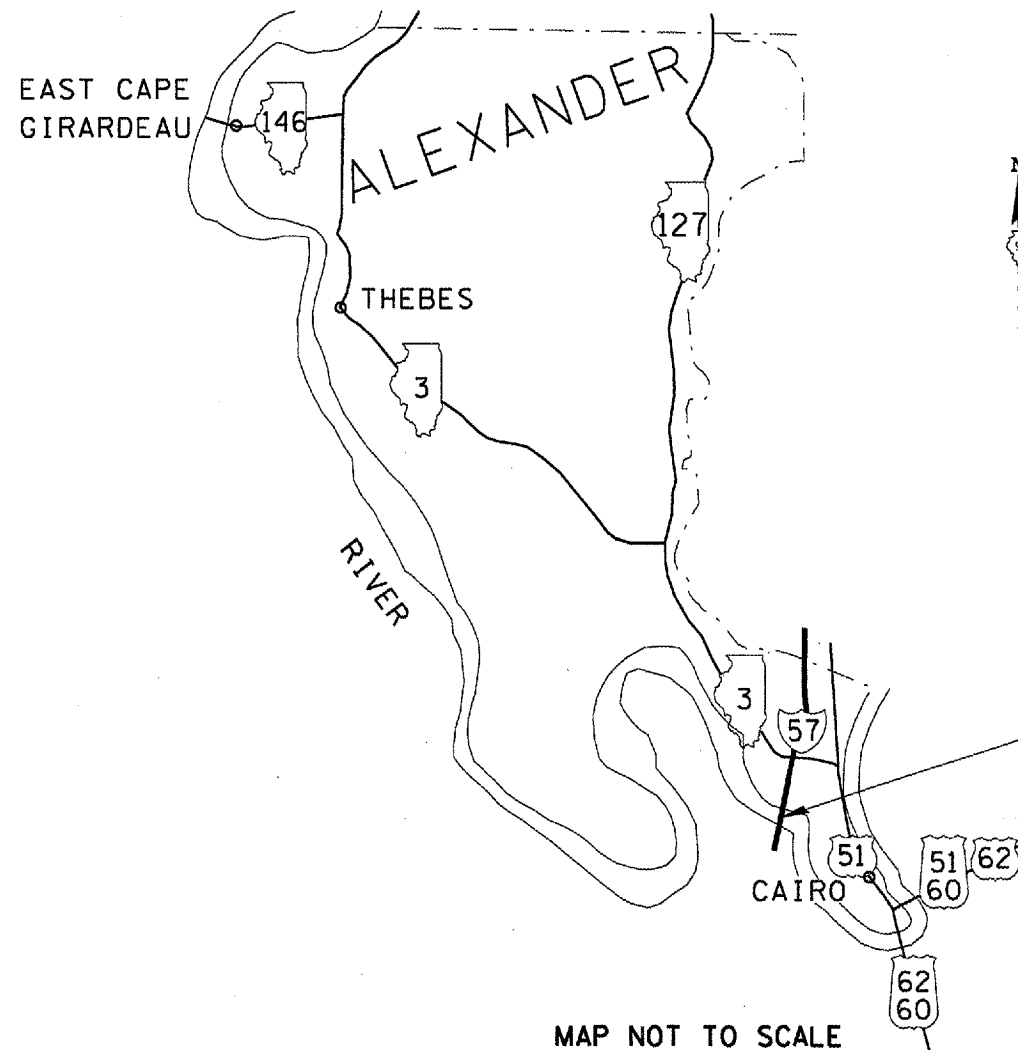
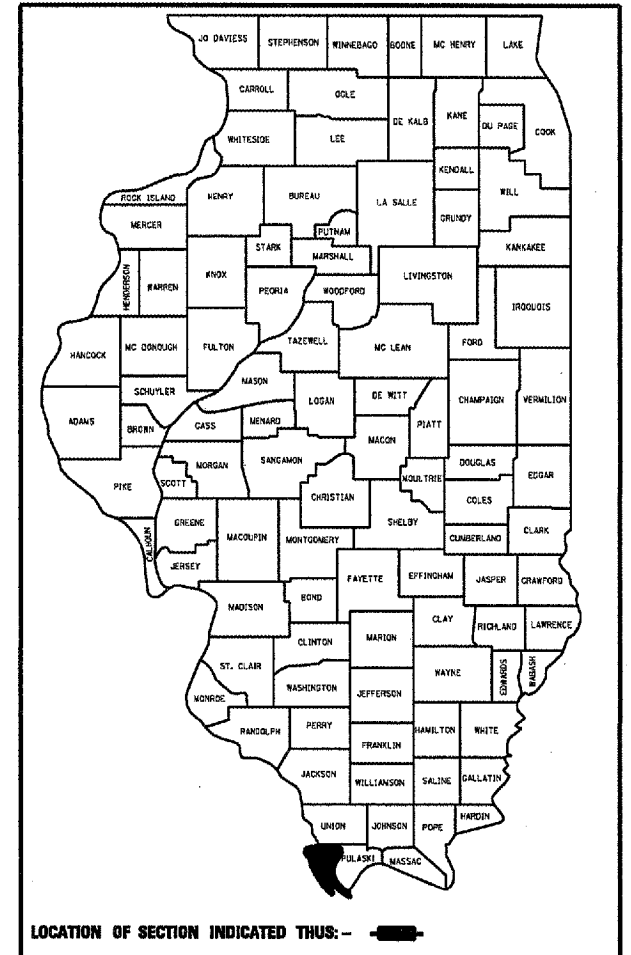


FOR INDEX OF SHEETS, SEE SHEET NO. 2.
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4.

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-99-020-08

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

*(02-1B-1) P-1
CONTRACT NO. 78040



CAIRO TOWNSHIP
ADT = 10,500, 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.juliecall.com

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____

May C. Ramis
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 21, 20 08

Eric E. Harvath
ENGINEER OF DESIGN AND ENVIRONMENT
March 21, 20 08

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

CONTRACT NO. 78040

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

INDEX OF SHEETS

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-11P-1
CONTRACT NO. 78040

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, SIGNATURES
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	GENERAL ELEVATION & PLAN SHOWING DECK JOINT LOCATIONS
6	TYPICAL SECTIONS FOR INFORMATION ONLY
7-16	TRUSS DETAILS FOR INFORMATION ONLY
17-18	BEARINGS FOR INFORMATION ONLY
19-25	FRAMING PLANS FOR INFORMATION ONLY
26	SPLICES & STIFFENERS DETAILS FOR INFORMATION ONLY
27-29	CROSS FRAMES & LINKS FOR INFORMATION ONLY
30	TRUSS LAYOUT FOR INFORMATION ONLY
31-32	FLOOR STEEL SPANS 13 & 14 FOR INFORMATION ONLY
33	LIGHT, LADDER, PIER RAILING FOR INFORMATION ONLY
34-35	NAVIGATION LIGHTS FOR INFORMATION ONLY
36	BOTTOM LATERAL BRACING FOR INFORMATION ONLY
37	LINKS SPANS 8A & 9A FOR INFORMATION ONLY
38	EXPANSION GUARD PIERS 11 & 14 FOR INFORMATION ONLY
39	DRAINAGE DETAIL FOR INFORMATION ONLY
40-44	1994 STEEL REPAIR FOR INFORMATION ONLY
45-447	1996 EXPANSION JOINT REPAIR FOR INFORMATION ONLY
448	1996 DRAIN DETAILS FOR INFORMATION ONLY
49	1996 EXPANSION JOINTS FOR INFORMATION ONLY
50-51	1999 NAVIGATION LIGHT REPAIRS FOR INFORMATION ONLY
52-55	1999 PIN & LINK REPAIRS FOR INFORMATION ONLY
56-67	2002 EXPANSION JOINT, DRAIN, STEEL REPAIRS FOR INFORMATION ONLY

STANDARDS

- 701400-02 APPROACH TO LANE CLOSURE - FREEWAY/EXPRESSWAY
- 701401-04 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701901 TRAFFIC CONTROL DEVICES

COMMITMENTS

STATE OF MISSOURI: A CURRENT MISSOURI HIGHWAY PROJECT ENCROACHES ON THE REQUIRED TRAFFIC CONTROL LIMITS OF THIS PROJECT. JUNE 30, 2008 IS THE SCHEDULED COMPLETION DATE FOR THE MISSOURI PROJECT. NO WORK WILL BE PERMITTED PRIOR TO JUNE 30, 2008 UNLESS AN EARLIER START DATE IS APPROVED BY MISSOURI DEPARTMENT OF TRANSPORTATION.

Approved:	<u>May C Lami</u> REGION 5 ENGINEER
	<u>Jan 22 20 08</u> DATE
Prepared By:	<u>Wesley Hammel</u> DISTRICT OPERATIONS ENGINEER
Examined By:	<u>Danny L. Denton</u> ASSISTANT REGIONAL ENGINEER
Examined By:	<u>James Travis Emery</u> DISTRICT LAND ACQUISITION ENGINEER
Examined By:	<u>Carrie Nelson</u> DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	<u>Joe Stanfiewicz</u> DISTRICT STUDIES & PLANS ENGINEER
Examined By:	<u>Joseph Lugin</u> DISTRICT CONSTRUCTION ENGINEER
Examined By:	<u>Bruno P. P. P.</u> DISTRICT MATERIALS ENGINEER
Examined By:	<u>Jim Switzer</u> DISTRICT PROJECT IMPLEMENTATION ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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
CONTRACT NO. 78040

The existing steel coating contains lead.

All 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 shall be cleaned and painted. Deck joint locations are shown on Sheet 5 of 67.

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 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 Transportation 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. For questions about the Coast Guard requirements, contact Roger Weibusch at Eighth Coast Guard District, 1222 Spruce Street, St. Louis, Missouri, 63103; telephone (314) 539-3900.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	ALEXANDER, IL MISSISSIPPI, MO	67	4
FED. ROAD DIST. NO. 7	ILLINOIS			

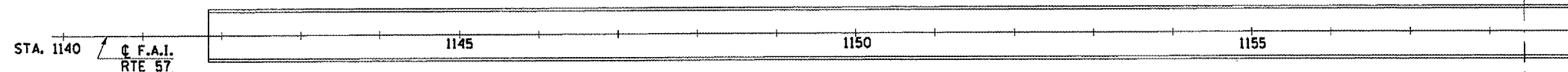
*(02-1B-1) P-1
CONTRACT NO. 78040

SUMMARY OF QUANTITIES

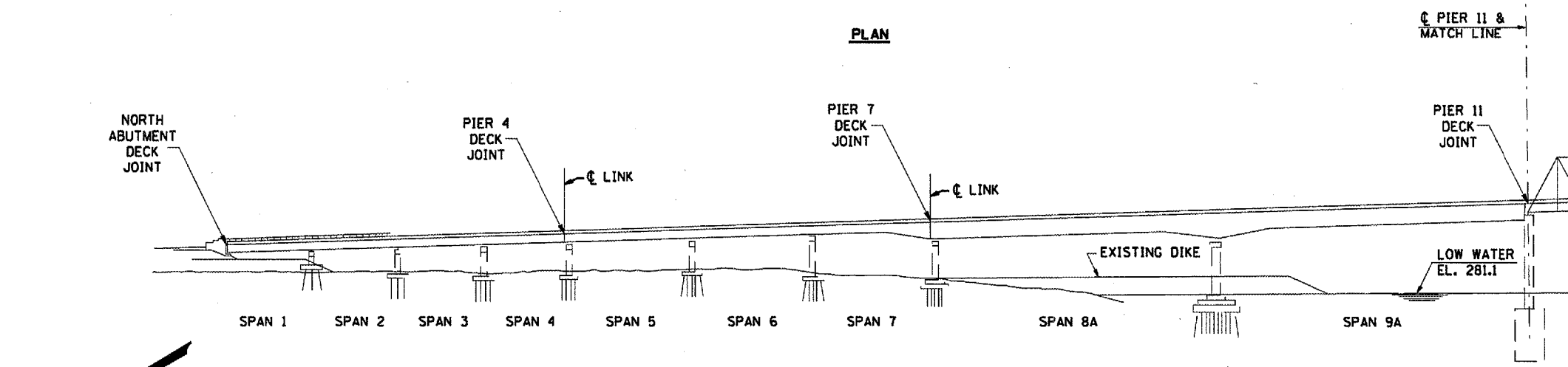
CODE NUMBER	ITEM DESCRIPTION	RURAL	
		UNIT	QUANTITY
50600600	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1
50606401	CONTAINMENT ^{AND} DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10
67100100	MOBILIZATION	L SUM	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		ALEXANDER, IL MISSISSIPPI, MO	67	5

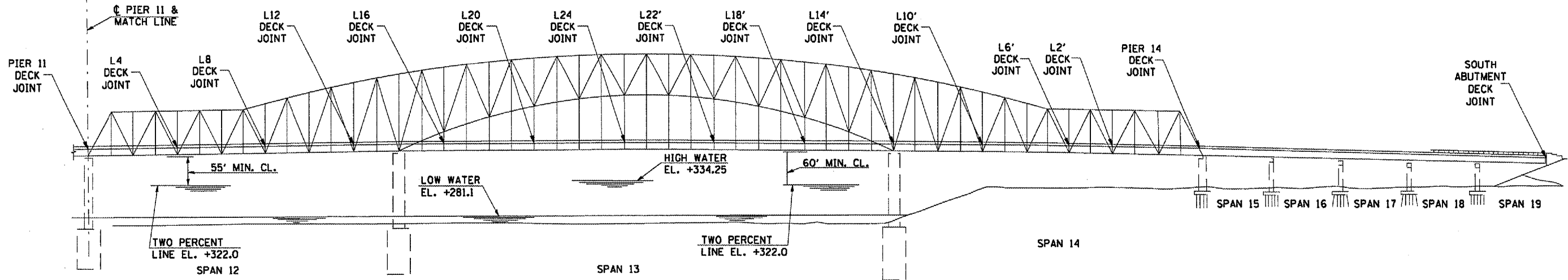
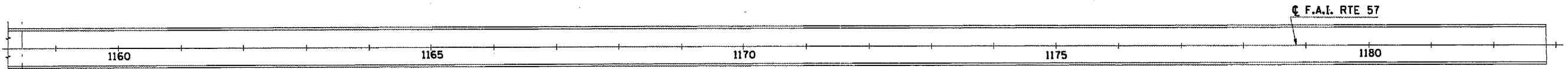
FED. ROAD DIST. NO. 7 ILLINOIS
 *102-18-1) P-1
 CONTRACT NO. 78040



PLAN



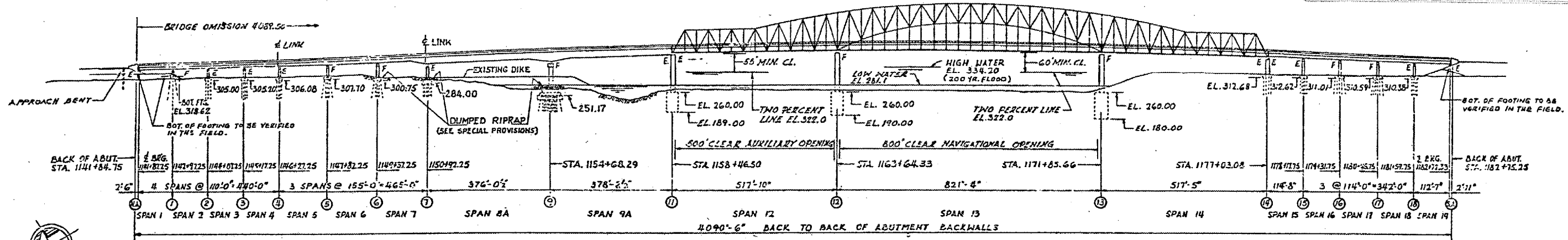
ELEVATION



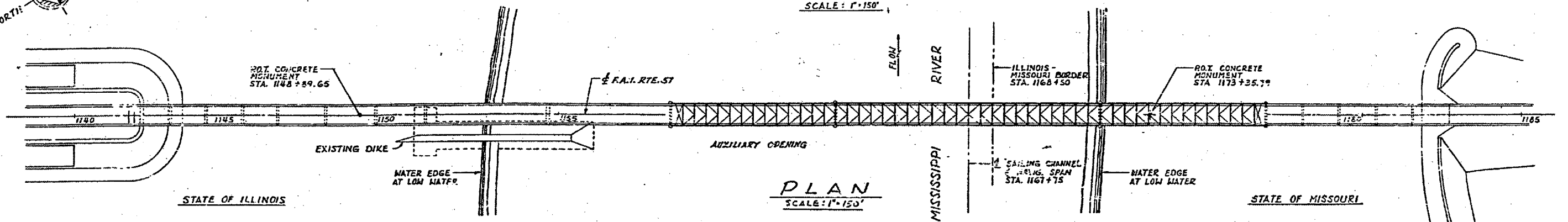
ELEVATION

BENCH MARKS
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1148+89.65 TL 1/2 MEDIAN EL. 317.12
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1173+35.79 TL 1/2 MEDIAN EL. 319.31

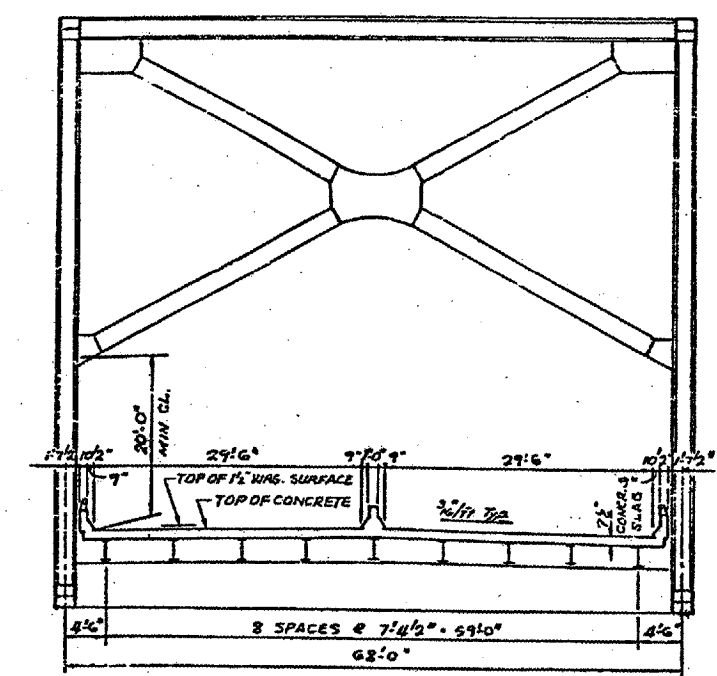
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 6 OF 67
 FOR INFORMATION ONLY



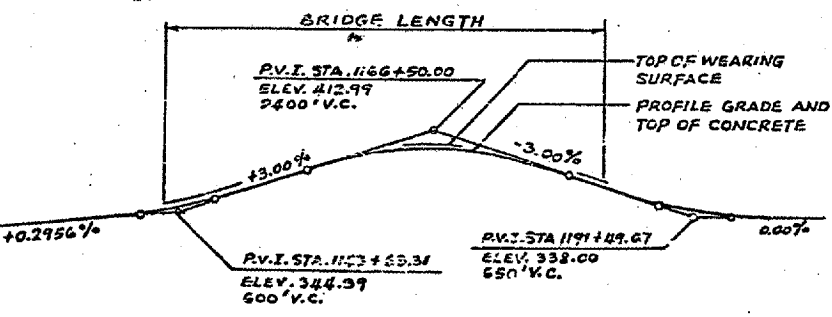
ELEVATION
 SCALE: 1"=150'



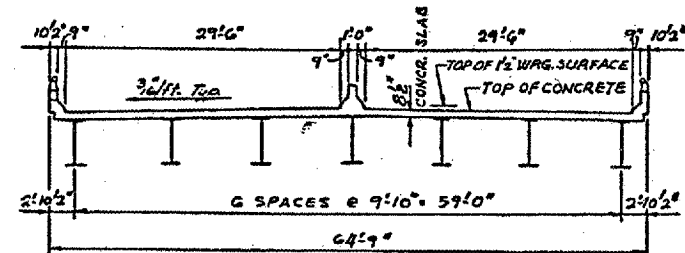
PLAN
 SCALE: 1"=150'



TYPICAL SECTION THRU TRUSS SPANS



PROFILE GRADE - F.A.I. RTE 57
 (4'0" LT. AND RT. OF 1/2 MEDIAN)



TYPICAL SECTION THRU GIRDER SPANS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN AND ELEVATION
3	FRAMING PLAN - SPANS 1, 2, 3 & 4
4	FRAMING PLAN - SPANS 5, 6 & 7
5	FRAMING PLAN - SPANS 8, 9 & 10
6	FRAMING PLAN - SPANS 11, 12 & 13
7	FRAMING PLAN - SPANS 14, 15 & 16
8	FRAMING PLAN - SPANS 17, 18 & 19
9	CIRDER 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 2A & 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 ₁₀ TO L ₉ & U ₁ TO U ₃
23	TRUSS DETAILS - L ₄ TO L ₇ & U ₄ TO U ₆
24	TRUSS DETAILS - L ₈ TO L ₁₀ & U ₇ TO U ₁₀
25	TRUSS DETAILS - L ₁₁ TO L ₁₃ & U ₁₁ TO U ₁₃
26	TRUSS DETAILS - L ₁₄ TO L ₁₅ & U ₁₄ TO U ₁₆
27	TRUSS DETAILS - L ₁₆ TO L ₁₇ & 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	BERTALS - 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. 502 OF THE STD. SPECS.

THE BASIC ZINC SILICO CHROMATE PAINT SYSTEM SHALL BE USED
 (Quantity of paint for structural steel to be painted = 22,283.460 gal.)

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

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

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

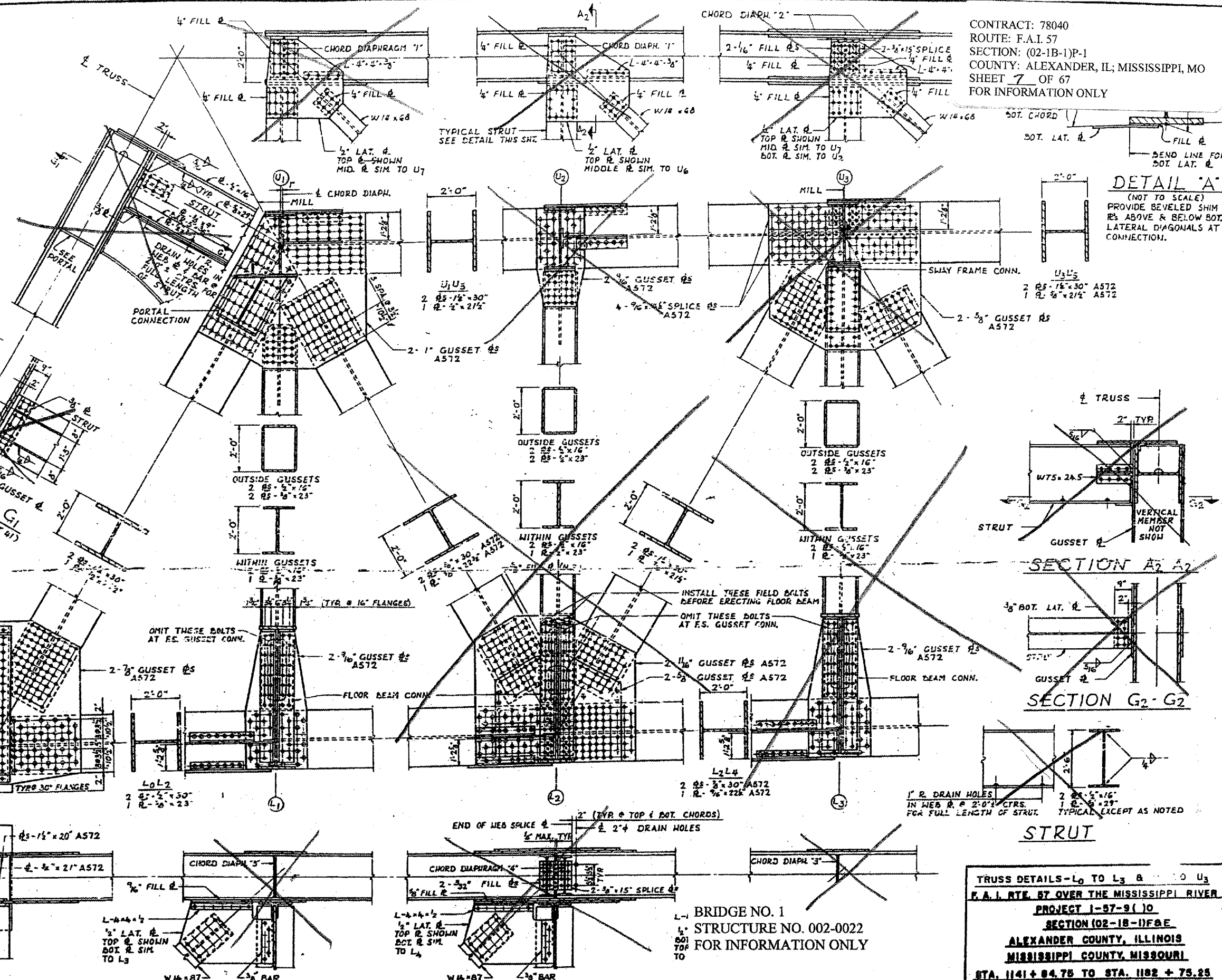
ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 10 S. WABASH AVE. CHICAGO, ILLINOIS

GENERAL PLAN AND SECTION
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(6)D
 SECTION (02-1B-1)P
 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: \oplus) AND FIELD FASTENERS (DENOTED THUS: \oplus) 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 ϵ OF BRIDGE SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39
 FOR BOTTOM LATERAL CONNECTIONS ALONG ϵ 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 ϵ OF ALL FLOOR BEAMS ARE TO BE PERPENDICULAR TO A STRAIGHT LINE THROUGH PANEL POINTS L_0 AND L_3 .
 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")

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 7 OF 67
 FOR INFORMATION ONLY



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

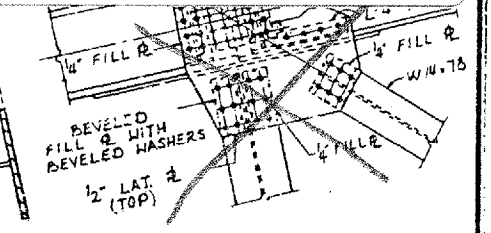
SECTION A2-A2
SECTION G2-G2

STRUT

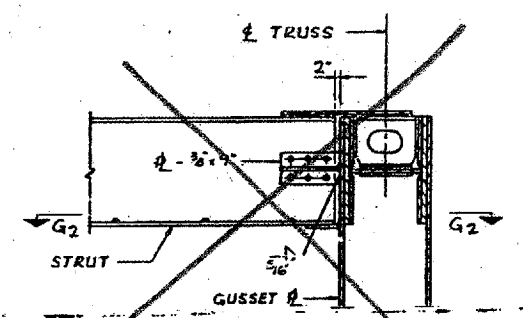
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - L_0 TO L_3 & U_1 TO U_3
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)P-1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

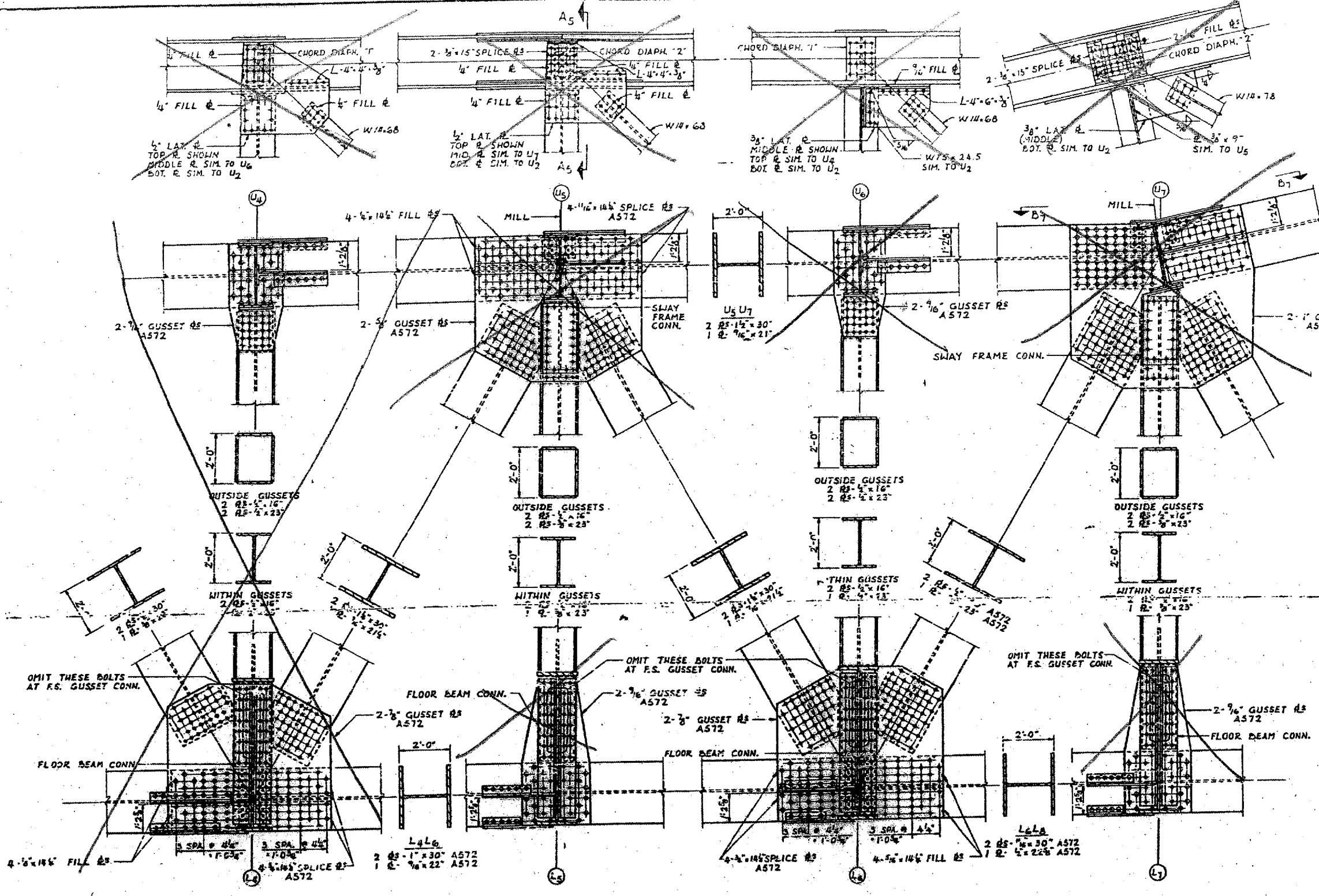
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 8 OF 67
 FOR INFORMATION ONLY



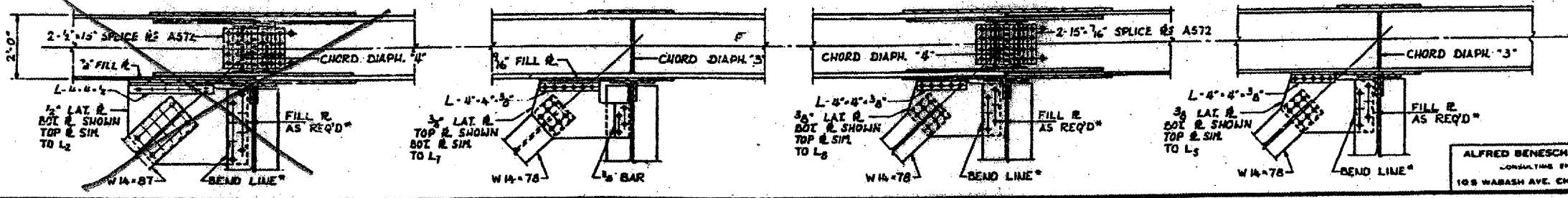
SECTION B7-B7



SECTION A5-A5
 SWAY FRAME CONNECTION & VERTICAL
 AND DIAGONAL TRUSS MEMBERS NOT SHOWN



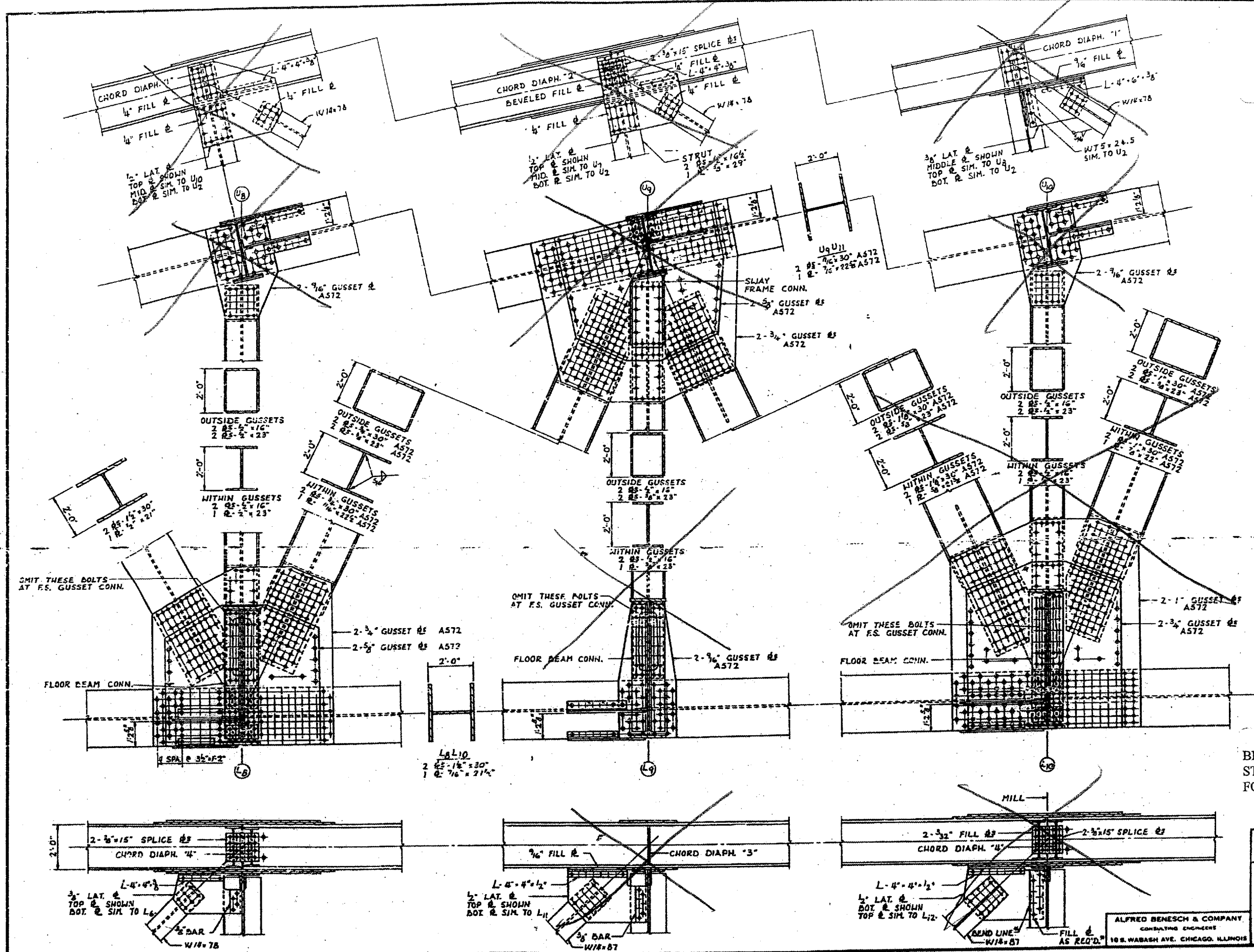
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY



