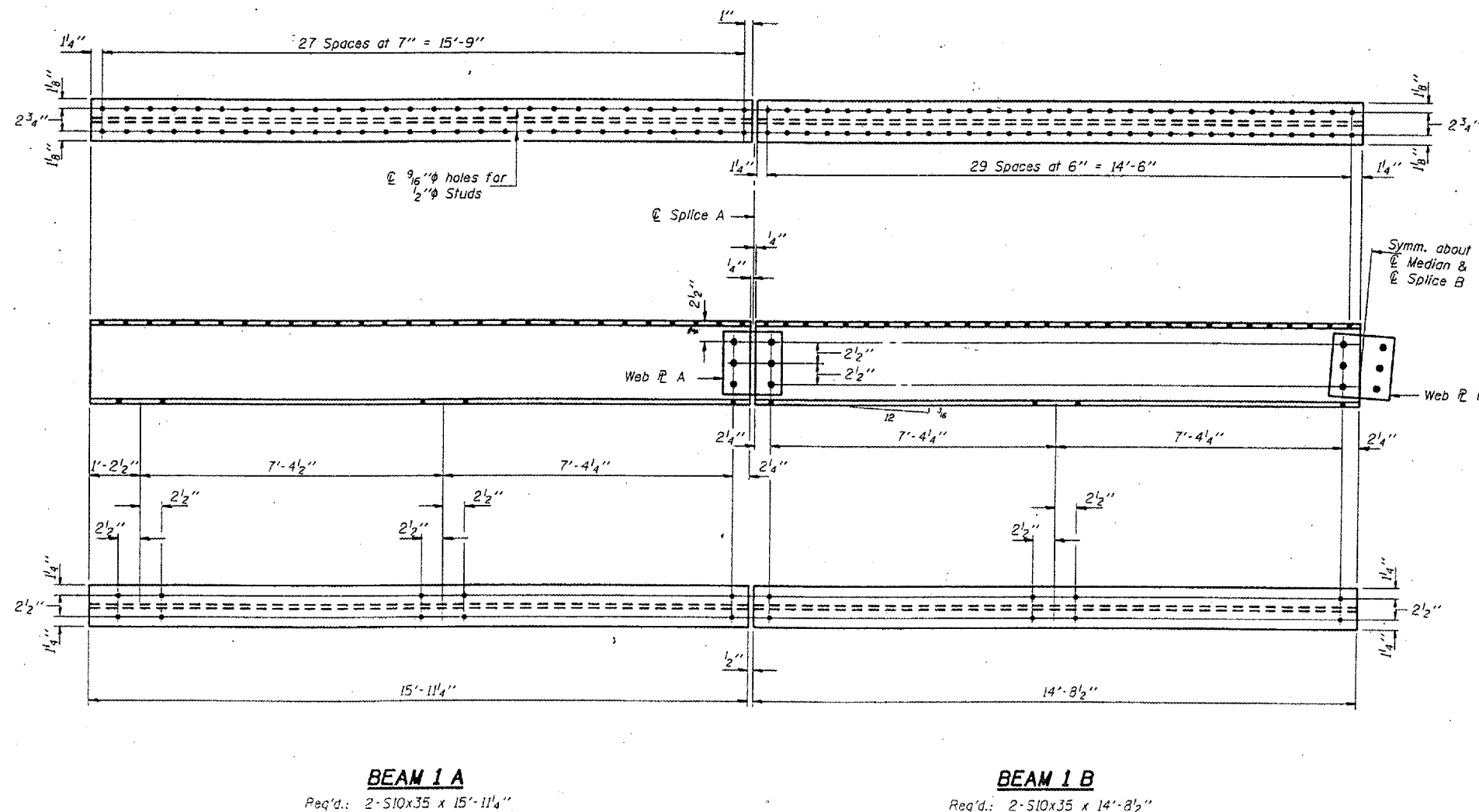
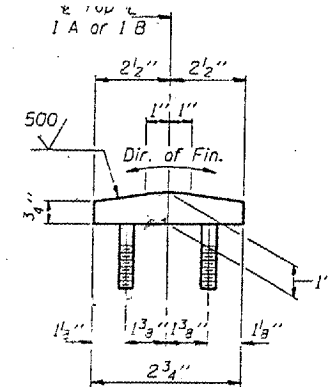
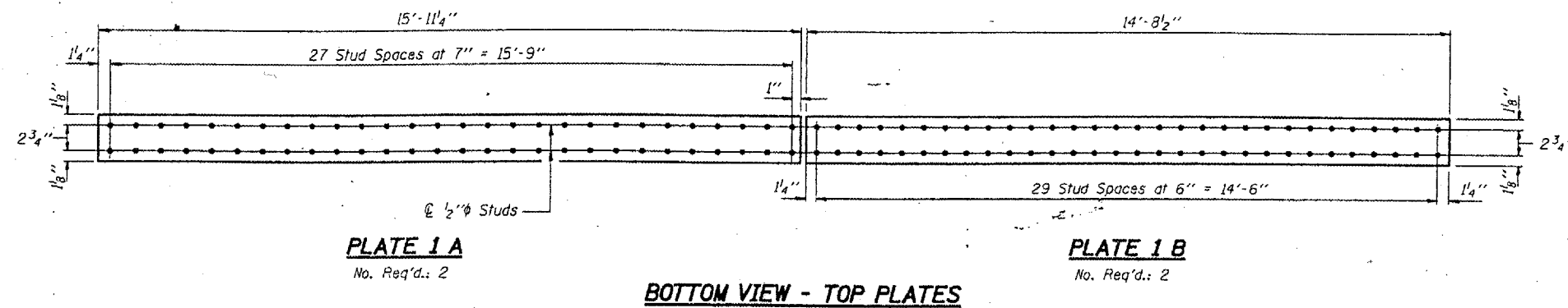
DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>Joseph E. Adams</i>
DRAWN	D-Herbert	PASSED	ENGINEER OF STRUCTURAL SERVICES
CHECKED	NJS KPS		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 47 OF 67



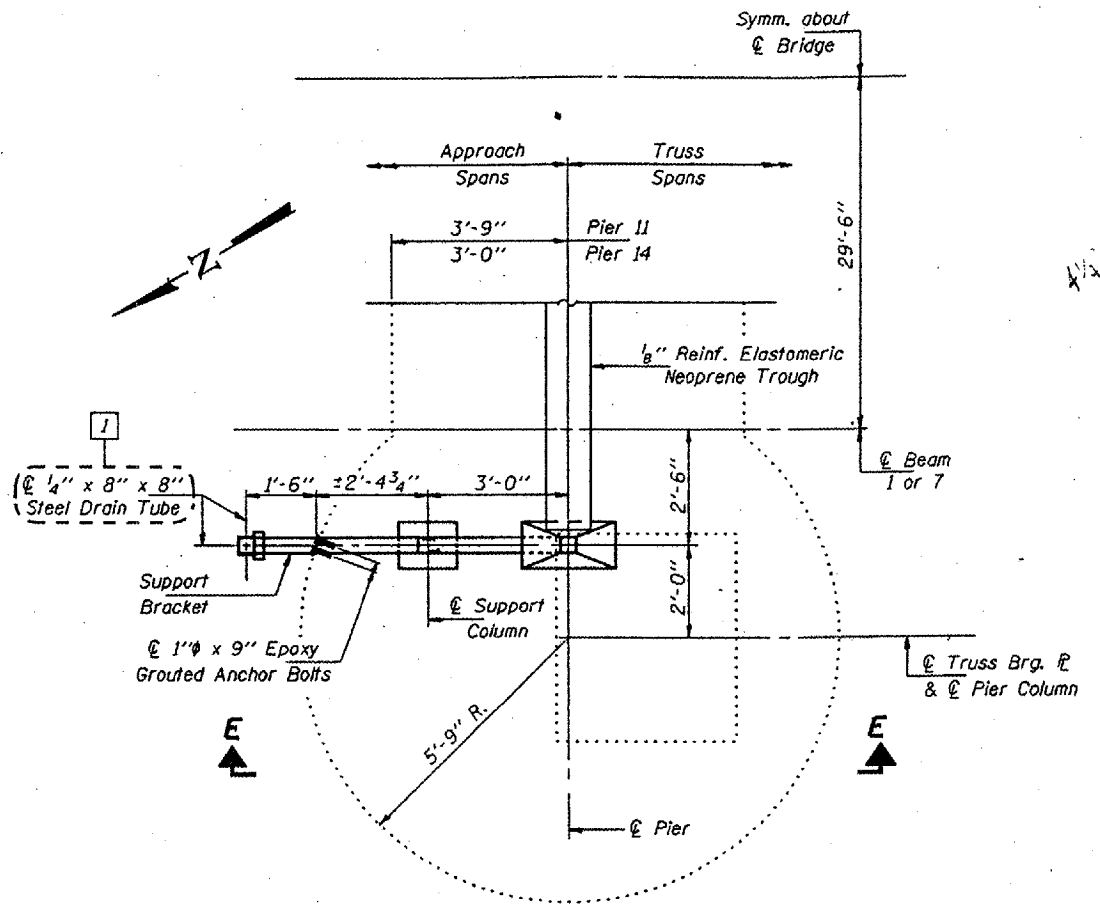
DESIGNED	C.M.E.	APRIL 22	19 97
CHECKED	V.H.V.	EXAMINED	<i>John E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-herbert	PASSED	
CHECKED	R.P.S. C.M.E.		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

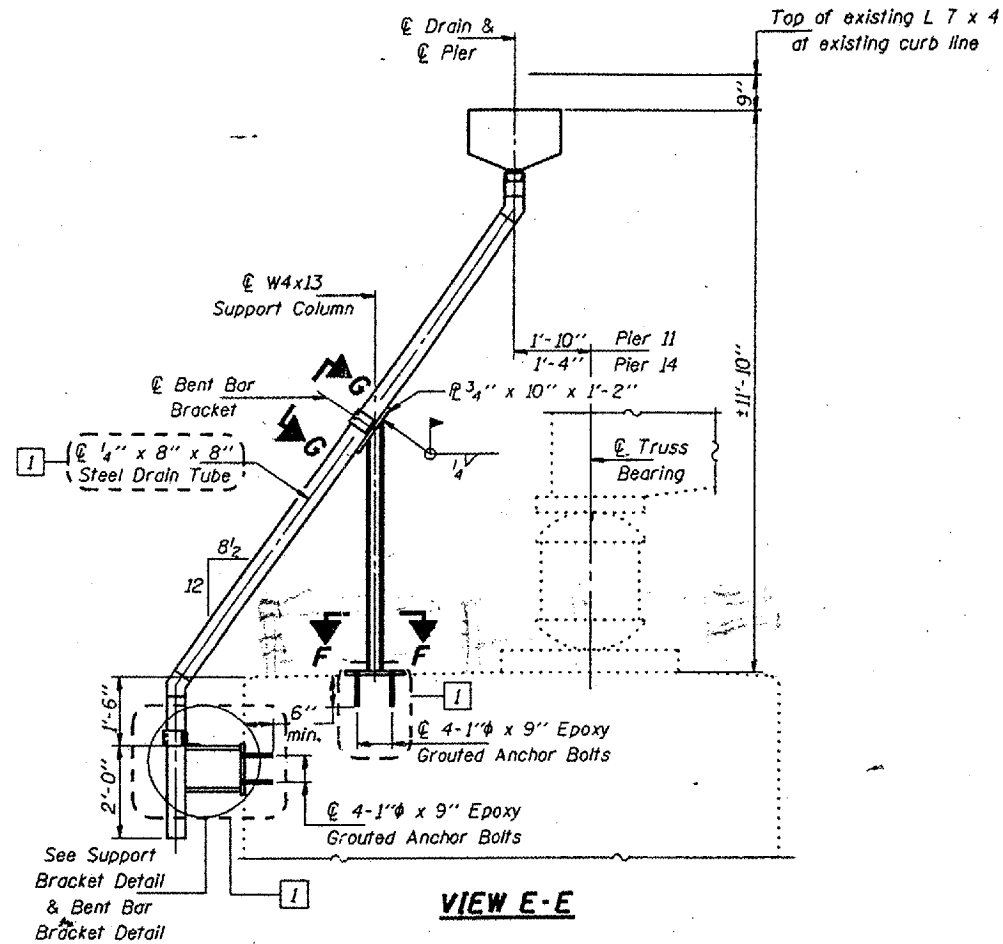
BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

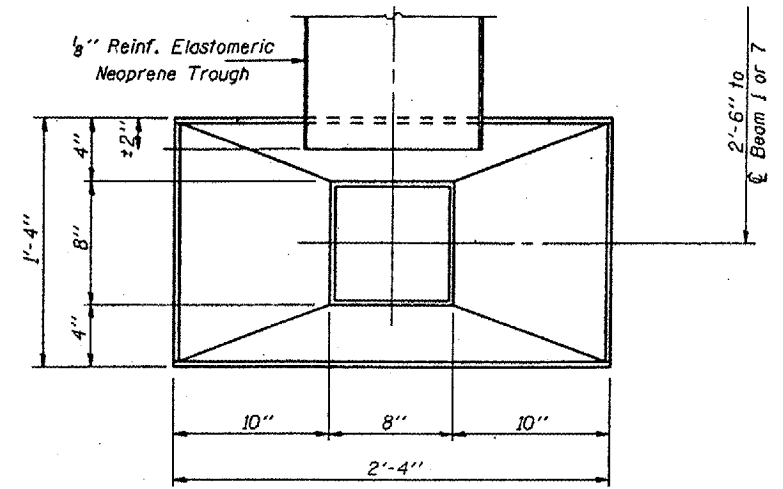
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 48 OF 67



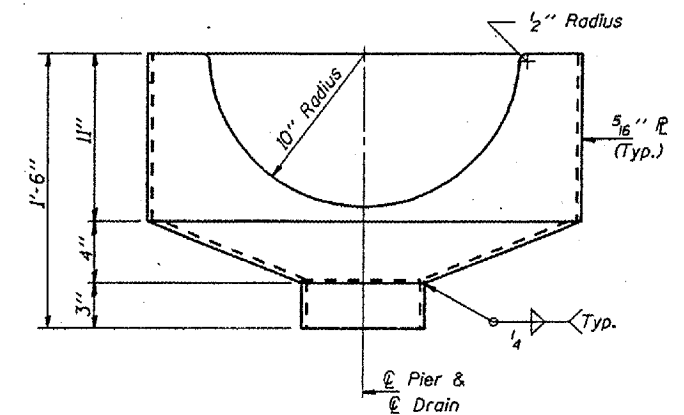
PARTIAL PLAN - PIER II
(Pier 14 similar by rotation of 180°)



VIEW E-E

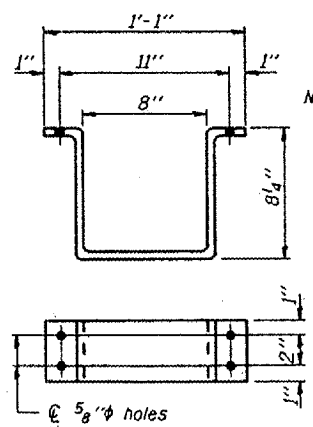


TOP VIEW



DRAIN ELEVATION
(Looking out from Bridge)

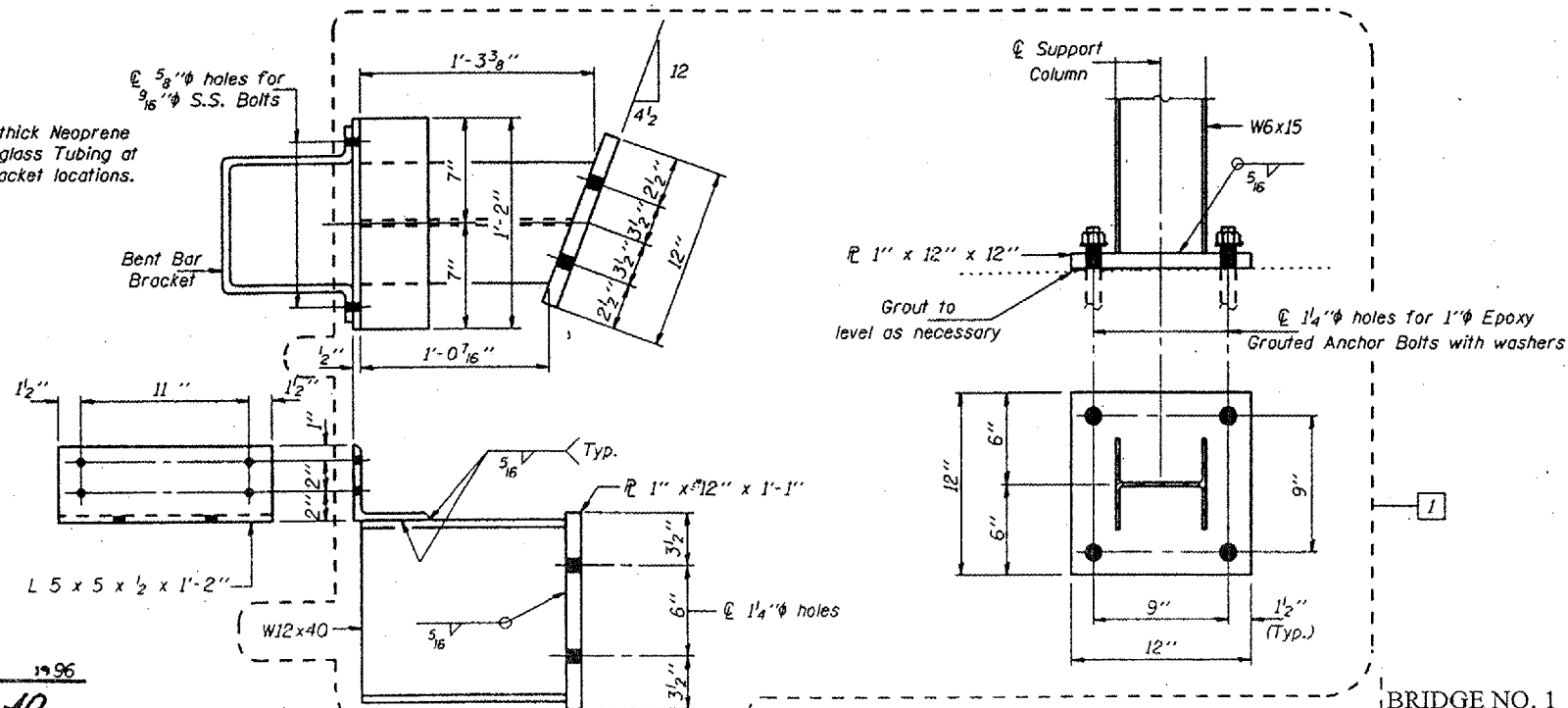
Total No. Req'd.: 4



**BENT BAR BRACKET
DETAIL**

1/4" x 4" x 2'-4 1/2"
Total No. Req'd.: 8

Note: Place 1/8" thick Neoprene around Fiberglass Tubing at Bent Bar Bracket locations.