TRUSS DETAILS - L4 TO L7 & U4 TO U7
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1)D
 SECTION (02-1B-1)P-1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 9 OF 67
 FOR INFORMATION ONLY

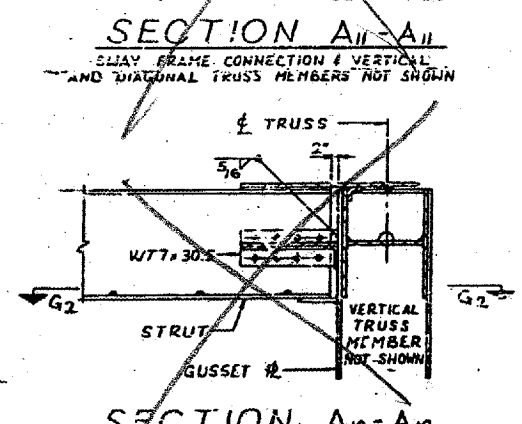
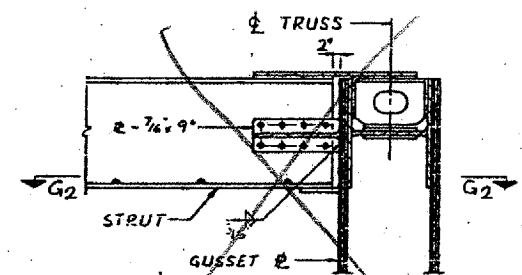
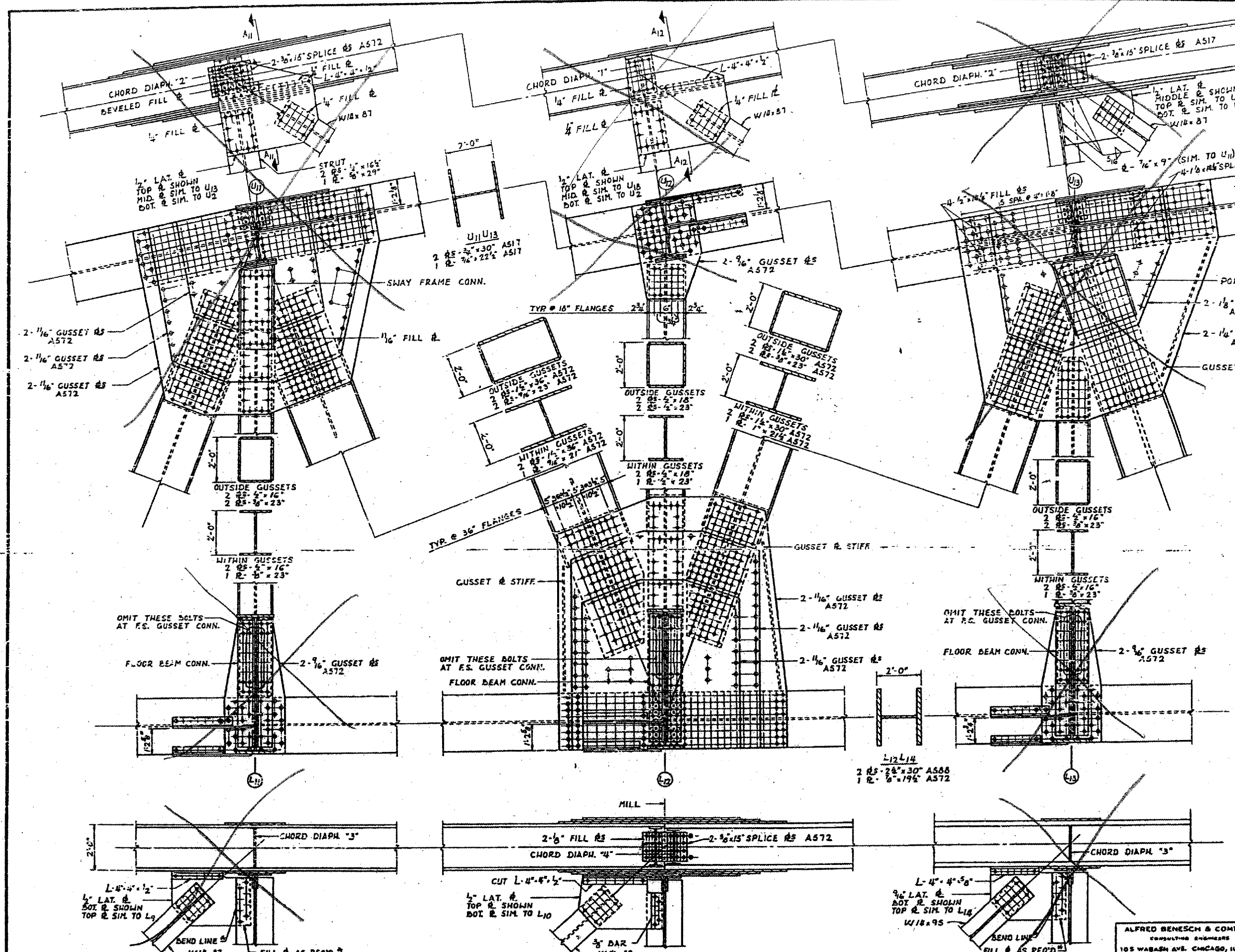


BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS-L₈ TO L₁₀ & TO U₁₀
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)P-1
 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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 10 OF 67
 FOR INFORMATION ONLY

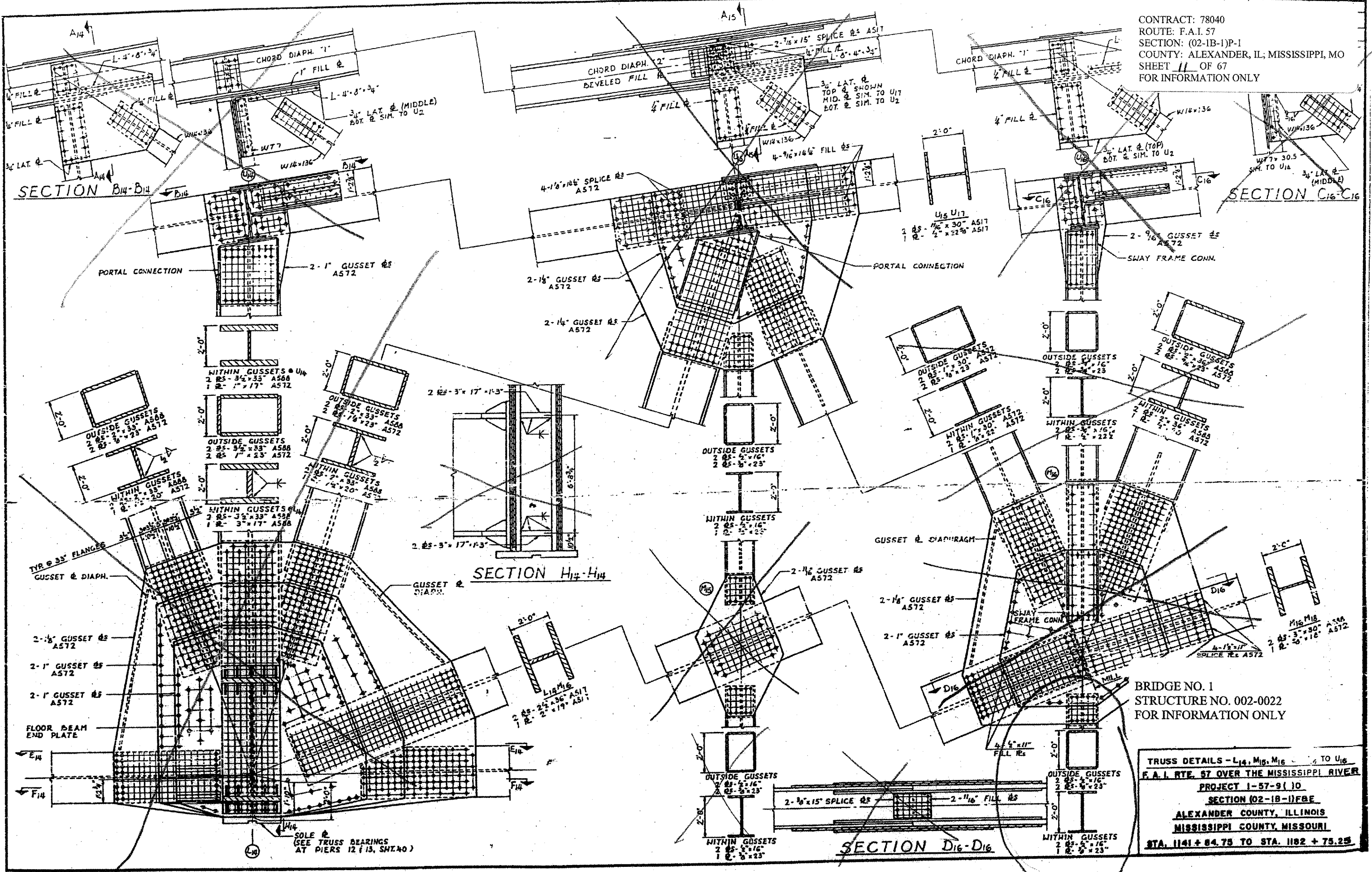


BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - L₁₁ TO L₁₃ & U₁₁
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1)0
 SECTION 02-1B-1P-1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 64.75 TO STA. 1182 + 75.25

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

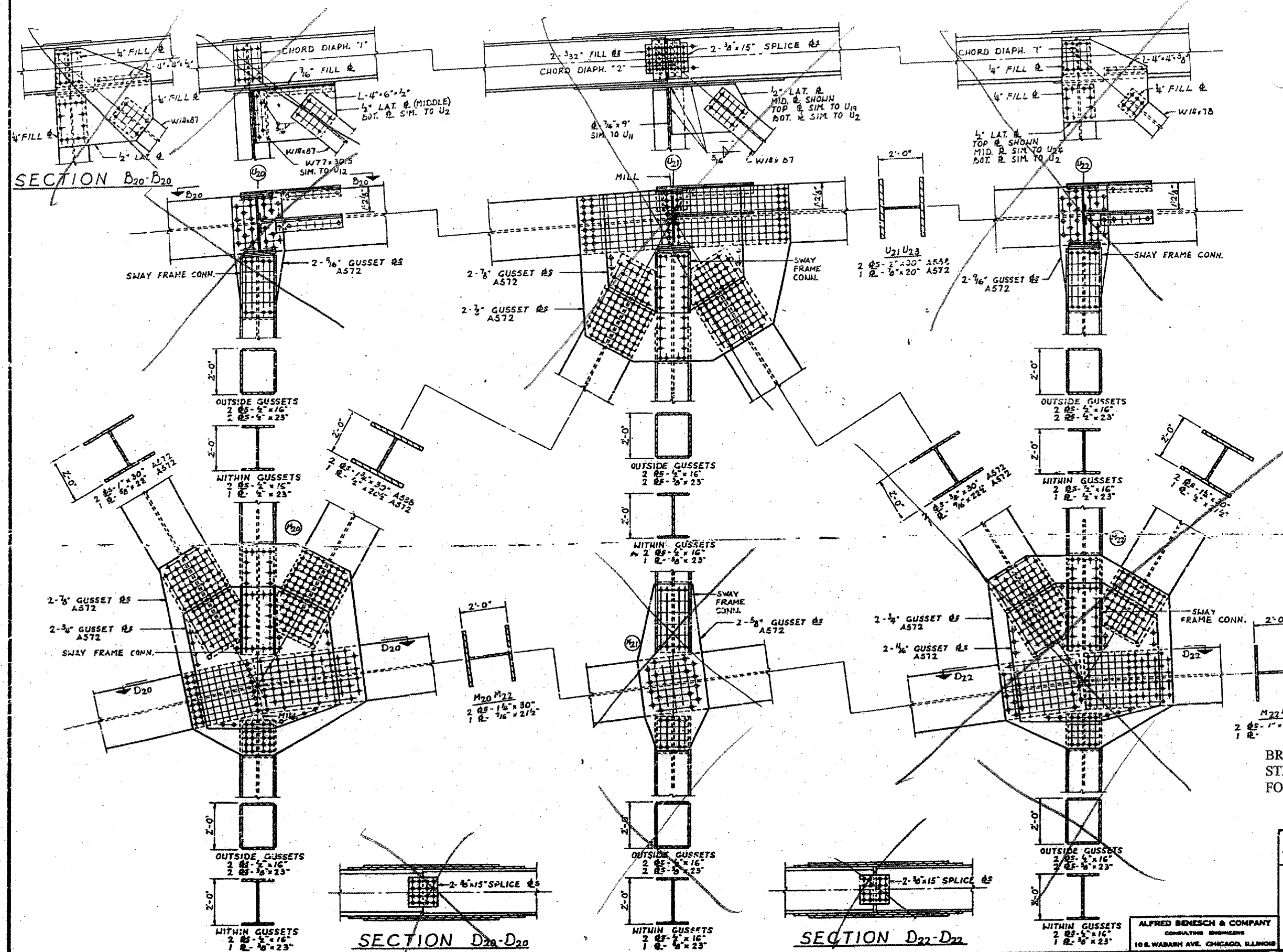
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 11 OF 67
 FOR INFORMATION ONLY



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 1-57-9110
 SECTION (02-1B-1)P-1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 64.75 TO STA. 1182 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 12 OF 67
 FOR INFORMATION ONLY

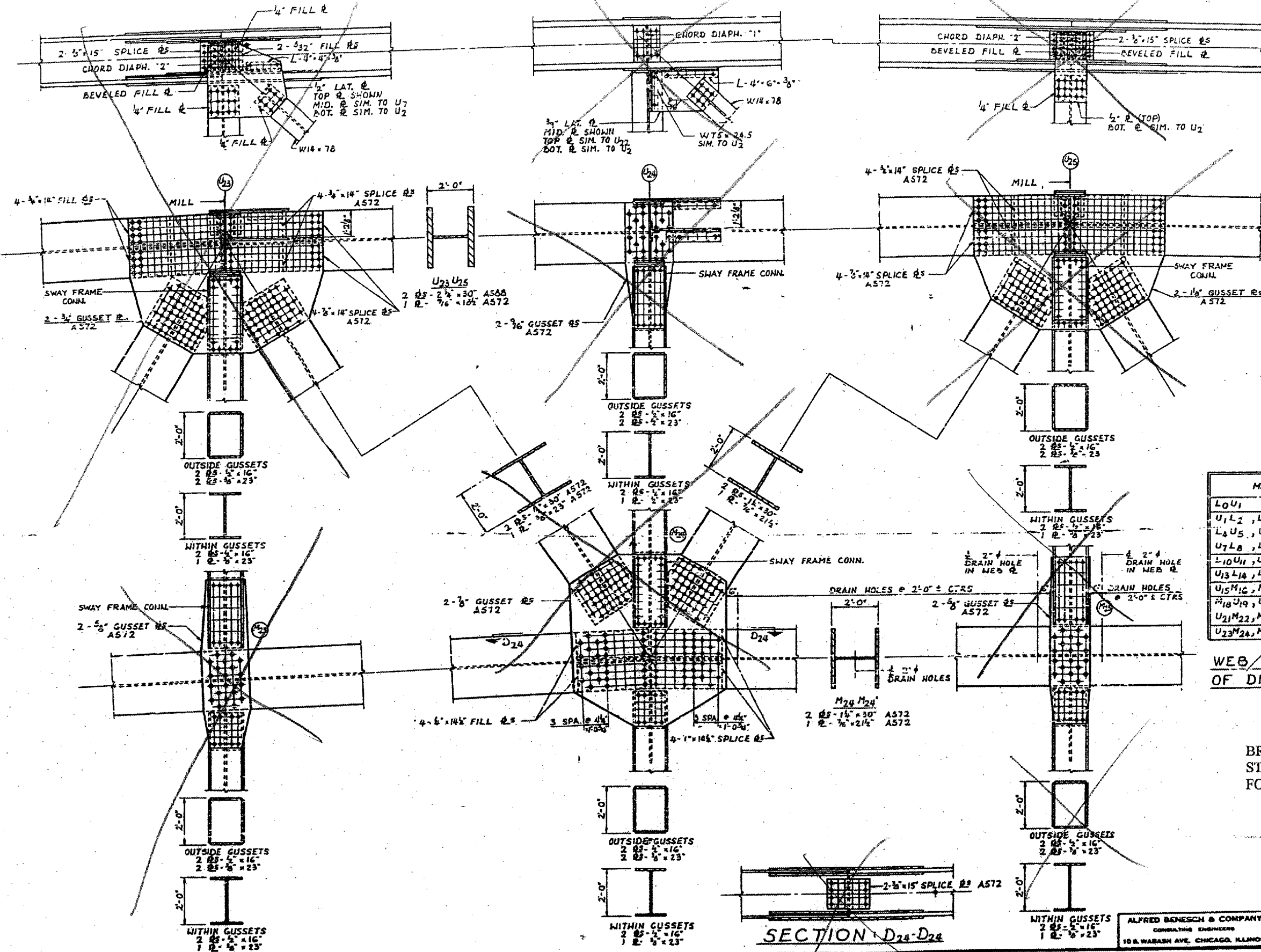


BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS DETAILS - M20 TO M22 & U20 TO U22
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION 02-1B-1P-1
 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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 13 OF 67
 FOR INFORMATION ONLY



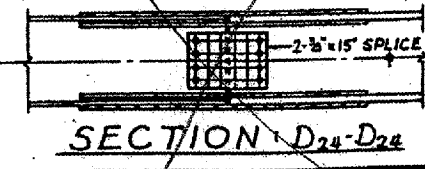
MEMBER	AT LOWER END	AT UPPER END
L0U1	1'-3"	0'-0"
U1L2, L2U3, L4U5, U5L6, L6U7, U7L8, L8U9, U9L10	1'-3"	1'-3"
L10U11, U11L12, L12U13	1'-6"	1'-6"
U13L14, L14U15, U15L16	0'-0"	0'-0"
U15M16, M16U17, U17M18, M18U19, U19M20, M20U21	1'-6"	1'-6"
U21M22, M22U23	1'-3"	1'-3"
U23M24, M24U25	1'-0"	1'-0"

WEB PLATE CUT-OFF AT ENDS
 OF DIAGONAL TRUSS MEMBERS

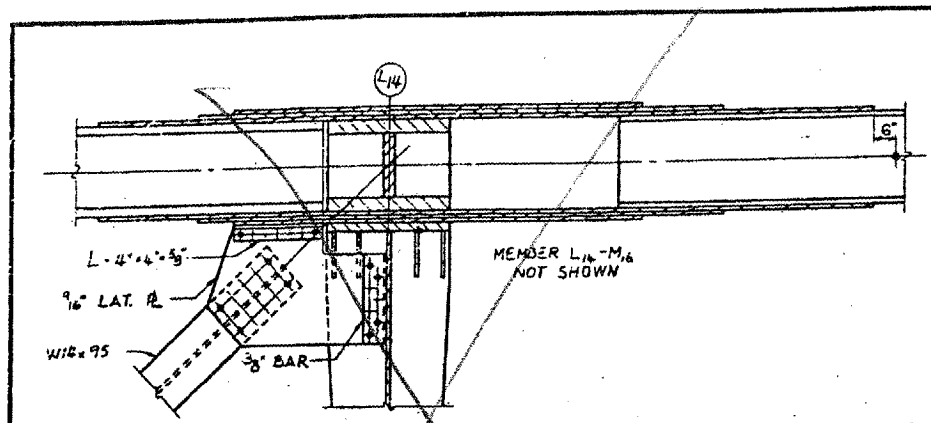
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

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 + 75.28

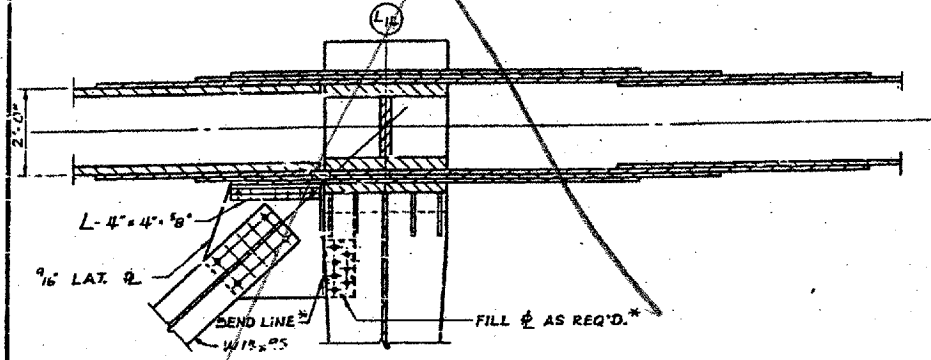
ALFRED BENECH & COMPANY
 CONSULTING ENGINEERS
 10 S. WABASH AVE. CHICAGO, ILLINOIS



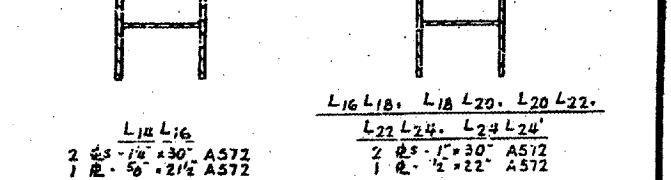
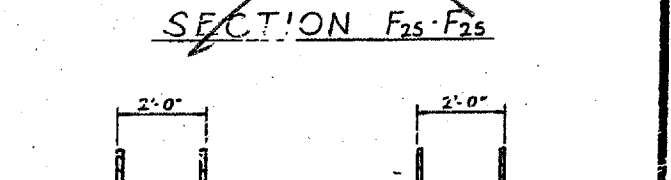
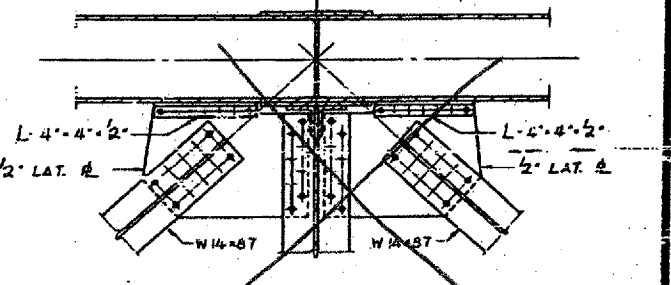
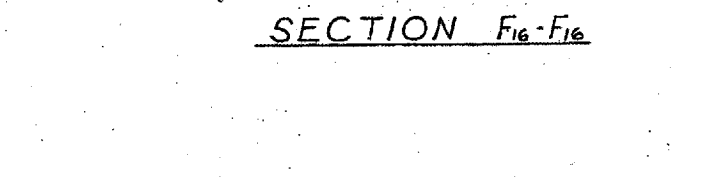
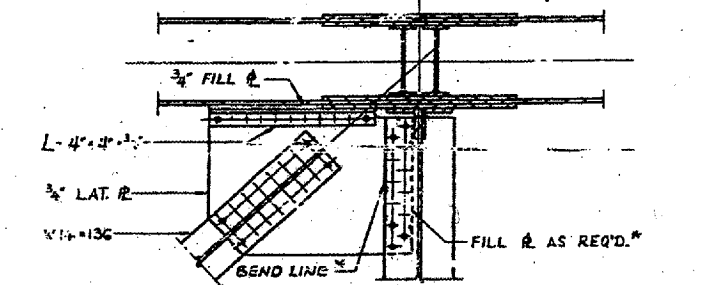
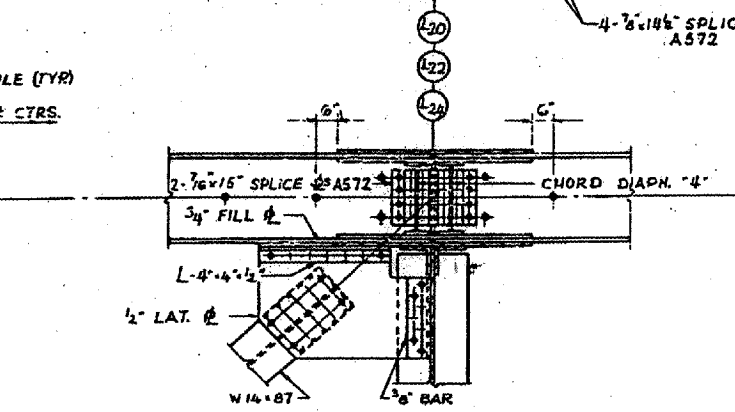
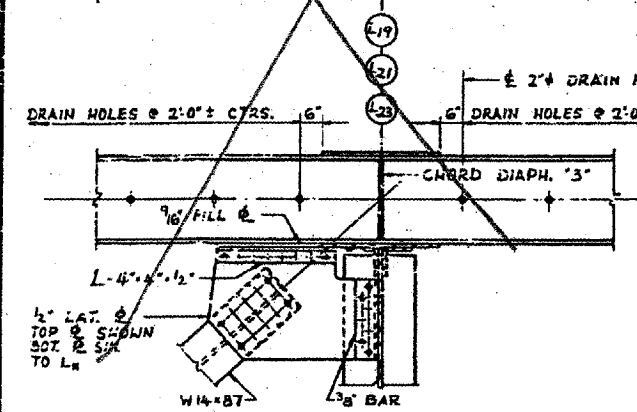
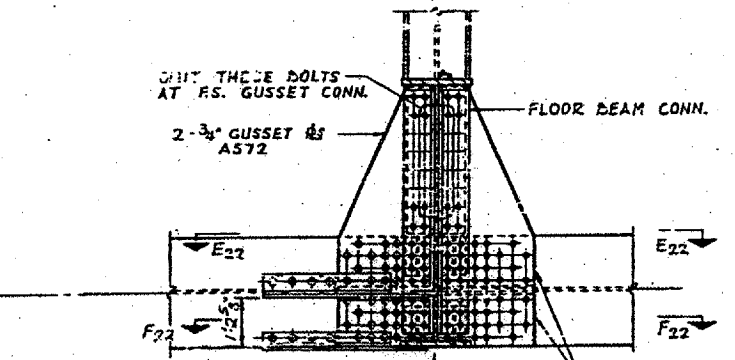
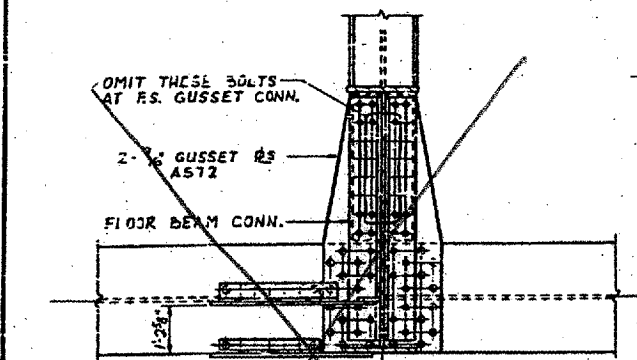
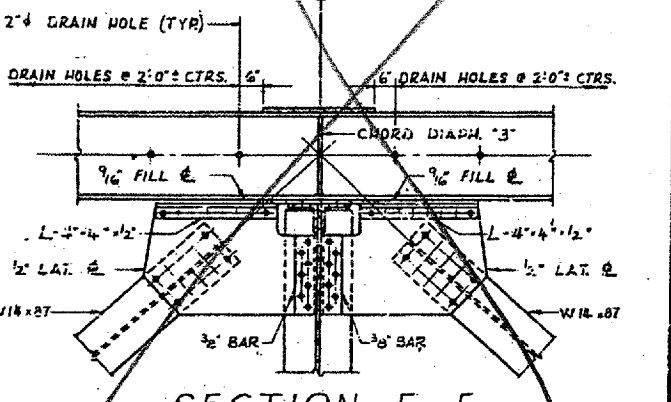
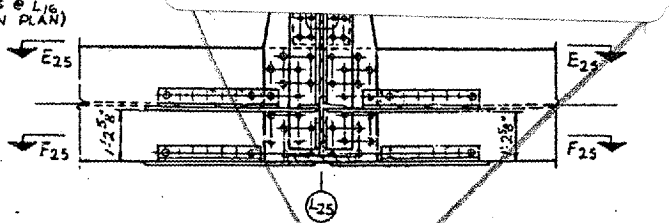
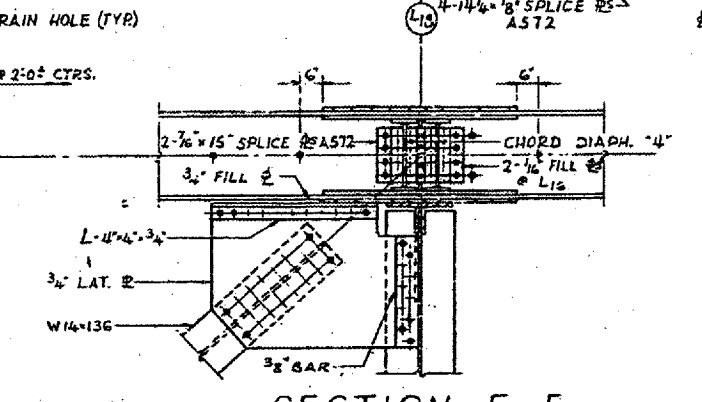
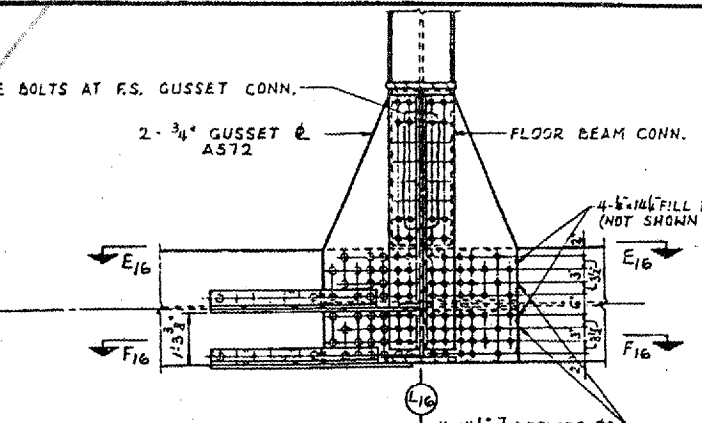
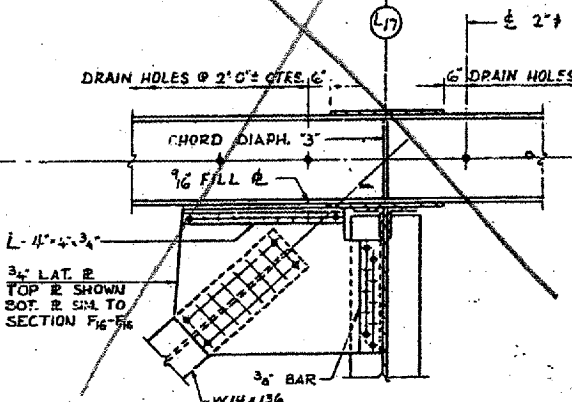
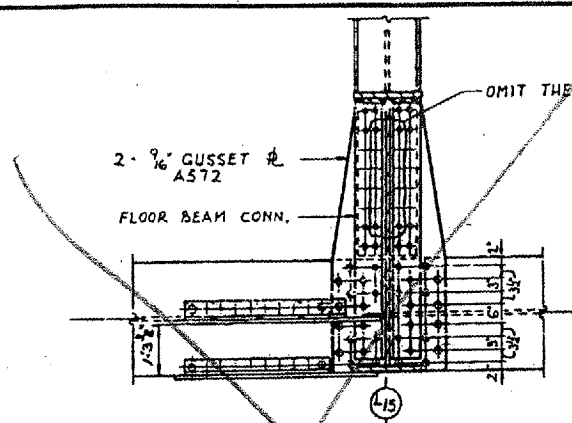
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 14 OF 67
 FOR INFORMATION ONLY



SECTION E14-E14



SECTION F14-F14



CROSS SECTION OF TIE

SECTION E22-E22

SECTION F22-F22

SECTION E25-E25

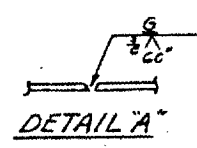
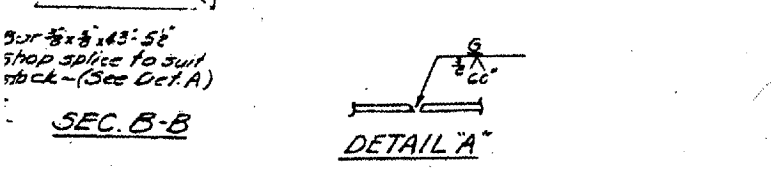
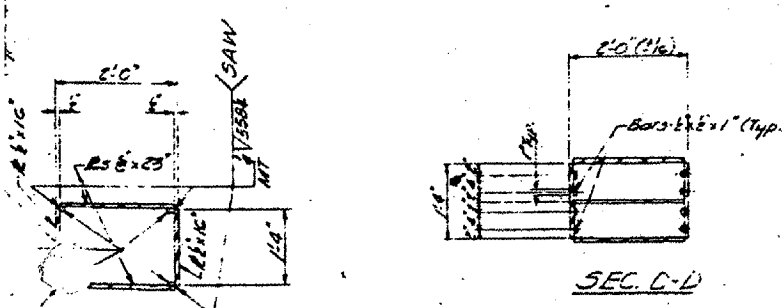
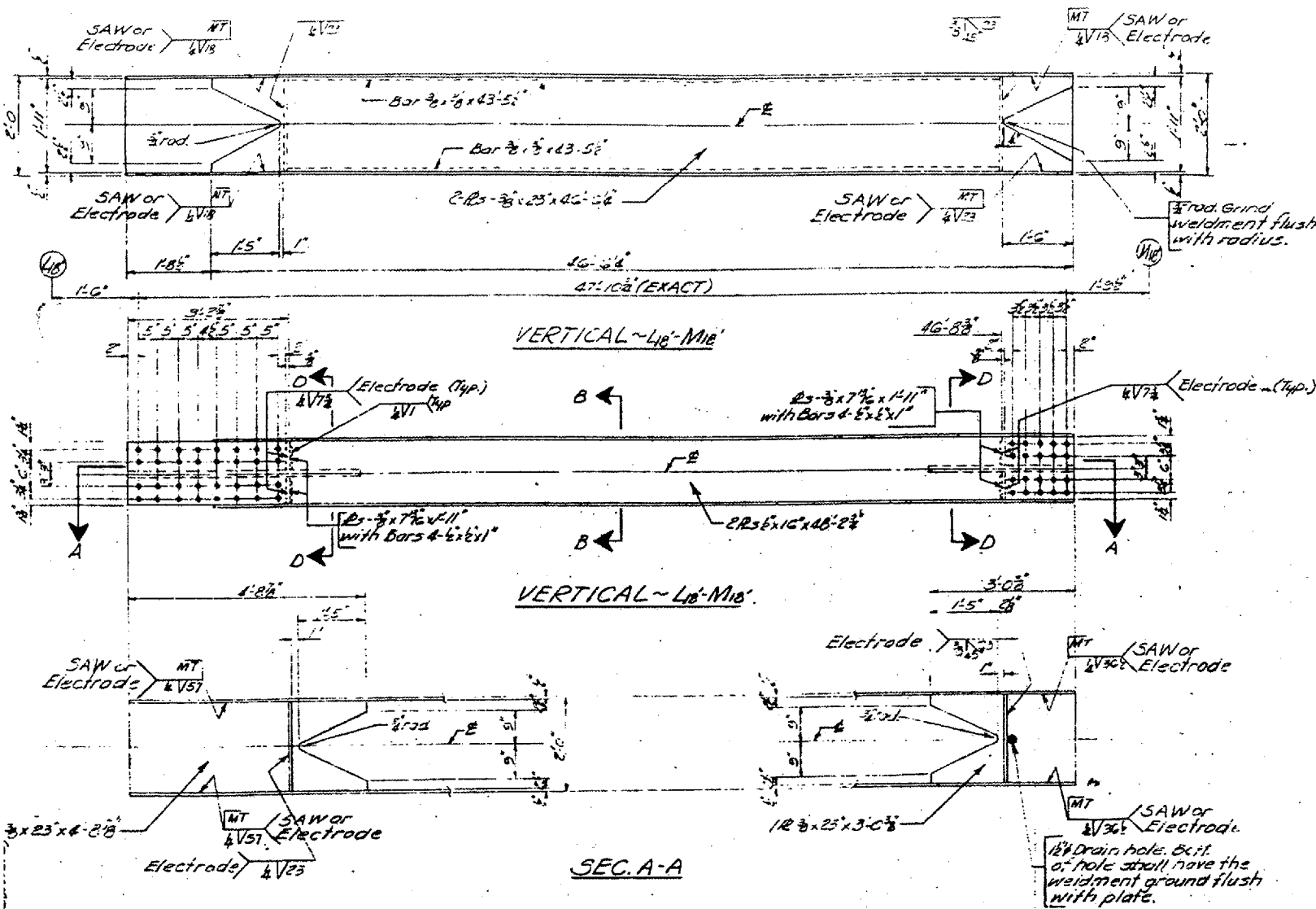
SECTION F25-F25

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

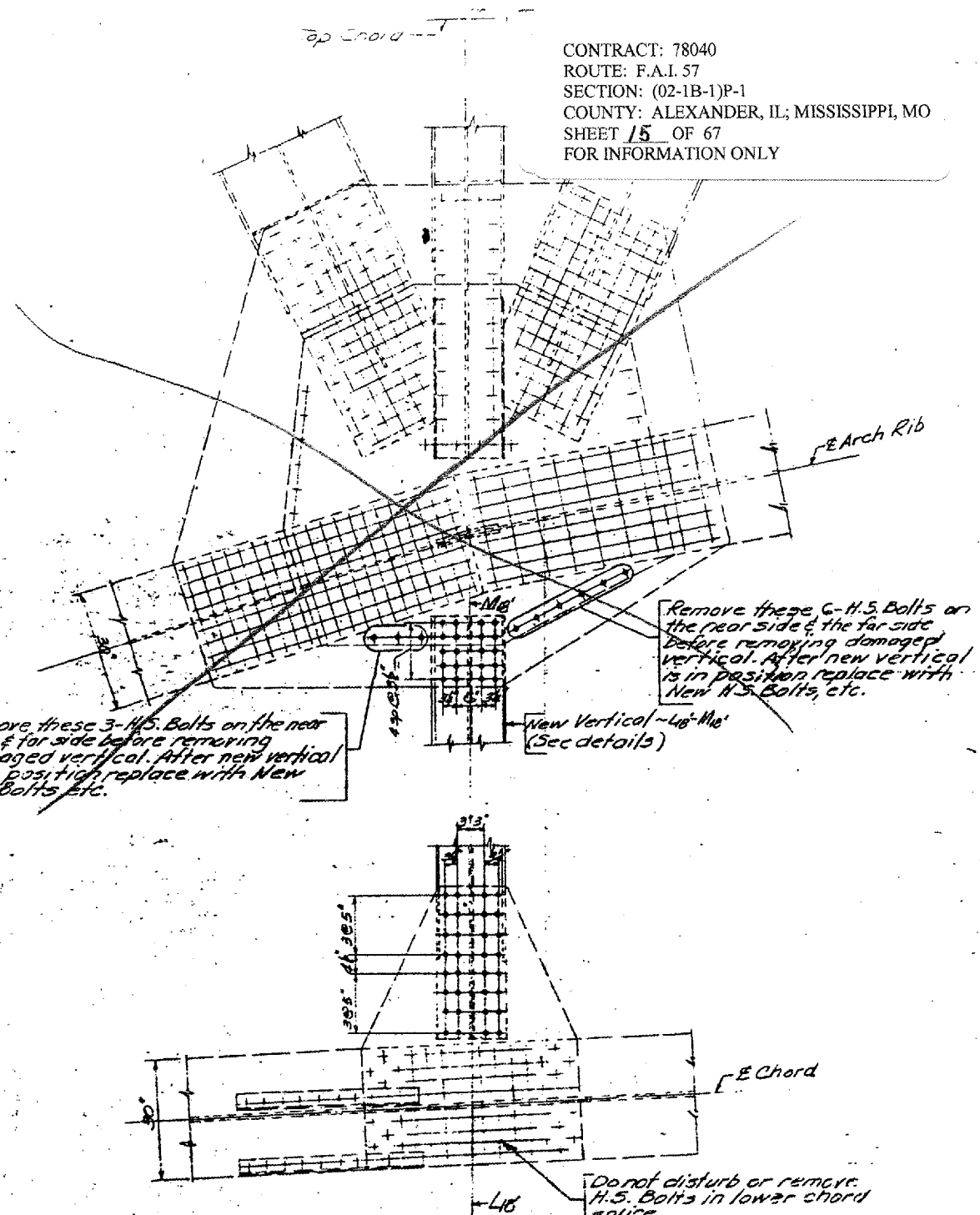
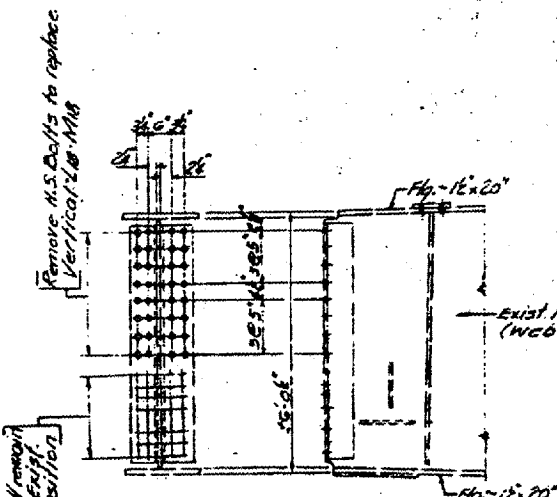
TRUSS DETAILS - L16 - L25
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(1)D
 SECTION (02-1B-1)F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 15 OF 67
FOR INFORMATION ONLY



- NOTES**
1. All connection holes in vertical L18-M16 shall be subpunched or subdrilled 1 1/2" and reamed in the field to the same dia. as existing holes in gussets (1 1/2"). Use New 1" A.S. Bolts in connection.
 2. Electrodes maybe E 7028 or E 7018.
 3. Member must be square at connections.
 4. Dimensions & Details of L18-M16 are from original contract fabrication plans.



DETAIL OF EXISTING L18 & M16 CONNECTIONS
(Looking Upstream)

BILL OF MATERIAL

Item	Unit	Total
Reinforcing Structural Steel	Lbs.	6,020
Erecting Structural Steel	Lbs.	6,020

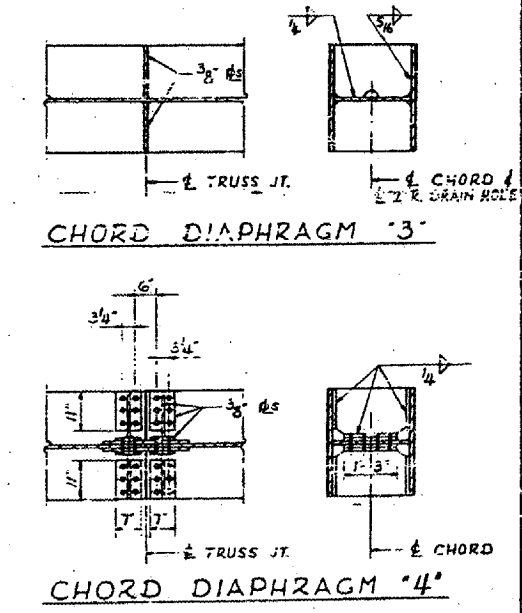
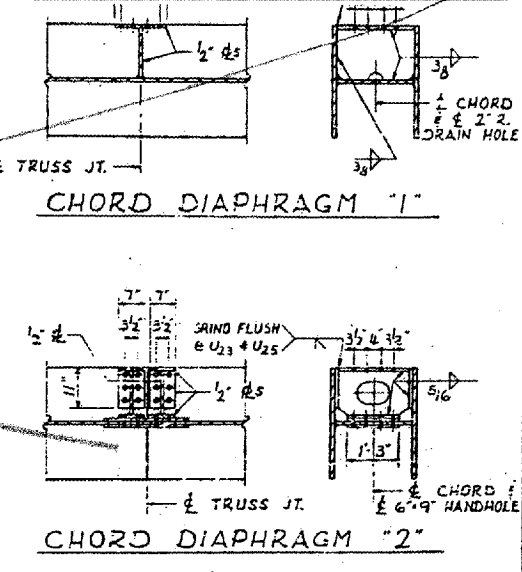
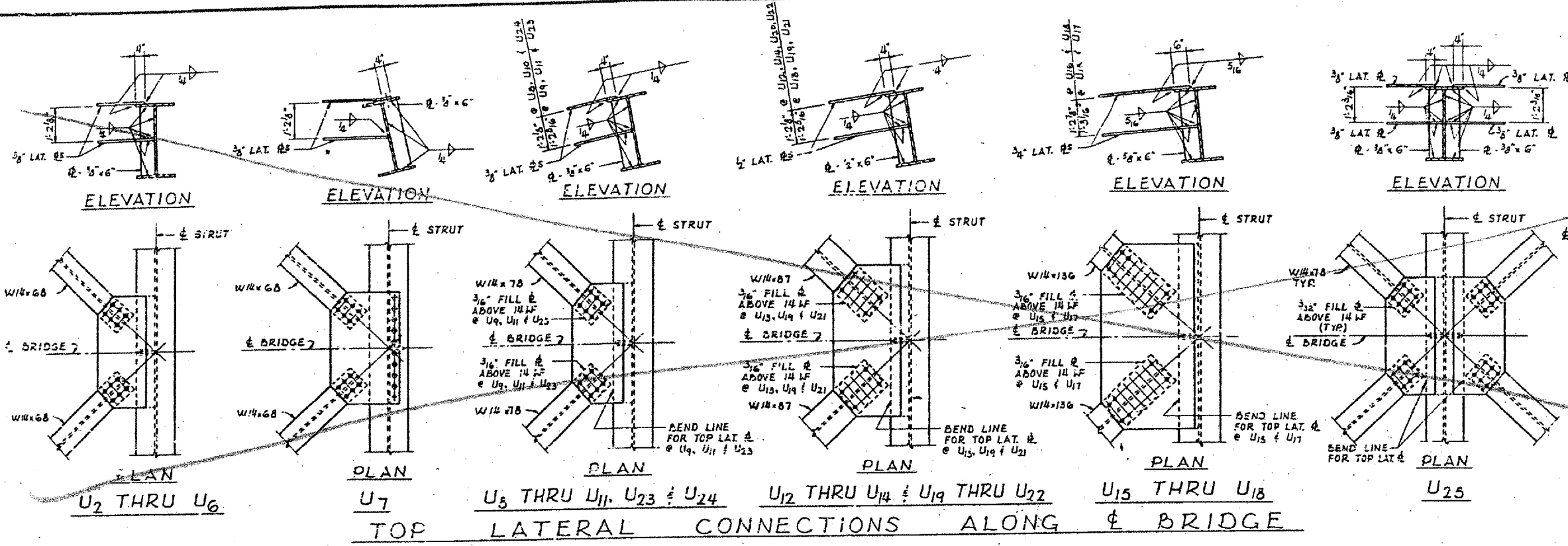
SIGNED ENR
CHECKED A.P.W.
DRAWN ENR
CHECKED A.P.W.

Dec 17 1989
EXAMINED O.J. Rohrer
PASSED
APPROVED

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

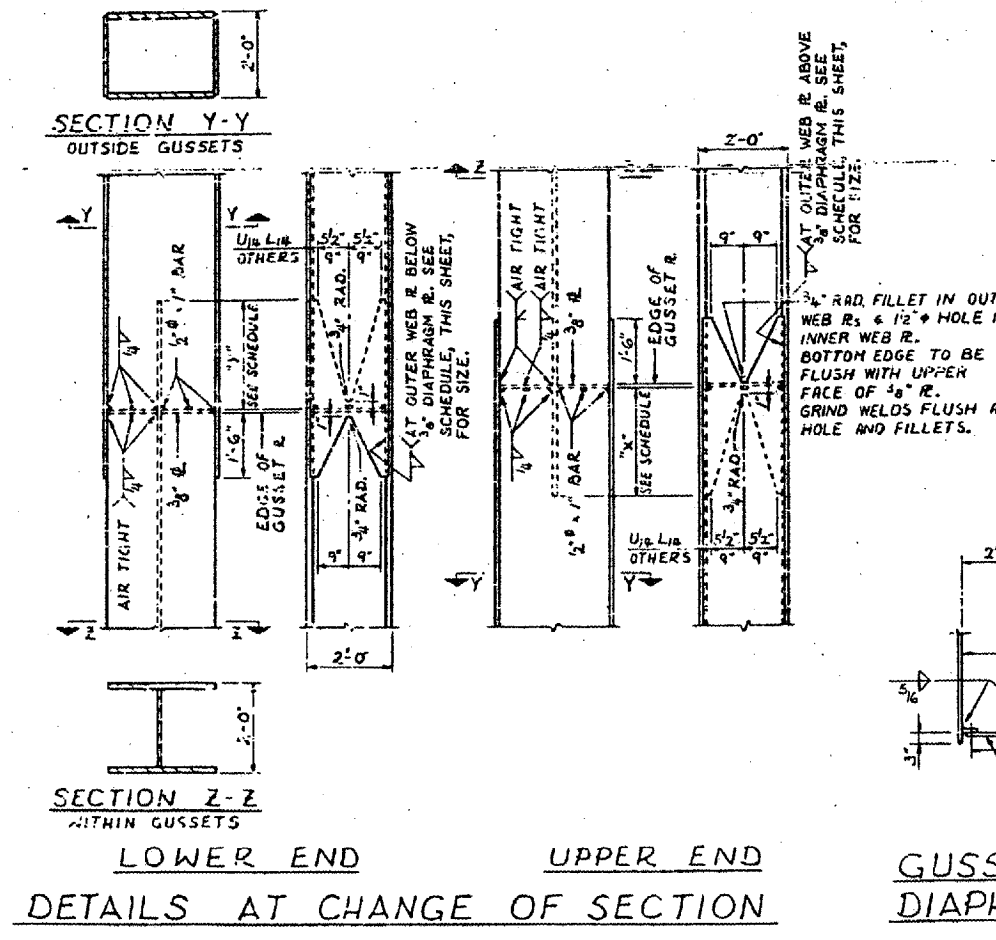
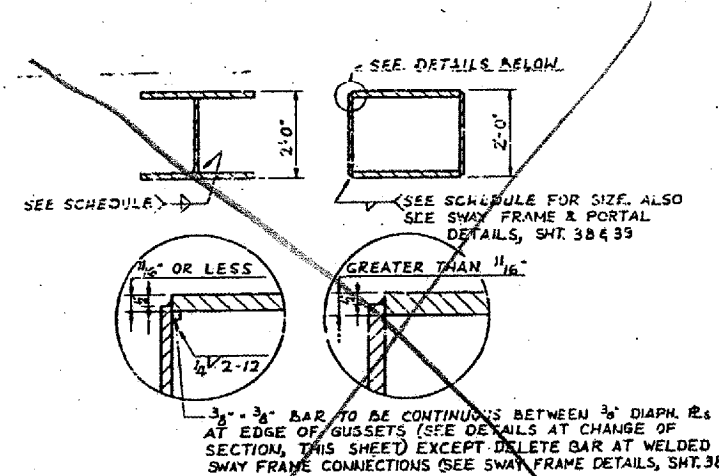
L18-M16 MEMBER & DETAILS
F.A.I.-57 OVER MISSISSIPPI RIVER
F.A.I. RT. 57 SEC. 02-1B-1-I-DL-1
ALEXANDER COUNTY

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 16 OF 67
 FOR INFORMATION ONLY



SCHEDULE OF "X" DIMENSIONS

MEMBER	"X"
L ₈ 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	2'-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"

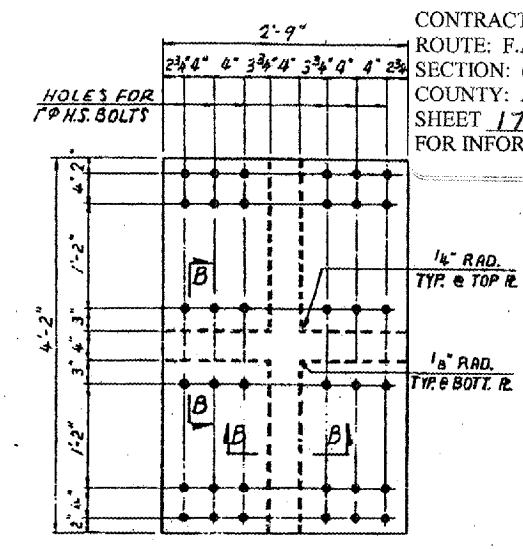
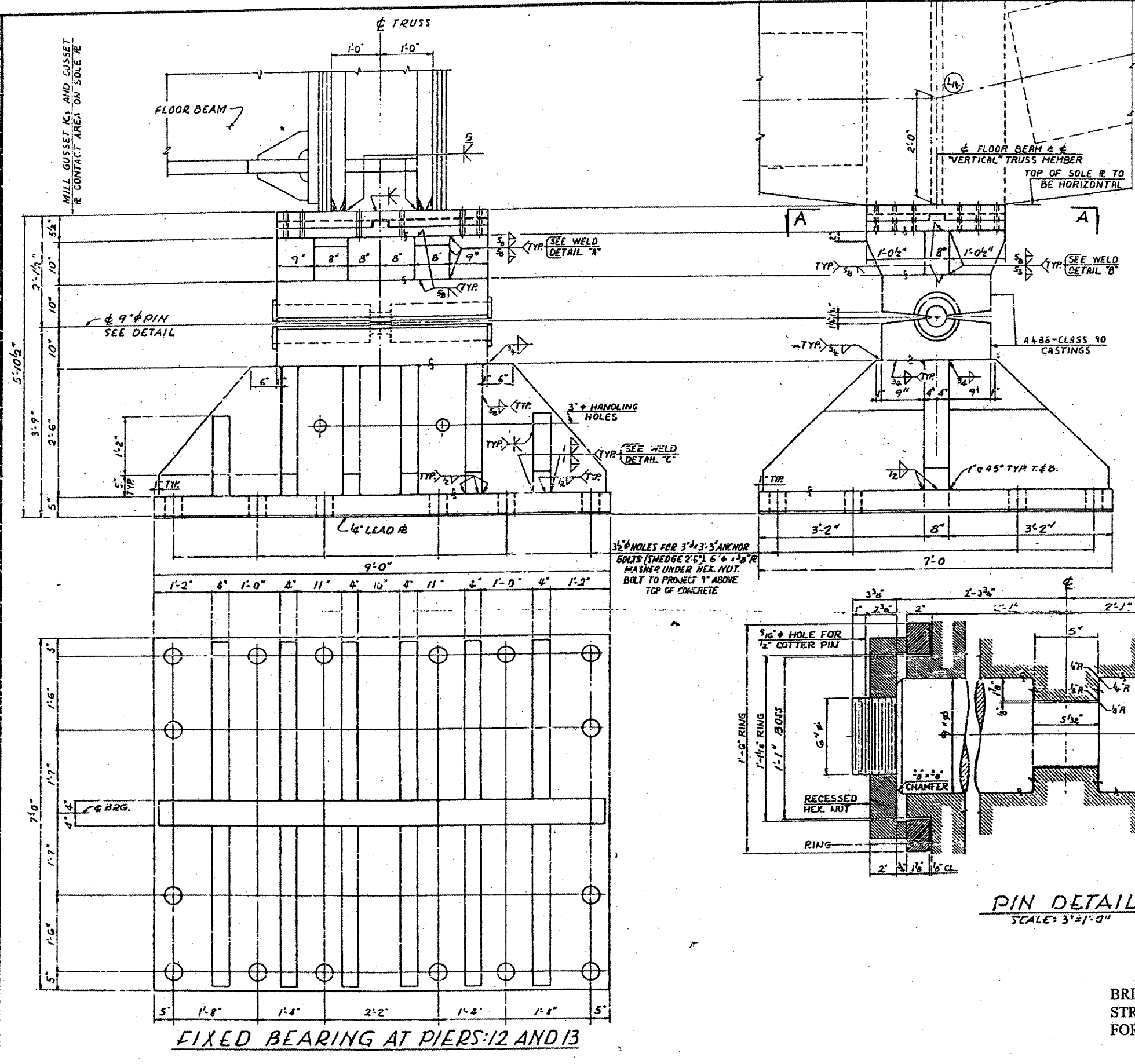


MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	SIZE OF FILLET WELD (IN.)
TO 3/4" INCL.	1/4
OVER 3/4 TO 1 1/2	5/16
OVER 1 1/2 TO 2 1/4	3/8
OVER 2 1/4	

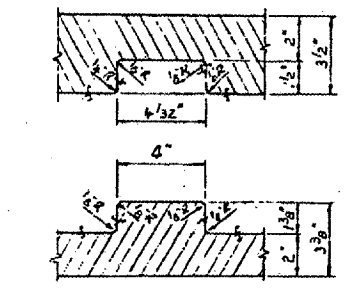
TRUSS DETAILS - MISCELLANEOUS
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (10)
 SECTION (02-1B-1)F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

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

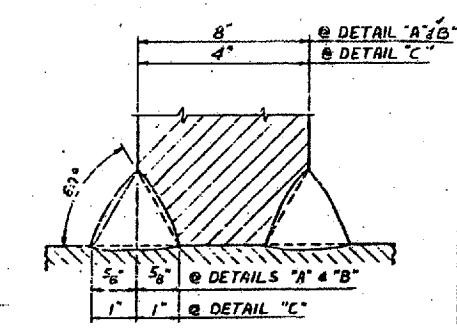
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 17 OF 67
 FOR INFORMATION ONLY



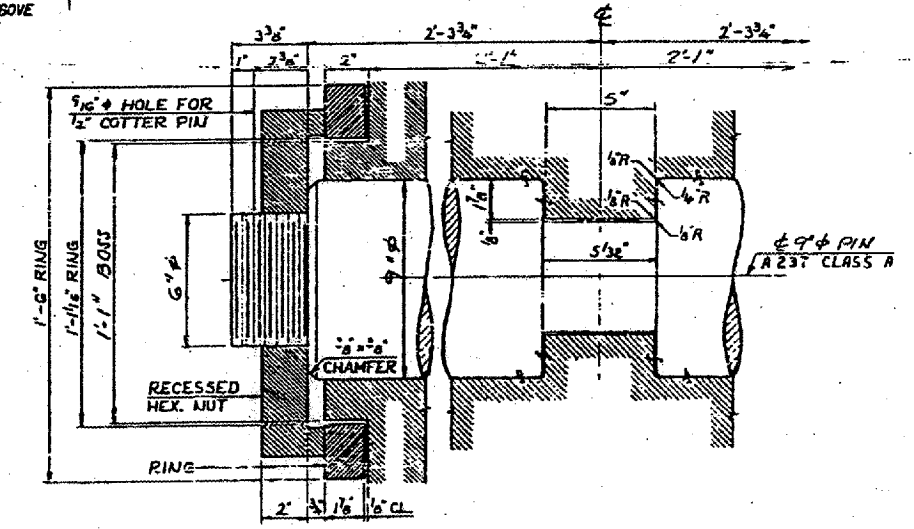
SECTION A-A
 SCALE: 1"=1'-0"



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



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



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

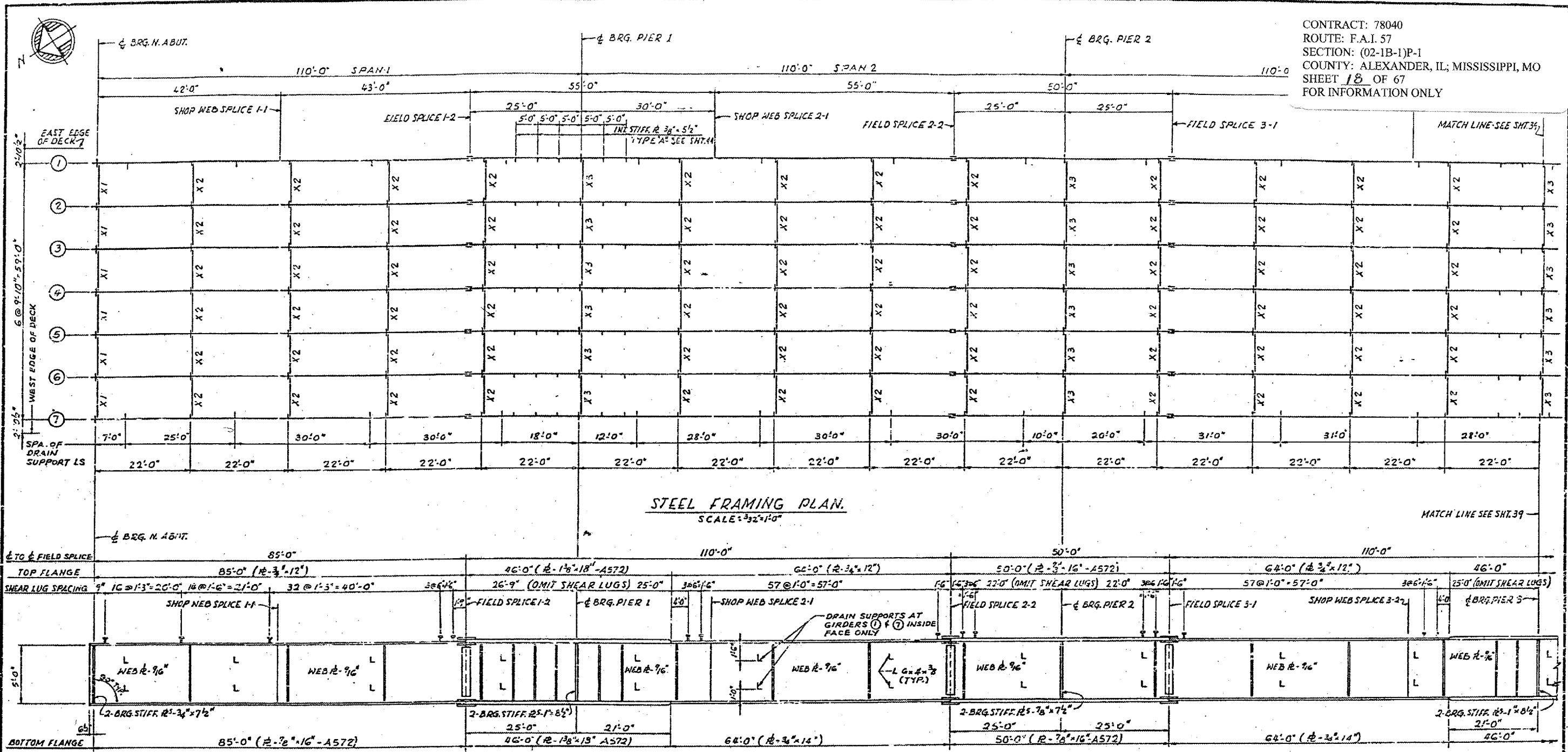
- NOTES:
- ALL MATERIAL ASTM A36 UNLESS NOTED.
 - ALL WELDS SHALL BE BY THE SUBMERGED ARC PROCESS.
 - FINISHES PER USAS1, B461, PART I.
 - ASTM A486 (CLASS 90) CASTINGS OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR THE WELDMENTS COMPRISING THE BOLSTER AND TOP SHOE.
 - PLATES OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR CASTINGS.