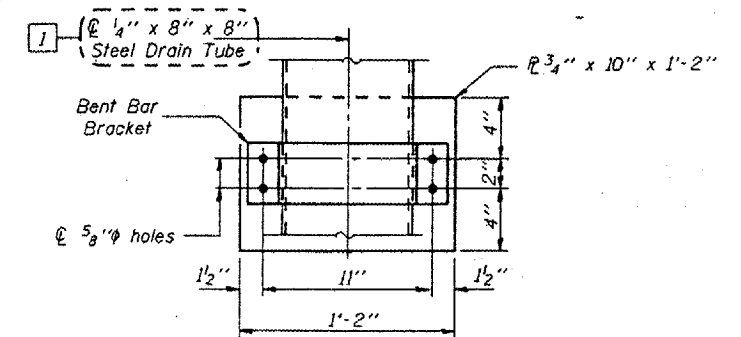


SUPPORT BRACKET

Total No. Req'd.: 4

SECTION F-F

Total No. Req'd.: 4



VIEW G-G

DRAIN DETAILS

F.A.I. 57 OVER MISSISSIPPI RIVER

SEC. 02-1B-1

ALEXANDER COUNTY

S.N. 002-0022

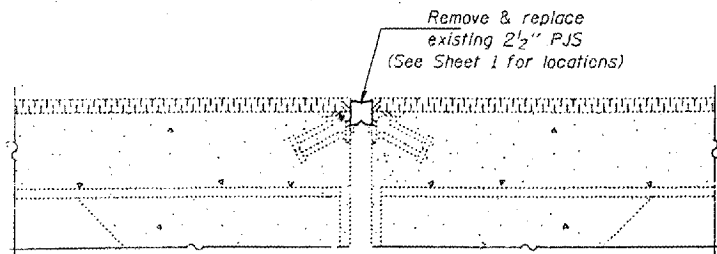
DESIGNED	DAH KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>John E. Adams</i>
DRAWN	Dierbert	PASSED	
CHECKED	NJS KPS		

ENGINEER OF BRIDGES AND STRUCTURES

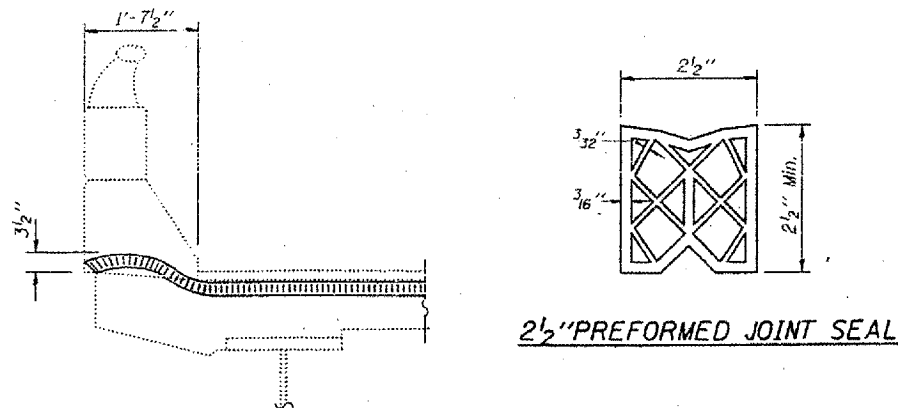
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

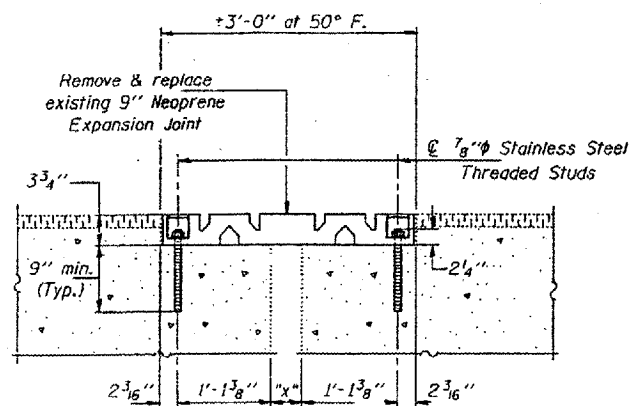
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 49 OF 67



SECTION THRU PJS JOINTS

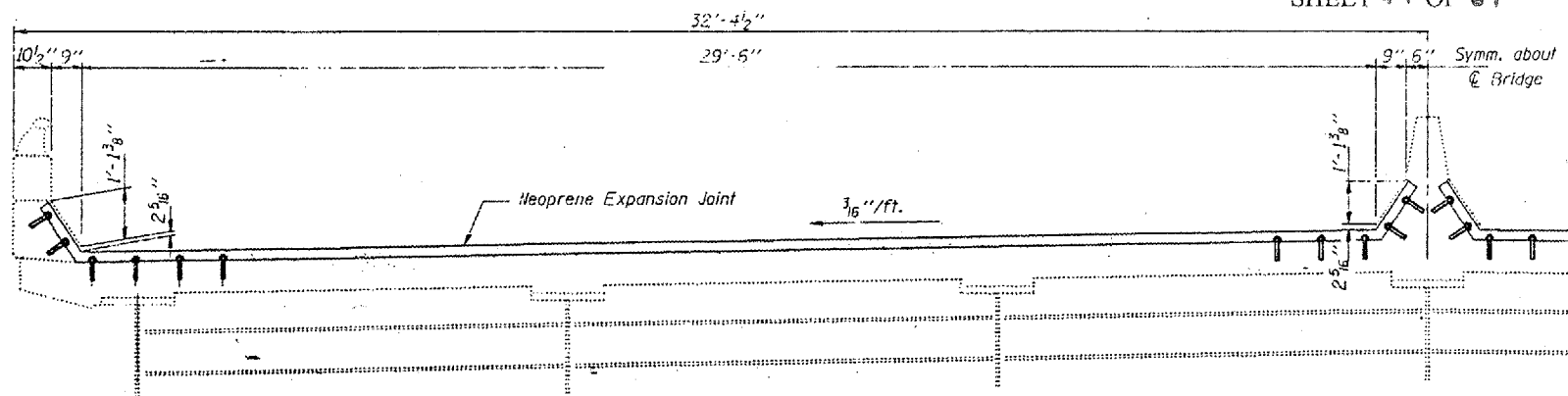


END OF SEAL TREATMENT

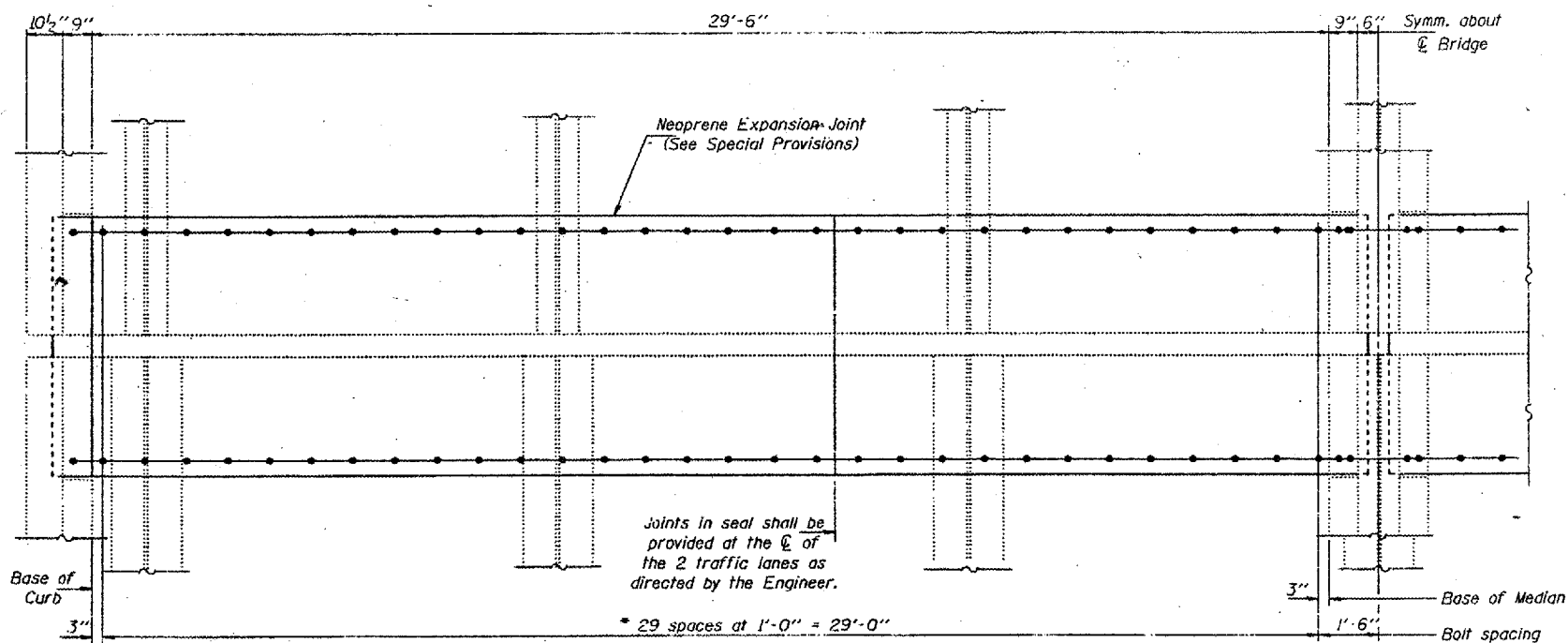


Temp. ("F.)	Dim. "x"
150	3 1/4"
110	1 3/8"
90	2 1/2"
70	3 3/8"
50	4 1/8"
30	5 1/8"
10	6"
-10	6 7/8"
-30	7 3/4"

SECTION THRU NEOPRENE EXP. JT. (9")



ELEVATION



PLAN
EXPANSION GUARD - SPANS 4 & 6
(Piers 4 & 7)

* Remove existing 7/8" ϕ studs by flame cutting and grind flush with top of concrete. Epoxy grout new 7/8" ϕ Stainless Steel threaded studs in 1 1/8" ϕ x 9" (min.) drilled holes.

DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>John E. Adam</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-forbart	PASSED	
CHECKED	NJS KPS		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 50 OF 67

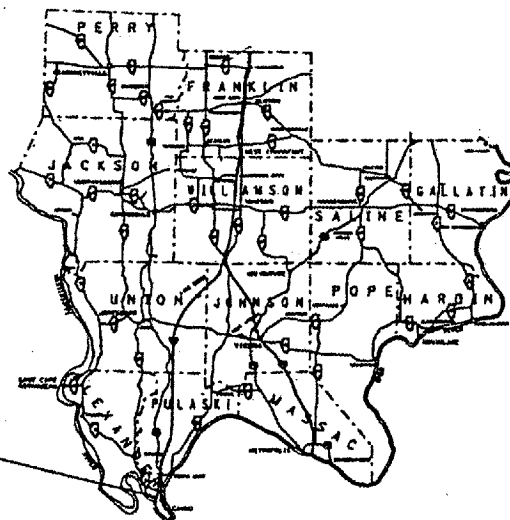
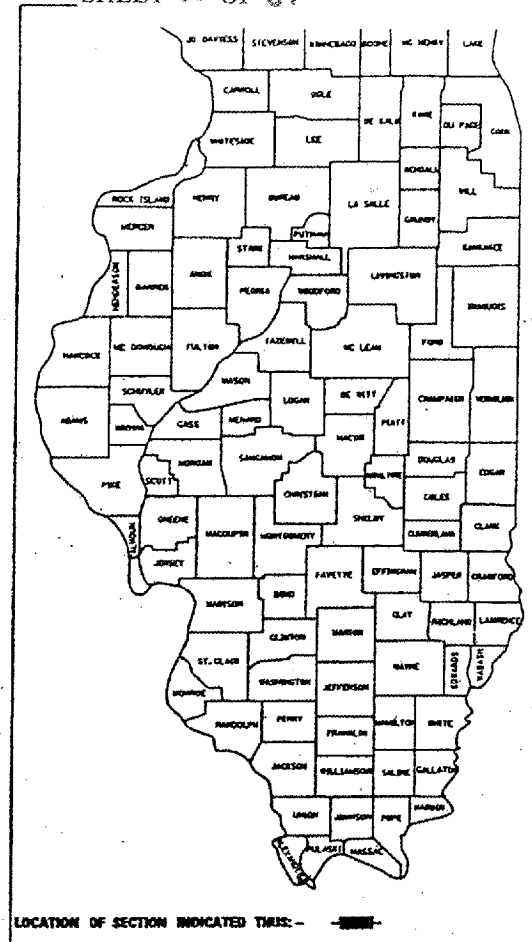
FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 2

**PLANS FOR PROPOSED
 HIGHWAY**

TRAFFIC DATA

STR. NO.	ADT.	M. U. Z.
002-0022	9,300	37

**FAI ROUTE 57 (I-57)
 SECTION: (02-1B-1)I-4
 NAVIGATION LIGHT REPAIRS
 ALEXANDER CO., IL. & MISSISSIPPI CO., MO.
 C-99-013-00**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.L.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123

CONTRACT NO.

002-0022

STRUCTURE NO. 002-0022
 NAVIGATIONAL LIGHT REPAIRS

GROSS LENGTH OF PROJECT = WITHIN EXISTING LIGHTING SYSTEM

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

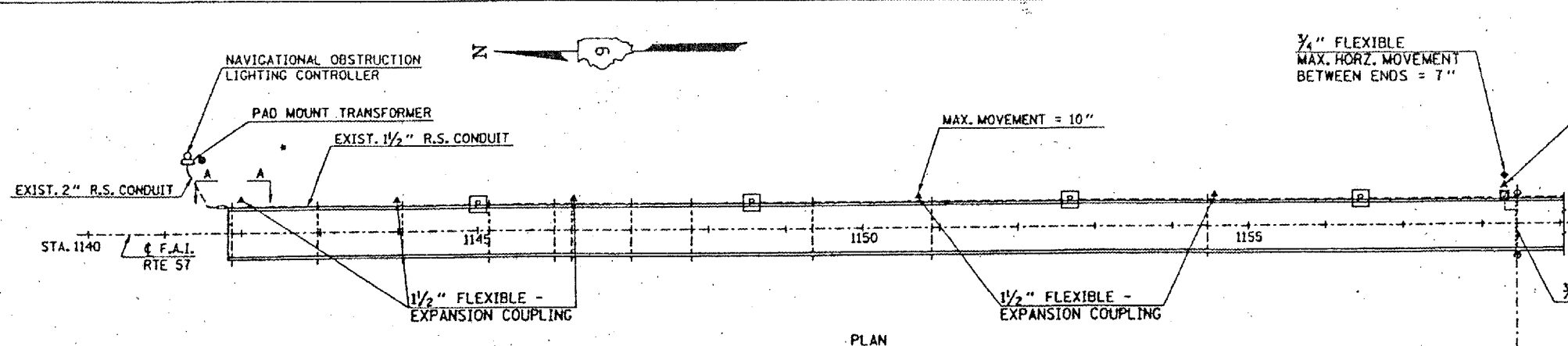
SUBMITTED Aug 24, 1999
Paul A. Sutherland DISTRICT ENGINEER

October 1, 1999
Bill Jankovic ENGINEER OF DESIGN AND ENVIRONMENT

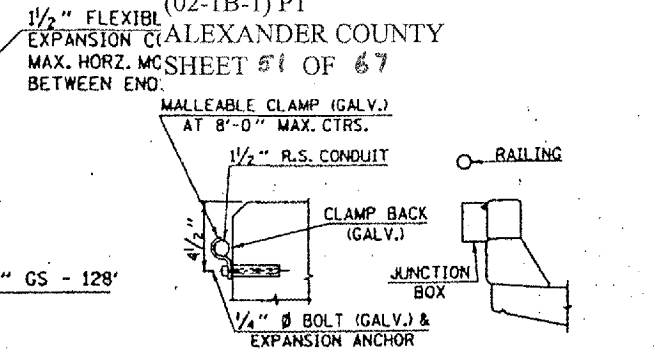
October 1, 1999
James P. Stiles DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

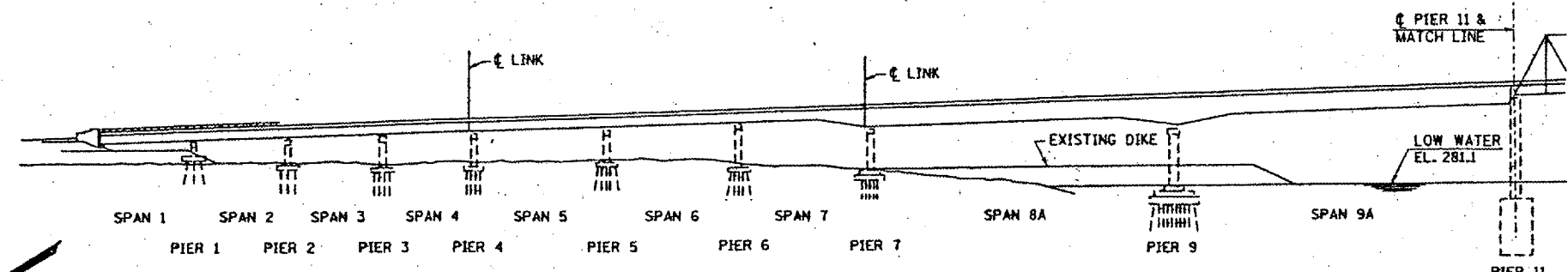
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 SHEET 51 OF 67



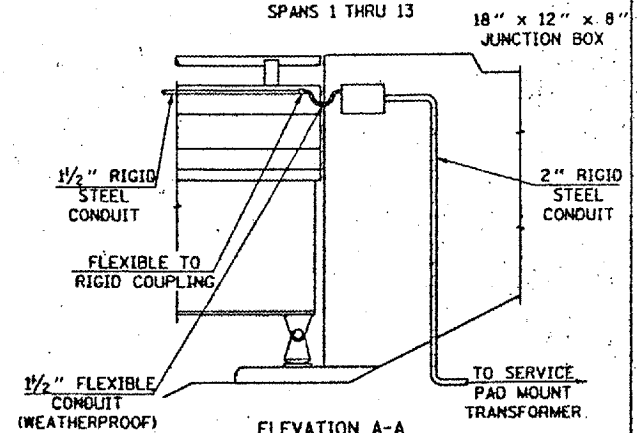
PLAN



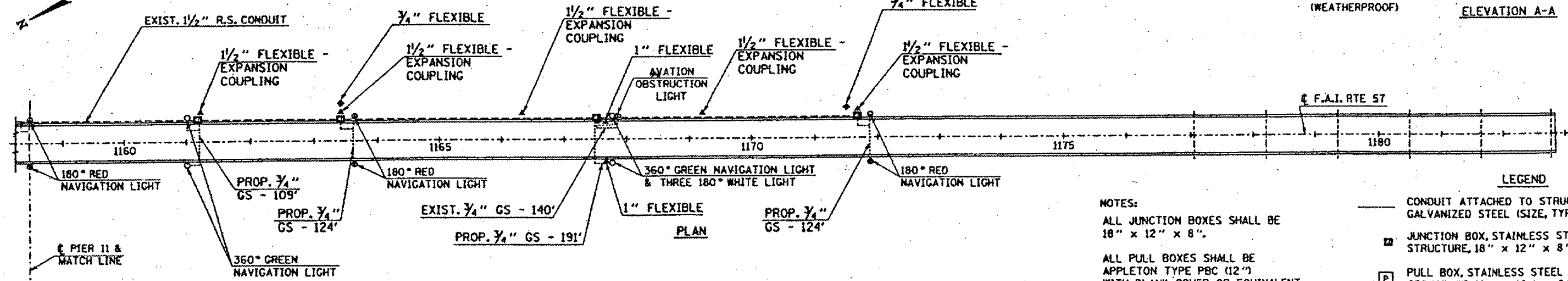
TYPICAL SECTION THROUGH EAST PARAPET



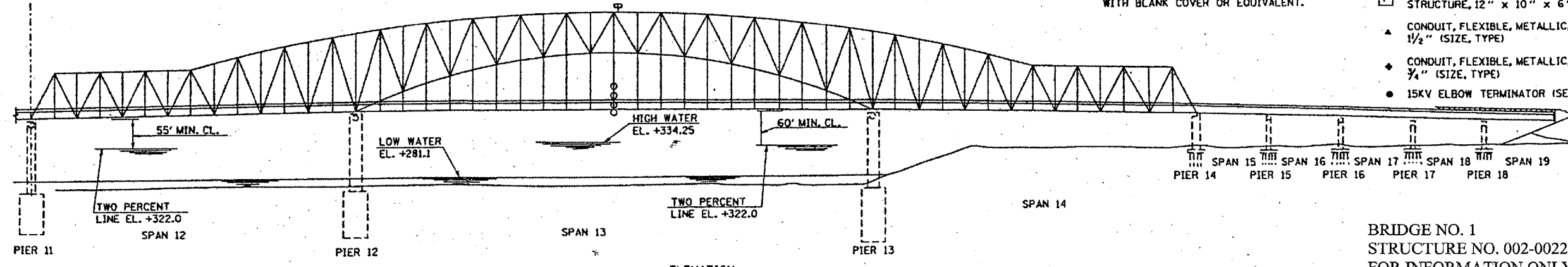
ELEVATION



ELEVATION A-A



PLAN



ELEVATION

NOTES:
 ALL JUNCTION BOXES SHALL BE 18" x 12" x 8".
 ALL PULL BOXES SHALL BE APPLETON TYPE PBC (12") WITH BLANK COVER OR EQUIVALENT.

- LEGEND
- CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. GALVANIZED STEEL (SIZE, TYPE, LENGTH)
 - ▣ JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" x 12" x 8"
 - ▢ PULL BOX, STAINLESS STEEL ATTACHED TO STRUCTURE, 12" x 10" x 6"
 - ▲ CONDUIT, FLEXIBLE, METALLIC, WEATHERPROOF, 1/2" (SIZE, TYPE)
 - ◆ CONDUIT, FLEXIBLE, METALLIC, WEATHERPROOF, 3/4" (SIZE, TYPE)
 - 15KV ELBOW TERMINATOR (SEE PAGE 8)

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 52 OF 67

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
The Contractor shall provide support and/or shoring systems for the beam in the area of existing pin and link plate replacement. See Special Provision "Temporary Support System."
The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provisions "Cleaning and Painting New Metal Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".
Existing structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".
All existing steel surfaces behind link plates shall be cleaned and primed before installation of new link plates. Cost shall be included in the cost of "Pin and Link Plate Replacement".
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field, except the pin diameters, and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
The Pins and Link Plates shall conform to the minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.
The pins, link plates, bushings, nuts, Set Bolts, Neoprene Pad and silicone sealant are the items included in "Pin and Link Plate Replacement".
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

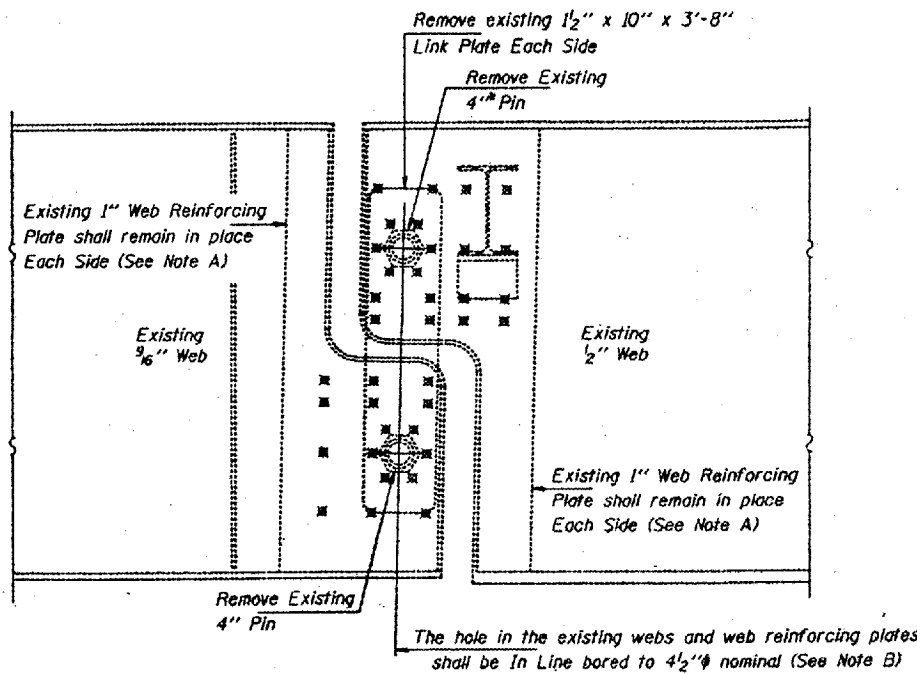
Notes: For notes A thru G see sheet 2 of 13.
⊗ Indicates existing Plug Welds (See Note G)

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

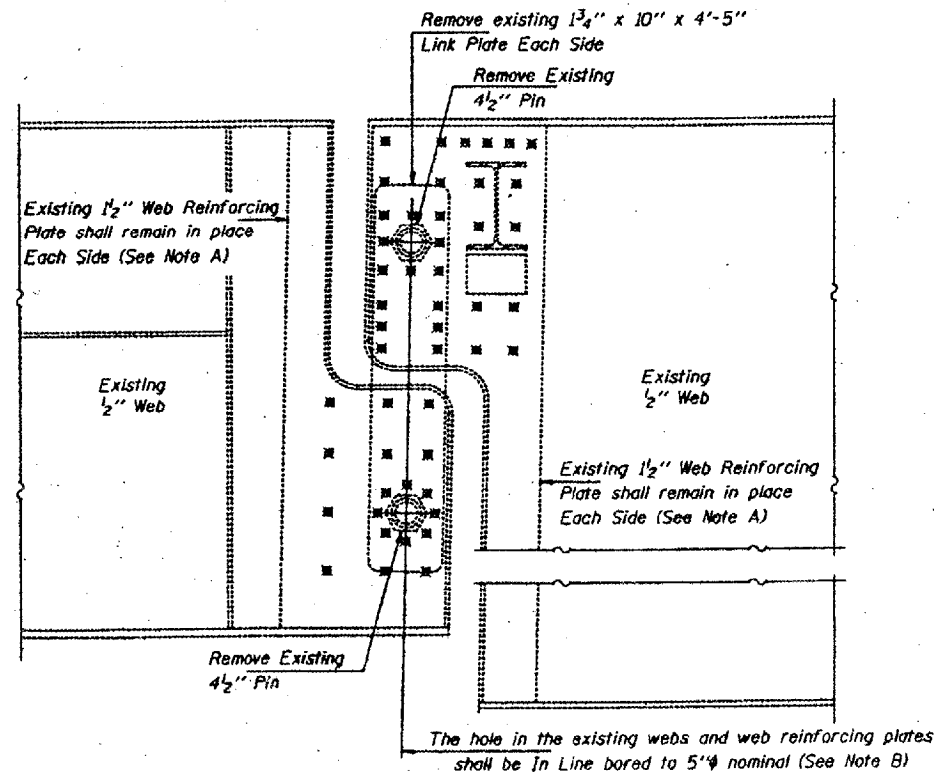
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Support System	Each	122
Pin and Link Plate Replacement	Each	122

PIN AND LINK PLATE REPLACEMENT
SPANS 4 AND 7
F.A.I. ROUTE 57 SEC. 02-1B-1
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

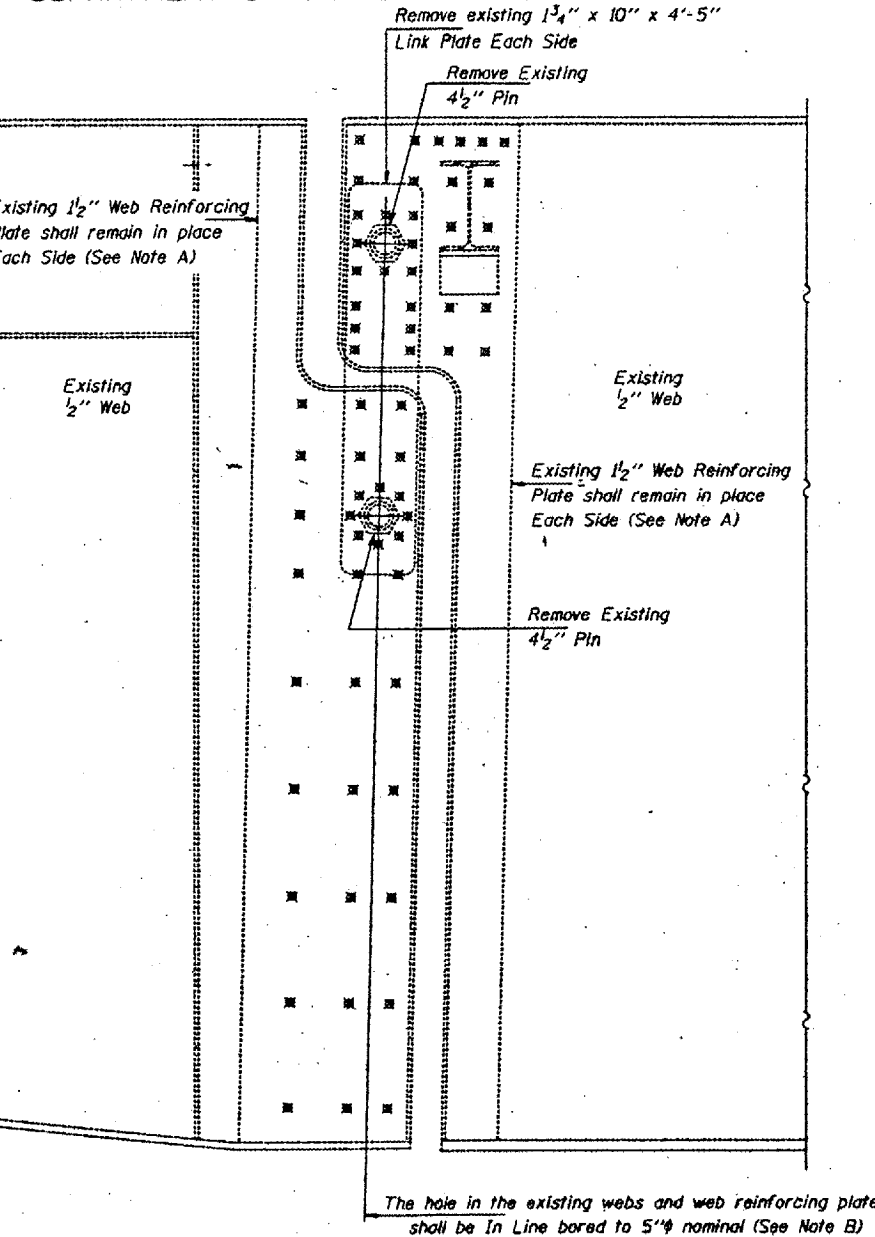


ELEVATION AT EXISTING PIN ASSEMBLY SPAN 4



ELEVATION AT EXISTING PIN ASSEMBLY SPAN 7 GIRDERS 2 THRU 6

DESIGNED Victor H. Velja
CHECKED Paul Summar
DRAWN Paul Summar
CHECKED VHV CME
FEBRUARY 19, 1998
EXAMINED Joseph E. Almon
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES



ELEVATION AT EXISTING PIN ASSEMBLY SPAN 7 GIRDERS 1 AND 7

Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".

**MAXIMUM REACTIONS
AT PIN SPAN 4**

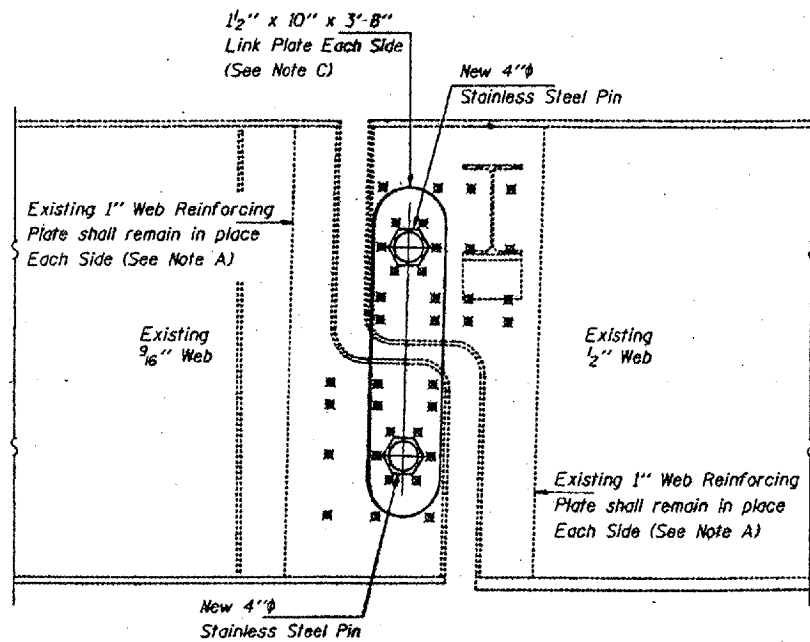
RP	(K)	60.5
Rt	(K)	60.8
Imp.	(K)	13.0
R (Total)	(K)	134.3

**MAXIMUM REACTIONS
AT PIN SPAN 7**

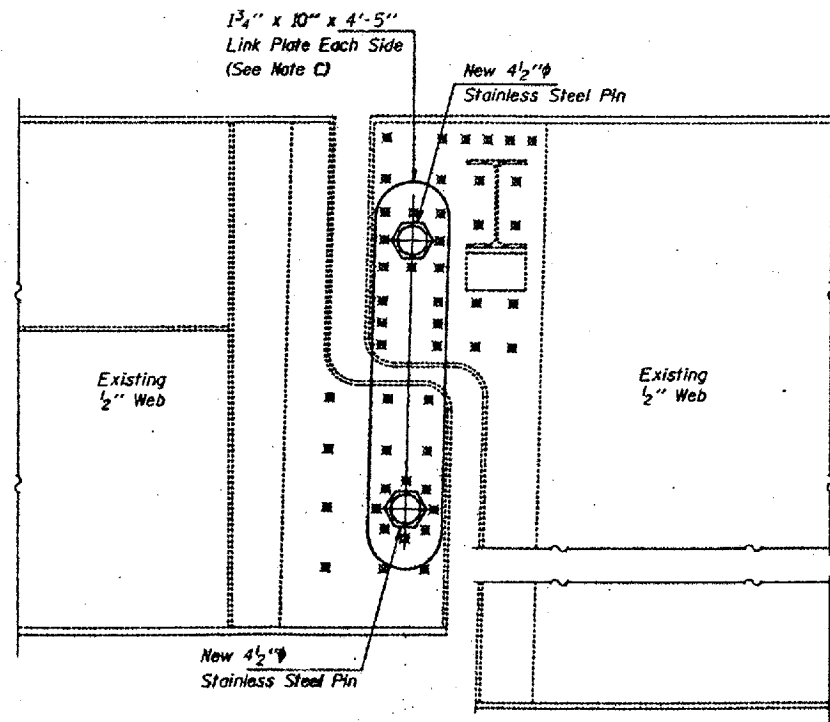
RP	(K)	101.5
Rt	(K)	61.7
Imp.	(K)	13.3
R (Total)	(K)	176.5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

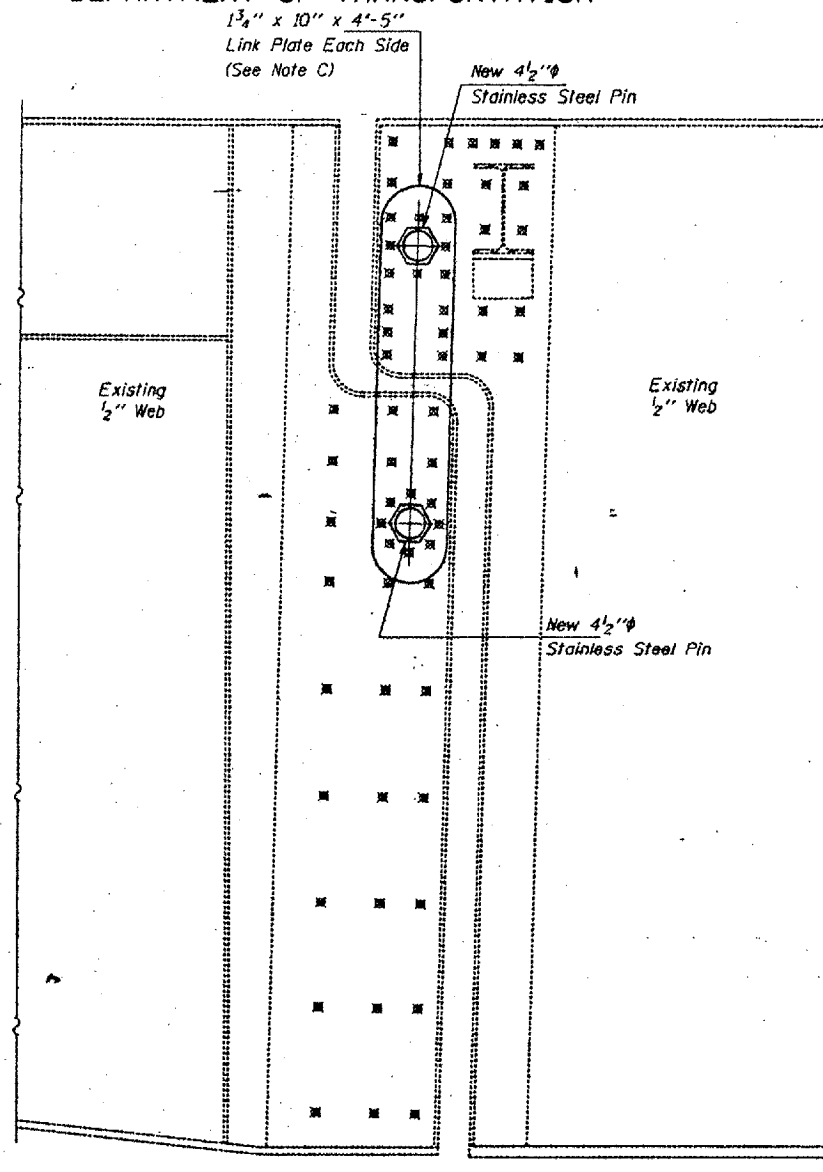
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 53 OF 67



ELEVATION AT NEW PIN ASSEMBLY SPAN 4



ELEVATION AT NEW PIN ASSEMBLY SPAN 7 GIRDERS 2 THRU 6



ELEVATION AT NEW PIN ASSEMBLY SPAN 7 GIRDERS 1 AND 7

Note A:
Existing welds penetrant or mag shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

Note B:
Bore diameter for bushing in link plate, existing webs and web reinforcement plates shall correspond to bushing manufacturer's allowable tolerances for proper functioning. Hole diameter may be adjusted to allow use of stock bushings.

Note C:
Inside face of new link plates shall receive first field coat in shop. The primer shall pass the M.E.K. Rub Test before the first field coat is applied.

Note D:
Actual bushing thickness per manufacturer's specifications. 1/4" is approximate. Bushings shall be a self lubricating filament wound epoxy matrix backed Duralon Bearing, metal backed Fiber Glide Bearing or equivalent. No primer or grease shall be allowed on bushings. Bushings shall be suitable for dynamic loads of 20,000 psi.

Note E:
Tighten inside nuts to bring all bushings into firm contact, then back off 1/4 turn and tighten outer nuts and set bolts.

Note F:
Apply 3/8" bead to face of the web reinforcing plates approximately 1/2" from bushing immediately before installing new link plates. Place sealant around nuts after installation. Sealant shall be suitable for prolonged exterior exposure without losing flexibility or adhesion to painted steel surfaces. Proposed products shall be subject to Department's acceptance based on documented testing or other evidence.

Note G:
Welds shall be inspected for cracks using liquid dye penetrant or magnetic particle testing. Any cracks that are found that cannot be removed by grinding approximately 1/4" shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

PIN AND LINK PLATE REPLACEMENT
SPANS 4 AND 7
F.A.I. ROUTE 57 SEC. 02-1B-1
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Sumnar
CHECKED	VHV CME