FIXED BEARING AT PIERS 12 & 13

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

TRUSS BEARINGS AT PIERS 12 & 13
 F.A.I. RTE. 67 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)P-1
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 04.75 TO STA. 1182 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 18 OF 67
 FOR INFORMATION ONLY



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

ELEVATION
 NO SCALE
 GIRDER @ 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
6/16 TO 3/4	1/2
OVER 3/4 TO 1 1/2	5/16

GIRDER ELEVATIONS-FOR FABRICATION ONLY

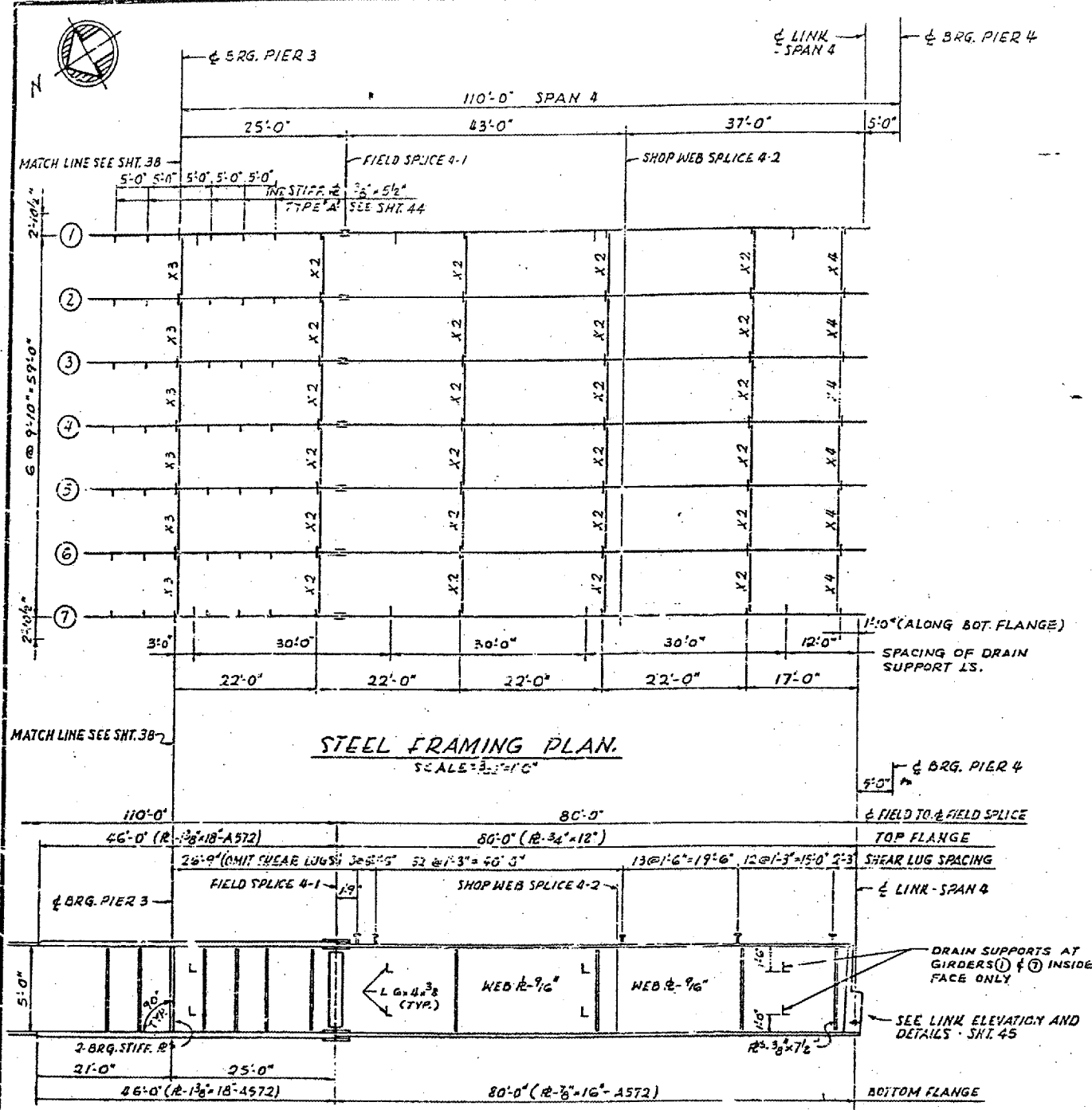
GIRDER	LOCATION	BRG. N. ABUT.	S.W.S. 1-1	F.S. 1-2	PIER 1	S.W.S. 2-1	F.S. 2-2	PIER 2	F.S. 3-1	S.W.S. 3-2	F.S. 4-1	S.W.S. 4-2	CHK SPAN 4
1		343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.258	348.858	350.877
2		343.180	343.751	344.044	344.350	344.719	345.688	346.150	346.611	347.672	348.411	349.012	350.279
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
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
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
6		343.180	343.751	344.044	344.350	344.719	345.688	346.150	346.611	347.672	348.411	349.012	350.279
7		343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.258	348.858	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 (510)
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

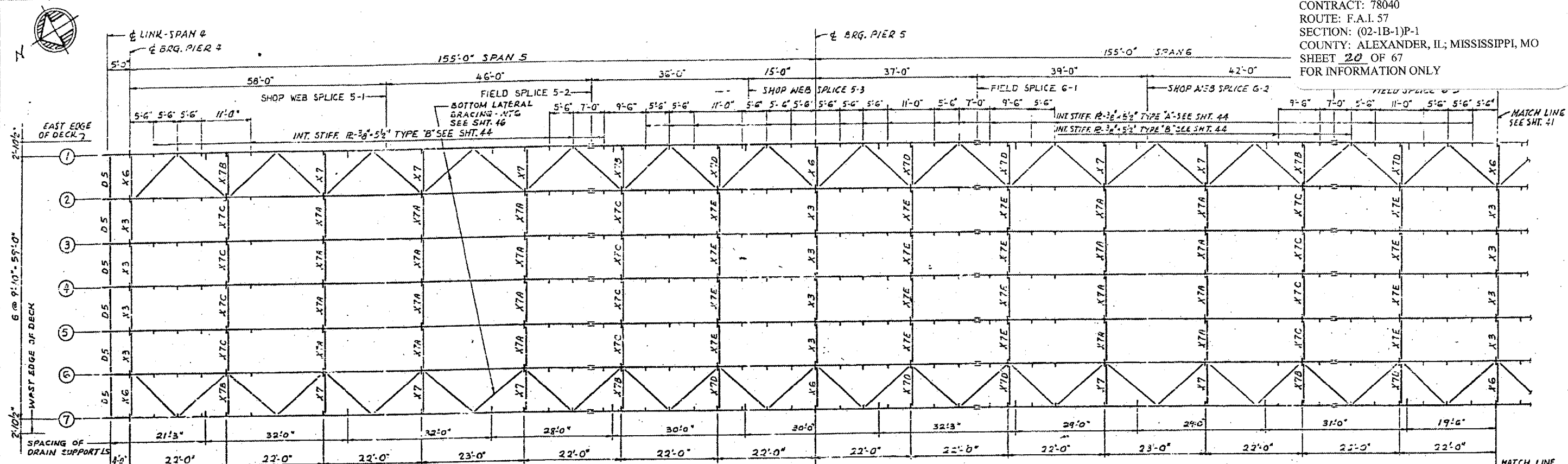
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 19 OF 67
 FOR INFORMATION ONLY



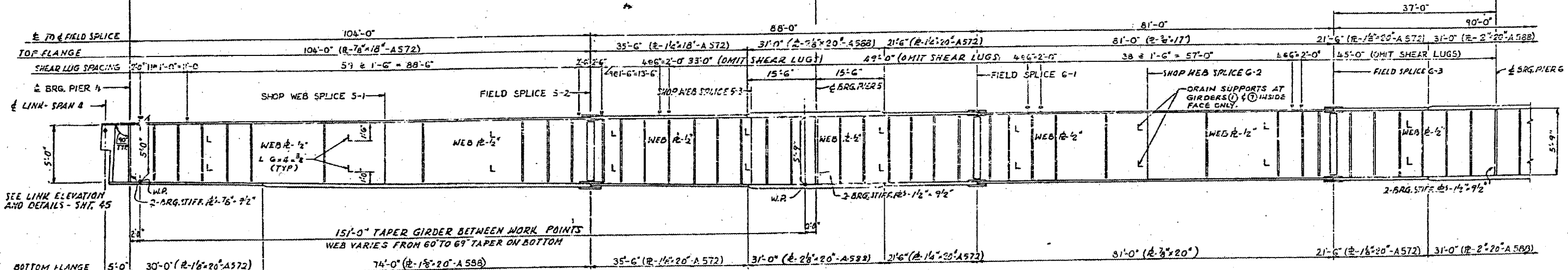
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 1, 2, 3, 4
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(510)
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 20 OF 67
 FOR INFORMATION ONLY



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



ELEVATION
 NO SCALE
 GIRDER SHOWN

FILLET WELD TABLE

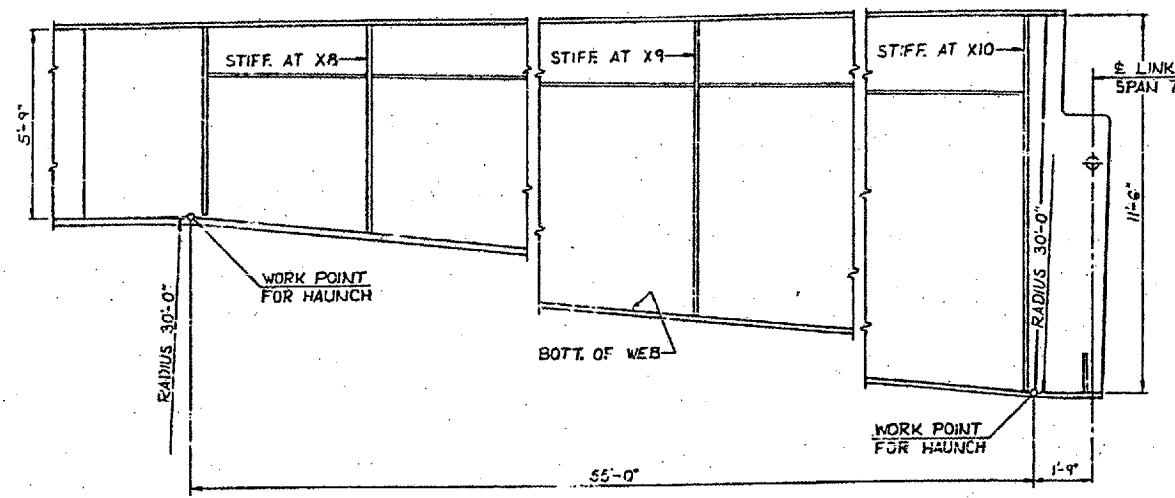
FLANGE THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	5/16"
OVER 1 1/2" TO 2 1/4"	3/8"

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.

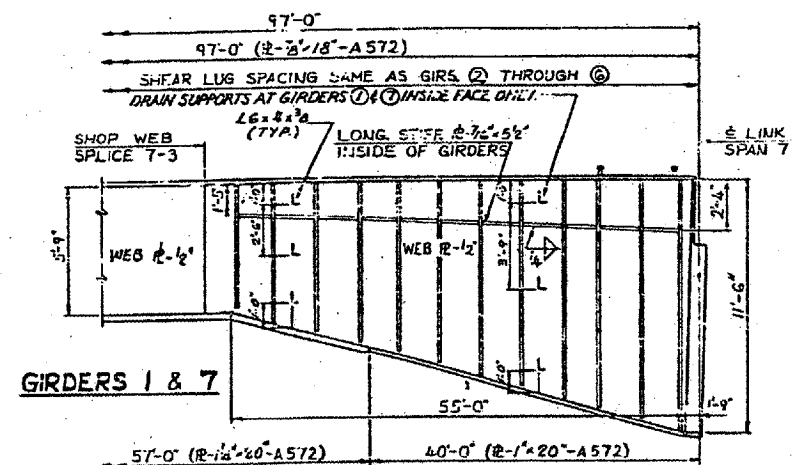
LOC
 BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 5, 6 AND 7
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (S10)
 SECTION (02-1B-1) D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

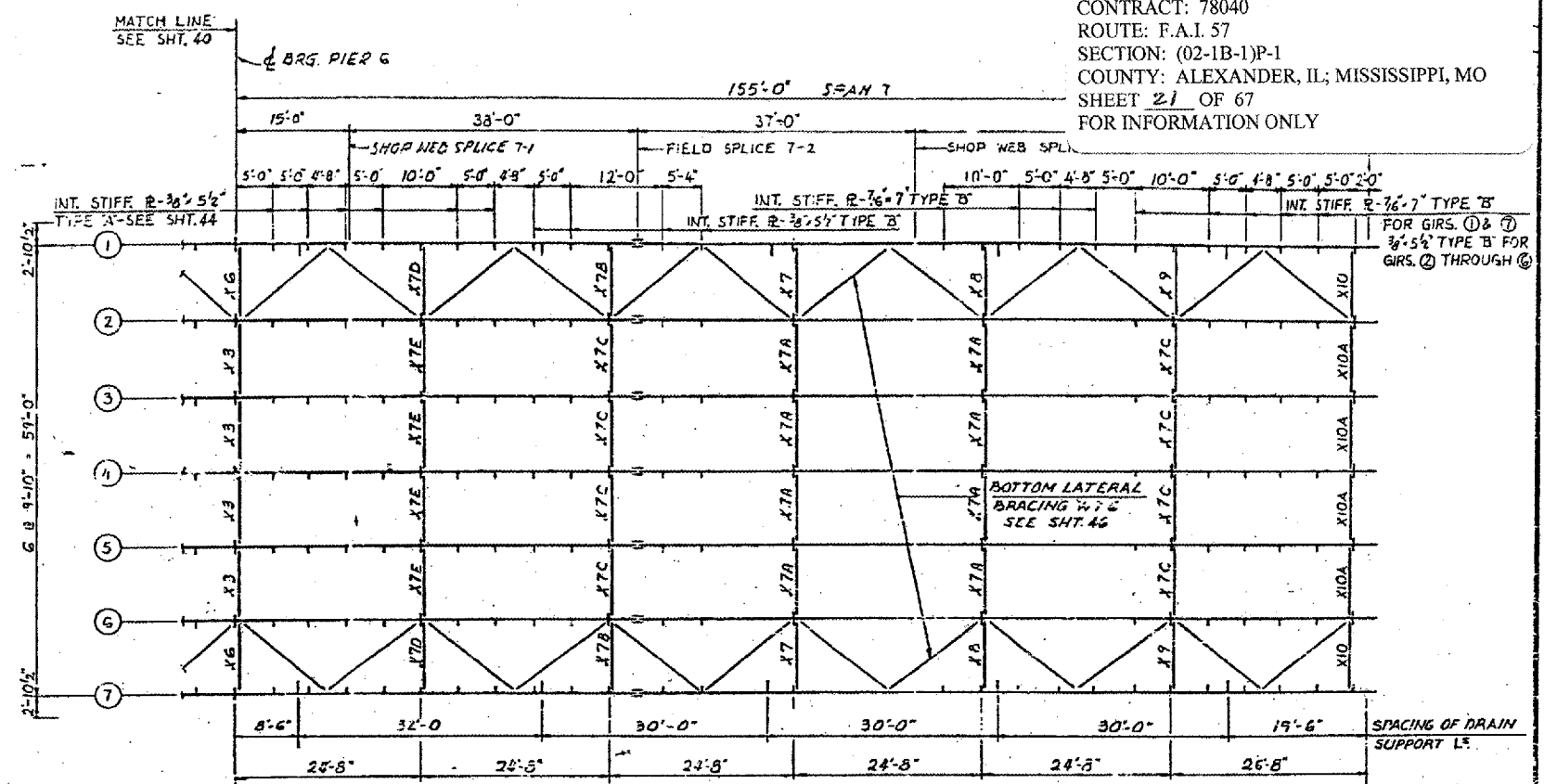
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 21 OF 67
 FOR INFORMATION ONLY



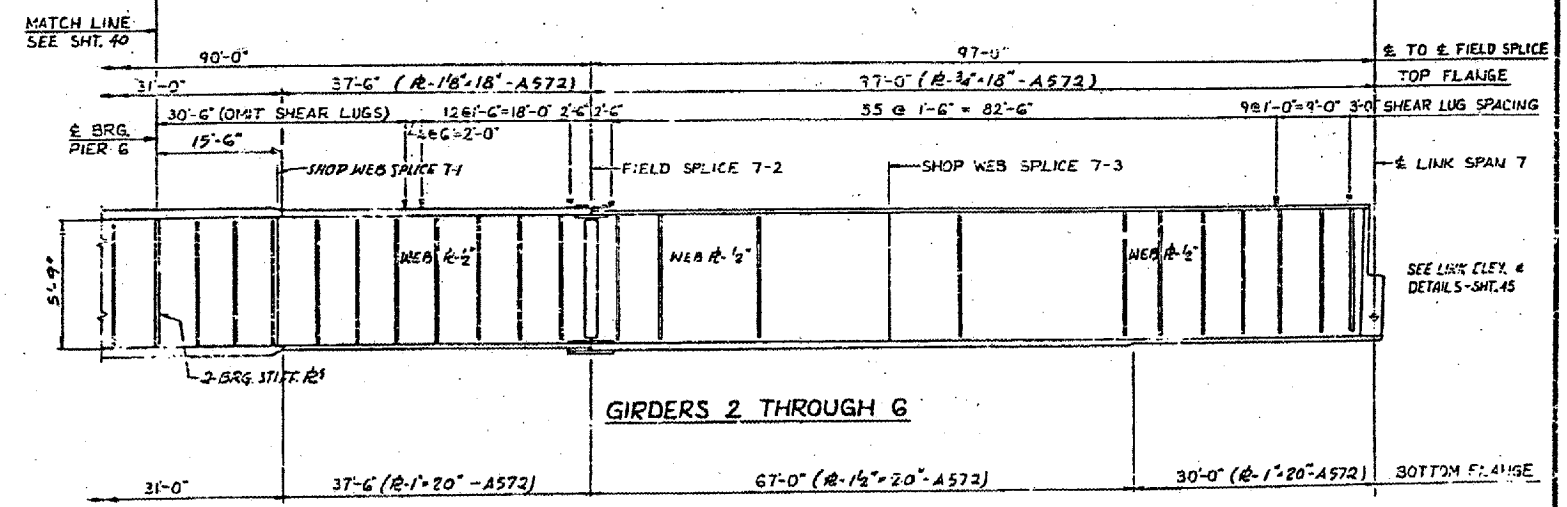
DETAIL OF HAUNCH
 FOR GIRDERS 1 & 7 ONLY



GIRDERS 1 & 7



STEEL FRAMING PLAN



GIRDERS 2 THROUGH 6

ELEVATION

GIRDER ELEVATIONS-FOR FABRICATION ONLY

GIRDER	LOCATION	LINK SPAN #	PIER 4		PIER 5		PIER 6		PIER 7		LINK SPAN 7				
			S.W.S. 5-1	F.S. 5-2	S.W.S. 5-3	F.S. 5-4	S.W.S. 6-1	F.S. 6-2	S.W.S. 6-3	F.S. 6-4					
1		350877	351062	353177	354391	355193	355612	356446	357175	357889	360267	360745	362125	363328	364761
2		351231	351216	353331	354544	355347	355766	356600	357129	357242	360421	360899	362279	363482	364914
3		35118A	351370	353485	354698	355500	355919	356753	357283	357396	360575	361052	362433	363636	365068
4		351338	351523	353638	354852	355654	356073	357107	358436	359550	360728	361206	362586	363789	365222
5		35118A	351370	353485	354698	355500	355919	356753	357283	357396	360575	361052	362433	363636	365068
6		351031	351216	353331	354544	355347	355766	356600	357129	357242	360421	360899	362279	363482	364914
7		350877	351062	353177	354391	355193	355612	356446	357175	357889	360267	360745	362125	363328	364761

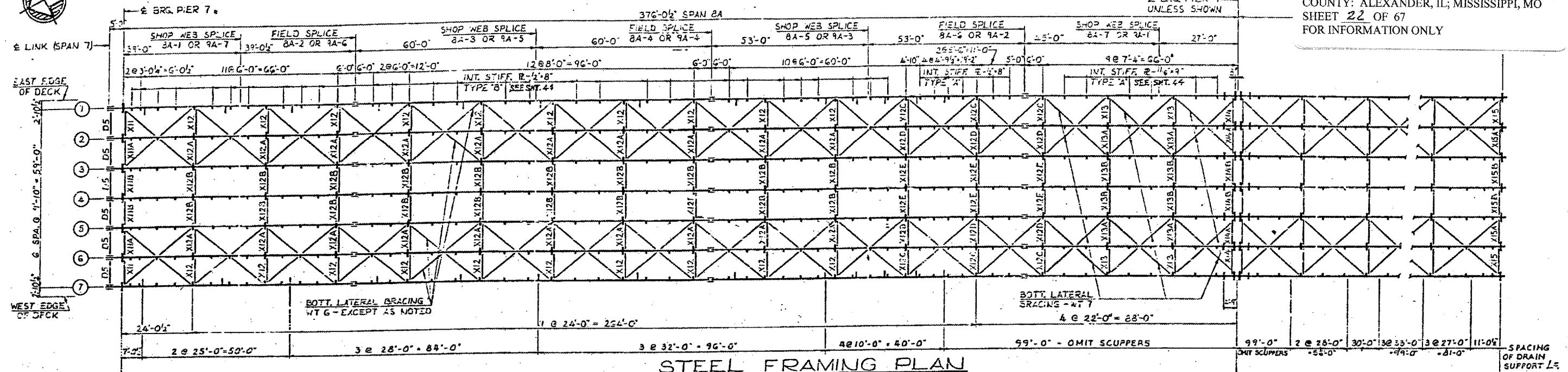
ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE

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

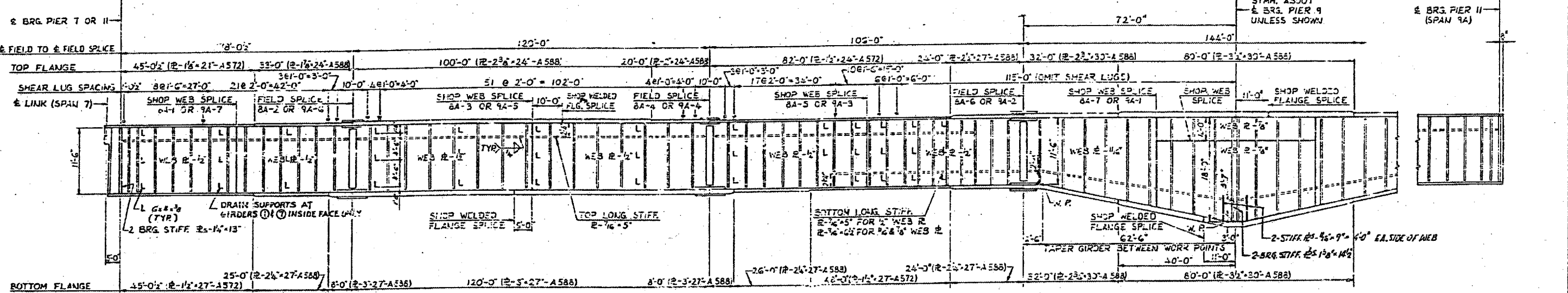
FRAMING PLAN - SPANS 5, 6 AND 7
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (5)0
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 22 OF 67
 FOR INFORMATION ONLY



STEEL FRAMING PLAN



ELEVATION
 GIRDER SHOWN

FILLET WELD TABLE

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

GIRDER ELEVATIONS - FOR FABRICATION ONLY

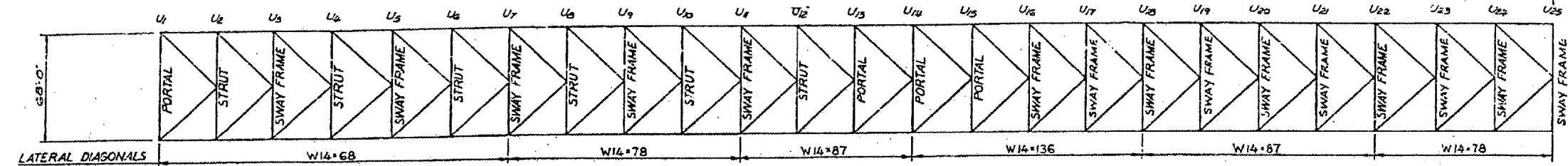
LOCATION GIRDER	E LINK SPAN 7	PIER 7	S.W.S. 8A-1	F.S. 8A-2	S.W.S. 8A-3	F.S. 8A-4	S.W.S. 8A-5	F.S. 8A-6	S.W.S. 8A-7	PIER 9	S.W.S. 9A-1	F.S. 9A-2	S.W.S. 9A-3	F.S. 9A-4	S.W.S. 9A-5	F.S. 9A-6	S.W.S. 9A-7	E BRG. PIER 11 SPAN 9A
1	364.761	364.964	365.552	367.840	369.939	371.596	372.965	373.981	375.245	376.050	376.854	378.215	380.251	381.908	383.424	384.497	385.203	385.620
2	364.916	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.384	380.437	382.062	383.671	384.718	385.398	385.773
3	365.068	365.272	366.860	368.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	380.591	382.216	383.825	384.872	385.553	385.928
4	365.222	365.425	367.013	368.371	370.489	372.140	373.478	374.458	375.706	376.511	377.315	378.692	380.744	382.369	383.978	385.025	385.706	386.081
5	365.068	365.272	366.860	368.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	380.591	382.216	383.825	384.872	385.553	385.928
6	364.916	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.384	380.437	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	380.251	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

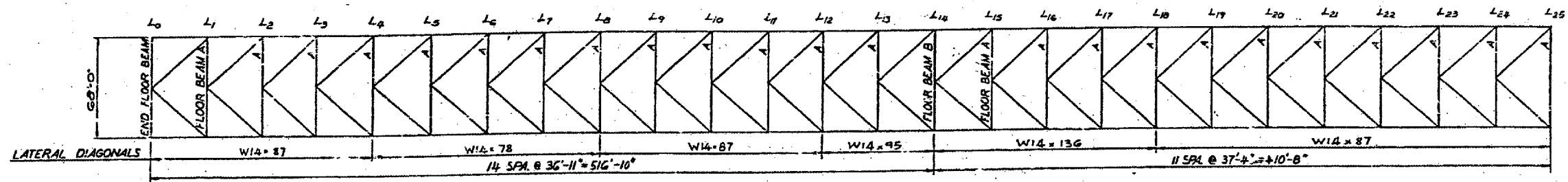
NOTES:
 ALL MATERIAL ASTM A36 - EXCEPT AS NOTED.
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
 SHEAR LUGS ARE TO BE FURNISHED & INSTALLED UNDER SECTION 102-1B-11D
 LONGH OPPOS
 SHEAR
BRIDGE NO. 1
STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

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

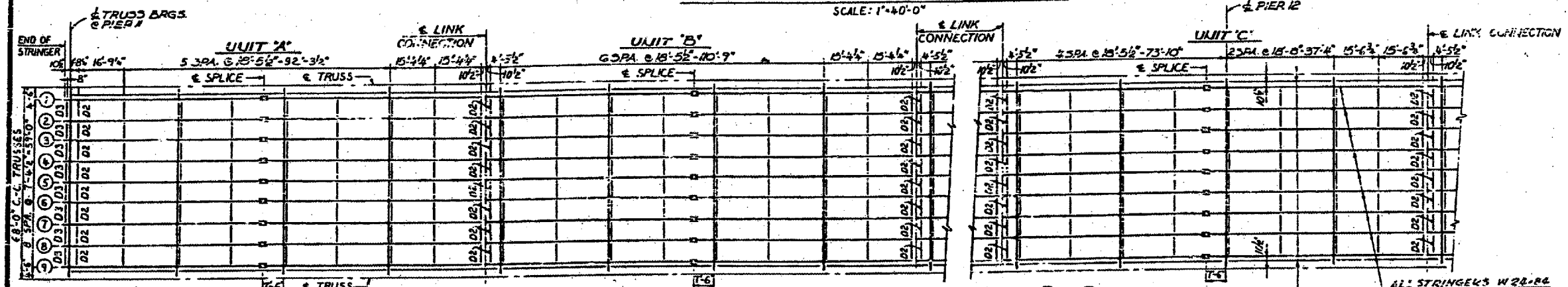
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 23 OF 67
 FOR INFORMATION ONLY



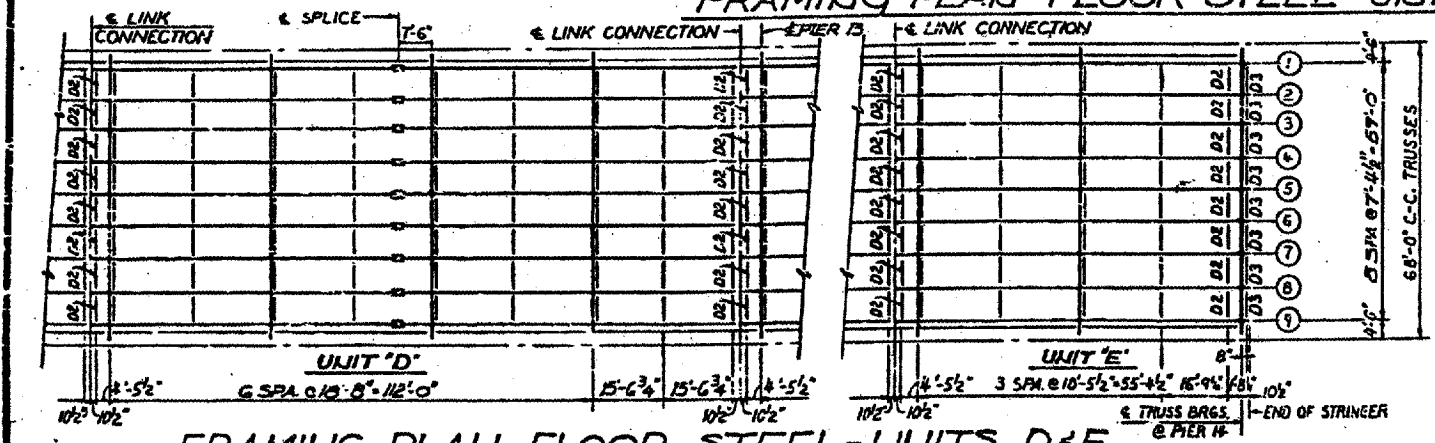
PLAN-TOP LATERAL SYSTEM
 SCALE: 1"=40'-0"



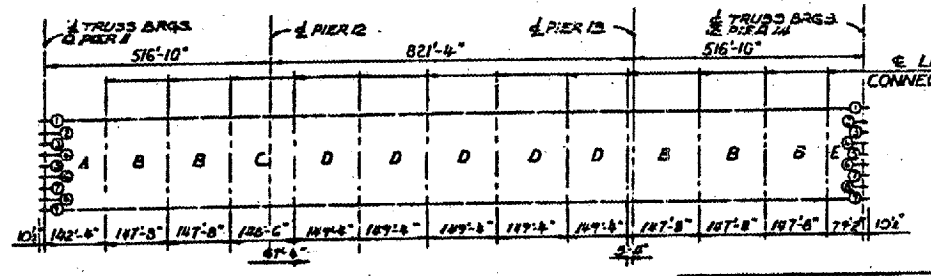
PLAN-BOTTOM LATERALS
 SCALE: 1"=40'-0"



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 DI UNLESS NOTED.
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL DIMENSIONS PERPENDICULAR TO TRUSS ARE HORIZONTAL.

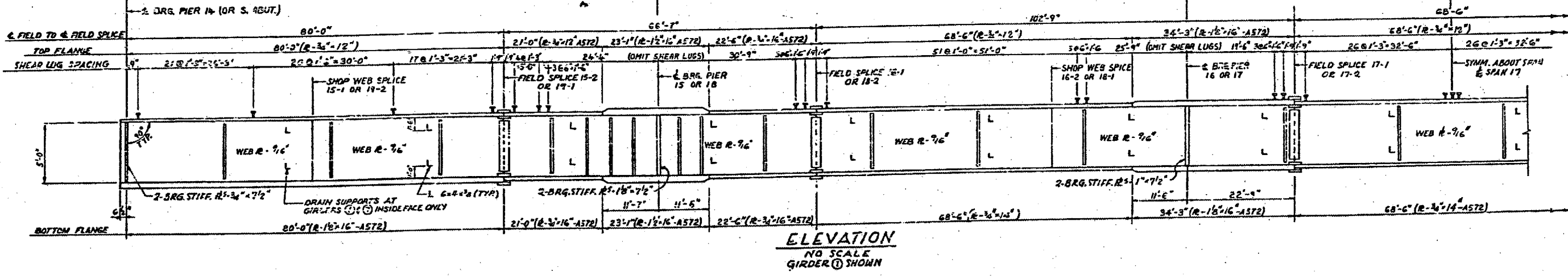
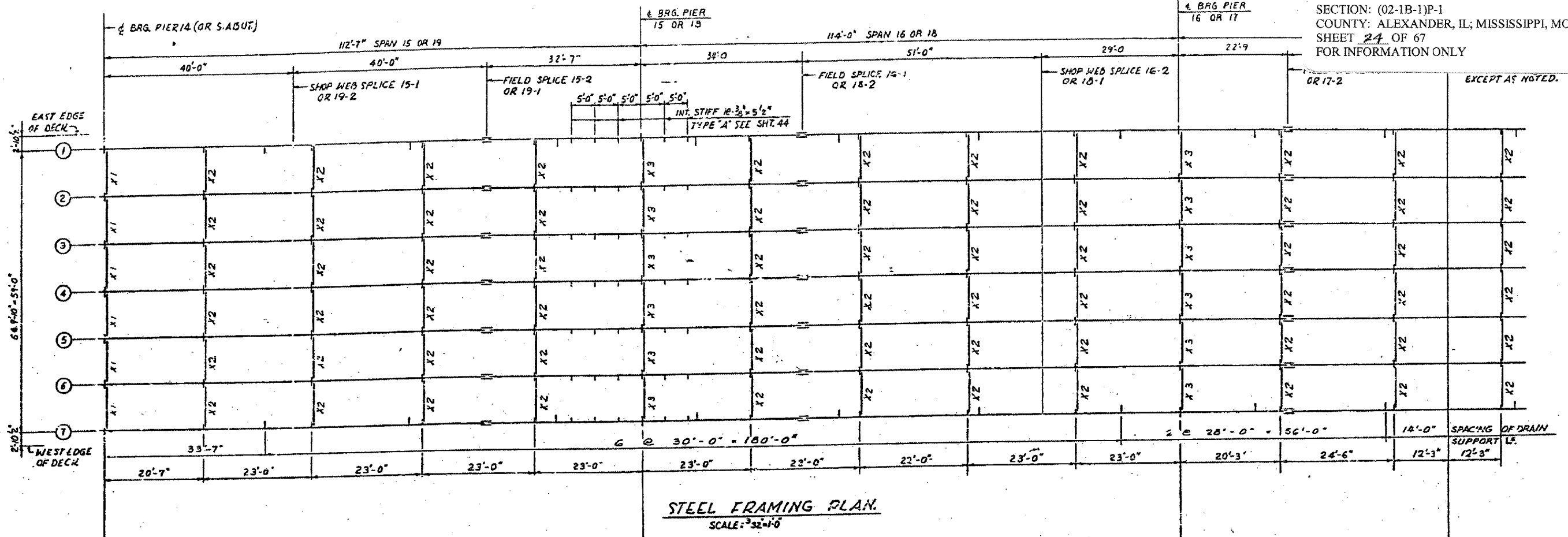
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

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
 108 WABASH AVE. CHICAGO, ILLINOIS



CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 24 OF 67
 FOR INFORMATION ONLY



NOTES:
 MATERIAL - A36 - EXCEPT AS NOTED.
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
 SHEAR LUGS ARE TO BE FURNISHED AND INSTALLED UNDER SECTION (OR 15-1) ONLY.
 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	BRG. PIER 15	F.S. 16-1	S.W.S. 16-2	BRG. PIER 16	F.S. 17-1	F.S. 17-2	BRG. PIER 17	F.S. 18-1	F.S. 18-2	BRG. PIER 18	F.S. 19-1	S.W.S. 19-2	BRG. S. ABUT.
1		379.882	379.993	377.697	376.692	375.644	374.160	375.316	372.654	370.599	369.876	369.000	367.410	366.445	365.521	364.516	363.130
2		380.036	379.141	377.851	376.346	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	378.159	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	379.141	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	369.876	369.000	367.410	366.445	365.521	364.516	363.130

ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE.

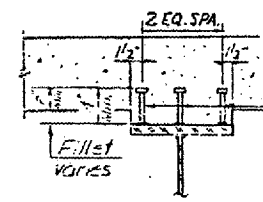
FILLET WELD TABLE

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

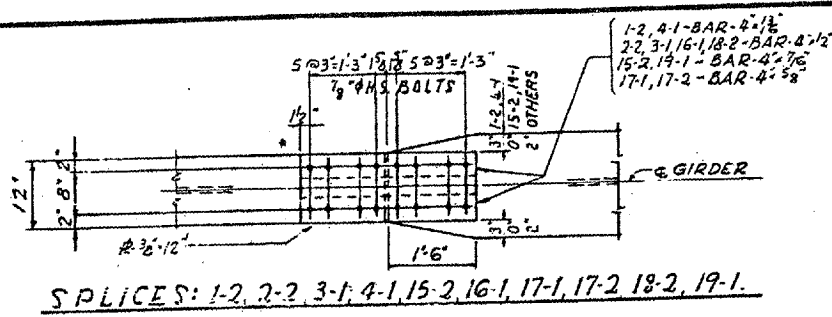
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 15 TO 19
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9 (510)
 SECTION (02-1B-110)
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

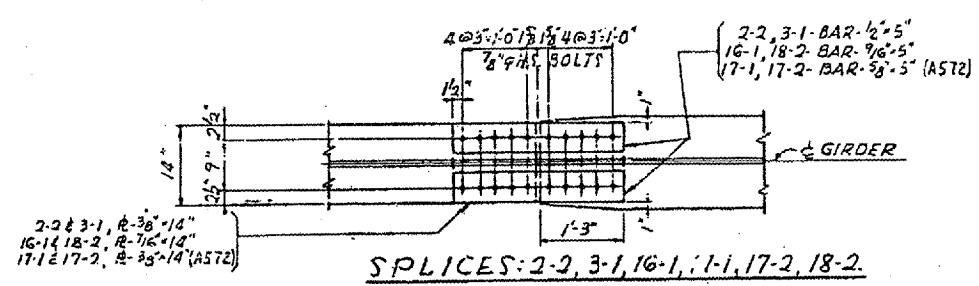
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 25 OF 67
 FOR INFORMATION ONLY



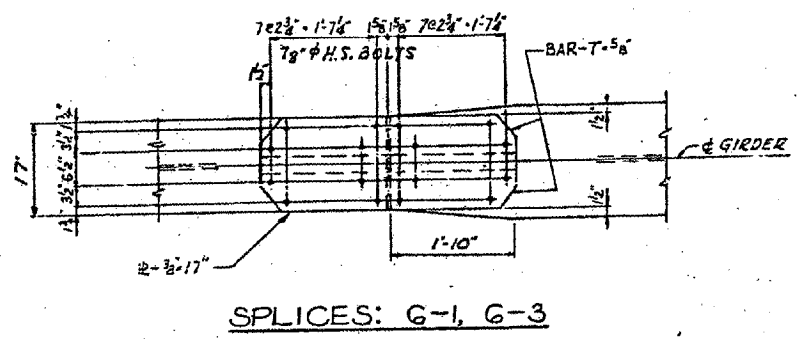
SHEAR LUG DETAIL



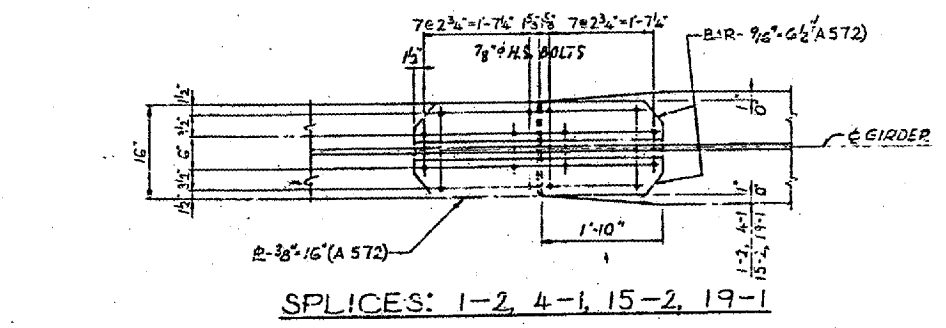
SPLICES: 1-2, 2-2, 3-1, 4-1, 15-2, 16-1, 17-1, 17-2, 18-2, 19-1.



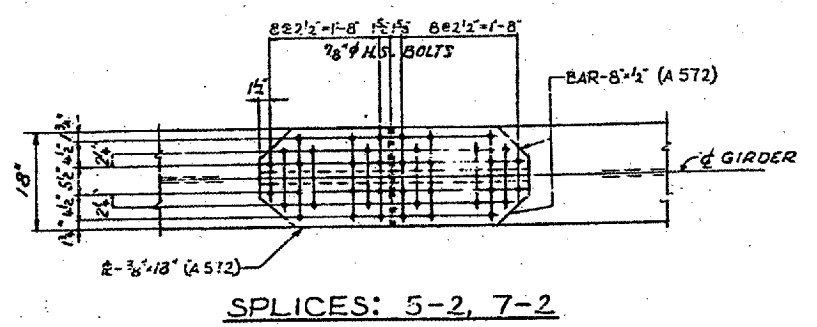
SPLICES: 2-2, 3-1, 16-1, 17-1, 17-2, 18-2.



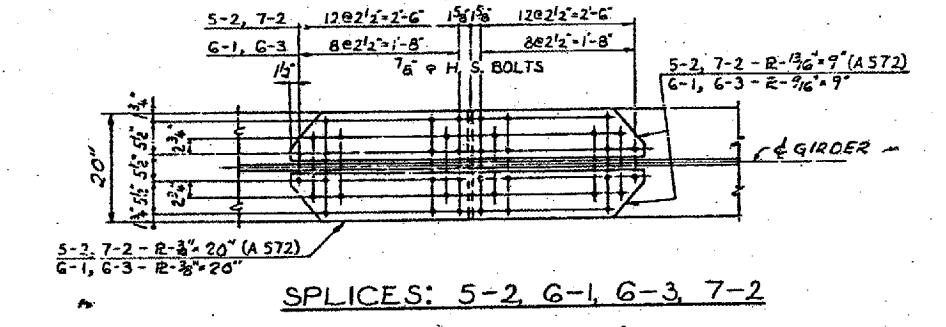
SPLICES: 6-1, 6-3



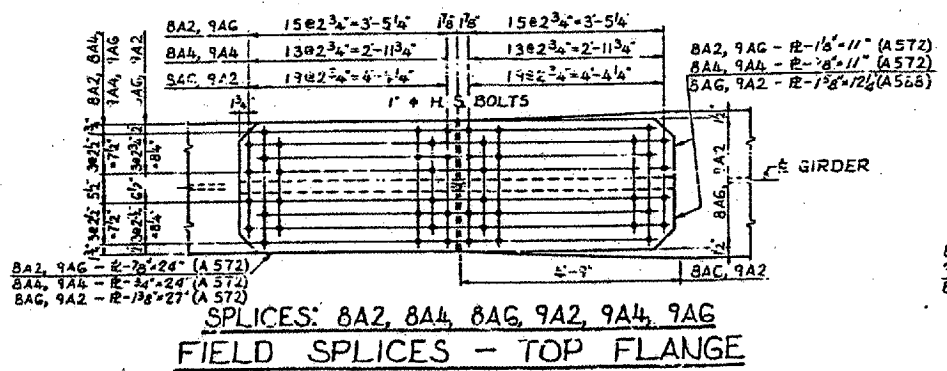
SPLICES: 1-2, 4-1, 15-2, 19-1



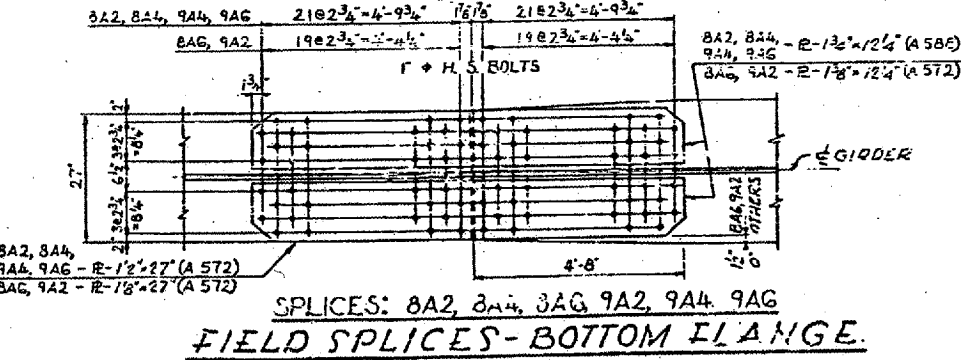
SPLICES: 5-2, 7-2



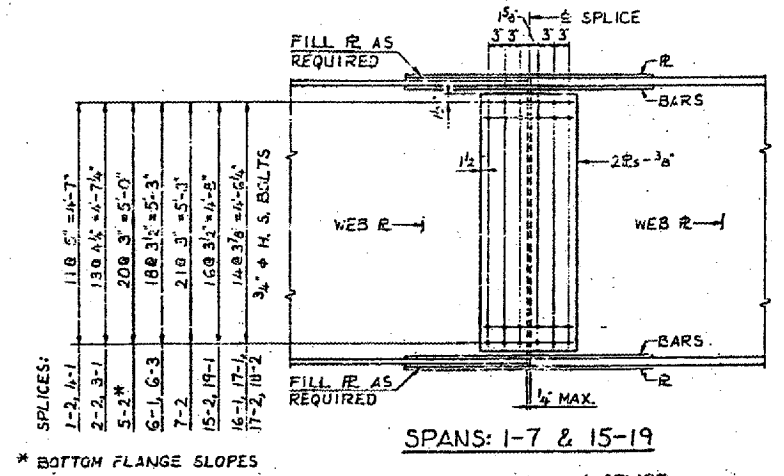
SPLICES: 5-2, 6-1, 6-3, 7-2



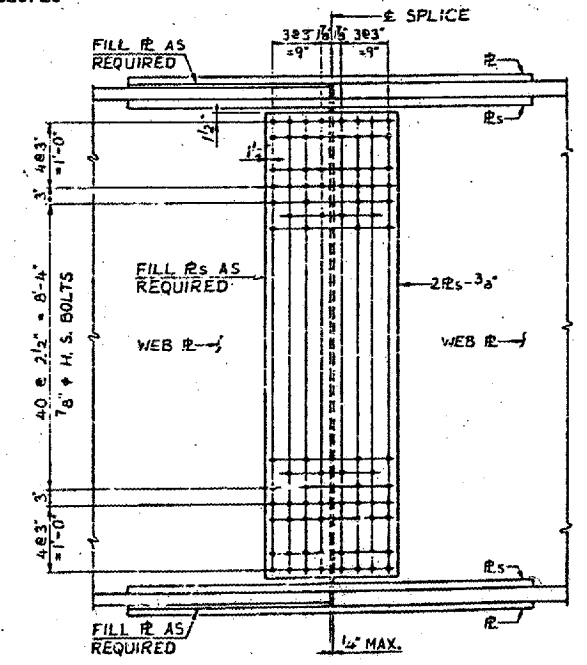
**SPLICES: 8A2, 8A4, 8A6, 9A2, 9A4, 9A6
 FIELD SPLICES - TOP FLANGE**



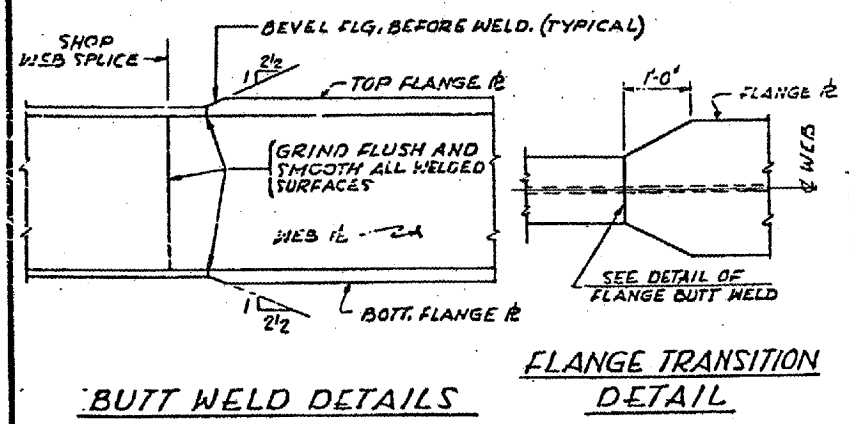
**SPLICES: 8A2, 8A4, 8A6, 9A2, 9A4, 9A6
 FIELD SPLICES - BOTTOM FLANGE**



SPANS: 1-7 & 15-19



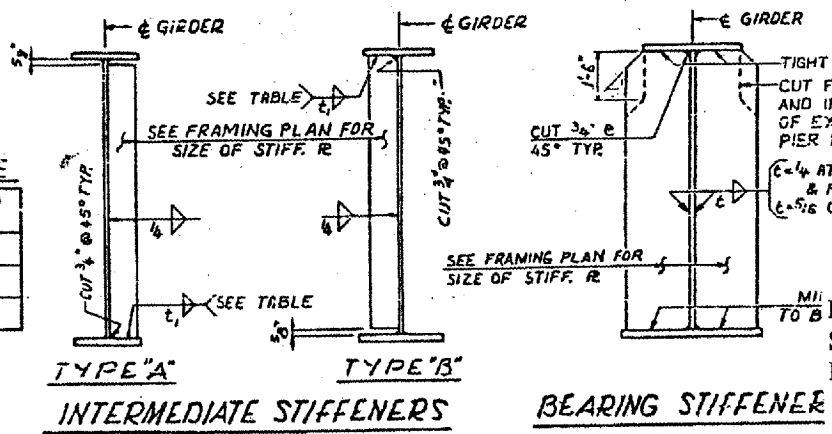
**SPANS: 8A & 9A
 WEB SPLICES**



BUTT WELD DETAILS

**FLANGE TRANSITION
 DETAIL**

FILLET WELD (t) 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



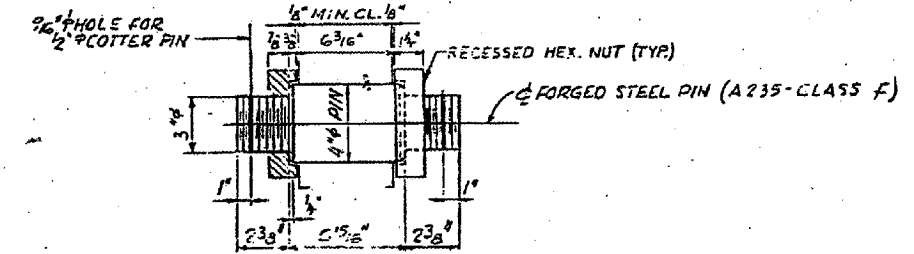
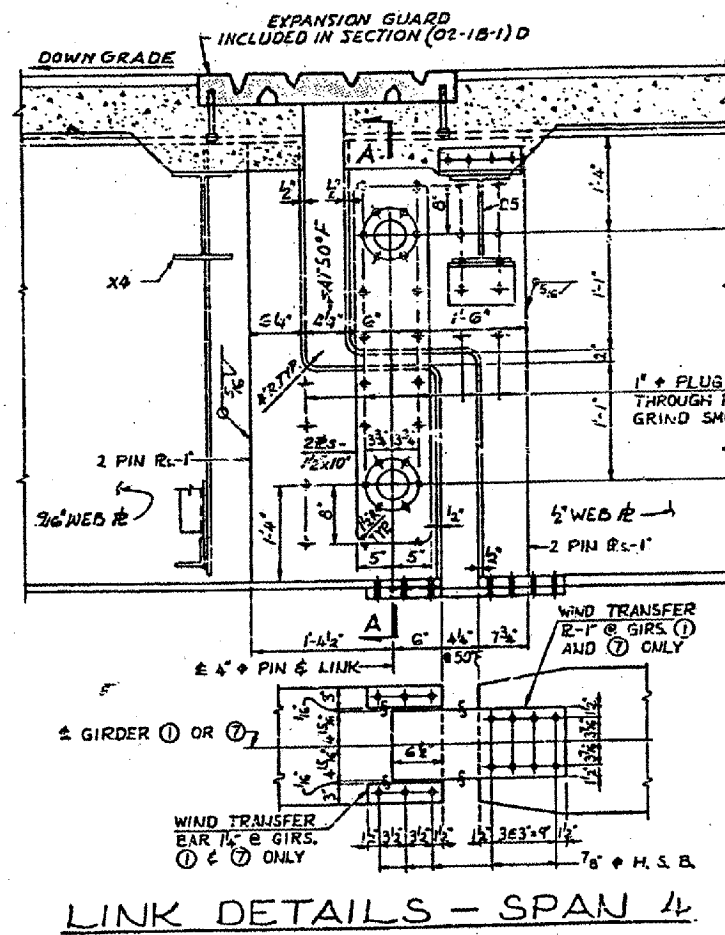
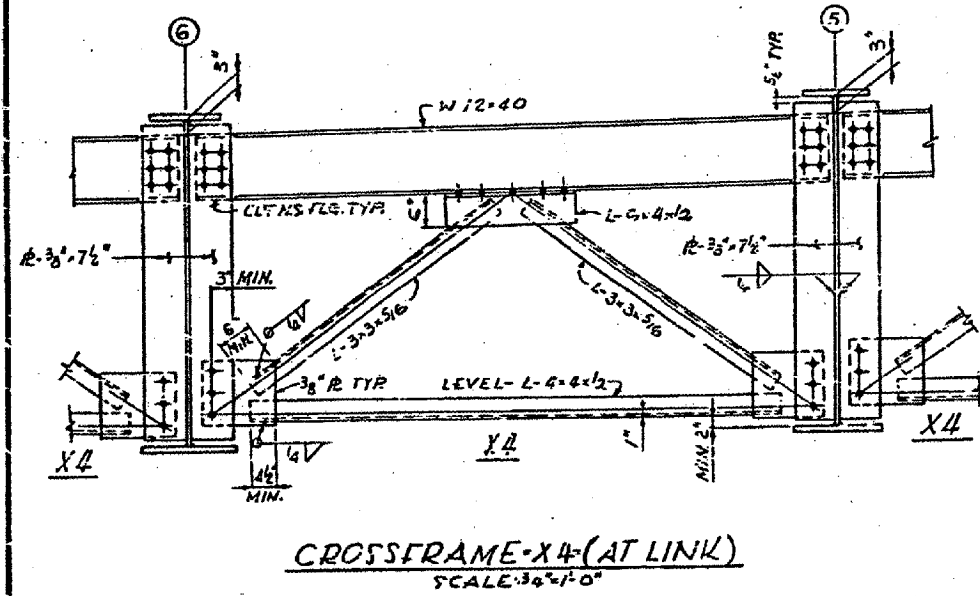
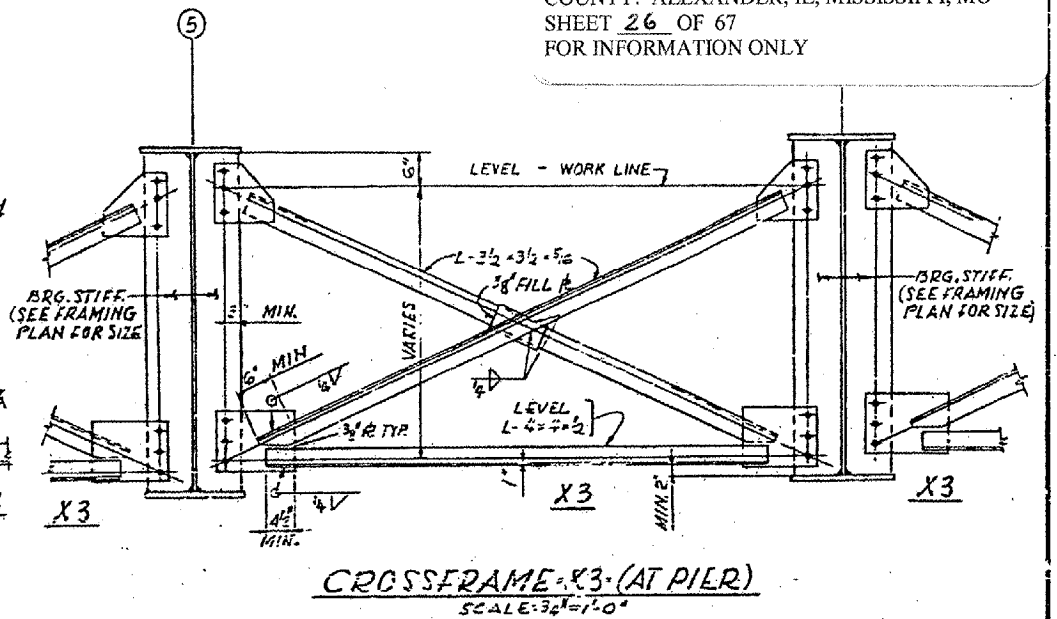
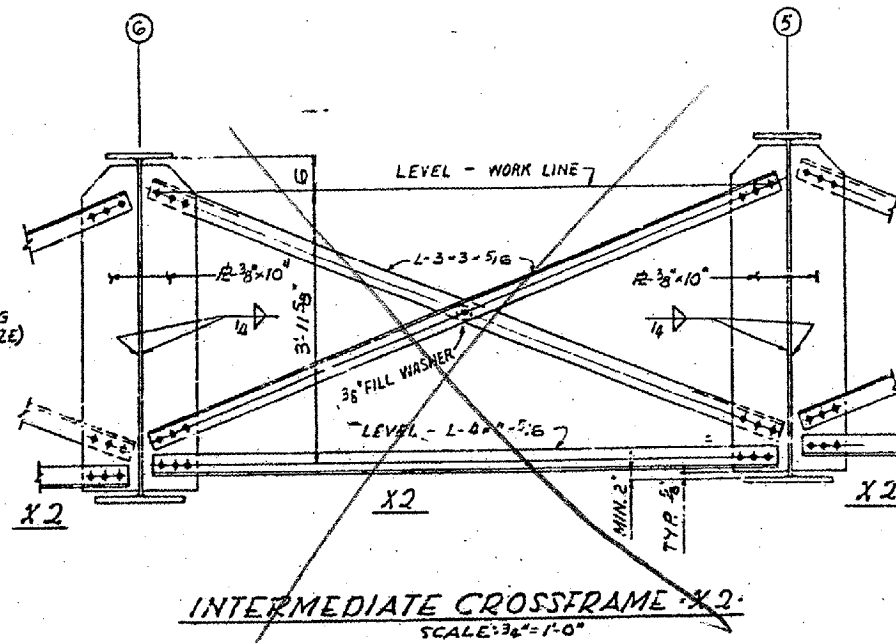
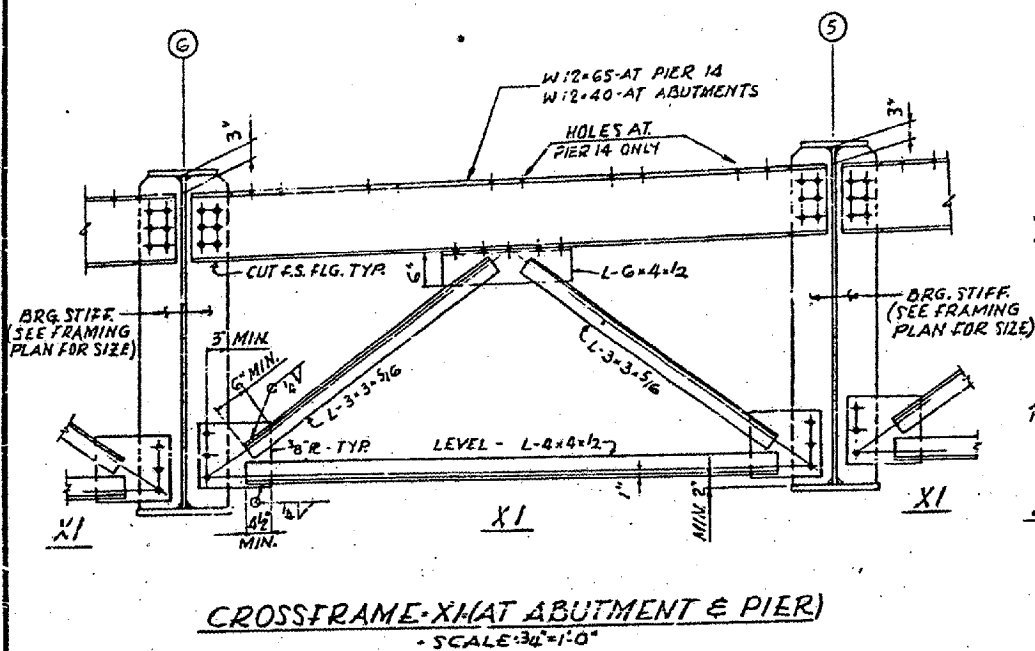
**TYPE "A"
 INTERMEDIATE STIFFENERS**

**TYPE "B"
 BEARING STIFFENER**

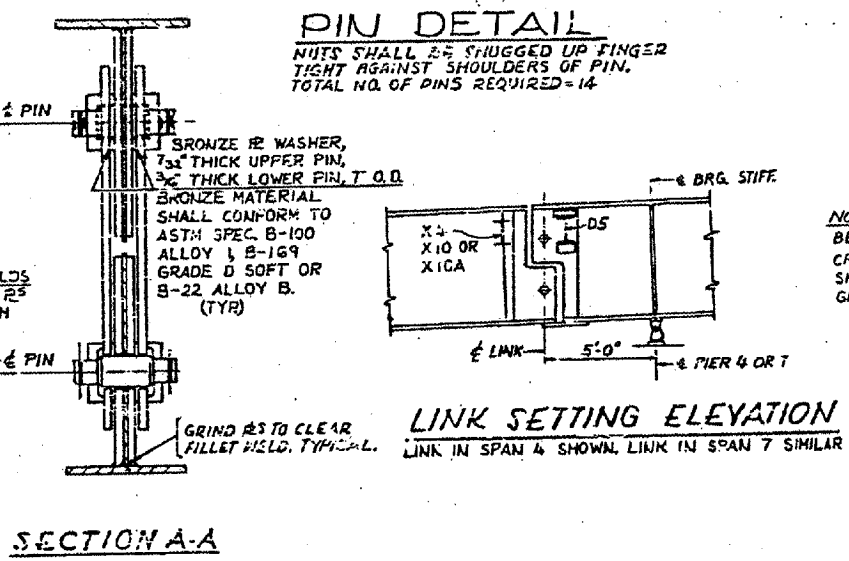
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

FIELD SPLICES & DETAILS-SPANS 1 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. 1162 + 75.25

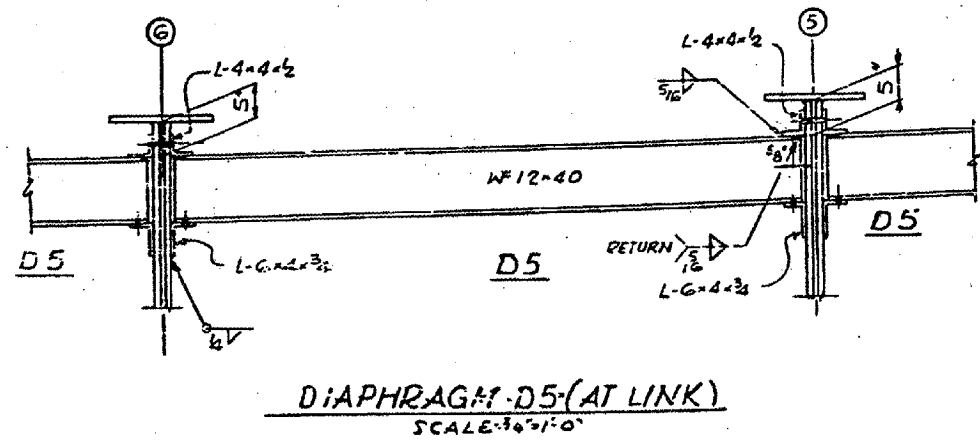
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 26 OF 67
 FOR INFORMATION ONLY