FEBRUARY 19, 1998

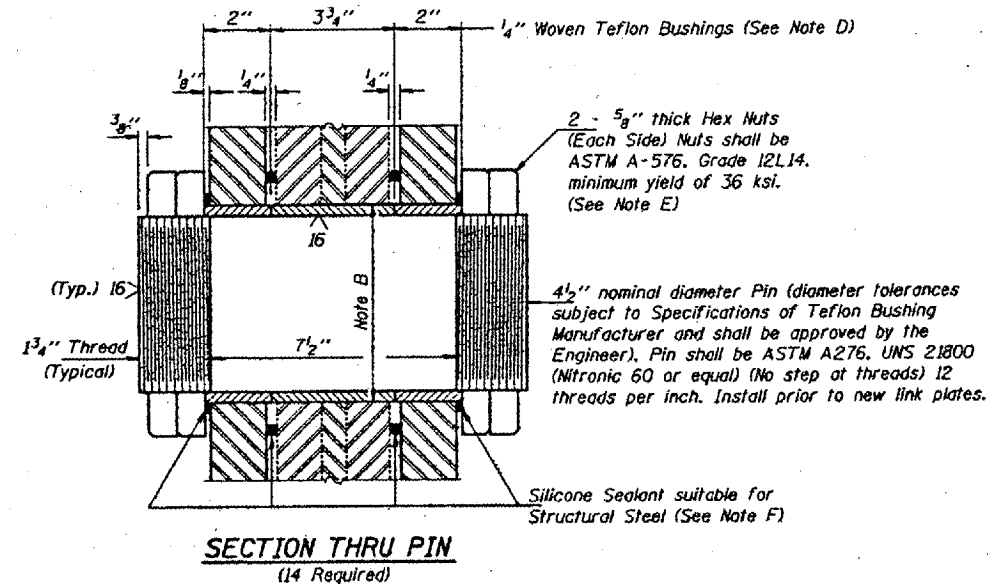
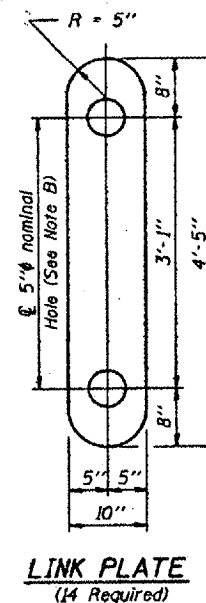
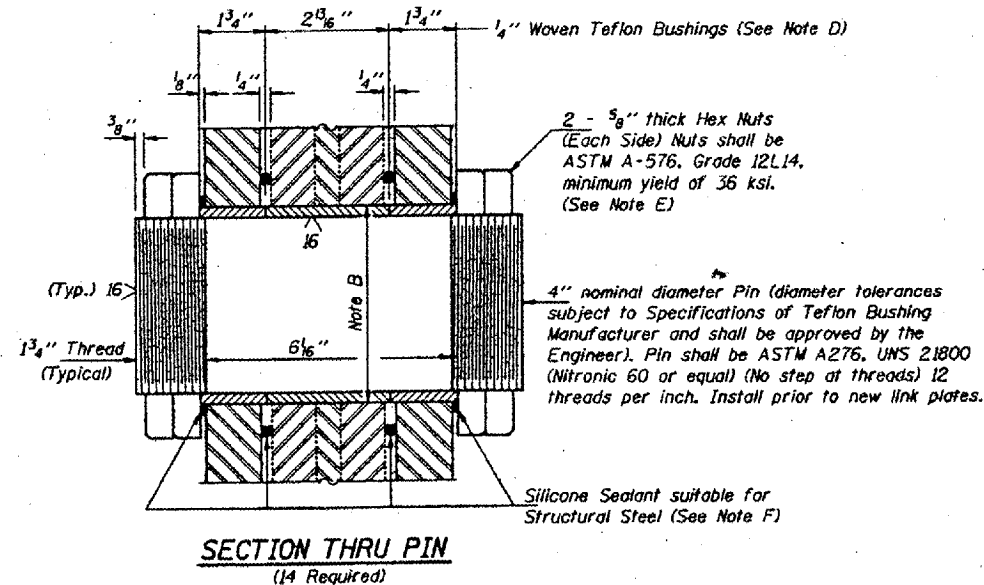
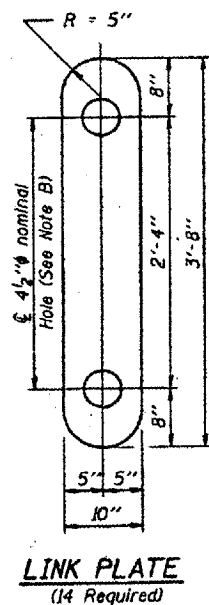
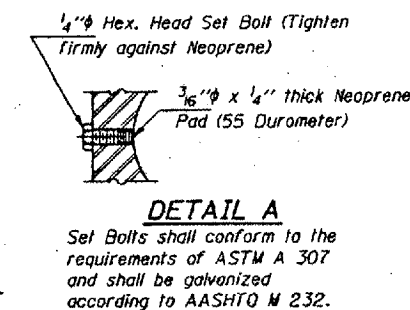
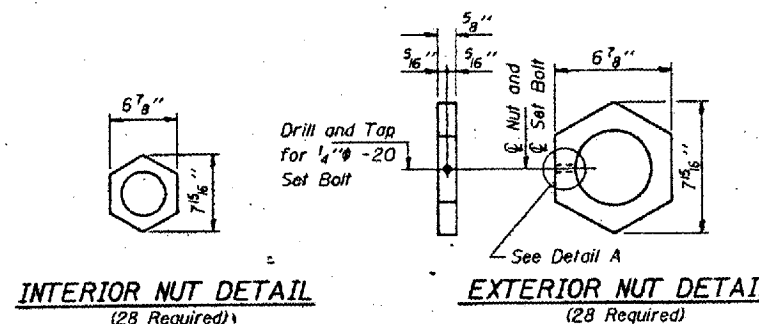
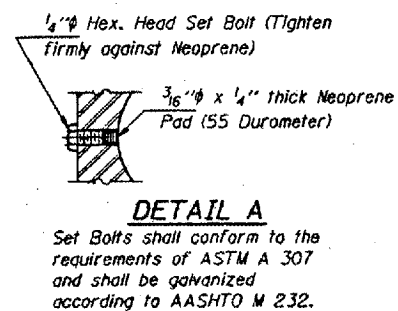
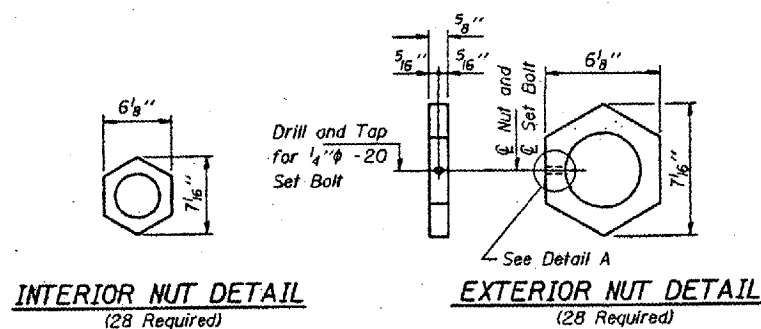
EXAMINED
James E. Adams
ENGINEER OF STRUCTURAL SERVICES

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

Notes: For Pin and Link Plate Details see sheet 3 of 13.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 54 OF 67



PIN ASSEMBLY SPAN 4

PIN ASSEMBLY SPAN 7

Notes: For notes A thru G see sheet 2 of 13.

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Summer
CHECKED	VHV CME

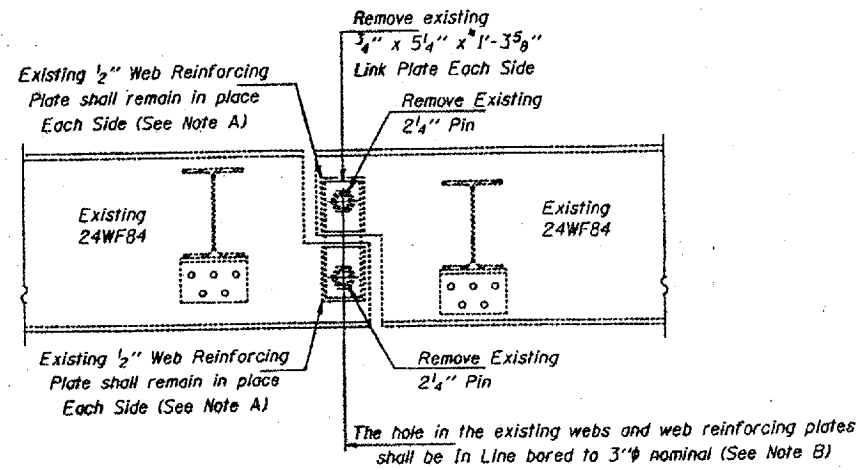
FEBRUARY 19, 1998
EXAMINED *Joseph E. Adams*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

PIN AND LINK PLATE REPLACEMENT
SPANS 4 AND 7
F.A.I. ROUTE 57 SEC. 02-1B-1
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

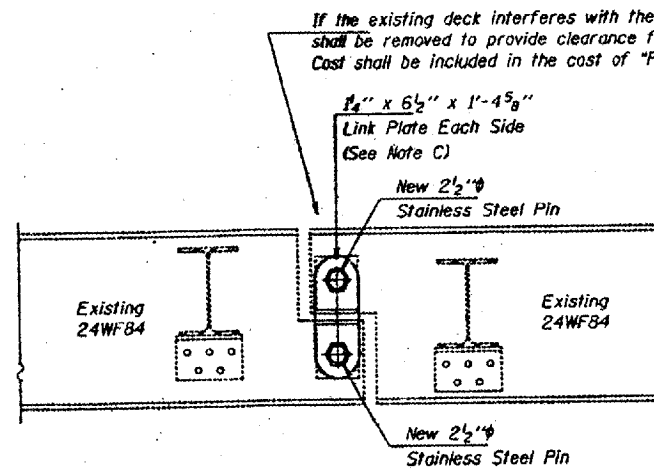
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 55 OF 67

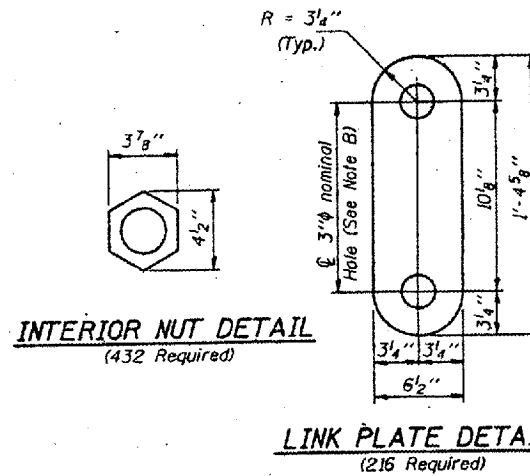


ELEVATION AT EXISTING PIN ASSEMBLY
SPANS 12, 13 AND 14

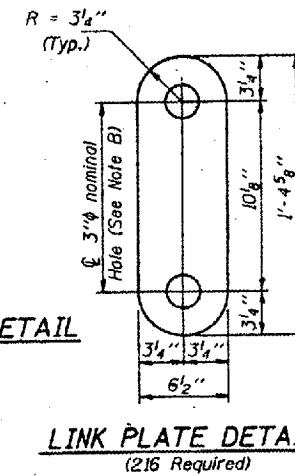
Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".



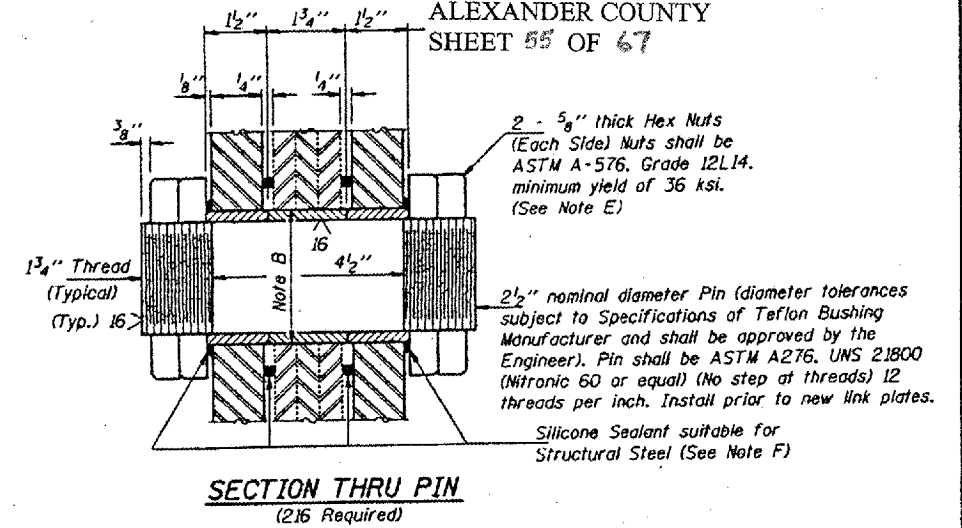
ELEVATION AT NEW PIN ASSEMBLY
SPANS 12, 13 AND 14



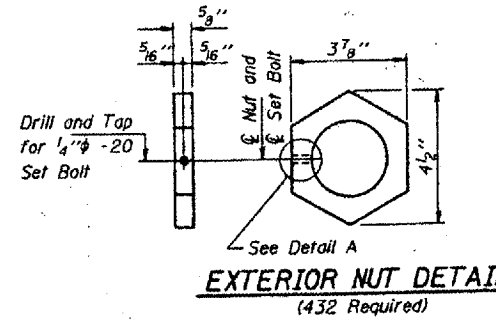
INTERIOR NUT DETAIL
(432 Required)



LINK PLATE DETAIL
(216 Required)



SECTION THRU PIN
(216 Required)



EXTERIOR NUT DETAIL
(432 Required)



DETAIL A

Notes: For notes A thru F see sheet 2 of 13.

MAXIMUM REACTIONS AT PIN

RP	(K)	12.9
R _t	(K)	36.9
Imp.	(K)	11.0
R (Total)	(K)	60.8

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Sumner
CHECKED	VHV CME

FEBRUARY 19, 1998
EXAMINED *John E. Adams*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

PIN AND LINK PLATE REPLACEMENT
SPANS 12, 13 AND 14
F.A.I. ROUTE 57 SEC. 02-1B-1
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PLANS FOR PROPOSED

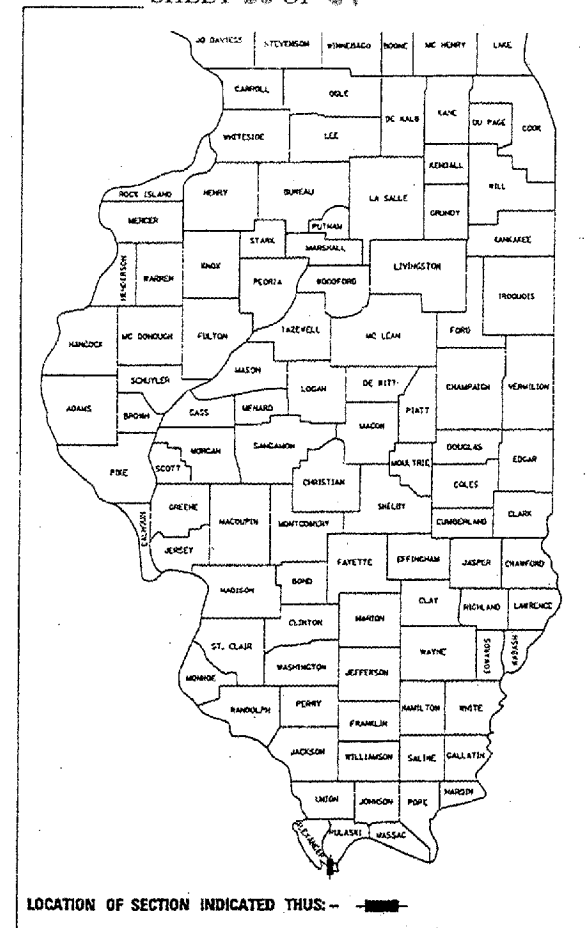
F.A.I. 57 (I-57)
 SECTION (02-1B-1) I-5

ALEXANDER COUNTY, IL & MISSISSIPPI COUNTY, MO
 C-99-085-01

FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

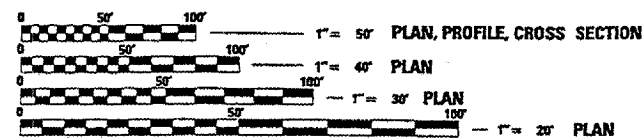
CONTRACT NO. 98940
 ROUTE FAI-57
 (02-1B-1) P1
 ALEXANDER COUNTY
 D-99-042-SHEET 56 OF 67

I-57 TRAFFIC DATA
 2000 ADT 10,300
 WYATT TOWNSHIP



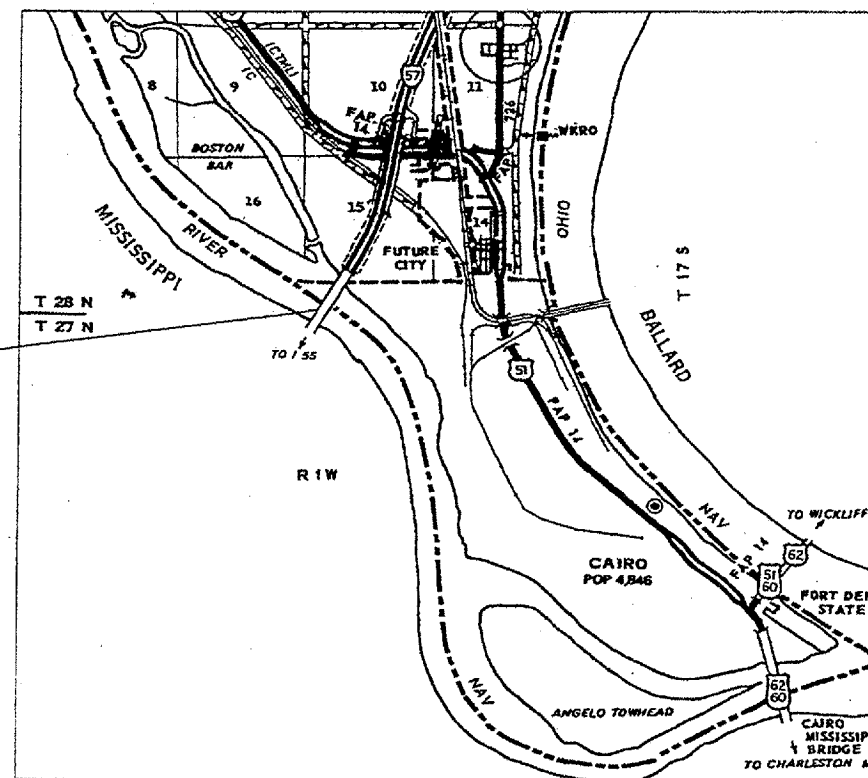
LOCATION OF SECTION INDICATED THUS: — ■ —

BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 www.julie1call.com



THE PROPOSED IMPROVEMENT IS ON S.N. 002-0022 WHICH CARRIES INTERSTATE 57 OVER THE MISSISSIPPI RIVER IN ALEXANDER COUNTY. THE PROPOSED IMPROVEMENT CONSISTS OF THE REMOVAL OF THE EXISTING BITUMINOUS WEARING SURFACE AND WATERPROOFING, DECK SLAB REPAIRS, SCARIFICATION OF THE BRIDGE DECK AND PLACEMENT OF A MICROSILICA CONCRETE OVERLAY. OTHER IMPROVEMENTS CONSIST OF JOINT RECONSTRUCTION, STRUCTURAL STEEL REPAIRS, REMOVAL AND REPLACEMENT OF ONE BEARING AND PIER CAP SEAT SEALING.

CONTRACT NO. 98636

002-0022

NET LENGTH OF PROJECT = 4090'-6"

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED Jan 10, 20 02
 [Signature] DISTRICT ENGINEER
 February 1, 20 02
 [Signature] ENGINEER OF DESIGN AND ENVIRONMENT
 February 1, 20 02
 [Signature] DIRECTOR, DIVISION OF HIGHWAYS

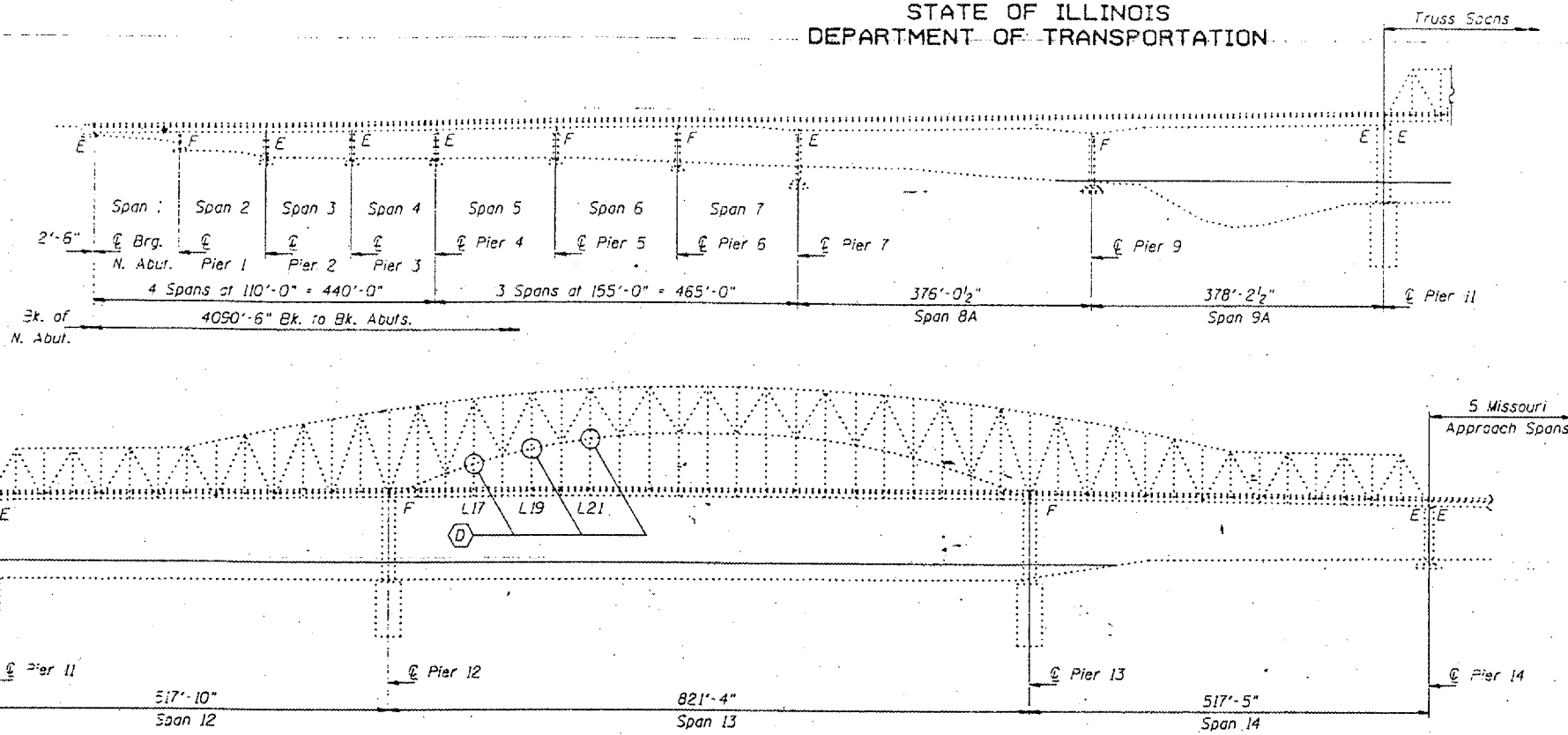
PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

9-173

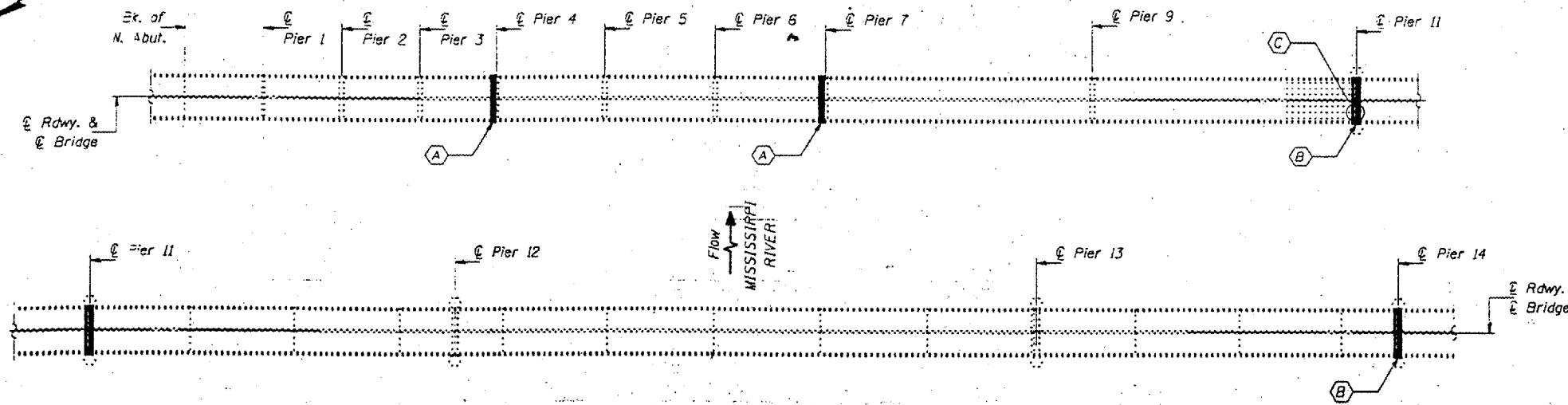
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 57 OF 67

All new structural steel Gr. 36, unless otherwise noted.
Calculated weight of AASHTO M-270, Grade 36 Structural Steel = 37,170 Lbs.
Calculated weight of AASHTO M-270, Grade 50 Structural Steel = 184,310 Lbs.
Fasteners shall be high strength bolts. Bolts 3/4", open holes 13/16", unless otherwise noted.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
Finger Plate Expansion Joints shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection. The finger plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
Prior to pouring the new concrete deck, all loose rust, loose mill scale and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04 of the Standard Specifications.
Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/B. See Special Provision for "Cleaning and Painting New Metal Structures".
The SSPC-QPI Painting Contractor Certification will not be required for this bridge.



PARTIAL ELEVATION
(Looking East)



PARTIAL DECK PLAN

- (A) Remove existing Modular Joint and replace with new Neoprene Expansion Joint, North & South Bound Lanes.
- (B) Remove existing Finger Plate Joint and replace with new Finger Plate Joint; Replace existing transverse members and install new transverse members for support of the new finger plate stools, North & South Bound Lanes.
- (C) Repair 5" crack in Girder G6 & replace Bearing at Girder 6, Span 9A.
- (D) Sway Frame Repair Locations.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	-Cu. Yd.	52.1
Concrete Superstructures	Cu. Yd.	54.0
Reinforcement Bars, Epoxy Coated	Pound	14,880
Mechanical Splice	Each	1,232
Furnishing and Erecting Structural Steel	L.S.	1
Structural Steel Repair	Pound	800
Neoprene Expansion Joint (9")	Foot	130
Fabric Reinforced Elastomeric Trough	Foot	127
Drainage System	L.S.	1
Protective Coat	Sq. Yd.	90
Jack and Remove Existing Bearing	Each	1
Structural Steel Removal	Pound	9860

DESIGNED V.H.V. P.S.J. A.T.H.
CHECKED V.H.V. A.T.H. P.S.J.
DRAWN John P. Schaeffer Jr.
CHECKED V.H.V. A.T.H. P.S.J.

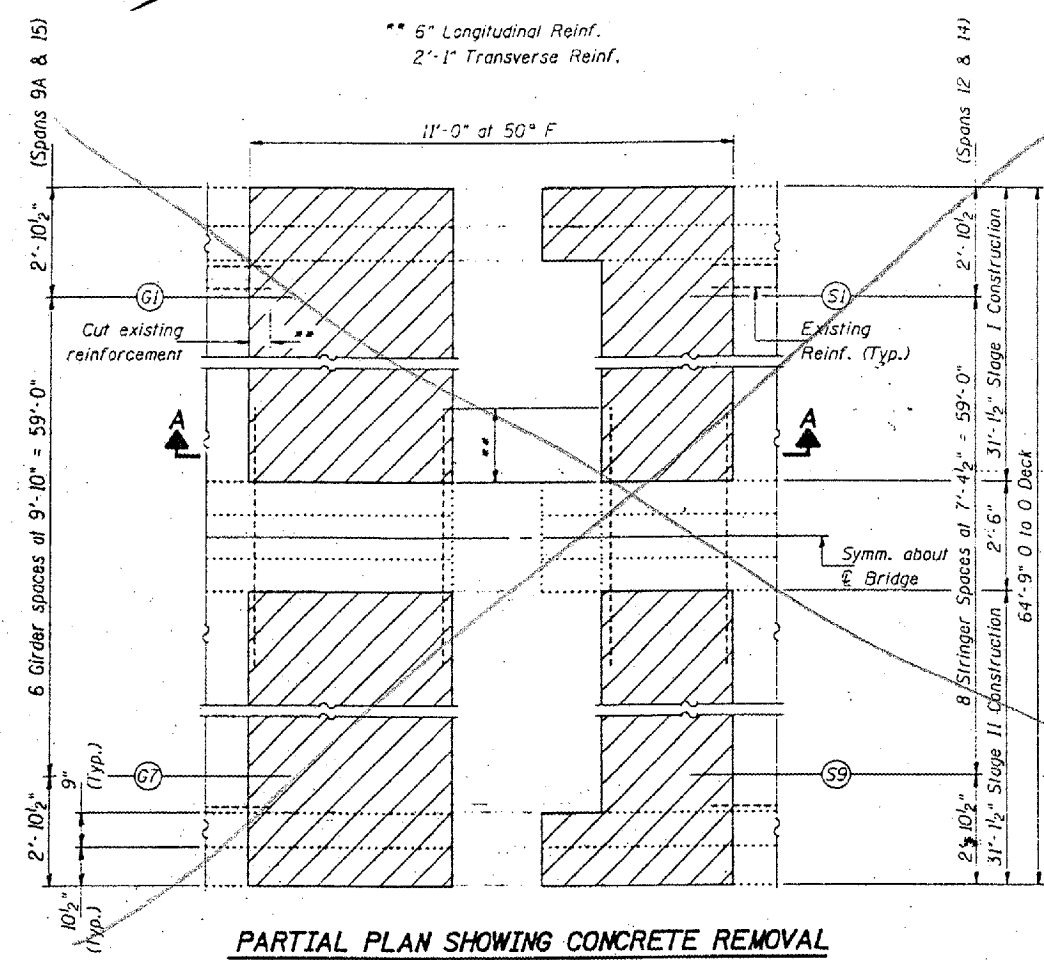
FEBRUARY 4, 2002
EXAMINED John A. Morris
ENGINEER OF STRUCTURAL SERVICES
PASSED
MEMBER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

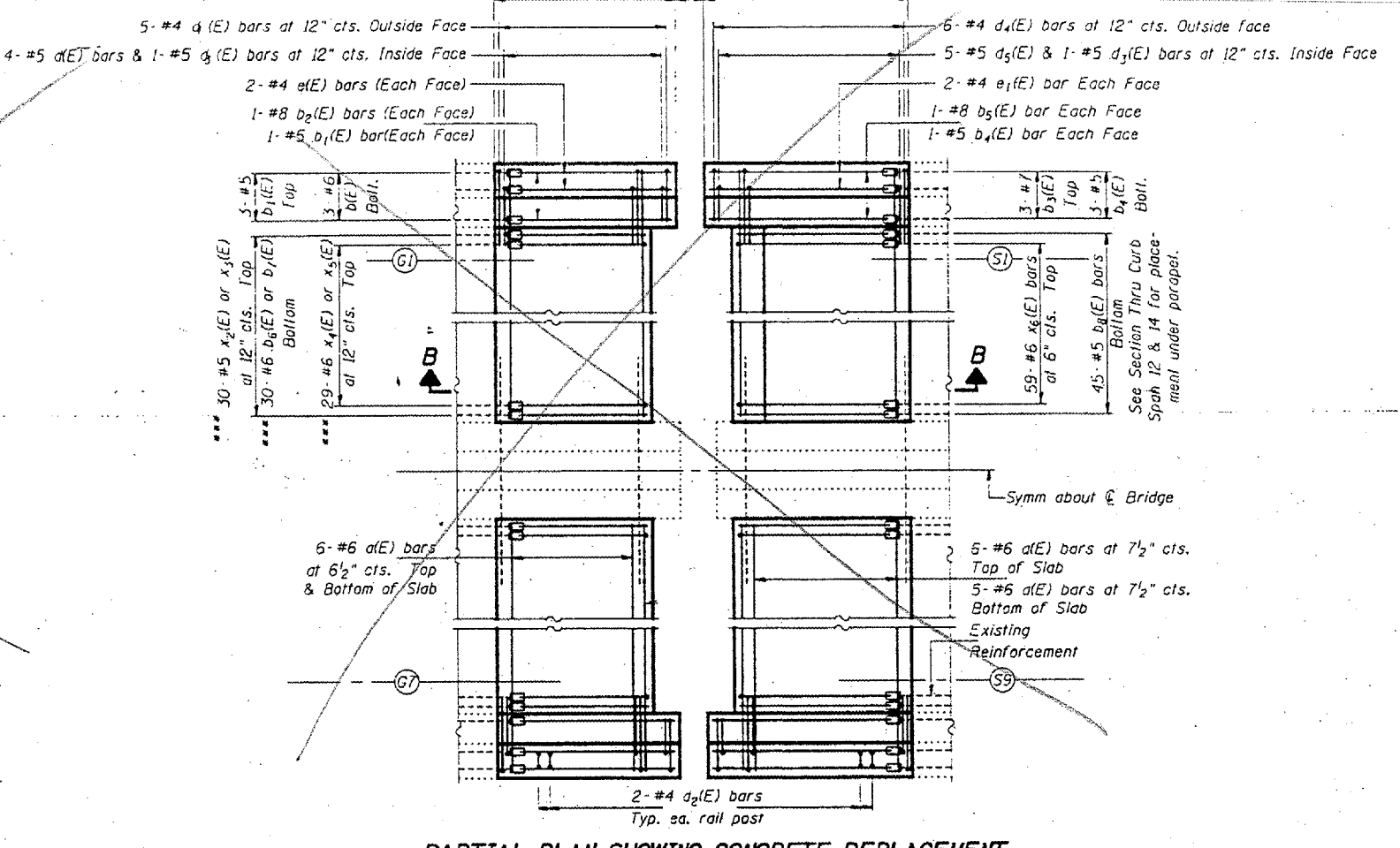
PLAN & ELEVATION
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 58 OF 67



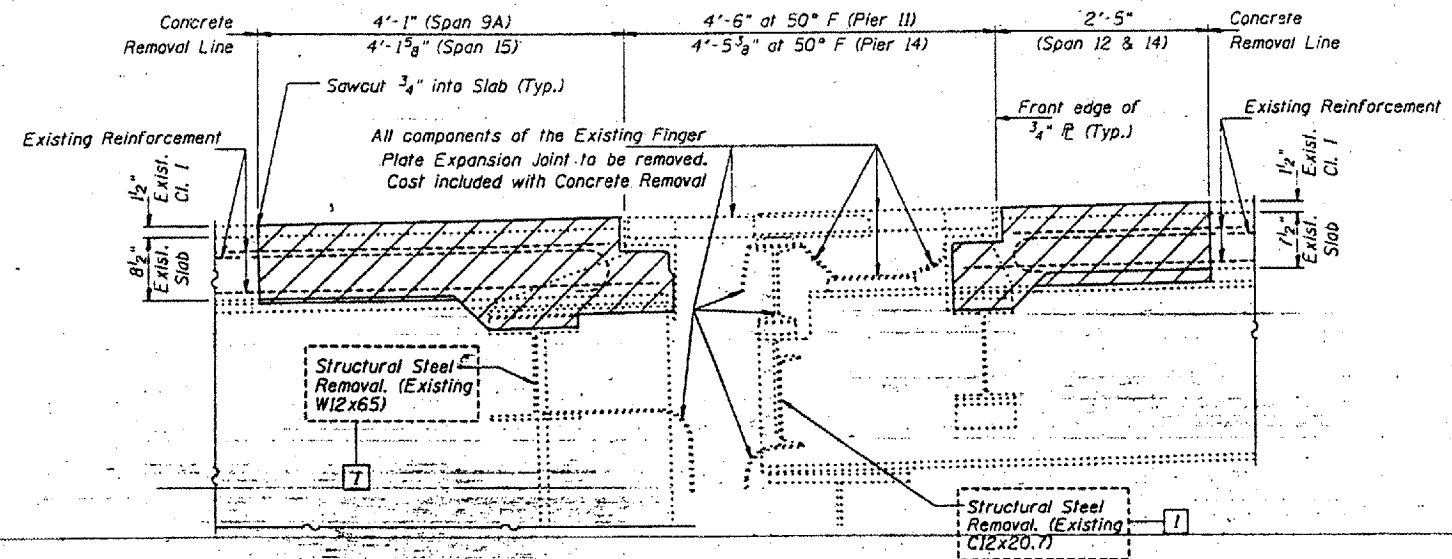
PARTIAL PLAN SHOWING CONCRETE REMOVAL
(Pier II Shown, Pier 14 Similar)



PARTIAL PLAN SHOWING CONCRETE REPLACEMENT
(Pier II Shown, Pier 14 Similar)

Notes:
Hatched areas indicates "Concrete Removal".
Existing reinforcement to which new bars are to be lapped or mechanically spliced shall be cleaned, straightened, and incorporated into the new construction. Any such reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
For Section B-B, Section Thru Parapets, Bar Details and Bill of Material see sheet 5 of 14.
For Rail Post Anchor Device Detail, see Sheet 4 of 14.

Notes: New transverse a(E) bars shall be lapped with existing bars. All new longitudinal (b, c, & x) bars shall be joined to existing reinforcement with Mechanical Splicers, except for the x₄(E) & x₅(E) bars. Alternate x₄(E) & x₅(E) bars with x₂(E) & x₃(E) bars, respectively.



SECTION A-A

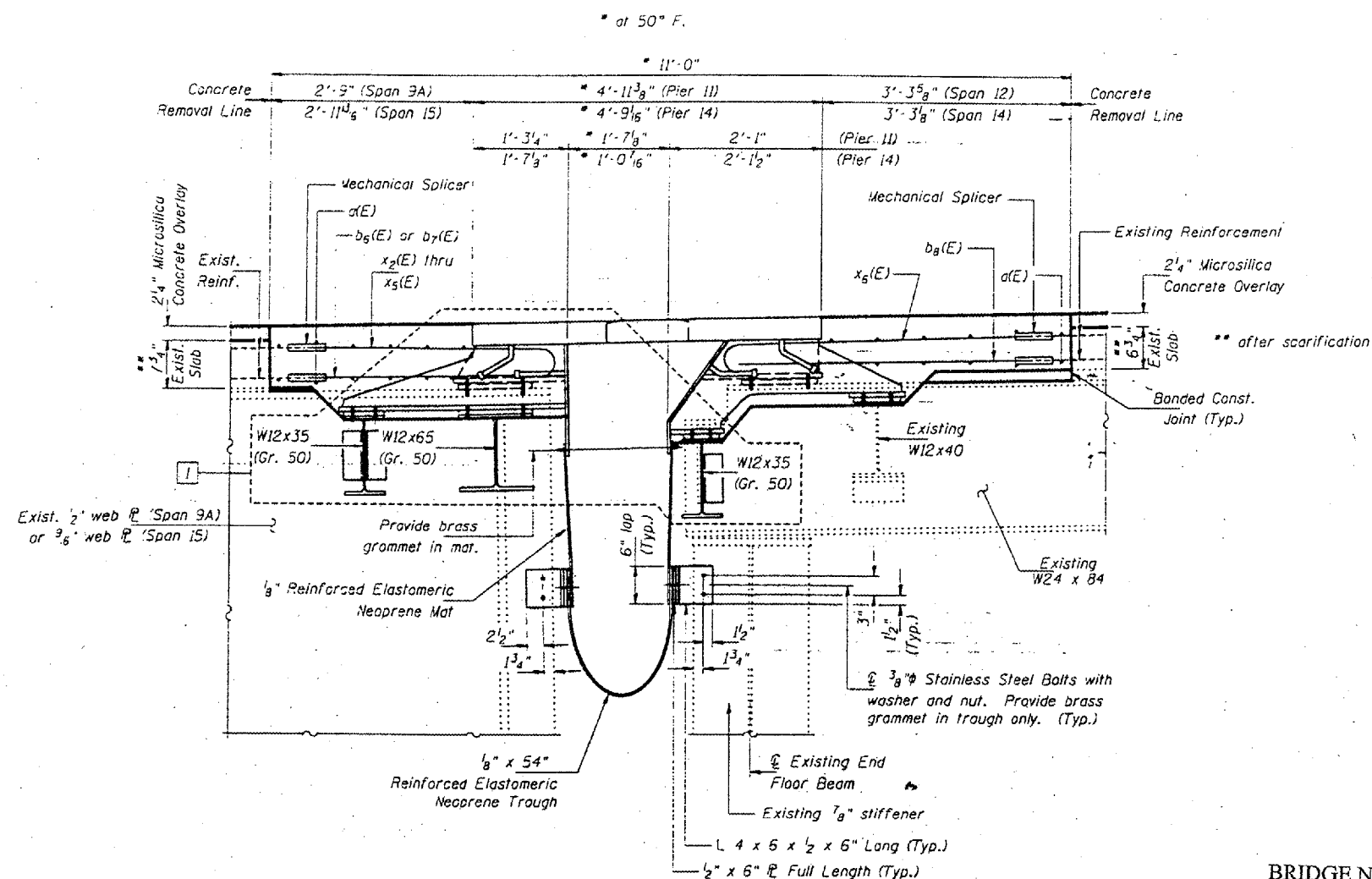
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

EXPANSION JOINT DETAILS-- PIER II & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Schneller Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H. P.S.J.	ENGINEER OF BRIDGES AND STRUCTURES

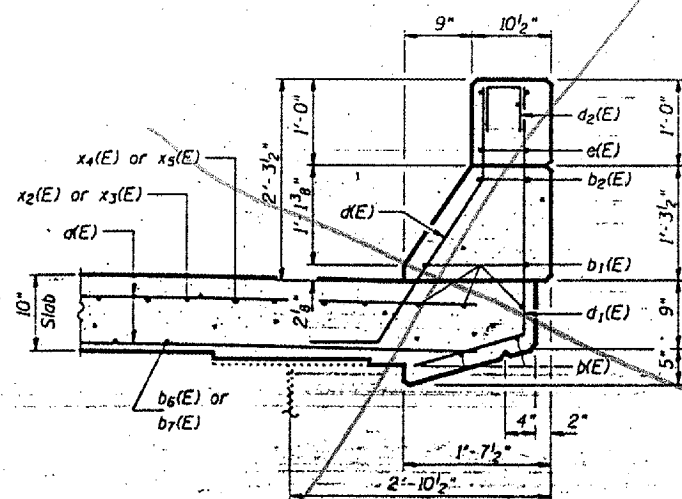
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 57 OF 67