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



NOTE: LINK SHALL BE TRULY VERTICAL AT 50\"/>

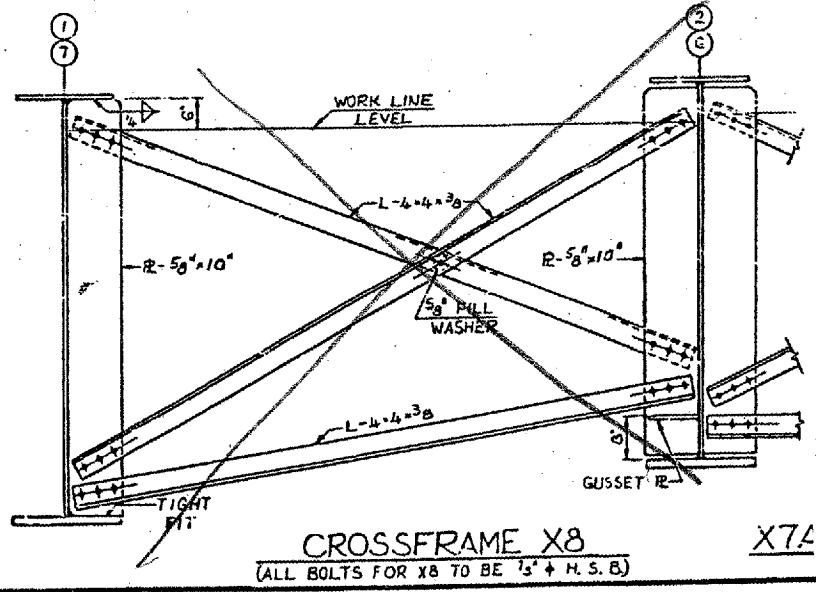
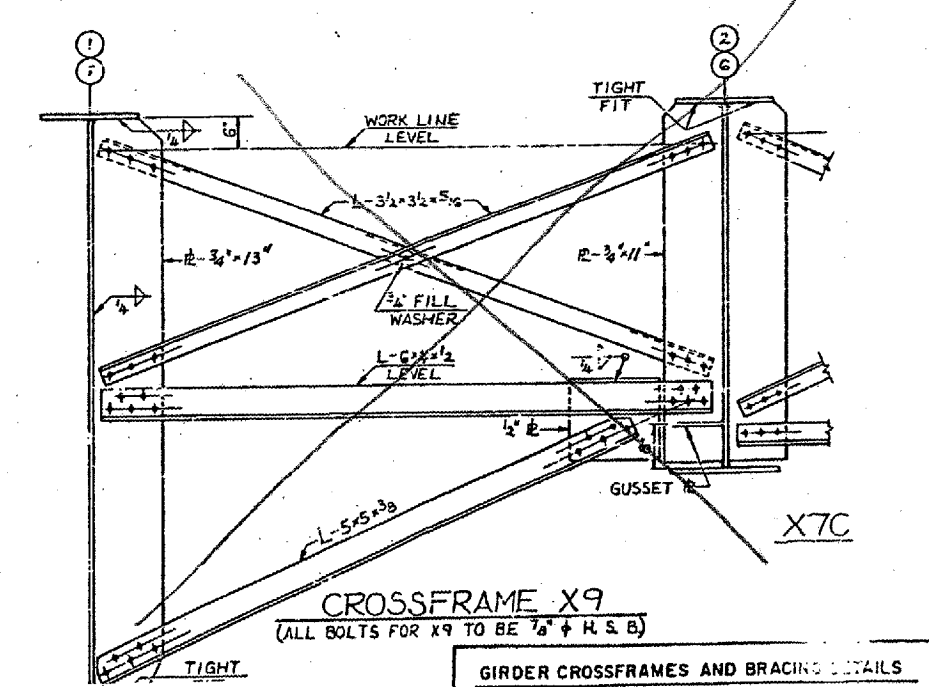
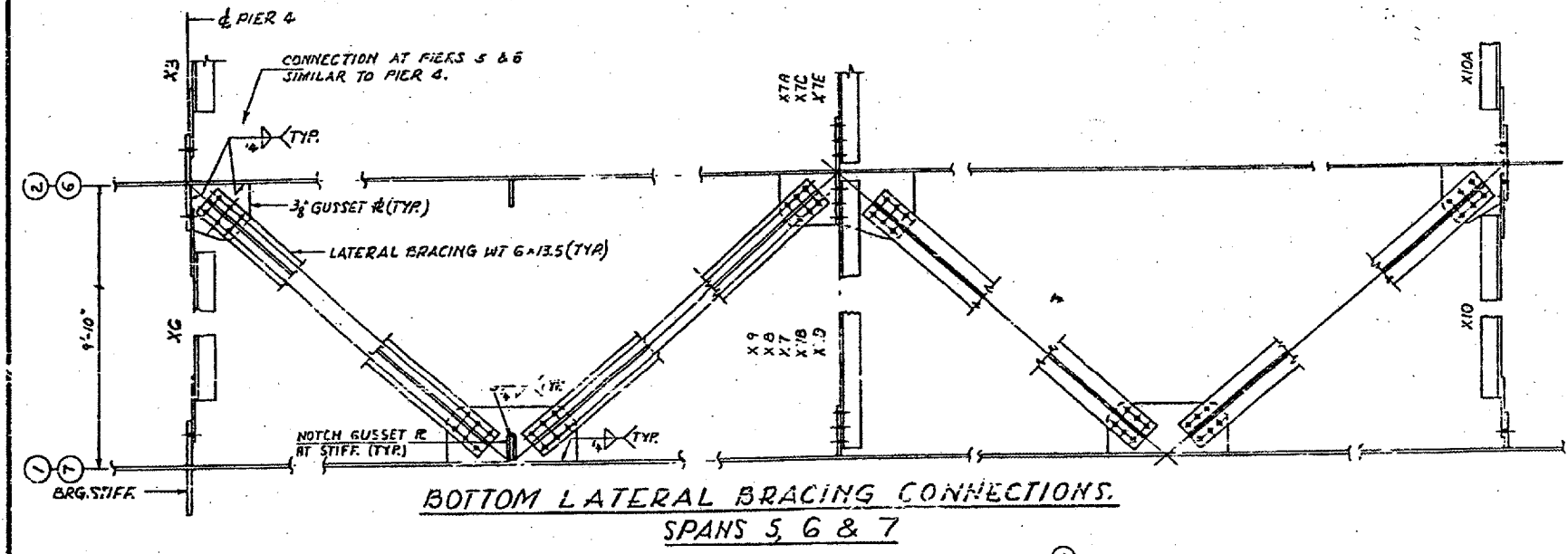
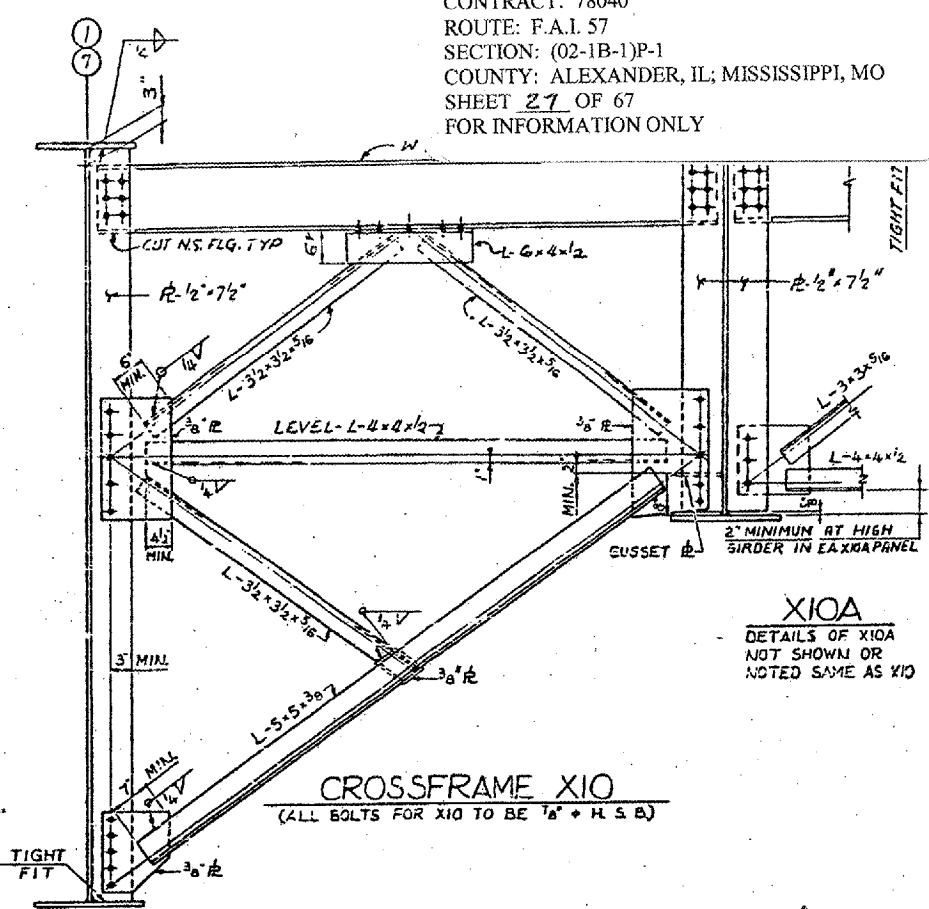
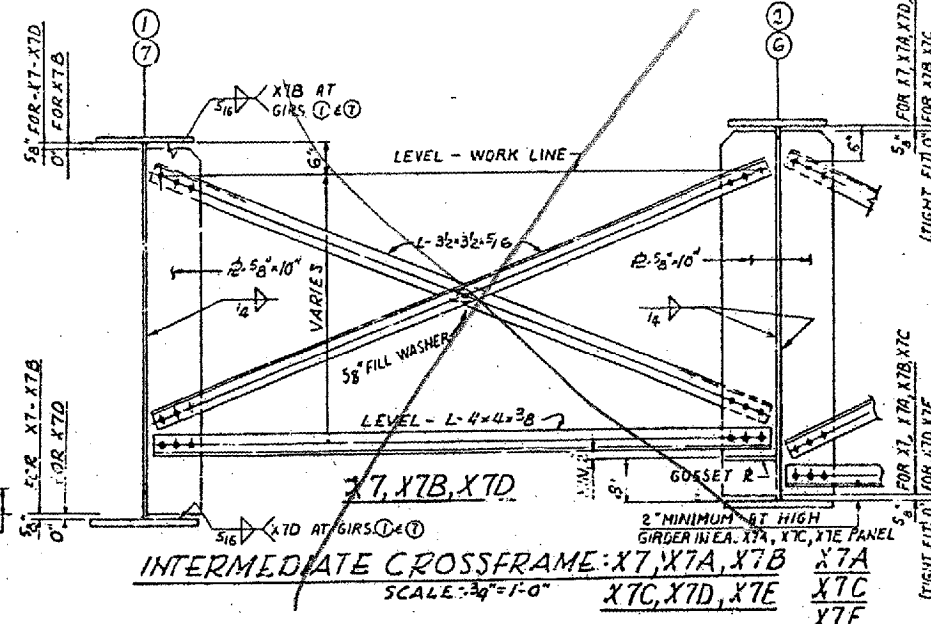
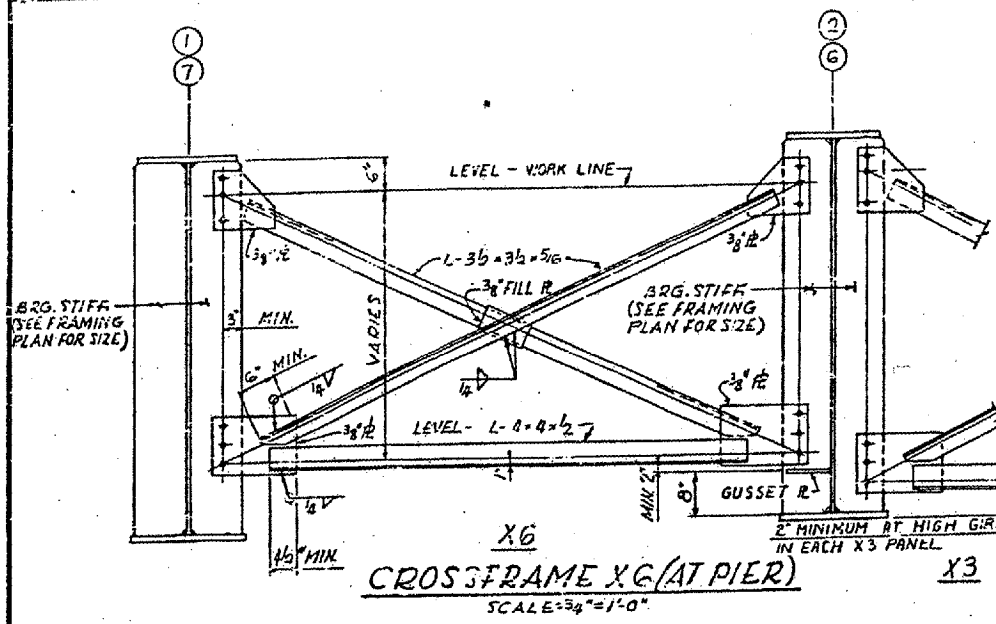


NOTES: ALL FASTENERS SHALL BE 3/4\"/>

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 (510)
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.55

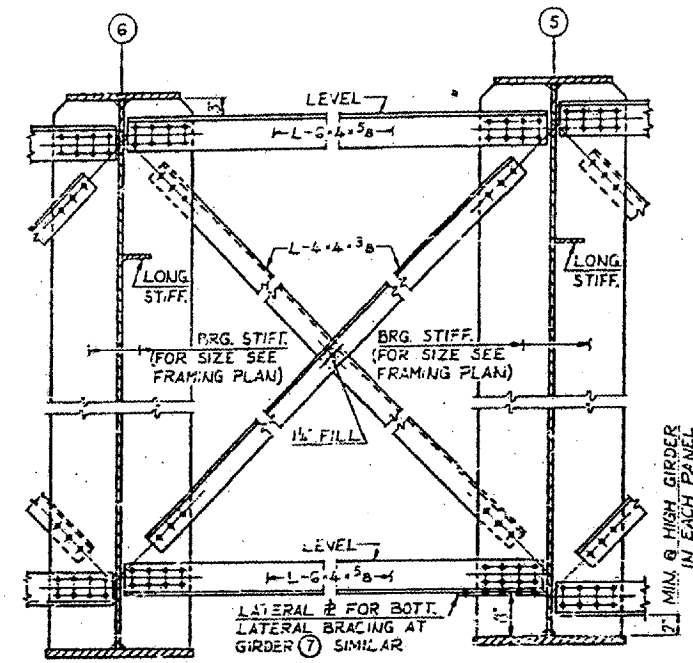
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 27 OF 67
 FOR INFORMATION ONLY



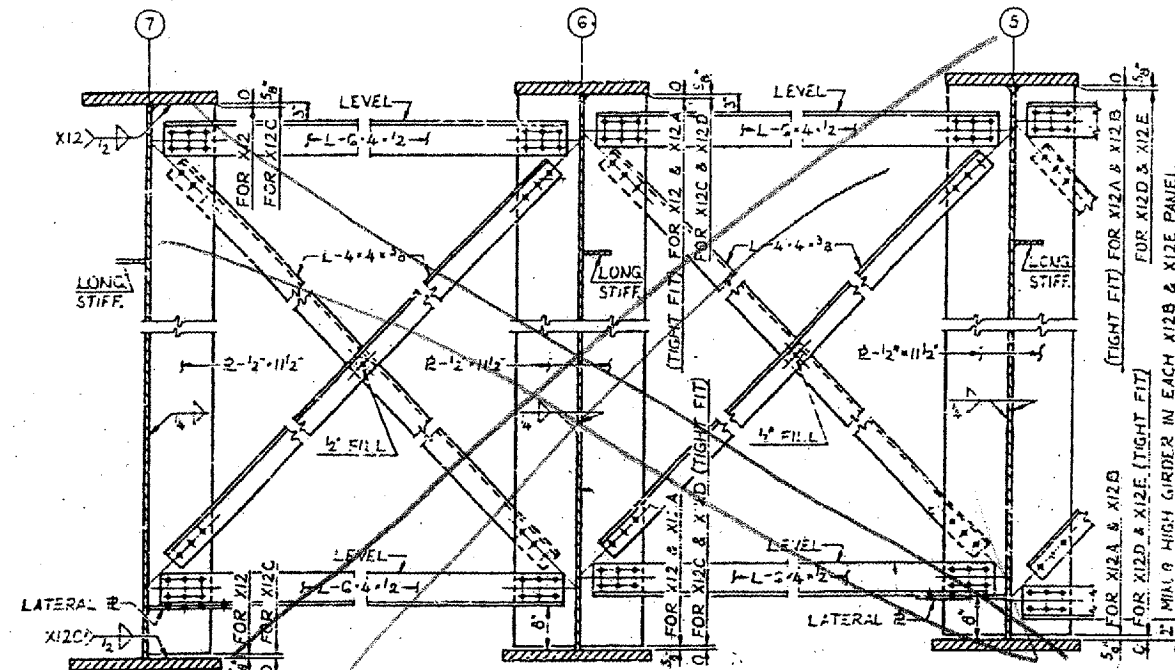
NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL FASTENERS SHALL BE 3/8" + ASTM A325 HIGH STRENGTH BOLTS UNLESS NOTED.
 FOR DETAIL OF STIFFENERS, SEE SHI. 44

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

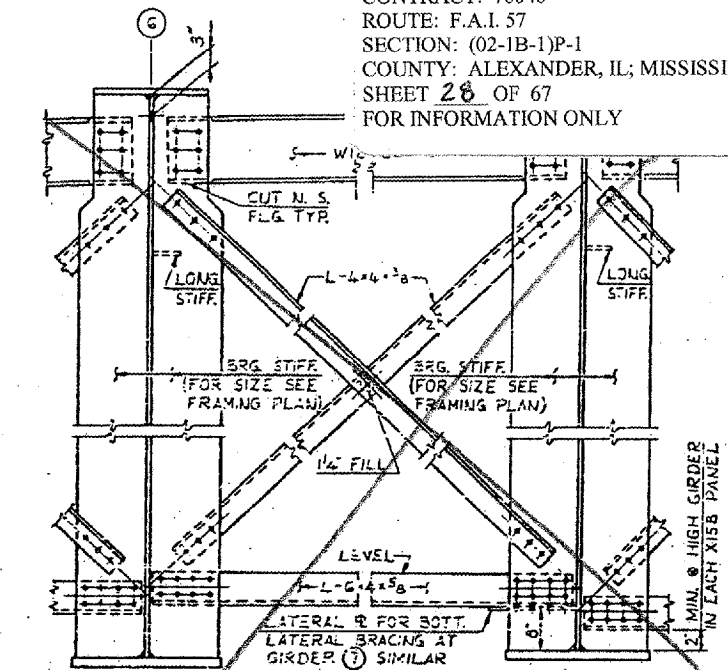
GIRDER CROSSFRAMES AND BRACING DETAILS
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)10
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



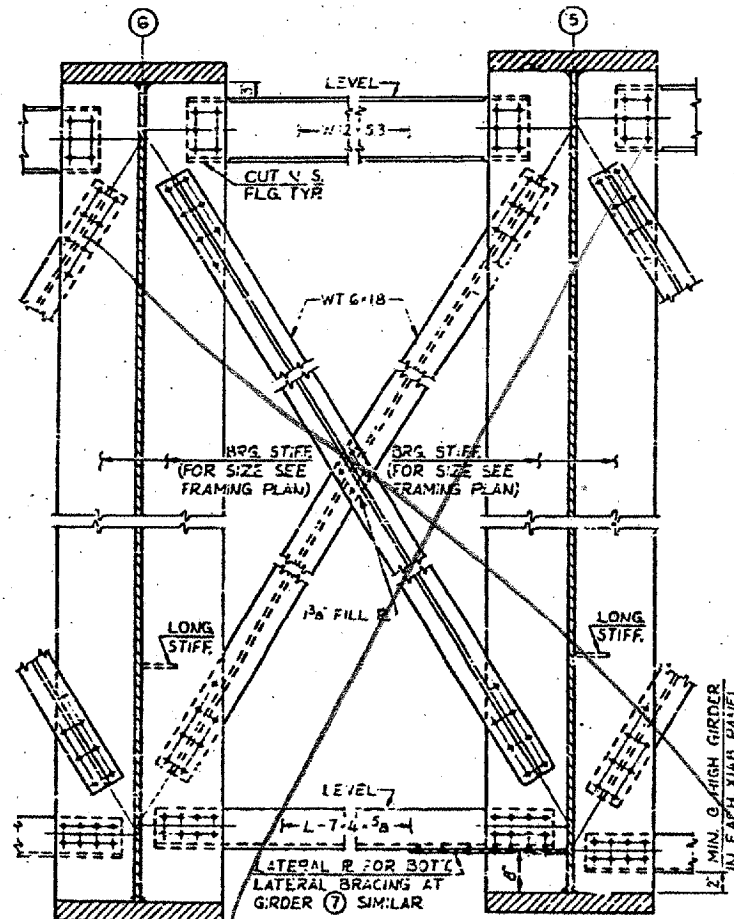
XII X11A X11B
CROSSFRAME XII, X11A & X11B
 DETAILS OF XII & X11B NOT SHOWN OR NOTED, SIMILAR TO X11A



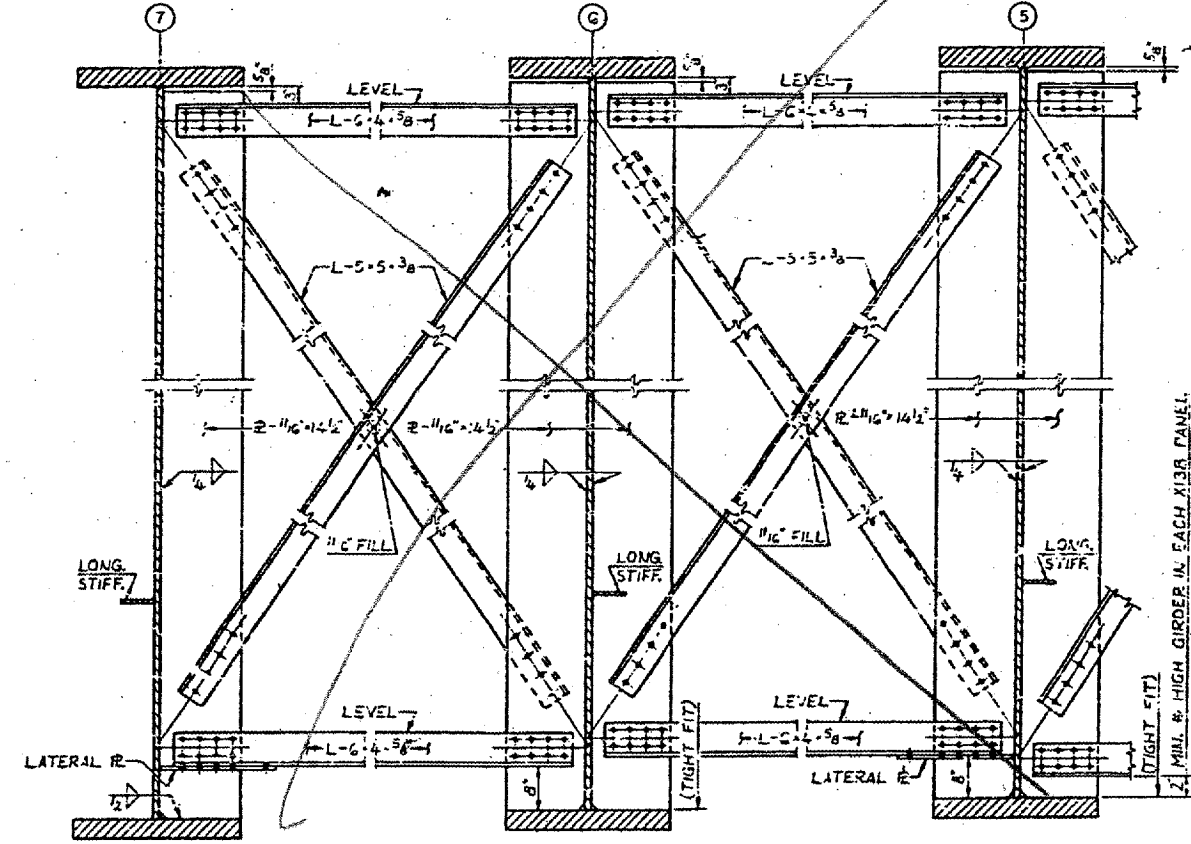
X12 & X12C X12A & X12D X12B & X12E
INTERMEDIATE CROSSFRAME X12, X12A, X12B, X12C, X12D & X12E
 DETAILS OF X12B & X12E NOT SHOWN OR NOTED, SIMILAR TO X12A & X12D



X15 X15A X15B
CROSSFRAME X15, X15A & X15B
 DETAILS OF X15 & X15B NOT SHOWN OR NOTED, SIMILAR TO X15A



X14 X14A X14B
CROSSFRAME X14, X14A & X14B
 DETAILS OF X14 & X14B NOT SHOWN OR NOTED, SIMILAR TO X14A



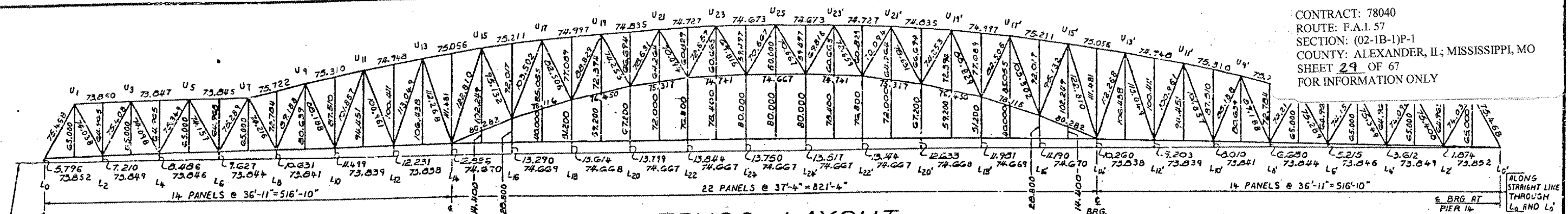
X13 X13A X13B
INTERMEDIATE CROSSFRAME X13, X13A & X13B
 DETAILS OF X13B NOT SHOWN OR NOTED, SIMILAR TO X13A

NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.
 ALL FASTENERS SHALL BE 3/8\"/>

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

STEEL DETAILS - SPANS 8A AND 9:
 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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 29 OF 67
 FOR INFORMATION ONLY

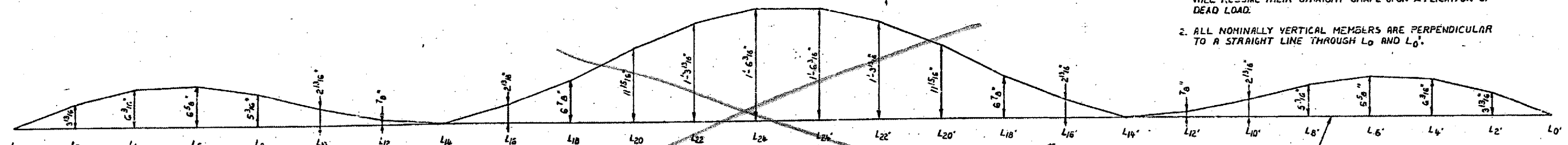


TRUSS LAYOUT

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:

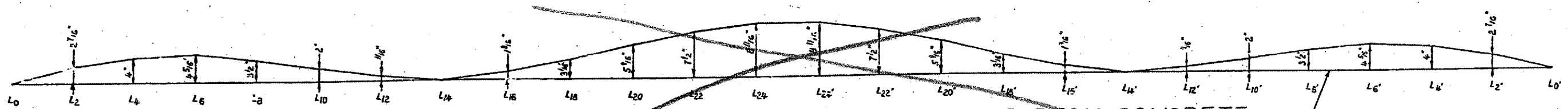
1. WITH THE TRUSS IN ITS FINAL POSITION (AFTER DEAD LOAD DEFORMATION HAS TAKEN PLACE), ALL MEMBERS ARE TO BE STRAIGHT. ALL MEMBERS SHALL BE FABRICATED STRAIGHT. THE FABRICATED LENGTHS OF MEMBERS ARE SUCH THAT SOME CHORD MEMBERS WILL HAVE TO BE FORCED INTO A CURVED POSITION DURING ERECTION; THESE MEMBERS 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

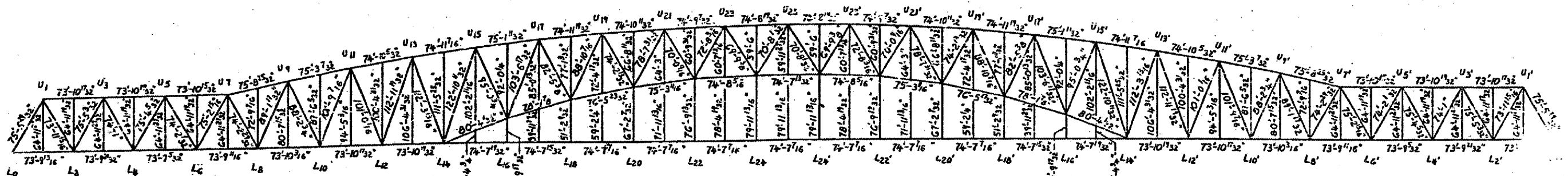
REFERENCE LINE REPRESENTING FINAL POSITION OF BOTTOM CHORD (SHOWN STRAIGHT FOR CONVENIENCE)



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)



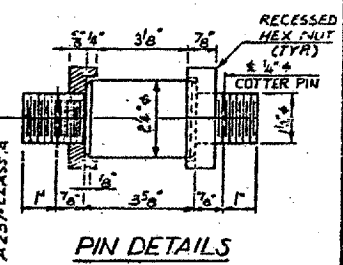
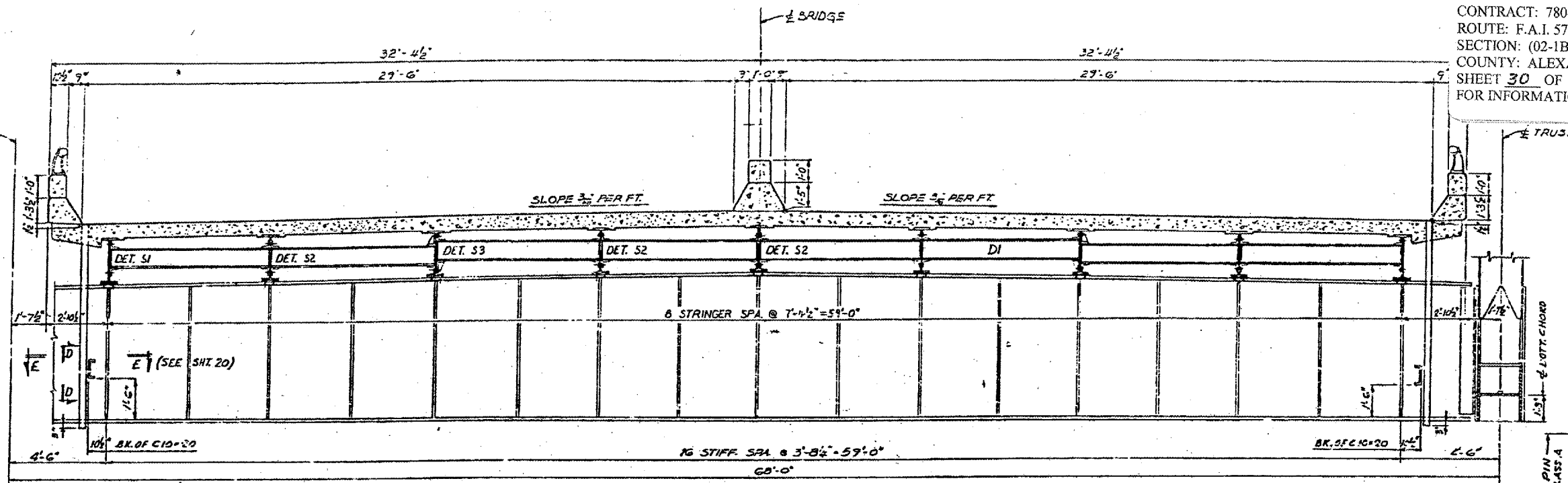
FABRICATED LENGTHS

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

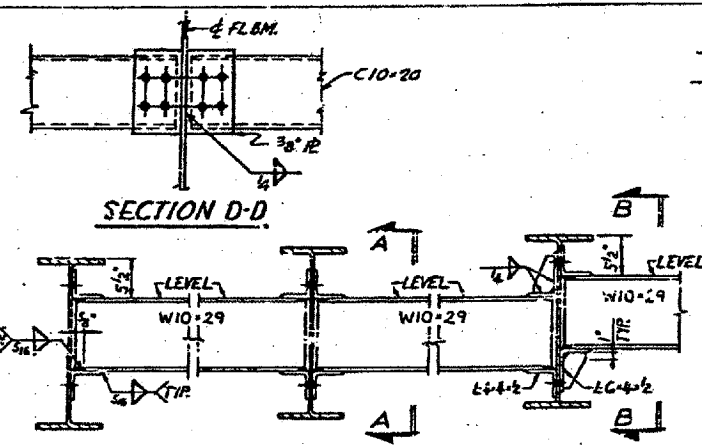
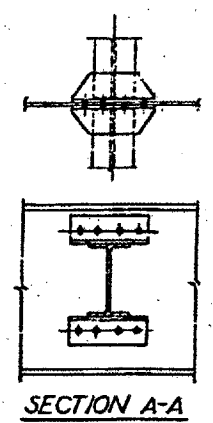
BRIDGE NO 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

TRUSS LAYOUT & BLOCKING ORDINATES
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(5)D
 SECTION (02-1B-1)D
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.78 TO STA. 1182 + 75.25

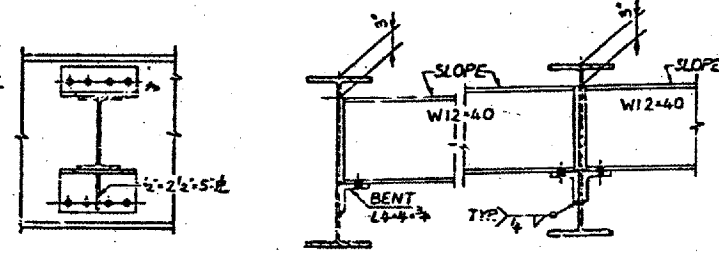
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 30 OF 67
 FOR INFORMATION ONLY



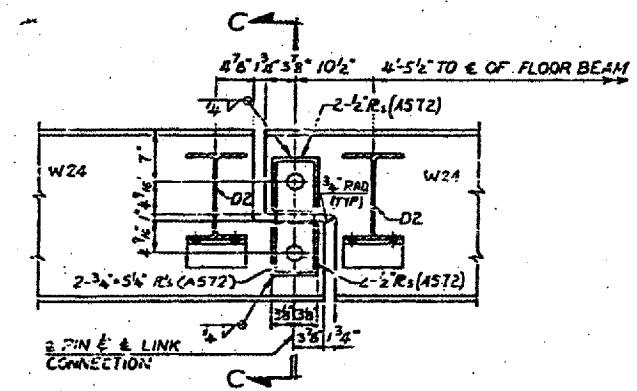
TYPICAL CROSS - SECTION
 SCALE: 3/8"=1'-0"



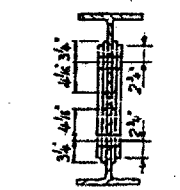
DIAPHRAGM D1 DETAILS
 SCALE: 1/4"=1'-0"



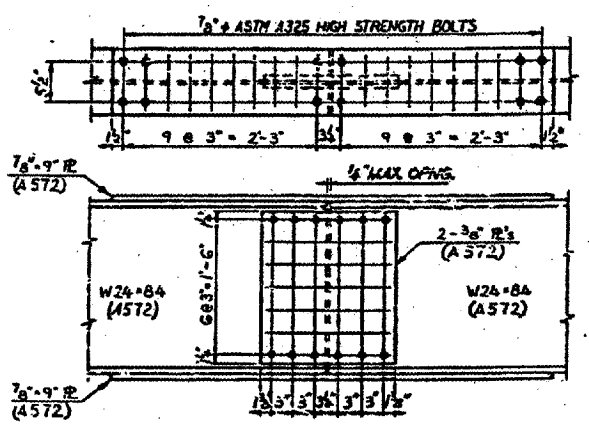
DIAPHRAGM D2 DETAILS
 SCALE: 1/4"=1'-0"



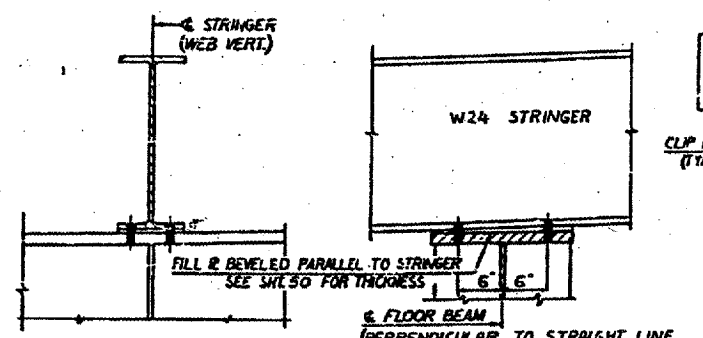
LINK CONNECTION
 SCALE: 1/4"=1'-0"