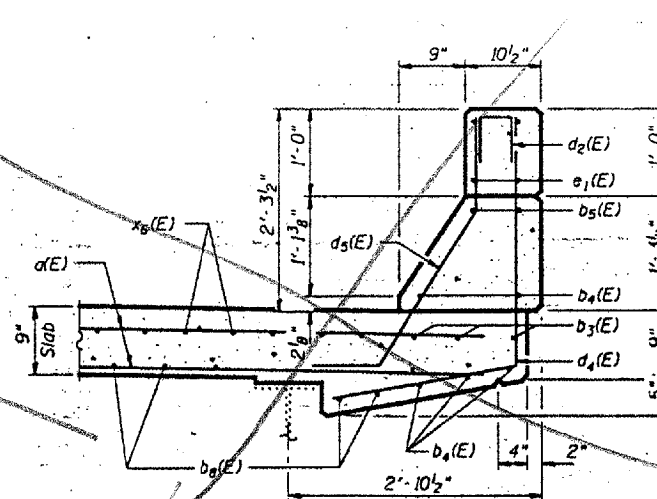


SECTION B-B
Pier 11 shown; Pier 14 similar

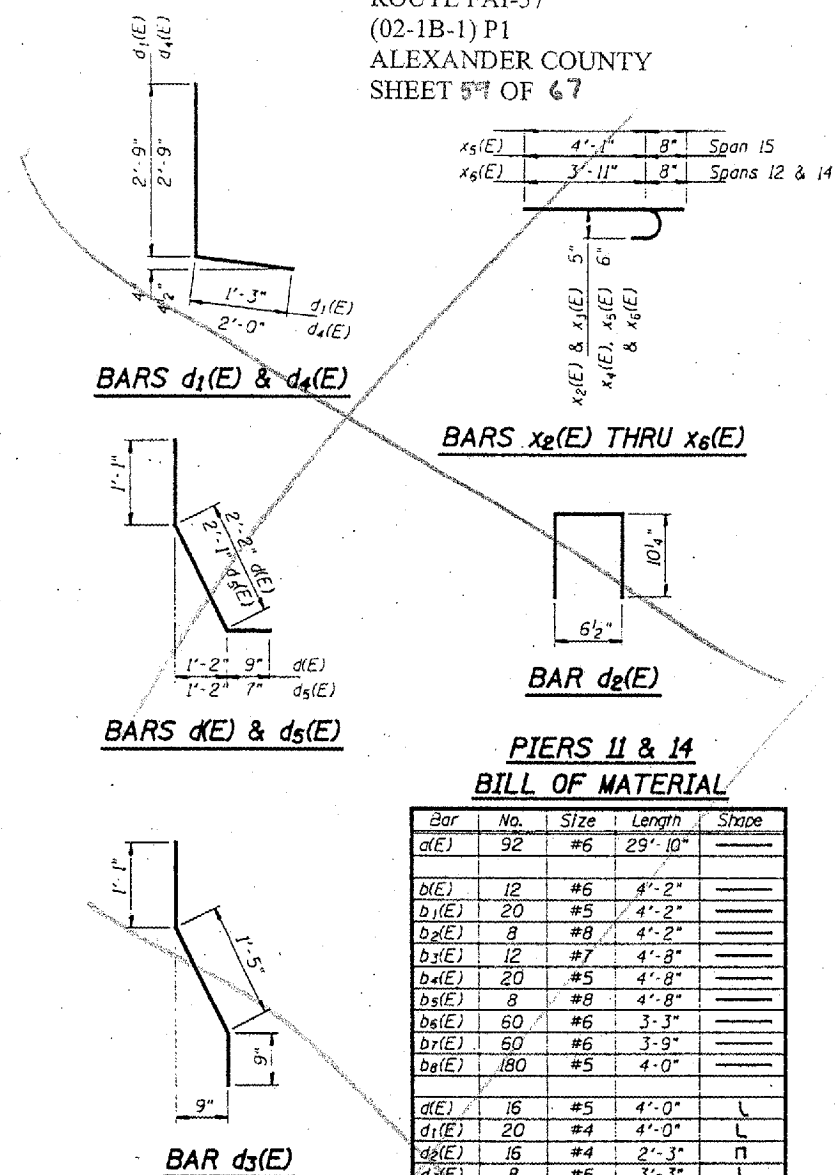
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY



SECTION THRU CURB - SPAN 9A & 15



SECTION THRU CURB - SPAN 12 & 14



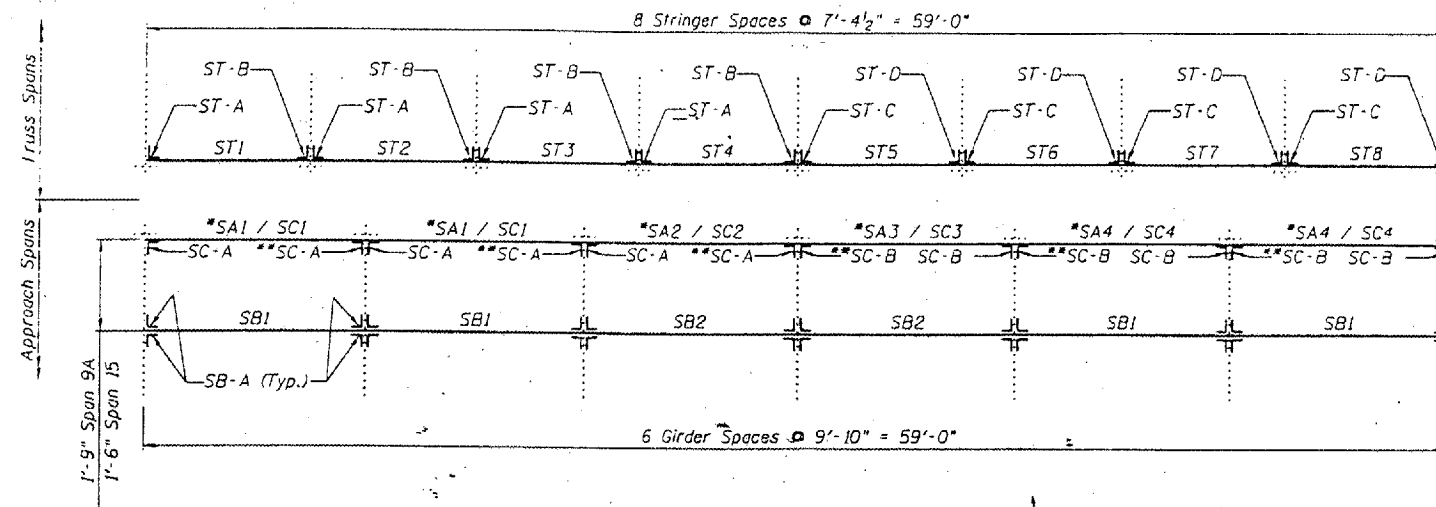
PIERS 11 & 14
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	92	#6	29'-10"	—
b(E)	12	#6	4'-2"	—
b1(E)	20	#5	4'-2"	—
b2(E)	8	#8	4'-2"	—
b3(E)	12	#7	4'-8"	—
b4(E)	20	#5	4'-8"	—
b5(E)	8	#8	4'-8"	—
b6(E)	60	#6	3'-3"	—
b7(E)	50	#6	3'-9"	—
b8(E)	180	#5	4'-0"	—
d(E)	16	#5	4'-0"	L
d1(E)	20	#4	4'-0"	L
d2(E)	16	#4	2'-3"	Π
d3(E)	8	#5	3'-3"	L
d4(E)	24	#4	4'-9"	L
d5(E)	20	#5	3'-9"	L
e(E)	16	#4	4'-2"	—
e1(E)	16	#4	4'-8"	—
x2(E)	60	#5	3'-10"	J
x3(E)	60	#5	4'-2"	J
x4(E)	58	#6	4'-5"	J
x5(E)	58	#6	4'-9"	J
x6(E)	236	#6	4'-7"	J
Reinforcement Bars, Epoxy Coated		Pound	9410	
Concrete Superstructure		Cu. Yds.	33.6	
Concrete Removal		Cu. Yds.	31.7	
Mechanical Splice		Each	768	

Reinforcement bars designated (E) shall be epoxy coated.

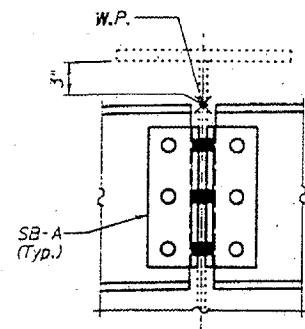
EXPANSION JOINT DETAILS - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Schmitter Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H., P.S.J.	PASSED
		ENGINEER OF BRIDGES AND STRUCTURES

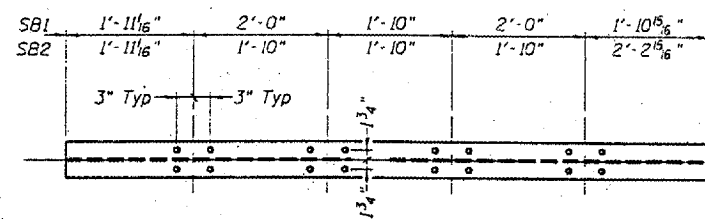


PARTIAL FRAMING PLAN AT PIERS 11 AND 14

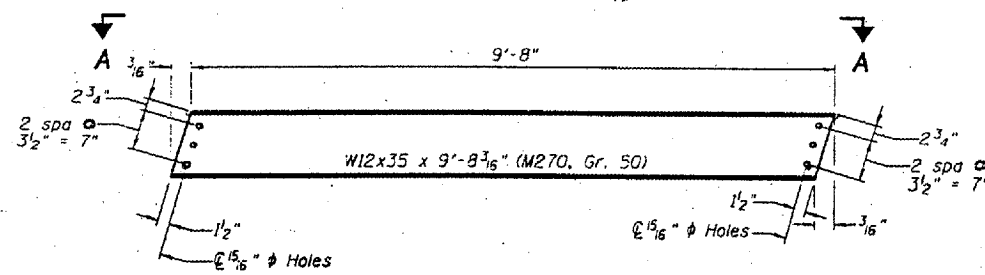
* SA# at Span 9A (no clip angles req'd), SC# at Span 15
** Inverted top for bottom from detail shown on Sheet 6B of 14.



DETAIL A

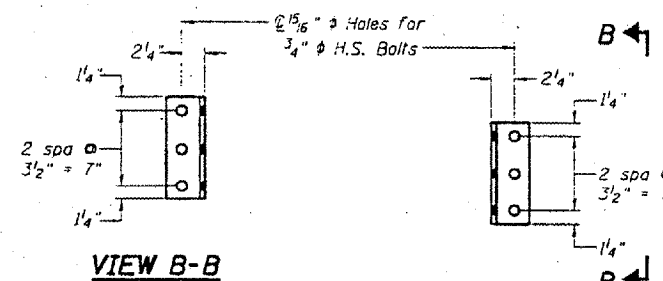


VIEW A-A



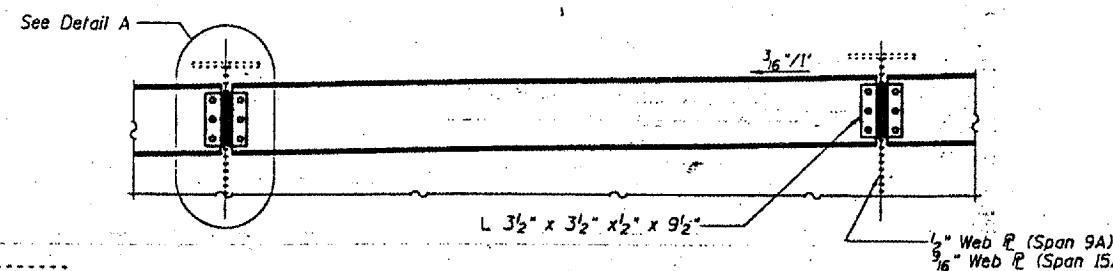
SB1 AND SB2

(SB1 8 Req'd, SB2 4 Req'd)



VIEW B-B

SB-A
(48 Req'd)



BACK STOOL SUPPORT - SPANS 9A AND 15

Work this sheet with Sheets 6B and 6C.

Cost of required field drilling is included with
Furnishing and Erecting Structural Steel.

Hardened washers will be required at
all oversized hole locations.

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	A.T.H. P.S.J.

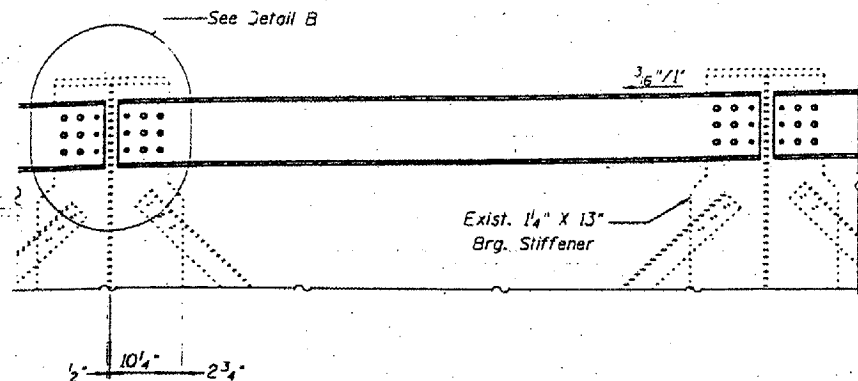
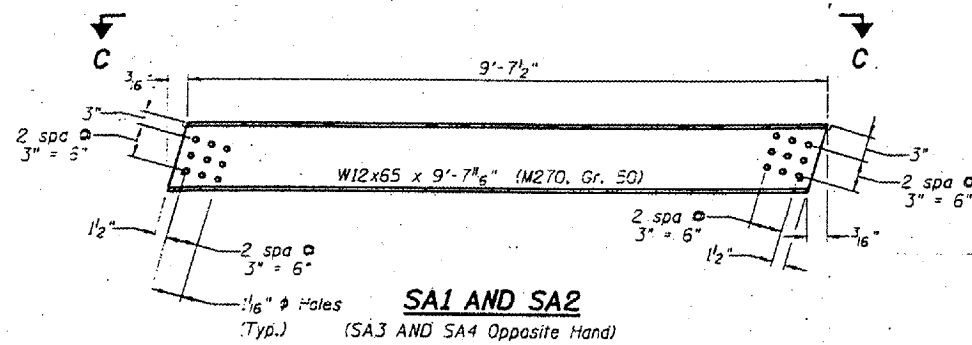
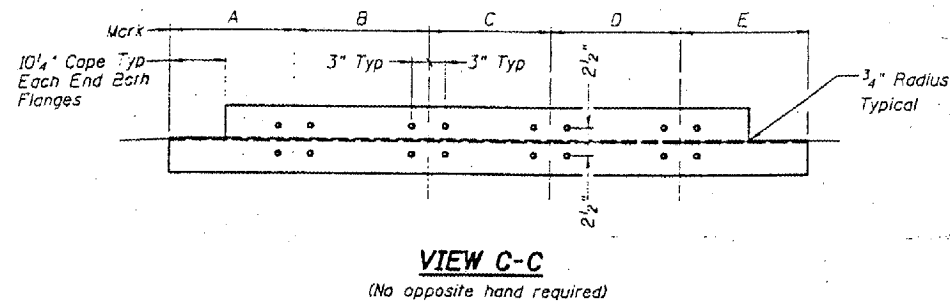
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

STOOL SUPPORT DETAILS
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

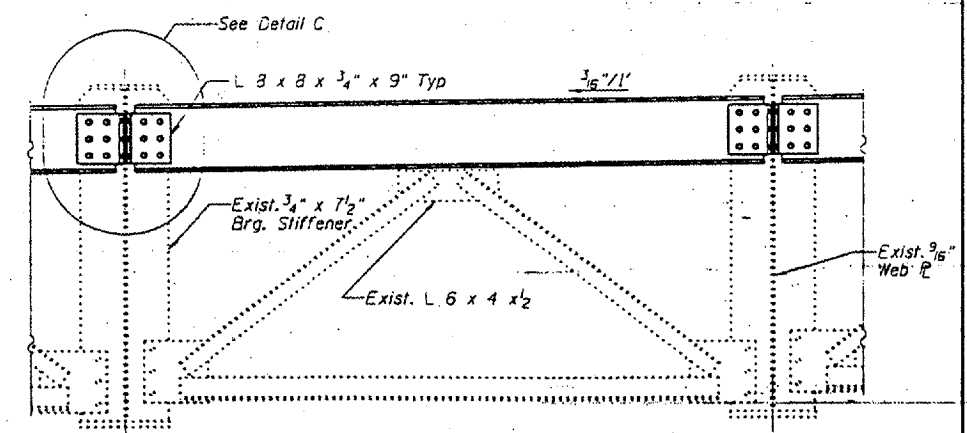
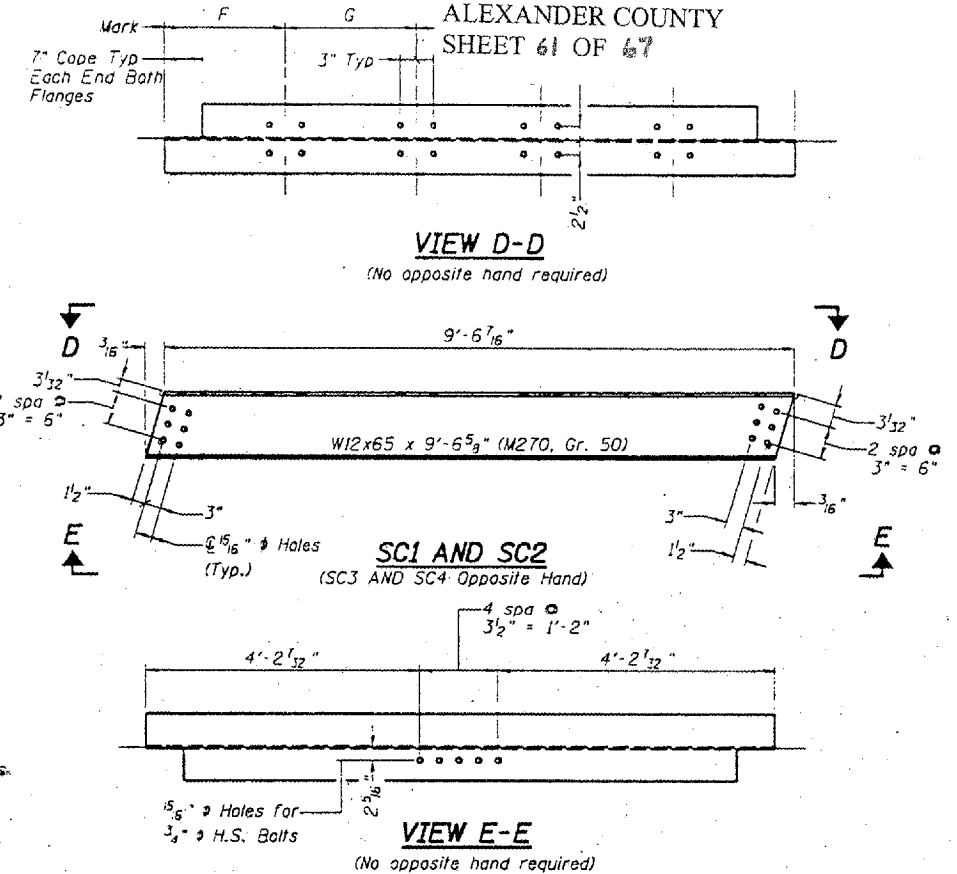
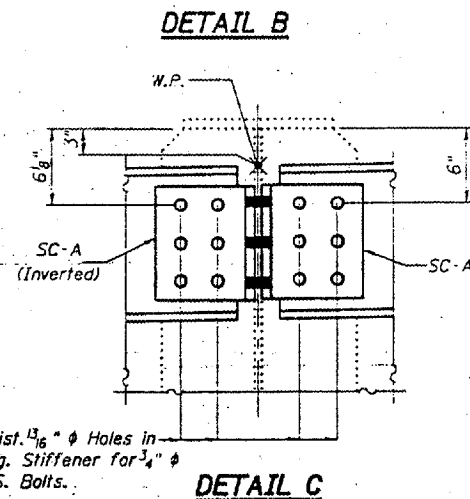
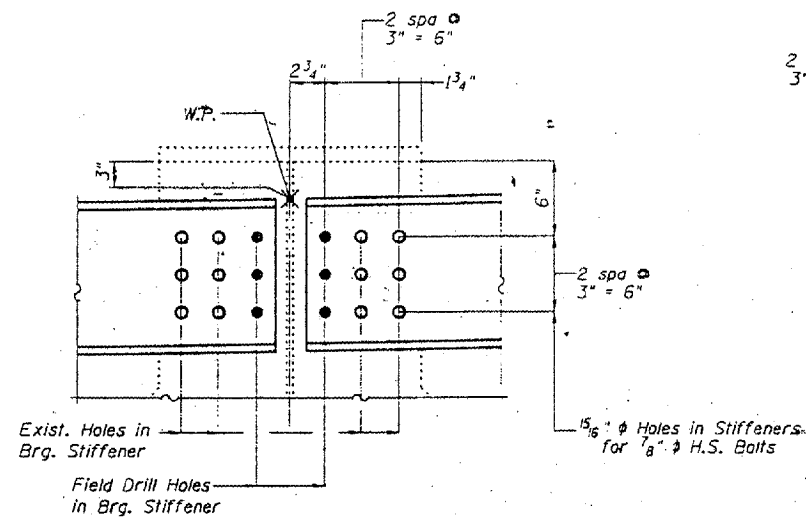
FRONT STOOL SUPPORT SPAN 9A

Mark	A	B	C	D	E	No. Req'd
SA1	1'-10 ¹ / ₂ "	2'-0"	1'-10"	2'-0"	1'-10 ¹ / ₂ "	2
SA2	1'-10 ¹ / ₂ "	1'-10"	1'-10"	1'-10"	2'-2 ¹ / ₂ "	1
SA3	2'-2 ¹ / ₂ "	1'-10"	1'-10"	1'-10"	1'-10 ¹ / ₂ "	1
SA4	1'-10 ¹ / ₂ "	2'-0"	1'-10"	2'-0"	1'-10 ¹ / ₂ "	2

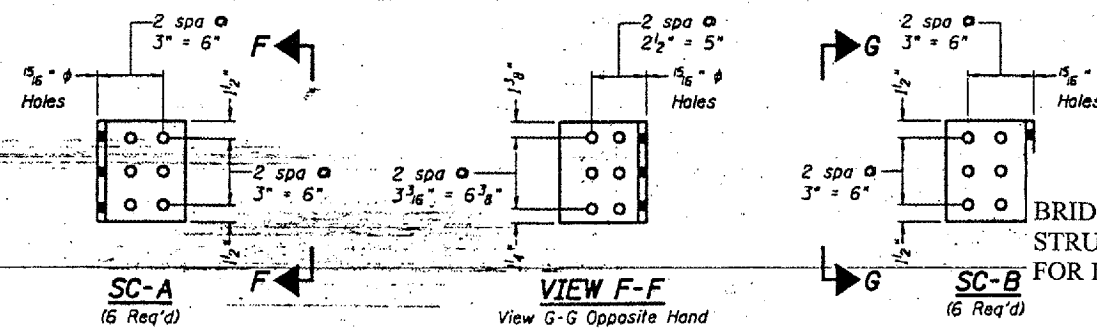


FRONT STOOL SUPPORT SPAN 15

Mark	F	G	H	J	K	No. Req'd
SC1	1'-10 ³ / ₂ "	2'-0"	1'-10"	2'-0"	1'-10 ³ / ₂ "	2
SC2	1'-10 ¹ / ₂ "	1'-10"	1'-10"	1'-10"	2'-2 ¹ / ₂ "	1
SC3	2'-2 ¹ / ₂ "	1'-10"	1'-10"	1'-10"	1'-10 ¹ / ₂ "	1
SC4	1'-10 ³ / ₂ "	2'-0"	1'-10"	2'-0"	1'-10 ³ / ₂ "	2



FRONT STOOL SUPPORT - SPAN 9A



FRONT STOOL SUPPORT - SPAN 15

DESIGNED P.S.J.
CHECKED A.T.H.
DRAWN Draw Christopher
CHECKED A.T.H. P.S...

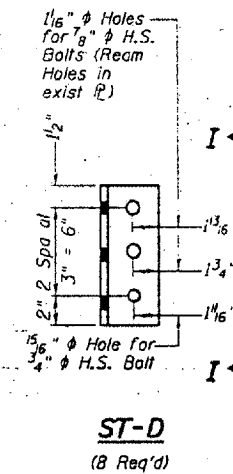
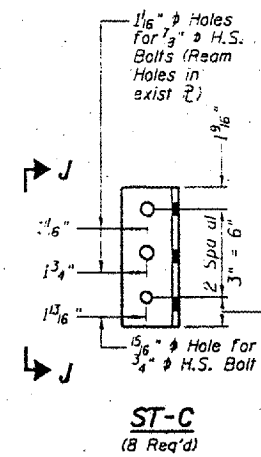
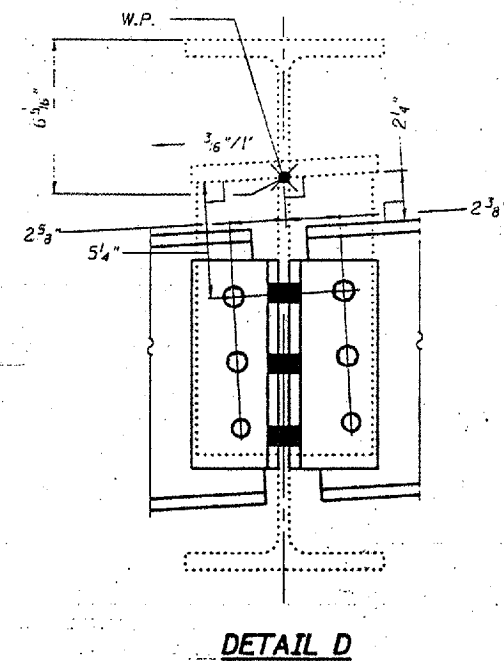
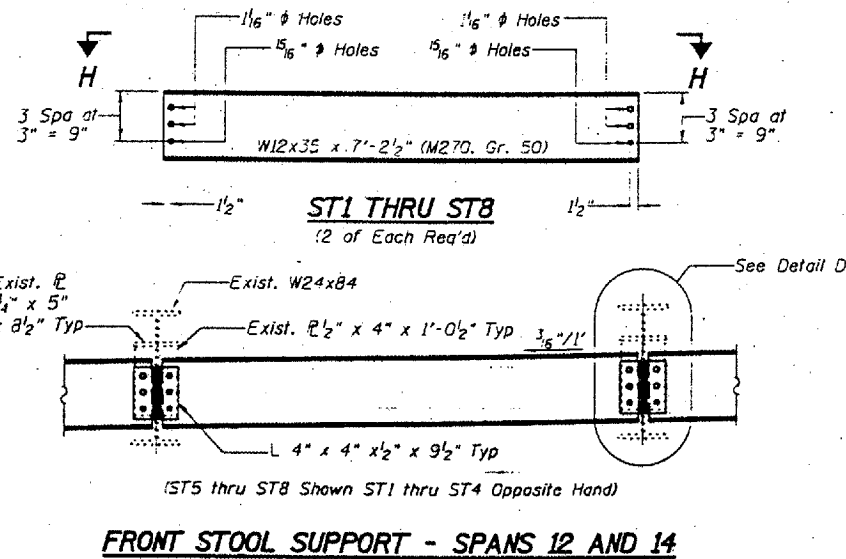
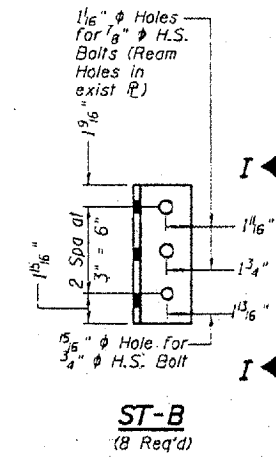
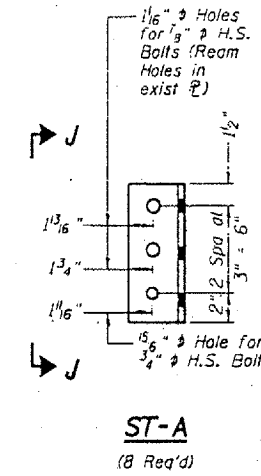
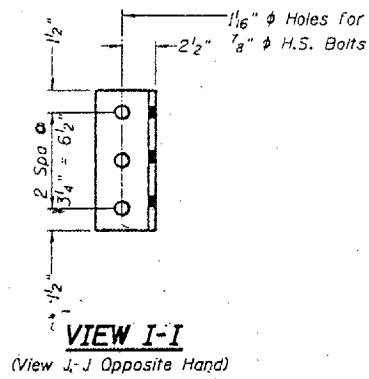
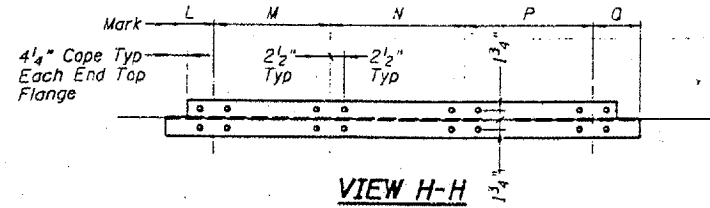
EXAMINED John A. Morris
ENGINEER OF STRUCTURAL SERVICES
PREPARED
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

STOOL SUPPORT DETAILS
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

FRONT STOOL SUPPORT

Mark	L	M	N	P	Q
ST1	1'-1"	1'-6 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1 3/4"
ST2	9"	1'-9 1/4"	2'-0"	1'-11 1/2"	8 3/4"
ST3	1'-1"	1'-6 1/4"	1'-11 1/4"	1'-11 1/4"	8 3/4"
ST4	1'-7 1/4"	1'-7 1/2"	1'-7 1/2"	1'-7 3/4"	8 1/2"
ST5	8 1/2"	1'-7 3/4"	1'-7 1/2"	1'-7 1/2"	1'-7 1/4"
ST6	8 3/4"	1'-11 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1"
ST7	8 3/4"	1'-11 1/2"	2'-0"	1'-9 1/4"	9"
ST8	1'-1 3/4"	1'-6 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1"



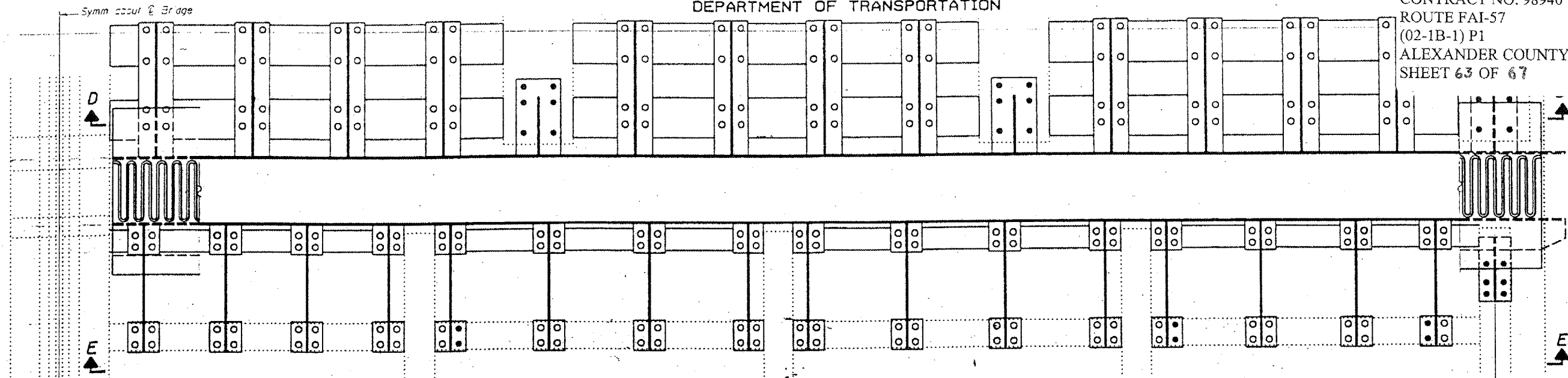
DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	P.S.J. A.T.H.

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES

PREPARED
ENGINEER OF SPECIES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

STOOL SUPPORT DETAILS
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

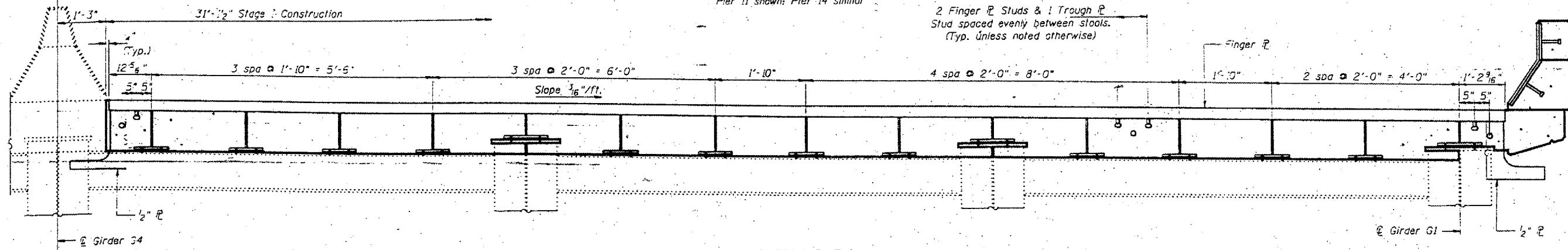


PLAN

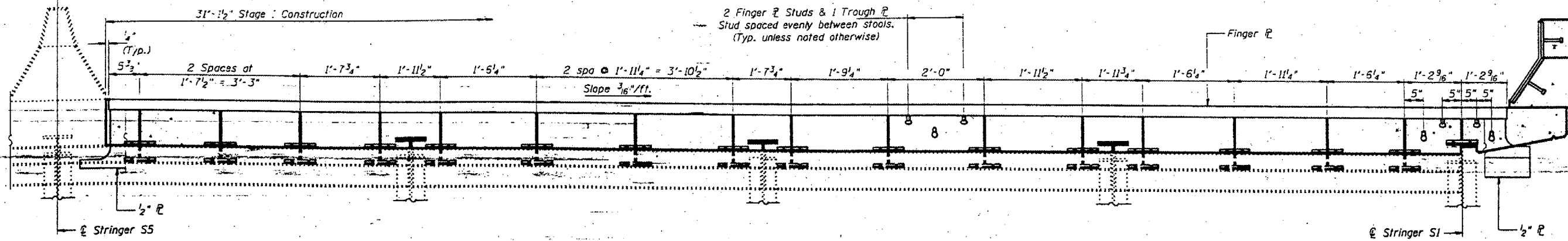
Pier 11 shown; Pier 14 similar

○ Indicates use of holes in new or existing member.
● Indicates field drilled holes in existing member.

Stringer SI



SECTION D-D



SECTION E-E

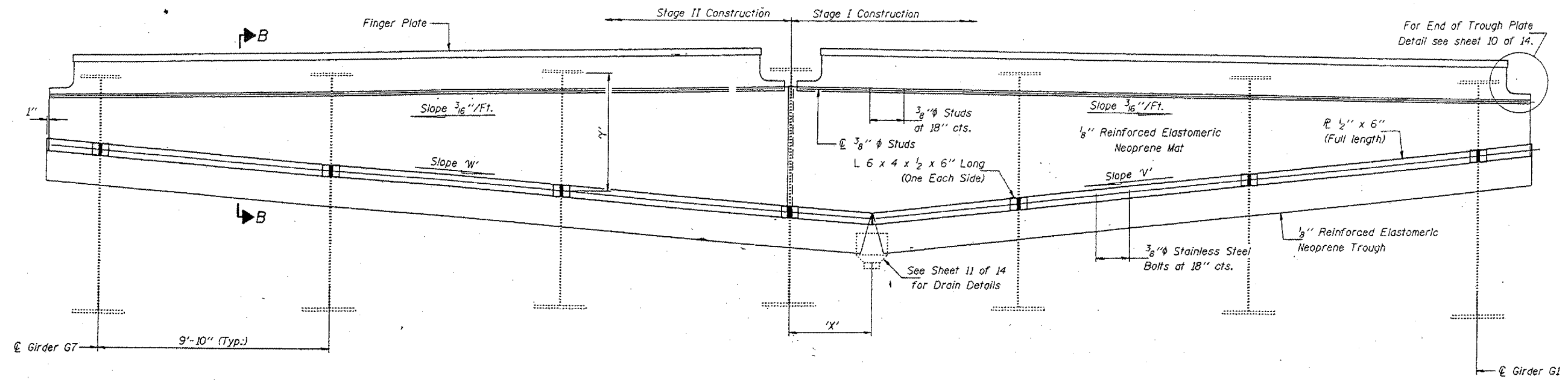
DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	John P. Schneller, Jr.
CHECKED	A.T.H. P.S.J.

FEBRUARY 4, 2002
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

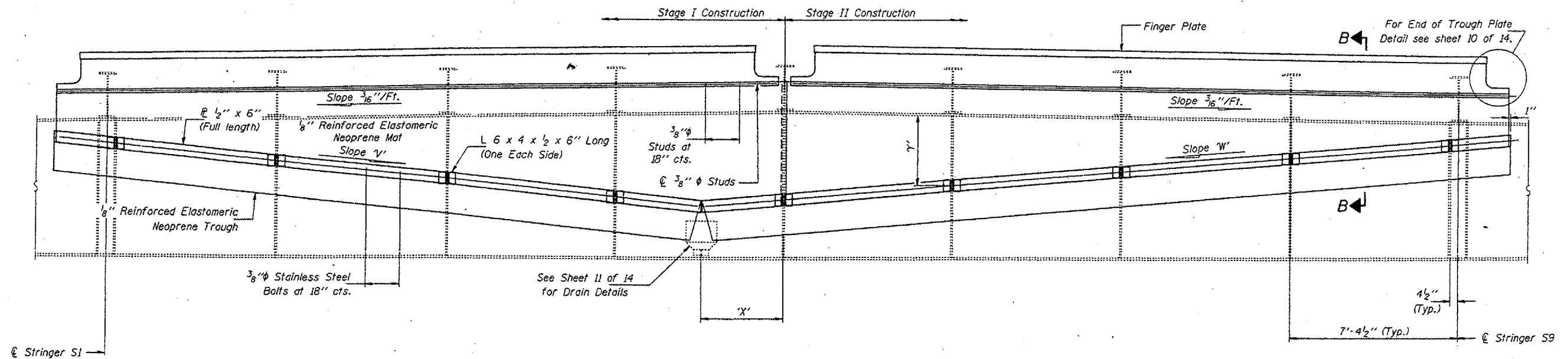
Notes:
For Parapet Plate Assembly see sheet 10 of 14.

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

EXPANSION JOINT DETAILS - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022



ELEVATION - APPROACH SPAN
(Looking North)



ELEVATION - TRUSS SPAN
(Looking South)

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Schneller Jr.	PASSED
CHECKED	P.S.J. A.T.H.	ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Showing Pier II; Pier 14 similar.
For Section B-B see sheet 6 of 14.
For slopes 'V' & 'W' and dimensions 'X' & 'Y', see Sheet 10 of 14.
Dimension 'Y' is measured from the underside of the top flange of the girders (Approach Spans) or Floor Beam (Truss Spans) to the center of the connection for the $\frac{1}{2}$ " x 6" ϕ .

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

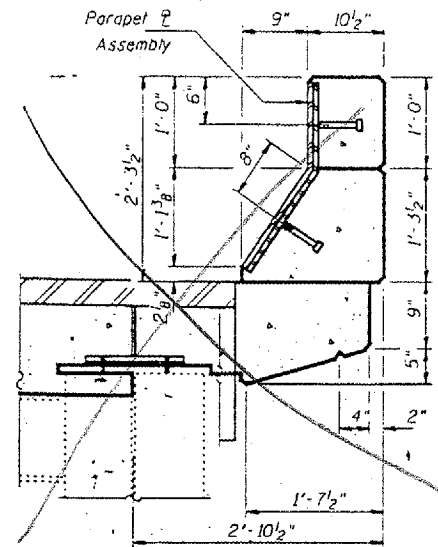
TROUGH DETAILS - PIER II & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

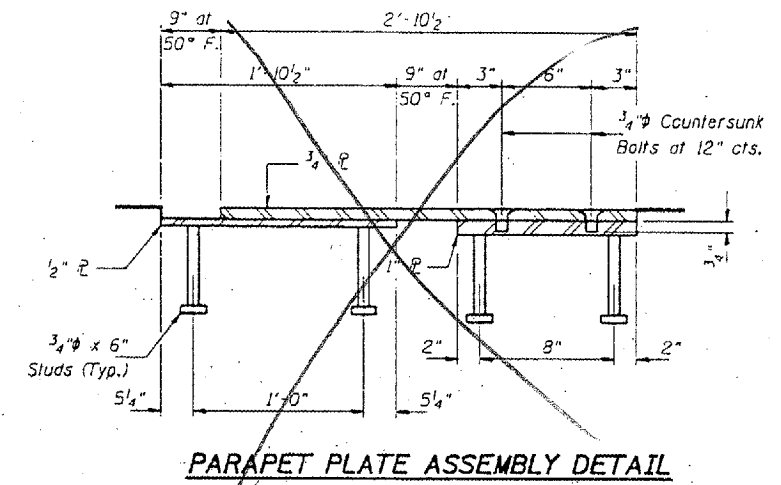
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 65 OF 67

TROUGH DIMENSIONS

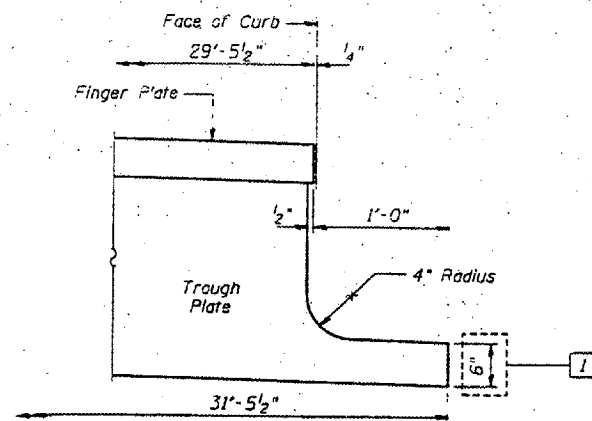
SLCPE/ DIMENSION	Pier 11	Pier 14
"Z"	1 1/4" / ft.	7/8" / ft.
"W"	1" / ft.	5/8" / ft.
"X"	3'-6 3/4"	4'-10 1/2"
7' Approach Span	G1	3'-0 1/2"
	G2	4'-2 5/8"
	G3	5'-4 1/8"
	G4	5'-10 5/8"
	G5	4'-11 1/4"
	G6	3'-11 5/8"
	G7	2'-11 5/8"
9' Truss Span	S1	1'-0 1/4"
	S2	1'-10 5/8"
	S3	2'-8 5/8"
	S4	3'-7 1/2"
	S5	3'-10 3/8"
	S6	3'-1 3/8"
	S7	2'-4 5/8"
	S8	1'-7 1/8"
	S9	11 3/8"