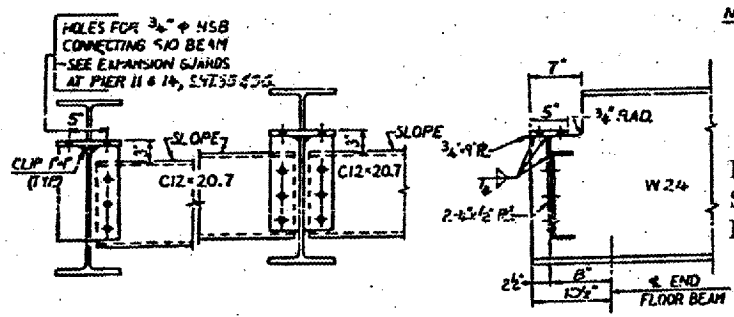
SECTION C-C



TYPICAL STRINGER SPLICE
 SCALE: 1/4"=1'-0"



CONNECTION OF STRINGER TO FLOOR BEAM
 SCALE: 1/4"=1'-0"



DIAPHRAGM D3 DETAILS
 SCALE: 1/4"=1'-0"

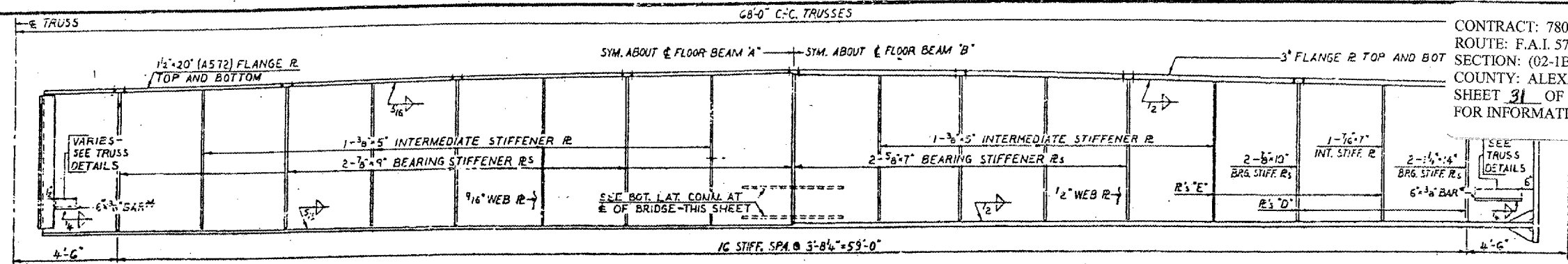
NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED
 ALL FASTENERS SHALL BE 3/4" + ASTM A325
 HIGH STRENGTH BOLTS UNLESS NOTED.
 FOR FLOOR BEAMS, SEE SHT. 52

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 + 84.75 TO STA. 1182 + 75.25

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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 31 OF 67
 FOR INFORMATION ONLY

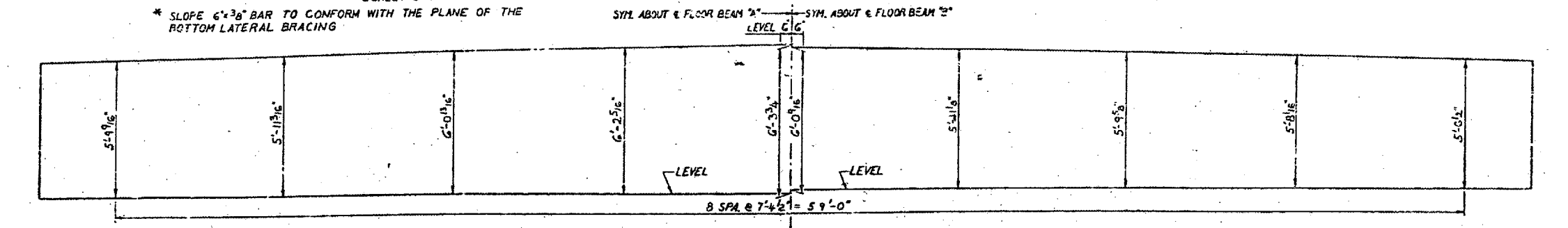


HALF ELEVATION INTERMEDIATE FLOOR BEAM "A"
 SCALE: 3/8"=1'-0"

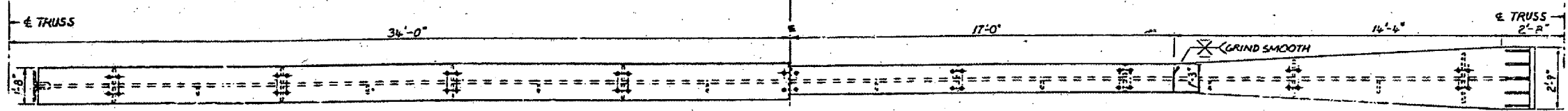
HALF ELEVATION INTERMEDIATE FLOOR BEAM "B"
 SCALE: 3/8"=1'-0"

* SLOPE 6" x 3/8" BAR TO CONFORM WITH THE PLANE OF THE BOTTOM LATERAL BRACING

NOTE: FOR LOCATION OF FLOOR BEAMS "A" & "B" SEE FRAMING PLAN, SHT. 49

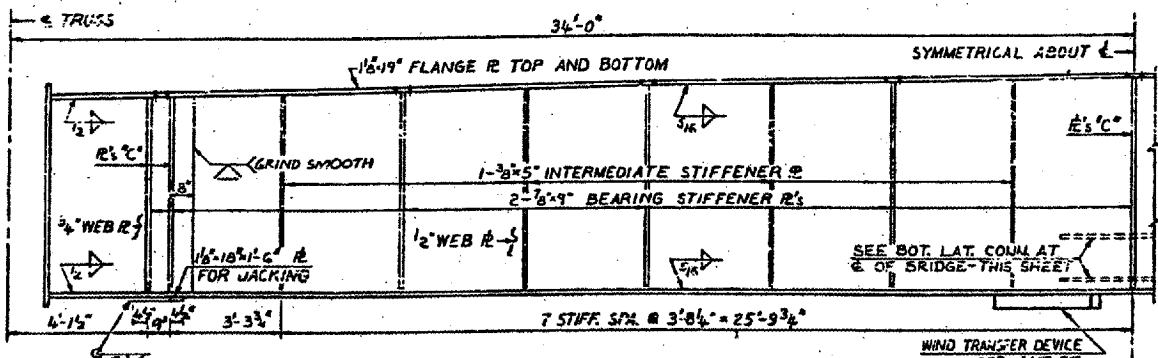


WEB PLATE OFFSETS CAMBERED FOR CROWN & TOTAL DEAD LOAD DEFLECTIONS OF FLOOR BEAMS "A" & "B"

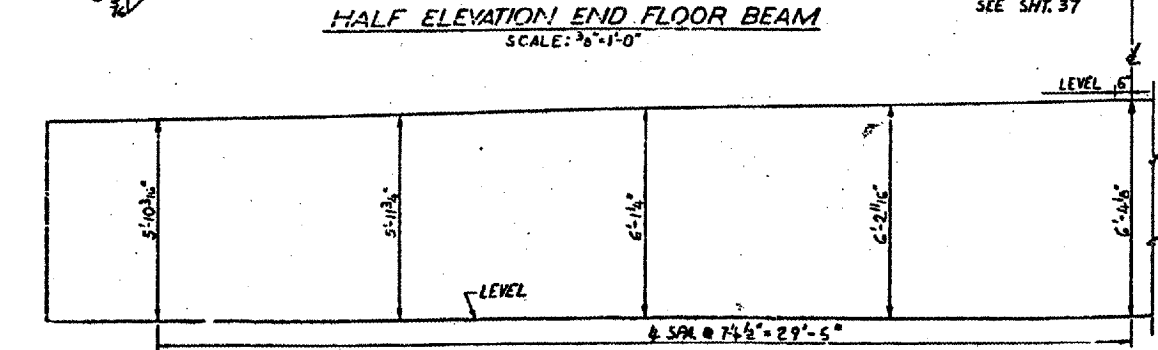


HALF PLAN INTERMEDIATE FLOOR BEAM "A"
 (LATERAL R_s NOT SHOWN)
 SCALE: 3/8"=1'-0"

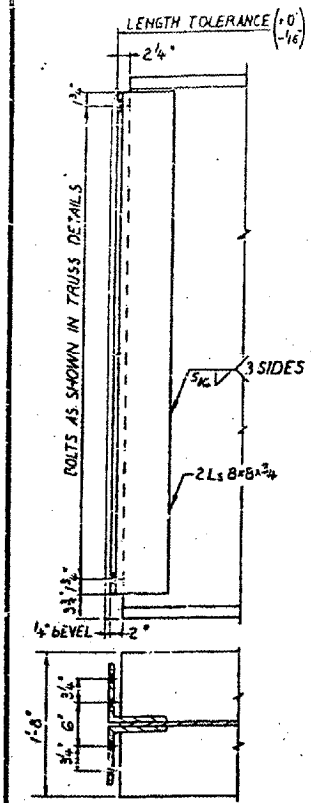
HALF PLAN INTERMEDIATE FLOOR BEAM "B"
 (LATERAL R_s NOT SHOWN)
 SCALE: 3/8"=1'-0"



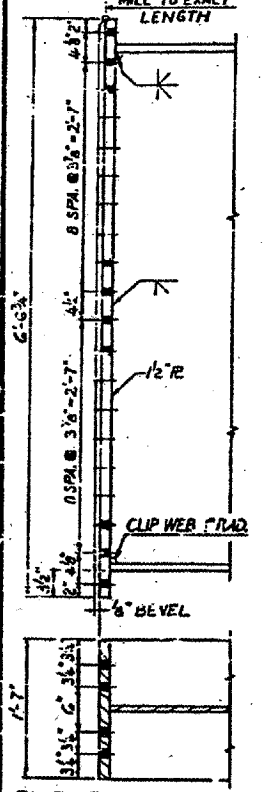
HALF ELEVATION END FLOOR BEAM
 SCALE: 3/8"=1'-0"



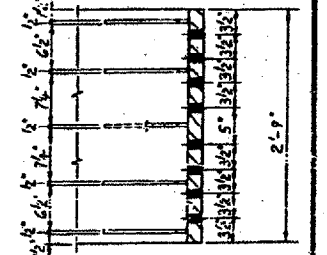
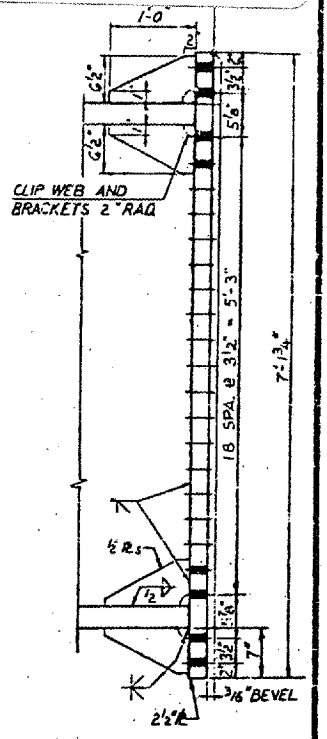
WEB PLATE OFFSETS CAMBERED FOR CROWN & TOTAL DEAD LOAD DEFLECTION OF END FLOOR BEAM



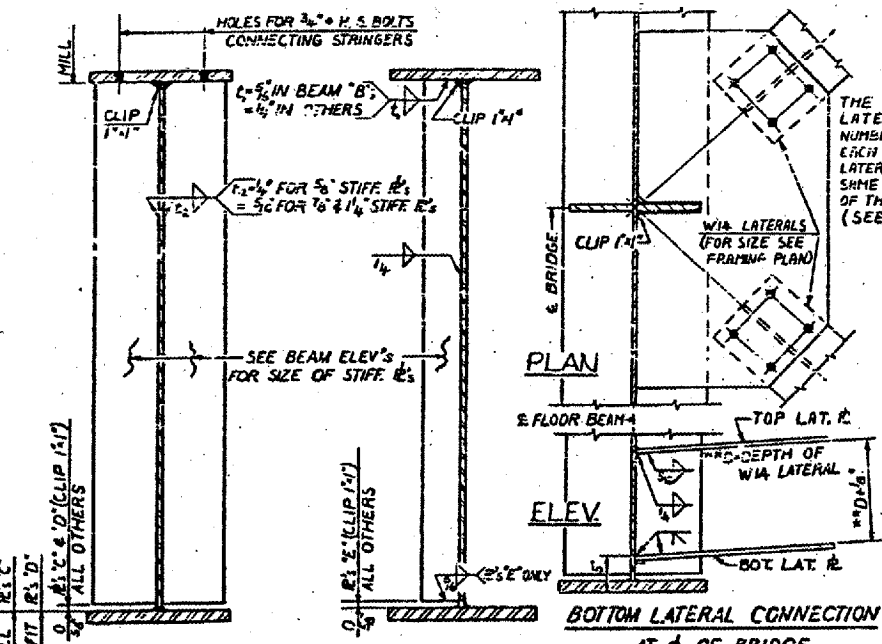
FLOOR BEAM "A" CONNECTION
 (LATERAL R_s NOT SHOWN)
 SCALE: 1"=1'-0"



END FLOOR BEAM CONNECTION
 SCALE: 1"=1'-0"



FLOOR BEAM "B" CONNECTION
 (LATERAL R_s NOT SHOWN)
 SCALE: 1"=1'-0"



BEARING STIFFENER
 SCALE: 1"=1'-0"

INTERMEDIATE STIFFENER
 SCALE: 1"=1'-0"

THE THICKNESS OF THE LATERAL R_s AND THE NUMBER OF BOLTS CONNECTING EACH VIA LATERAL TO THE LATERAL R_s SHALL BE THE SAME AS AT THE CONNECTION OF THE LATERAL TO THE TRUSS. (SEE TRUSS DETAILS)

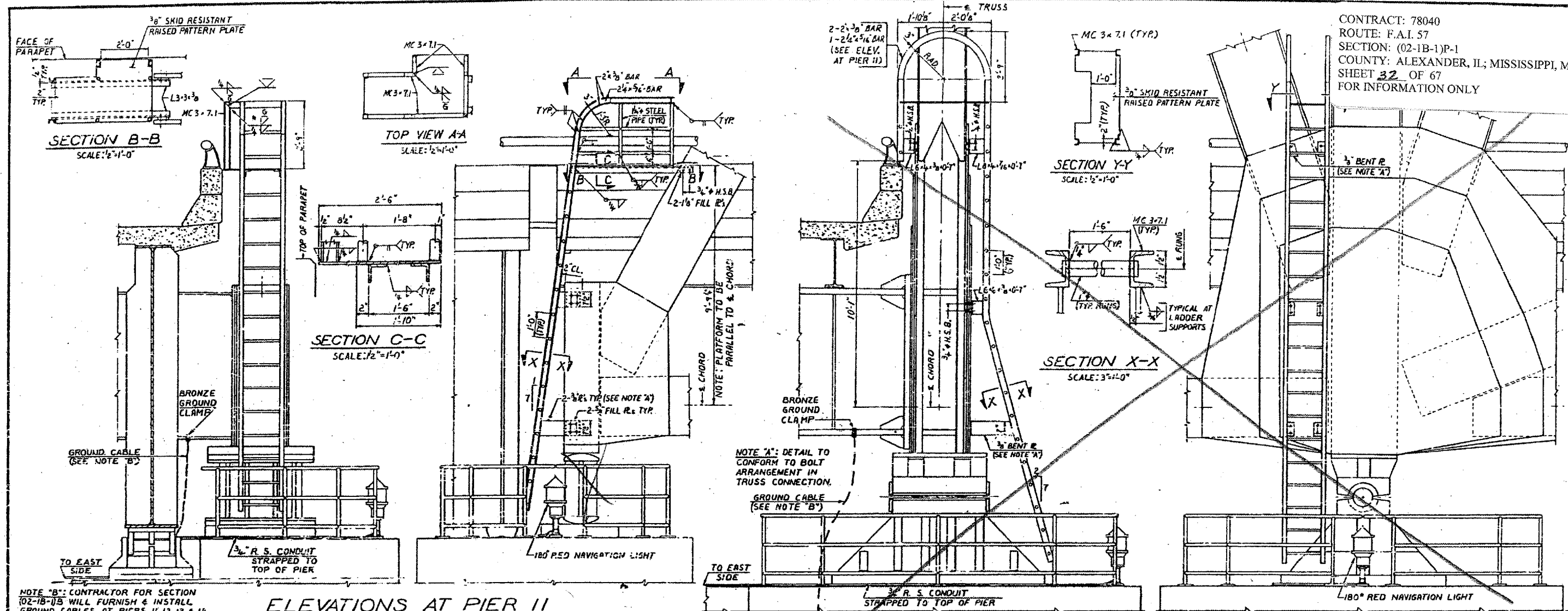
NOTES:
 ALL MATERIAL ASTM A36 UNLESS NOTED.

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

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

FLOOR BEAMS - SPANS 12, 13 & 14
 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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 32 OF 67
 FOR INFORMATION ONLY

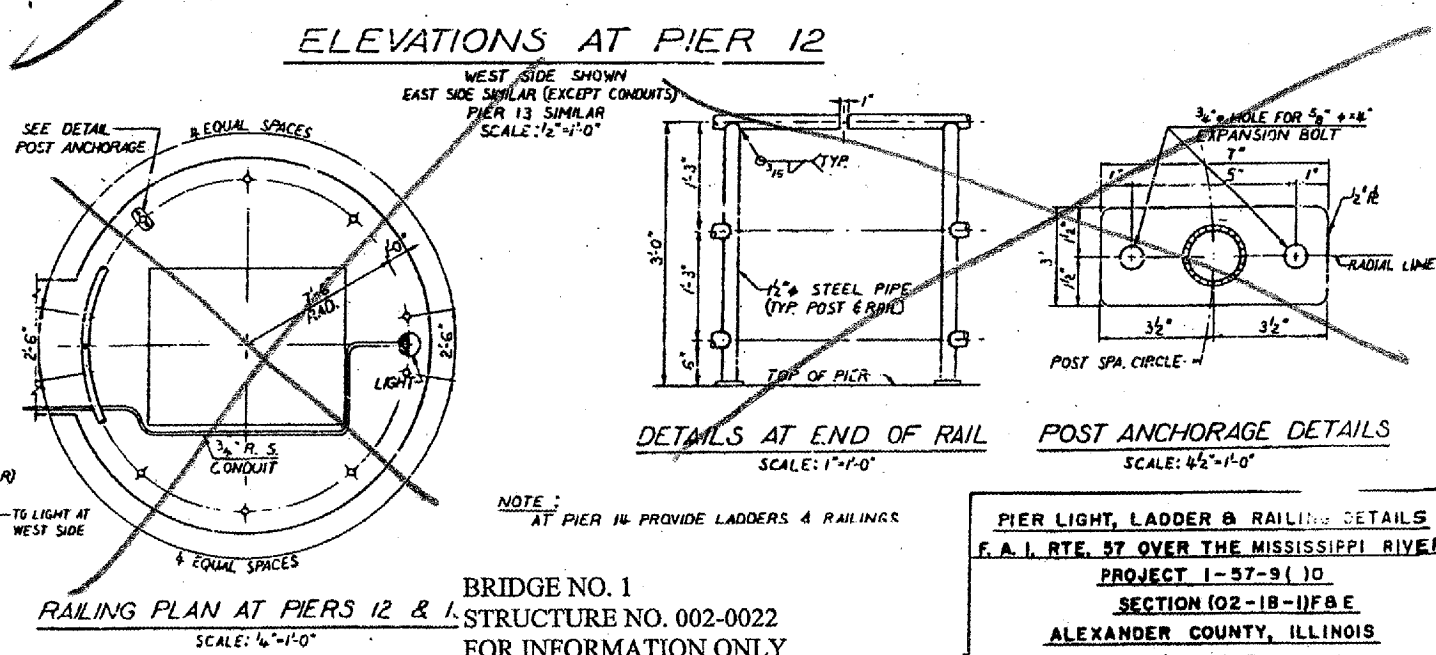
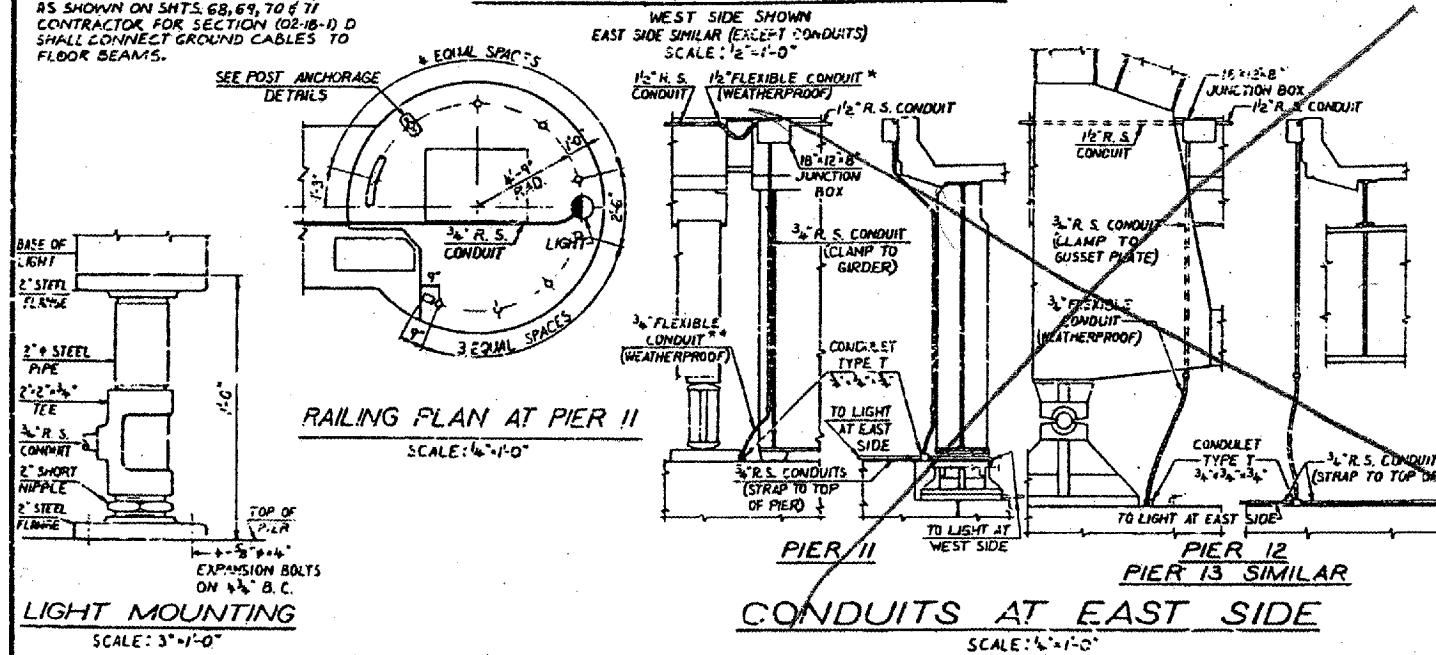


NOTE "B": CONTRACTOR FOR SECTION (02-1B-1)B WILL FURNISH & INSTALL GROUND CABLES AT PIERS 11, 12, 13 & 14 AS SHOWN ON SHTS. 68, 69, 70 & 71. CONTRACTOR FOR SECTION (02-1B-1)D SHALL CONNECT GROUND CABLES TO FLOOR BEAMS.

NOTE "A": DETAIL TO CONFORM TO BOLT ARRANGEMENT IN TRUSS CONNECTION.
 GROUND CABLE (SEE NOTE "B")

ELEVATIONS AT PIER II

ELEVATIONS AT PIER 12



LIGHT MOUNTING
 SCALE: 3"=1'-0"

RAILING PLAN AT PIER II
 SCALE: 1/4"=1'-0"

CONDUITS AT EAST SIDE
 SCALE: 1/4"=1'-0"

RAILING PLAN AT PIERS 12 & 13
 SCALE: 1/4"=1'-0"

DETAILS AT END OF RAIL
 SCALE: 1"=1'-0"

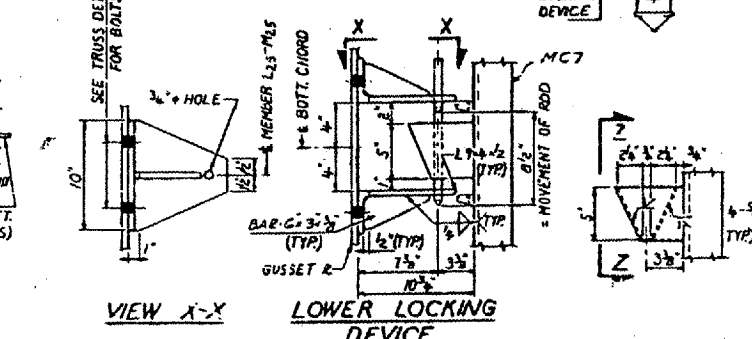
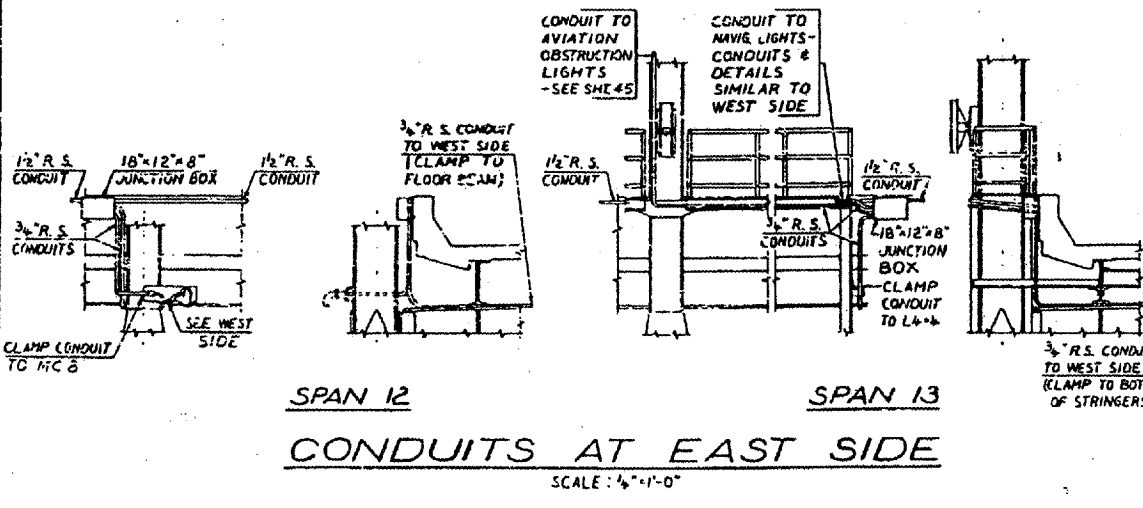
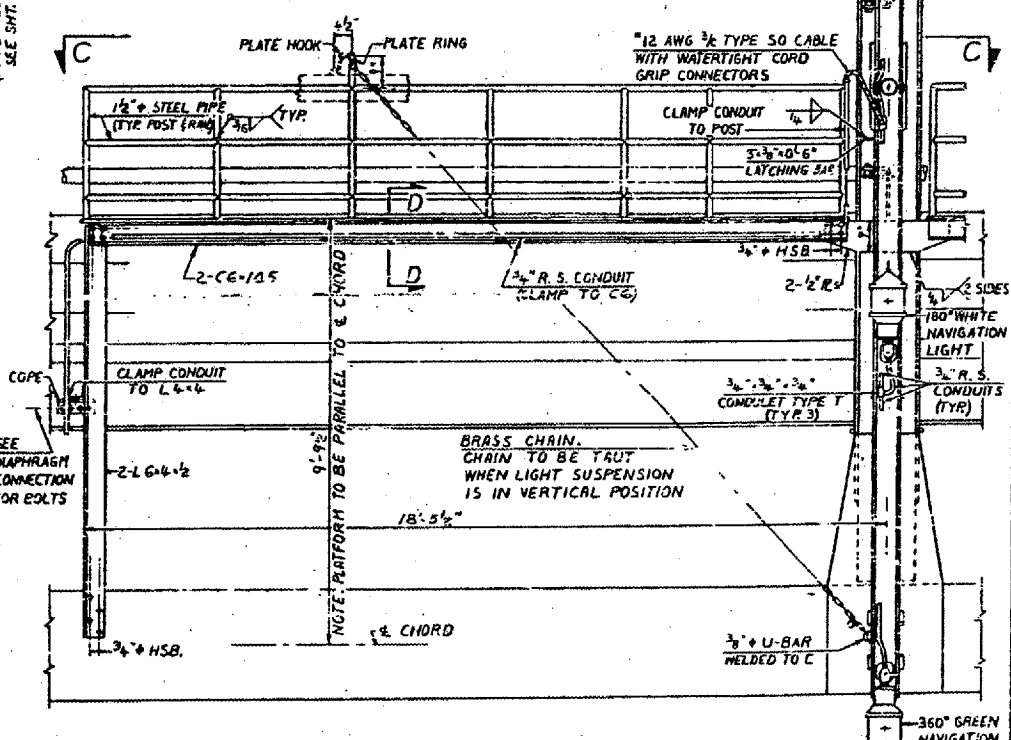
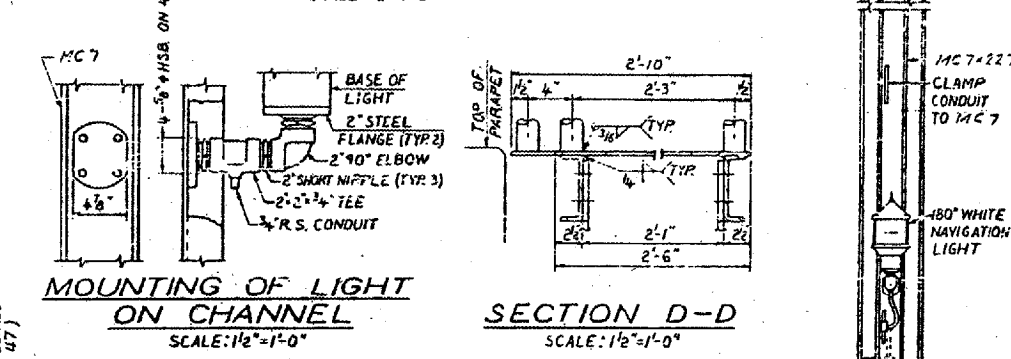
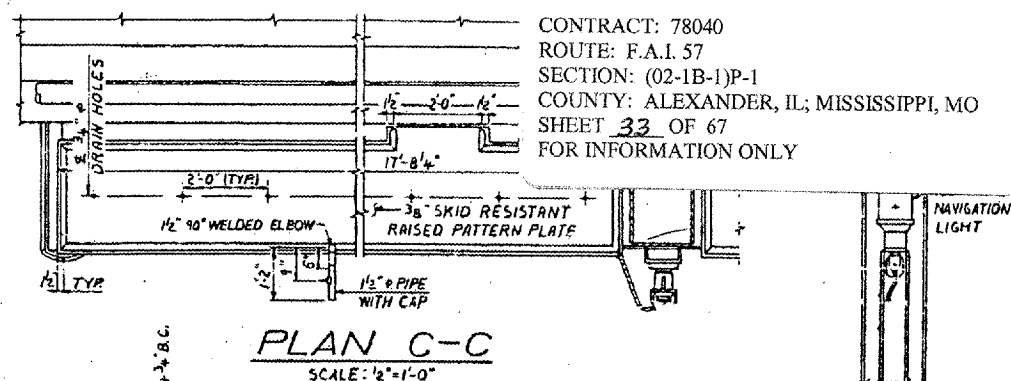
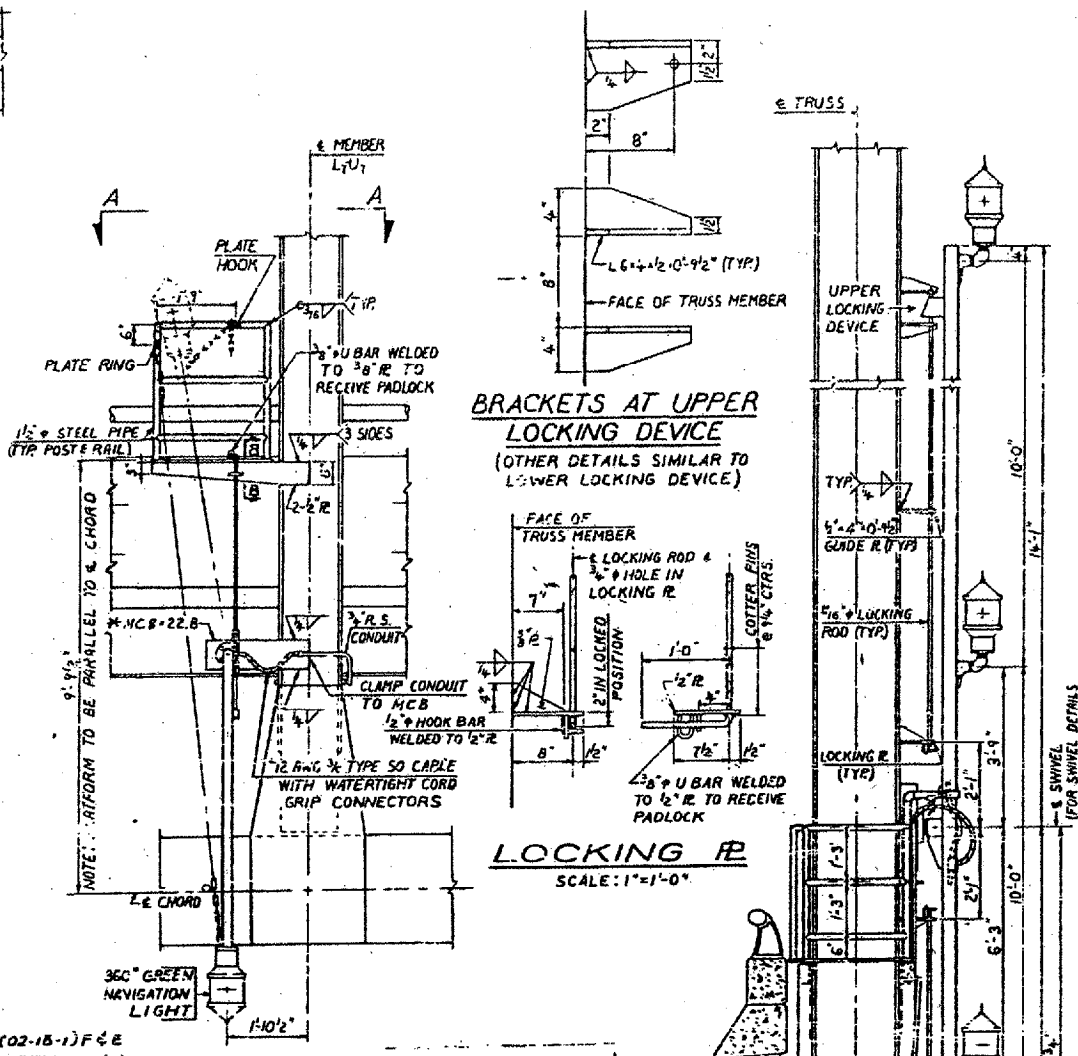
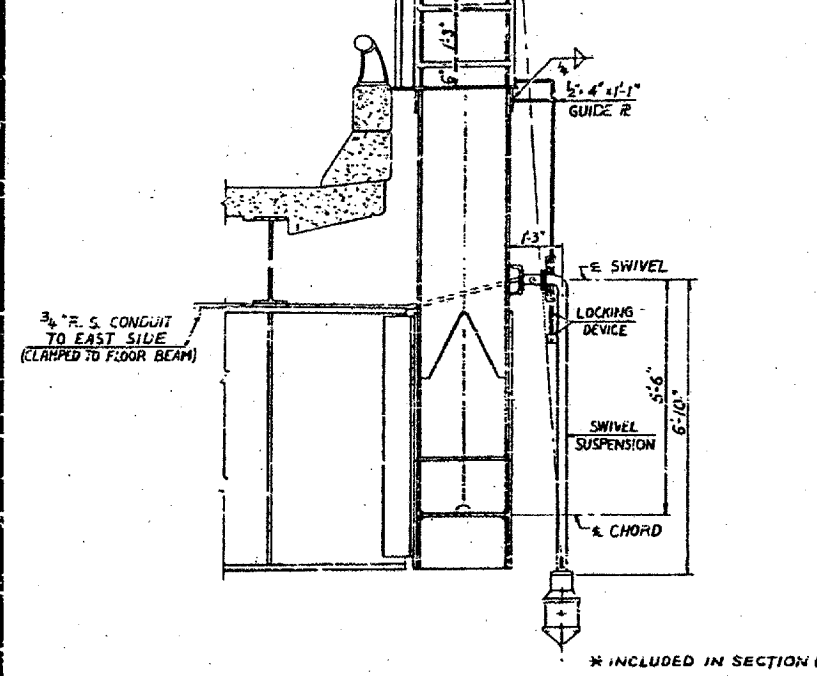
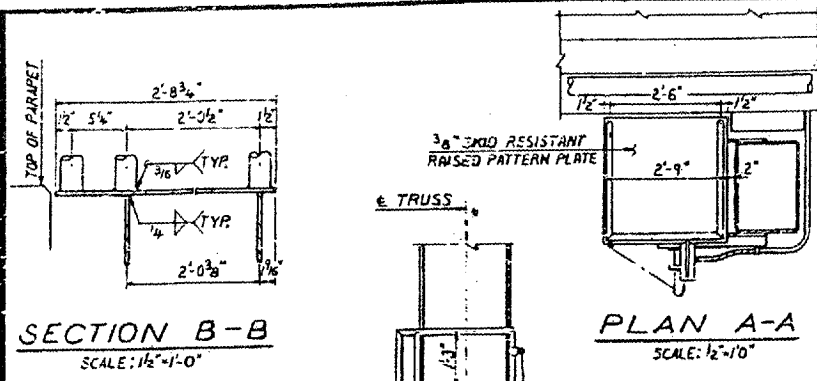
POST ANCHORAGE DETAILS
 SCALE: 1/2"=1'-0"