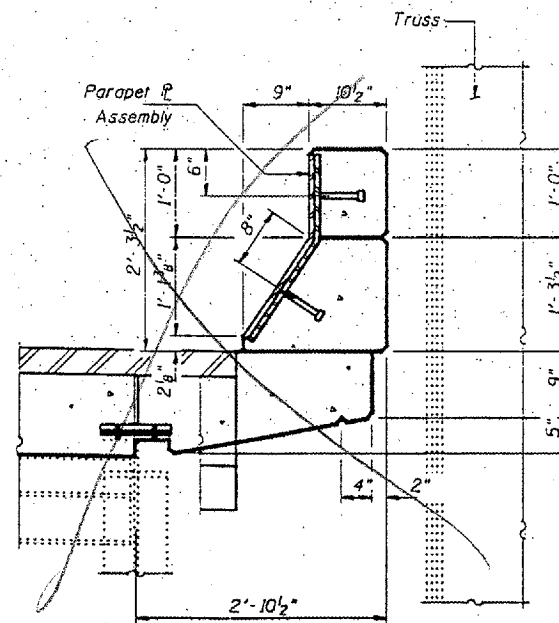
SECTION THRU CURB - SPANS 9A & 15



PARAPET PLATE ASSEMBLY DETAIL



TYPICAL END OF TROUGH PLATE DETAIL



SECTION THRU CURB - SPANS 12 & 14

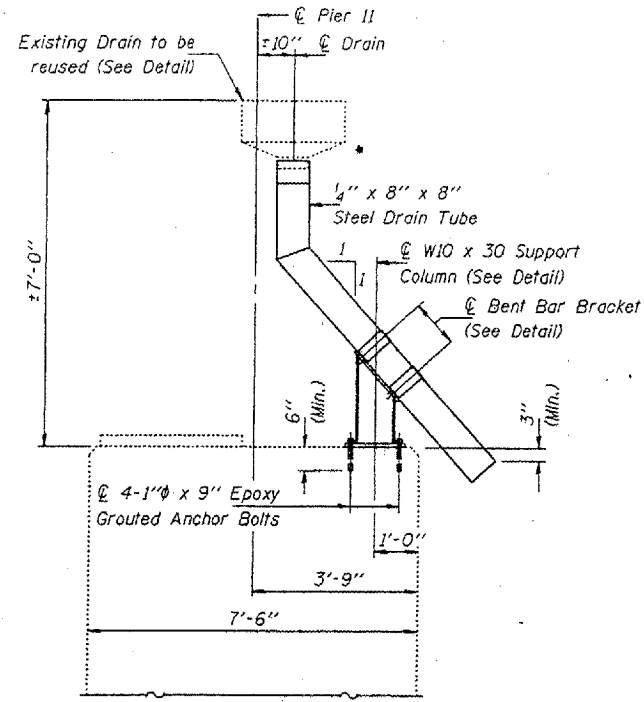
DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John DeMorris</i>
DRAWN	John P. Schneller, Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H. P.S.J.	PASSED
		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

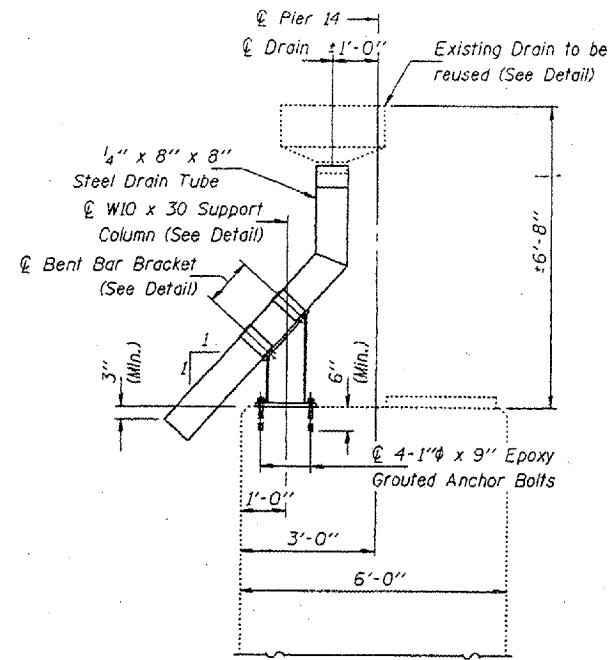
EXPANSION JOINT DETAILS - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

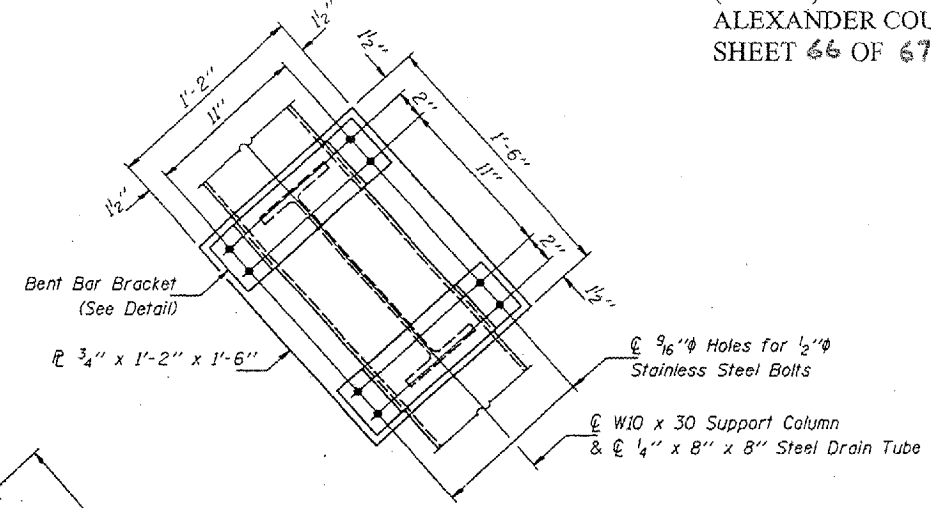
CONTRACT NO. 98940
ROUTE FAI-57
(02-1B-1) P1
ALEXANDER COUNTY
SHEET 66 OF 67



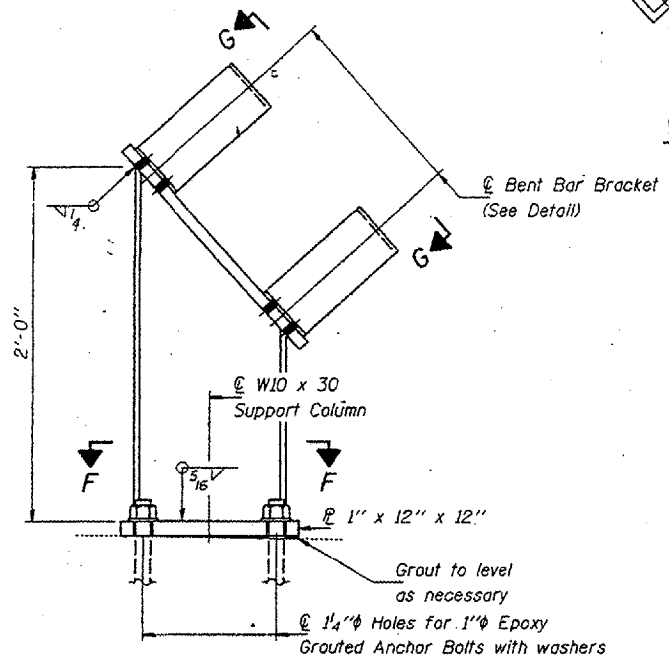
ELEVATION - PIER 11



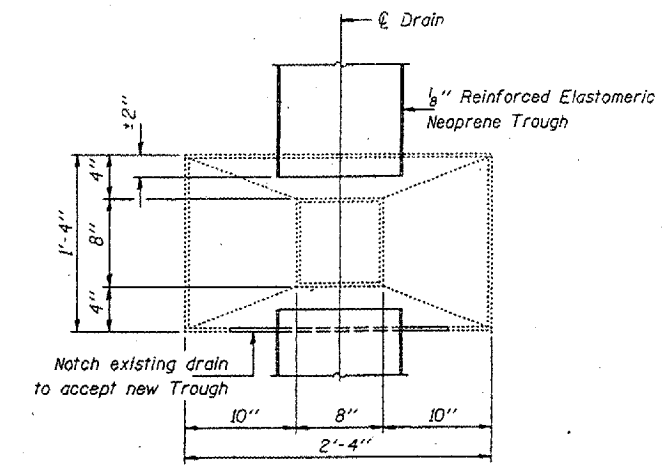
ELEVATION - PIER 14



VIEW G-G

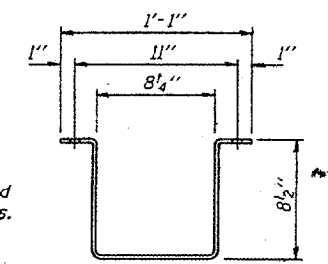


SUPPORT COLUMN
(No. Req'd. = 2)



TOP VIEW

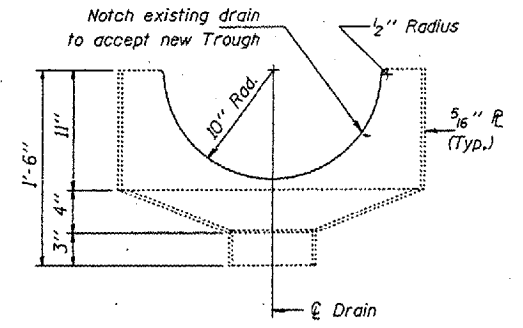
Note: Place 1/8" thick Neoprene around Drain Tube at Bracket locations.



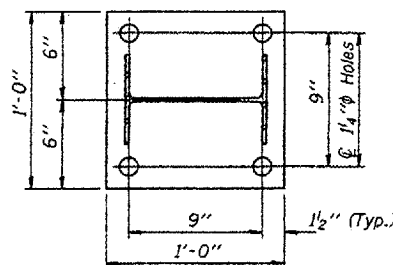
BENT BAR BRACKET

DETAIL
P 1/4" x 4" x 2'-5"
(No. Req'd. = 4)

Notes:
The 1/4" x 8" x 8" Structural Steel Tubing shall conform to the requirements of ASFM designation A-500, Grade B, Structural Steel Tubing.
Steel tubing shall be galvanized in accordance with AASHTO M111 and ASTM A-385. Cost included with Drain System.
Existing 1/4" x 8" x 8" Steel Drain Tubes may be re-used for new Drainage System, as directed by the Engineer.



DRAIN ELEVATION

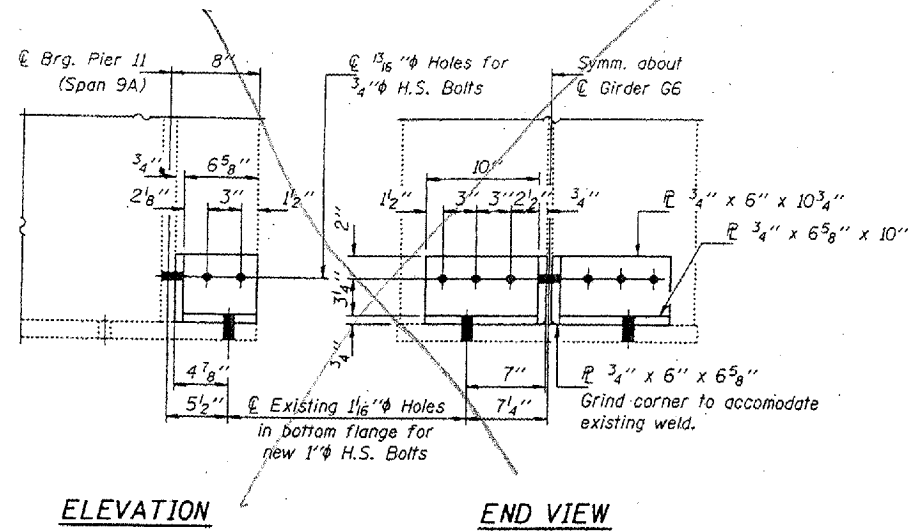


SECTION F-F

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

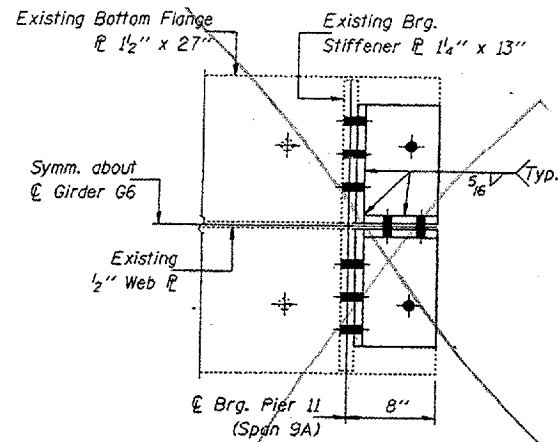
DRAIN SYSTEM - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

DESIGNED	P.S.J.	FEBRUARY 4,	2002
CHECKED	A.T.H.	EXAMINED	John A. Morris
DRAWN	John F. Schneller Jr.	PASSED	ENGINEER OF STRUCTURAL SERVICES
CHECKED	P.S.J. A.T.H.		ENGINEER OF BRIDGES AND STRUCTURES



ELEVATION

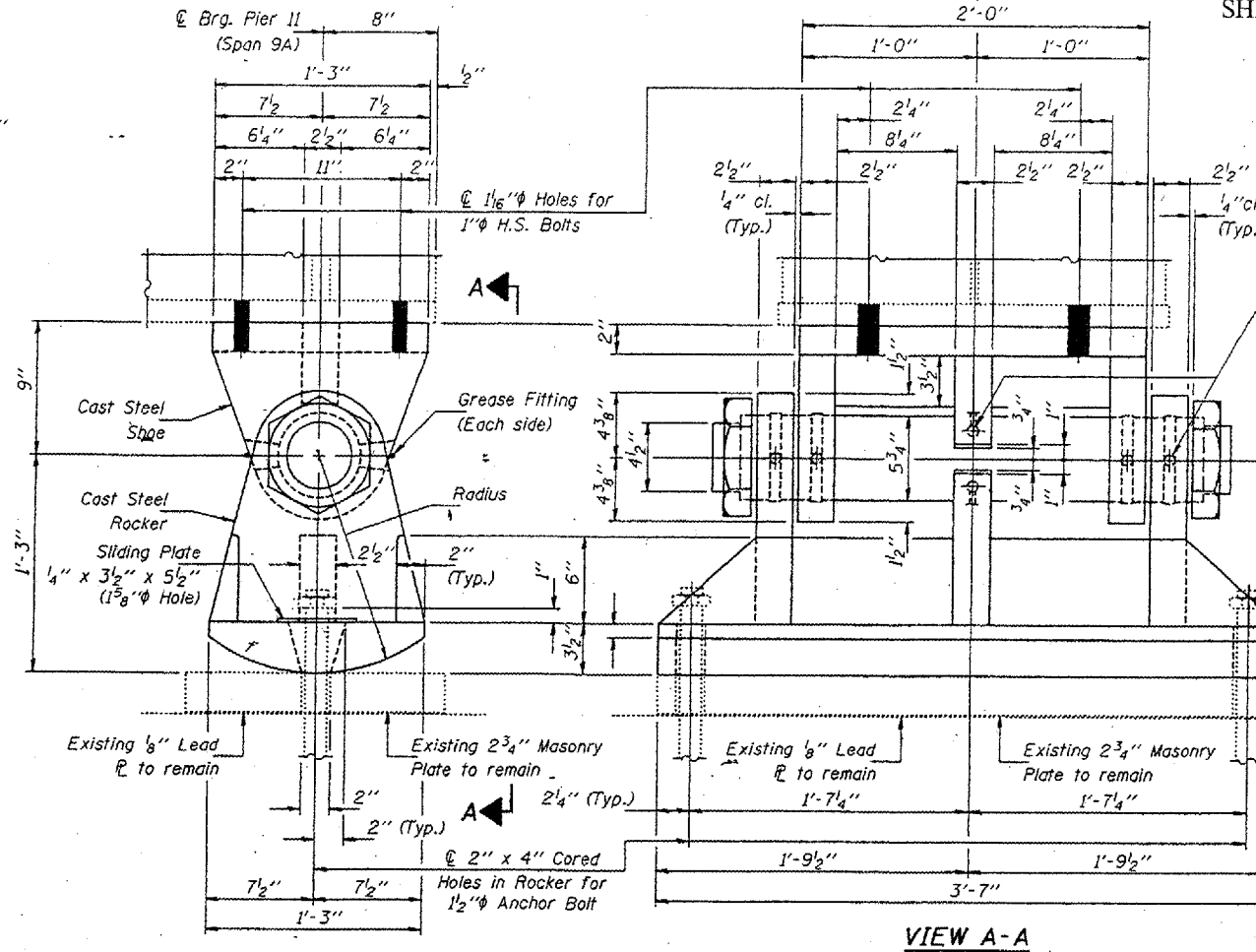
END VIEW



PLAN

GIRDER G6 CRACK REPAIR

Notes:
The cost of all field drilling required for installation of the steel members is included with Furnishing and Erecting Structural Steel. Estimated weight of Structural Steel for this repair = 80 Lbs.



ELEVATION

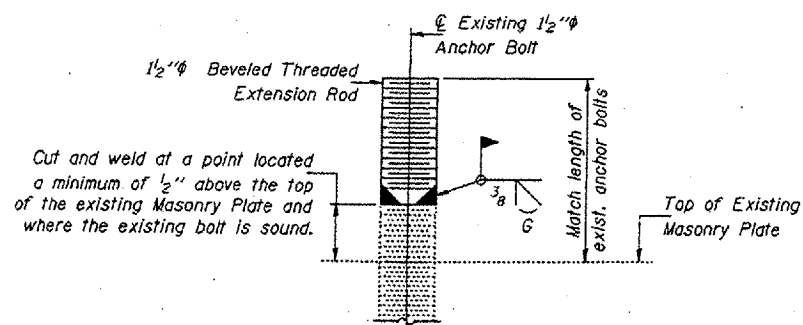
VIEW A-A

GREASE GROOVE ON SADDLE

* Note:
Grease bearing assembly with molybdenum grease before installation.

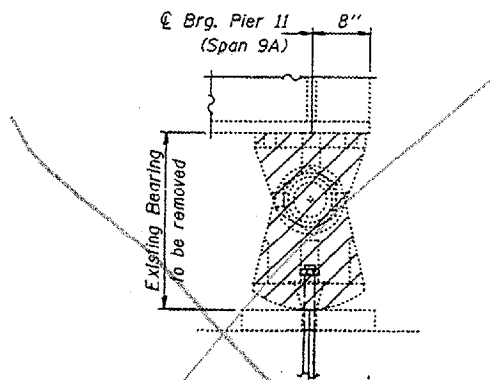
* Drill 1/4 inch Holes to grease groove. Drill and tap for grease fitting. (Typ.)

Bore 5 3/4 inch x 1/32 inch for Standard Steel Case Hardened Pin (See Standard Specifications) Recessed Hex. Nut



ANCHOR BOLT REPAIR DETAIL

The cost of furnishing and installation of required Anchor Bolt Extensions included with Furnishing and Erecting Structural Steel.



* Existing 1 1/2 inch Anchor Bolt Existing nut on anchor bolt to be removed. If nut can not be removed cut anchor bolt, see Anchor Bolt Repair Detail.

EXISTING BEARING REMOVAL DETAIL

Notes:
Cast Steel shall conform to A.S.T.M. A486-64, Class 70, normalized.
Forged Steel shall conform to A.S.T.M. A235-64, Class F.
All other material shall conform to A.S.T.M. A36 except as otherwise noted.
Structural Steel weldments of equal section and strength may be substituted for the castings subject to approval of Engineer.
Fillet or partial penetration weld shall be used for weldments. Minimum weld size shall be 1/4 the thickness of plate being welded, except maximum size of weld need not exceed 3/4 inch.
The estimated weight of Structural Steel for the bearing replacement = 1090 Lbs.
Cost included with Furnishing & Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing heights and shim thickness dimensions.

REACTION TABLE		
D	(k)	276.3
L	(k)	115.9
Imp.	(k)	11.6
Total	(k)	403.8

Minimum Jack Capacity = 255 Tons.

DESIGNED	V.H.V.
CHECKED	P.S.J.
DRAWN	John F. Schneller Jr.
CHECKED	V.H.V. P.S.J.

FEBRUARY 4, 2002
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

**GIRDER CRACK REPAIR
& BEARING REPLACEMENT
GIRDER 6 - SPAN 9A
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022**