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

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

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 + 84.78 TO STA. 1182 + 75.25

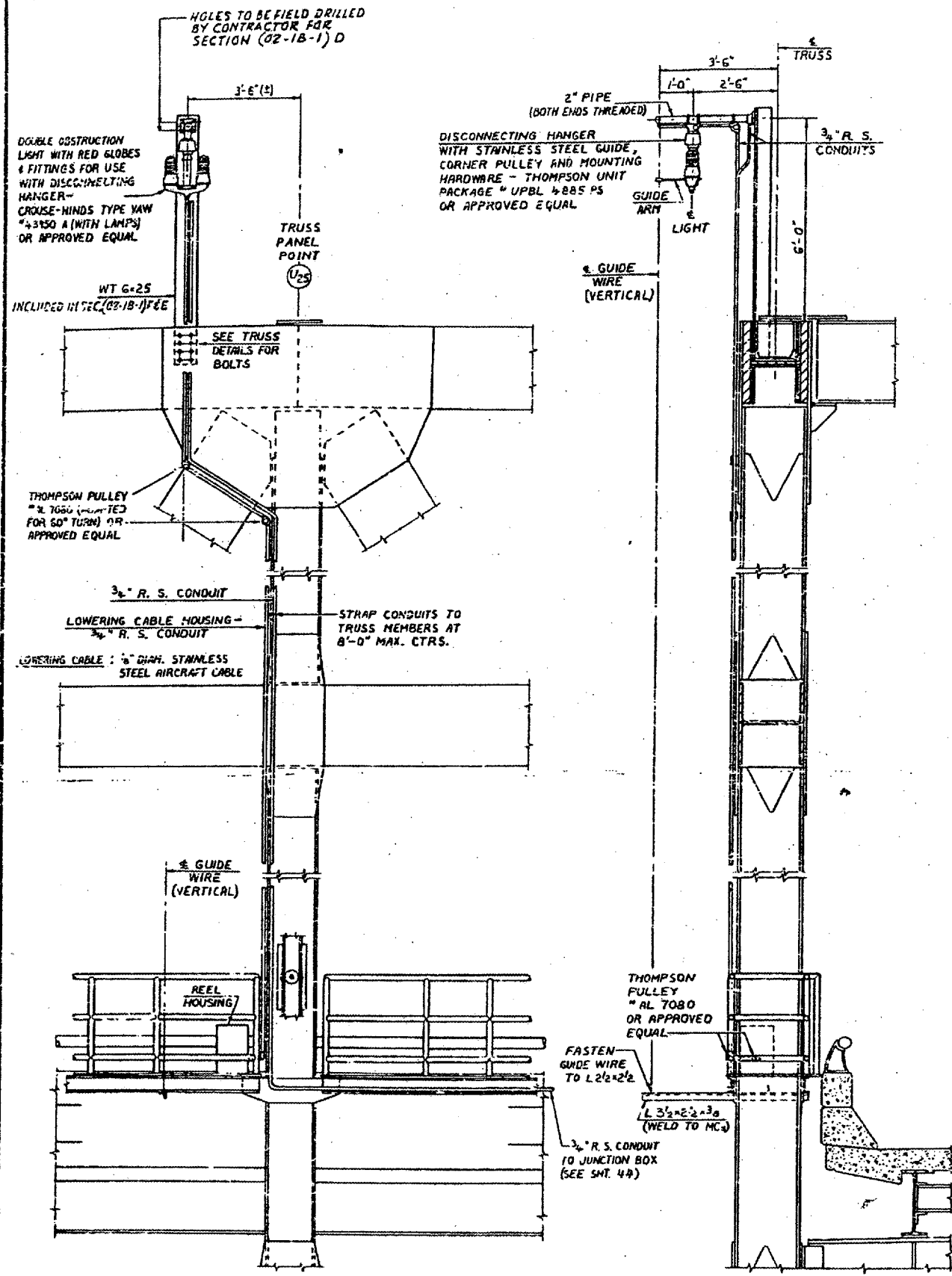
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 33 OF 67
 FOR INFORMATION ONLY



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

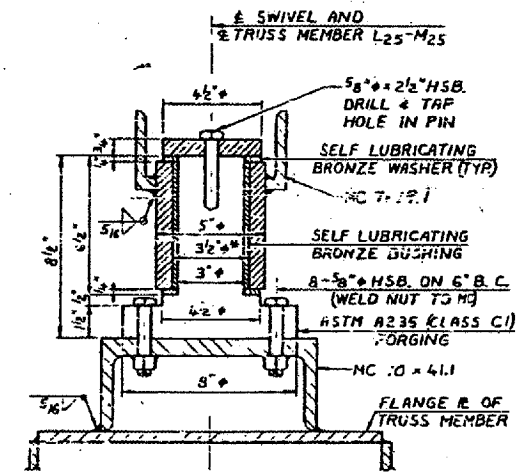
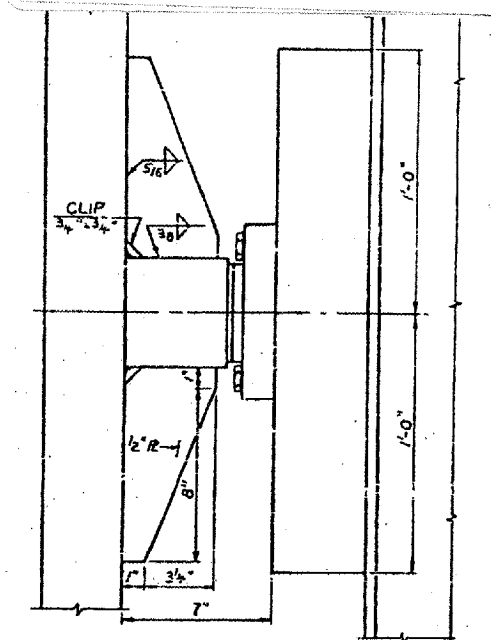
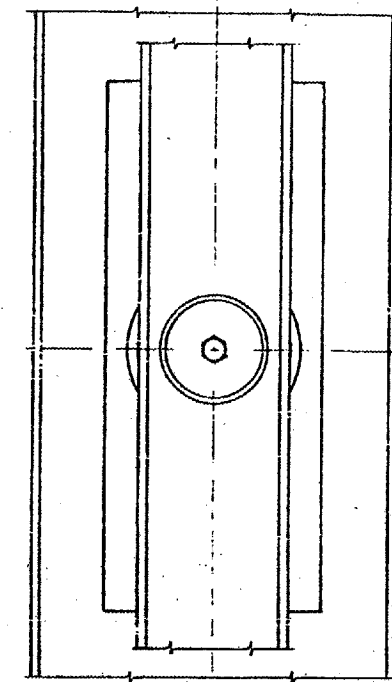
CENTER OF CHANNEL NAVIGATION LIGHT DETAILS
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(10)
 SECTION (02-1B-1)F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1162 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 34 OF 67
 FOR INFORMATION ONLY



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

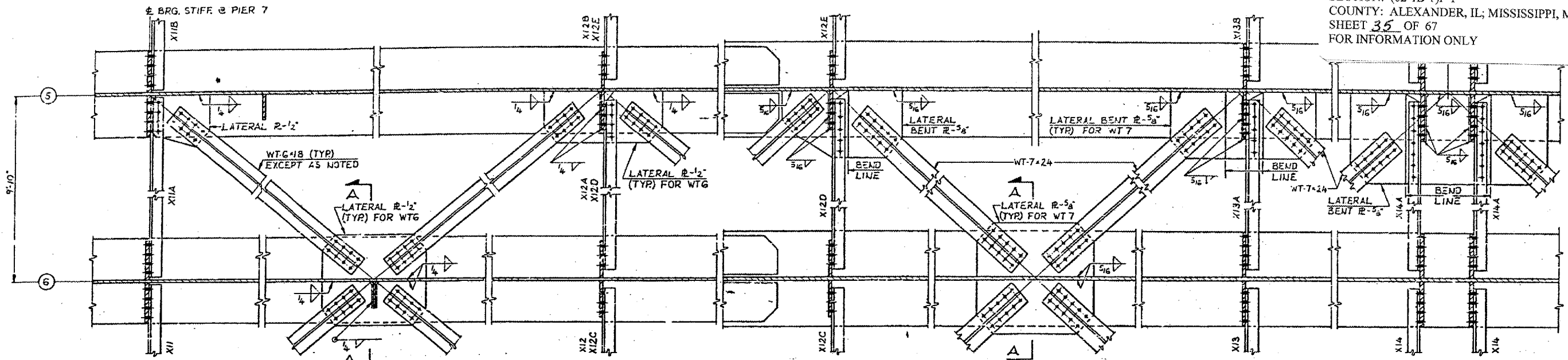
SWIVEL FOR NAVIGATION LIGHT SUSPENSION IN SPAN 13

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

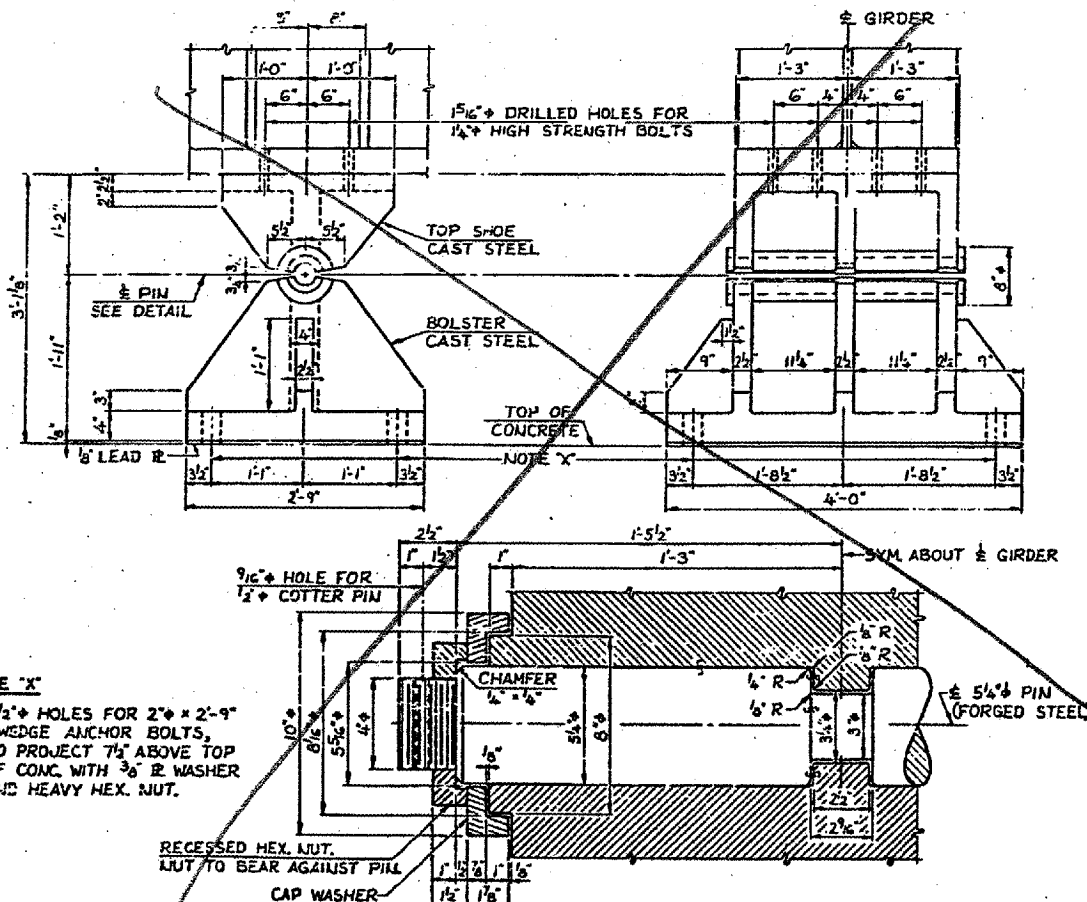
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

AVIATION OBSTRUCTION LIGHT TAILS
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9110
 SECTION (02-1B-1) F&E
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

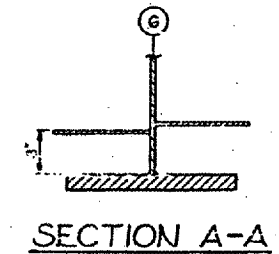
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-IB-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 35 OF 67
 FOR INFORMATION ONLY



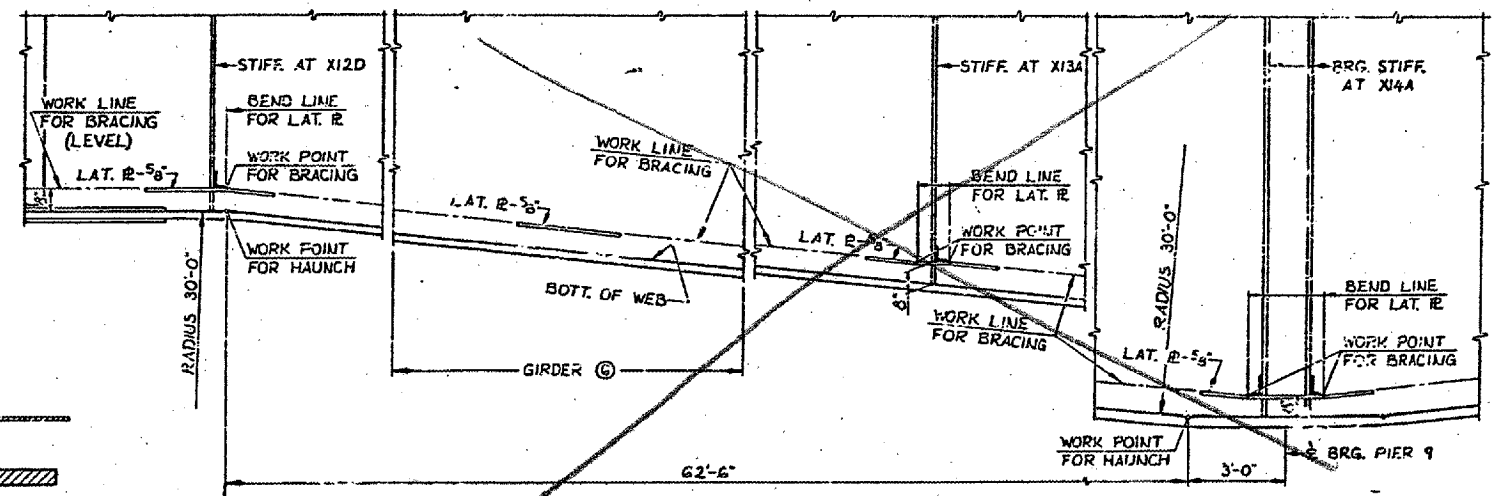
BOTTOM LATERAL BRACING CONNECTIONS



**PIN DETAIL
 FIXED BEARING AT PIER 9**



SECTION A-A



**DETAIL OF HAUNCH
 GIRDER ⑤ SHOWN EXCEPT AS NOTED**

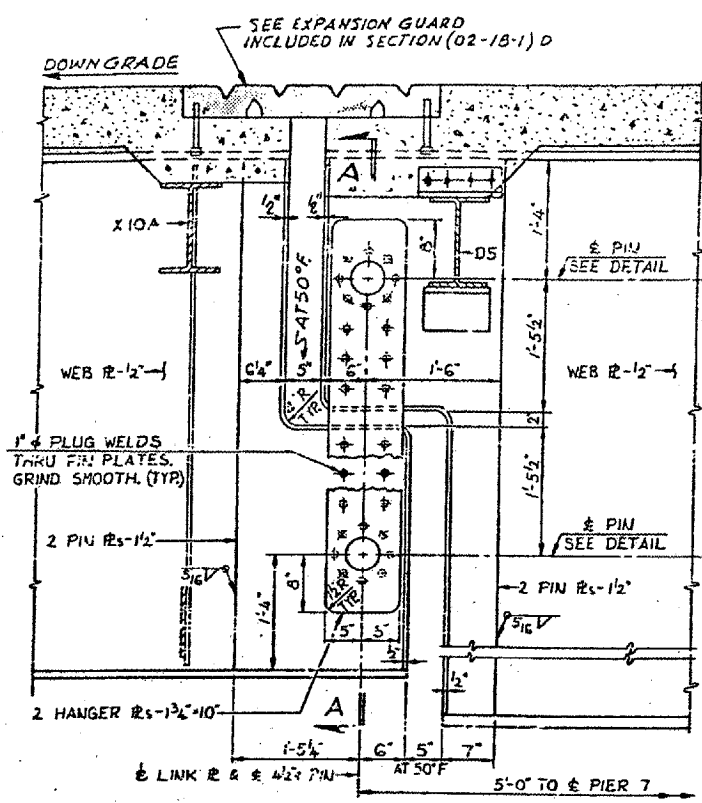
NOTE "X"
 2 1/2" HOLES FOR 2" x 2'-9" SWEDGE ANCHOR BOLTS, TO PROJECT 7/8" ABOVE TOP OF CONC. WITH 3/8" R WASHER AND HEAVY HEX. NUT.

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.

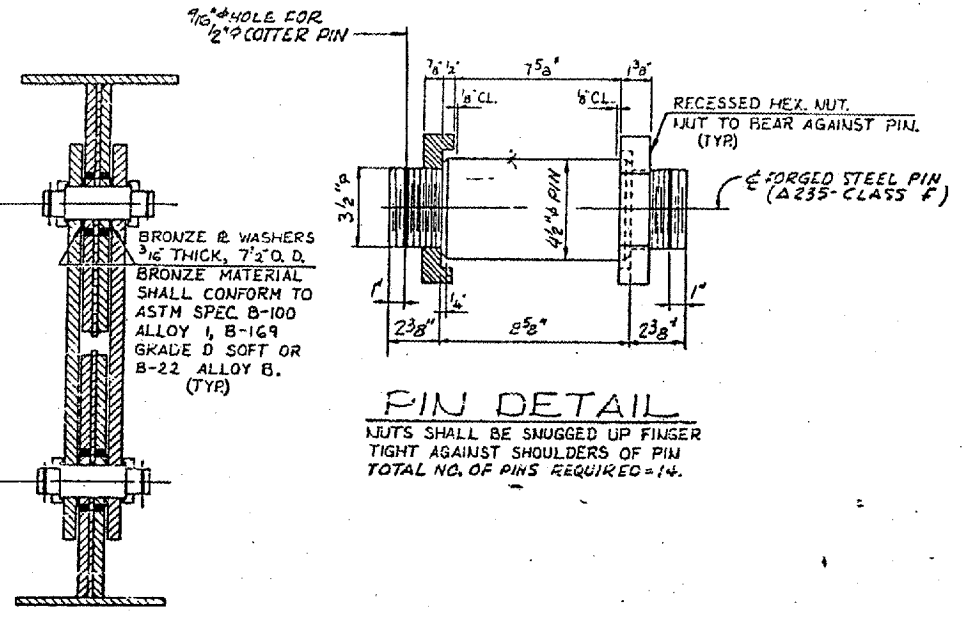
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STEEL DETAILS - SPANS 62' 0" TO 84' 0"
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(6)0
 SECTION (02-IB-1)P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 36 OF 67
 FOR INFORMATION ONLY

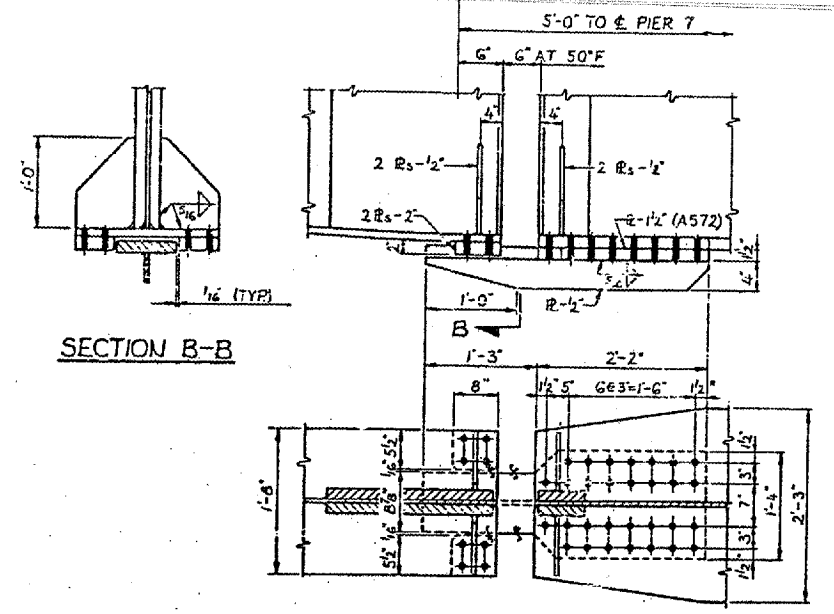


LINK DETAILS - SPAN 7
 GIRDER 2 TO C SHOWN
 GIRDERS 1 & 7 SIMILAR EXCEPT FOR WIND BRACING



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

SECTION A-A



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

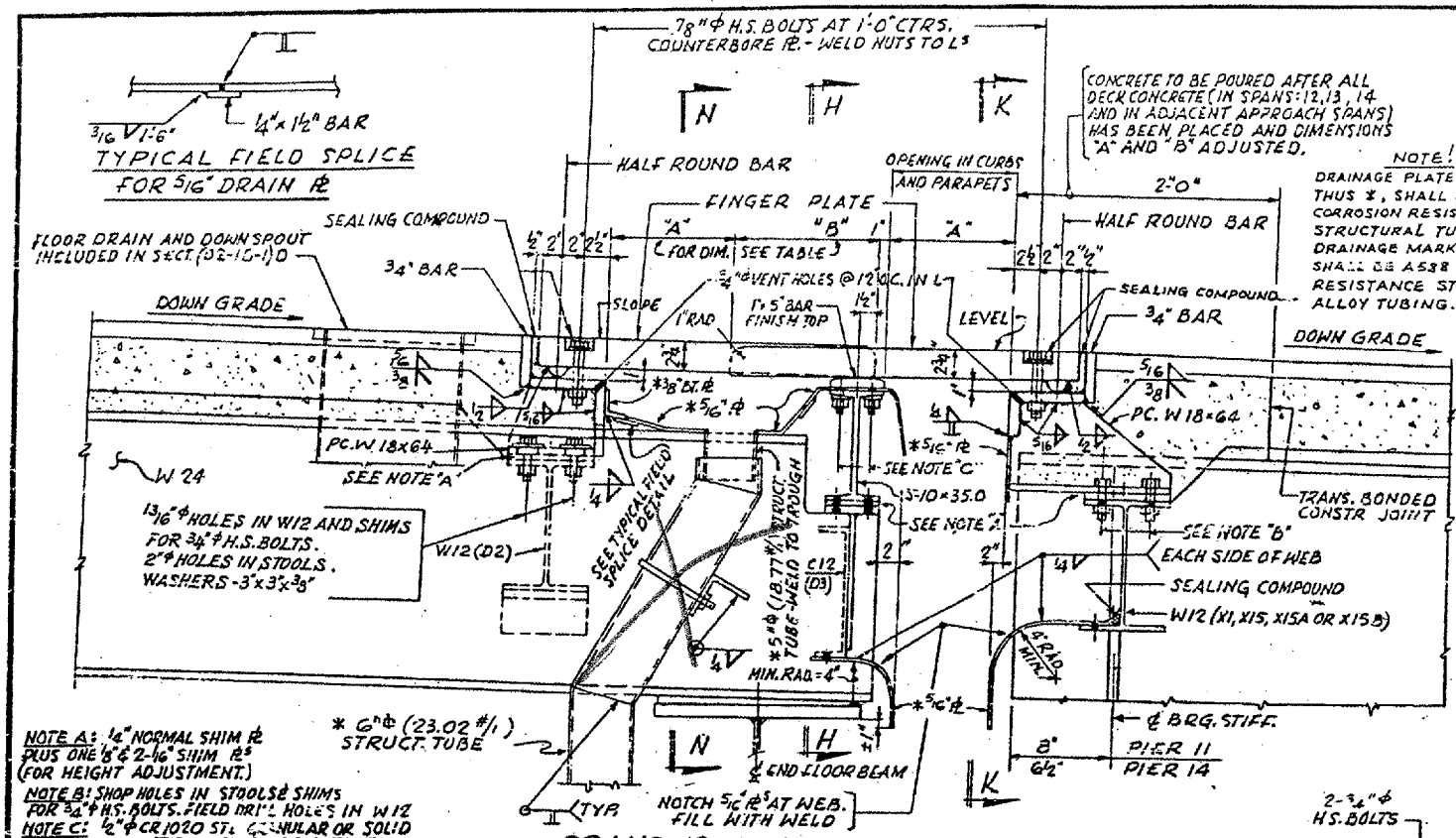
STEEL DETAILS - SPANS E TO SA
F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER
PROJECT 1-57-9 (6)0
SECTION (02-1B-1)P
ALEXANDER COUNTY, ILLINOIS
MISSISSIPPI COUNTY, MISSOURI
STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 37 OF 67
 FOR INFORMATION ONLY

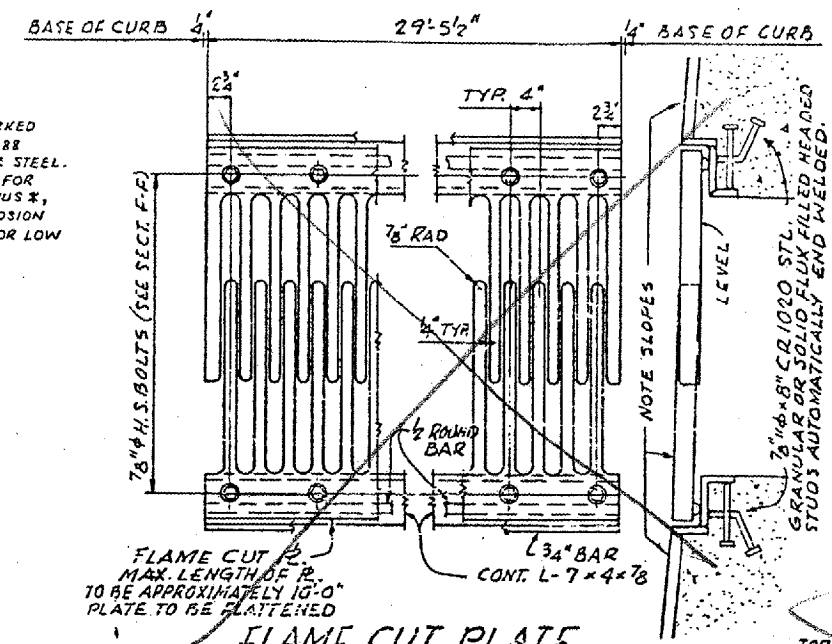
TABLE OF 'A' AND 'B' DIMENSIONS

TEMP (F)	BEFORE DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED		AFTER DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED	
	A	B	A	B
130	6 5/16	18 1/2	6 1/2	18 1/2
110	8 1/4	16 3/4	8 5/16	16 3/4
90	10 3/16	14 1/2	10 3/16	14 1/2
70	12 1/4	12 1/2	12 1/4	12 1/2
50	14 1/4	10 1/2	14 1/4	10 1/2
30	15 5/8	9 1/2	15 5/8	9 1/2
10	17 3/8	7 1/2	17 3/8	7 1/2
-10	19 3/8	5 1/2	19 3/8	5 1/2
-30	21 1/8	3 1/2	21 1/8	3 1/2

* TEMPERATURE AT TIME OF ADJUSTMENT OF EXPANSION GUARD

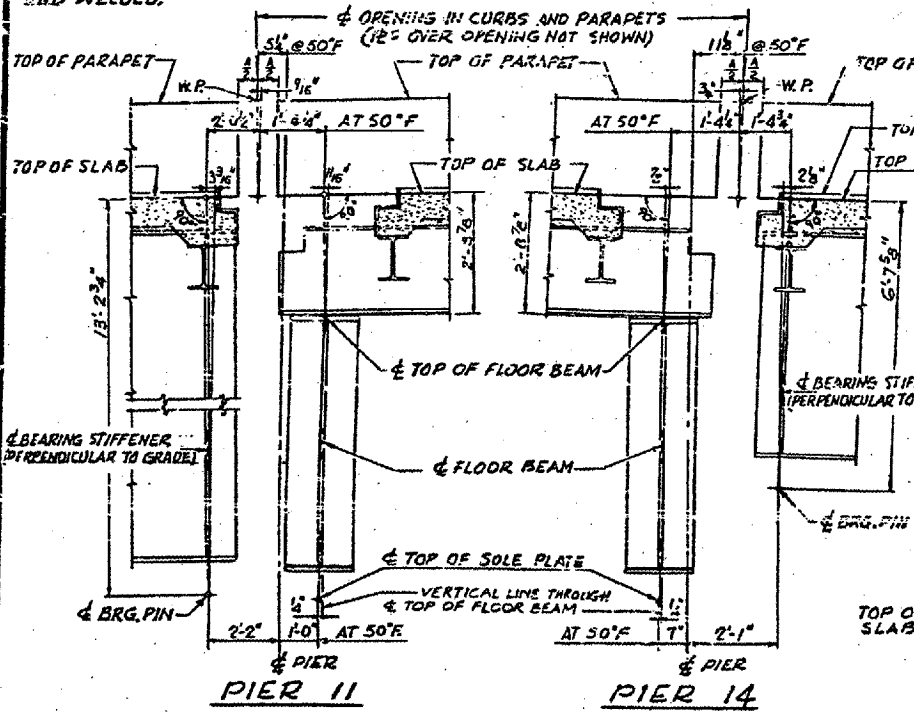


SECTION F-F
 SCALE: 1/2" = 1'-0"

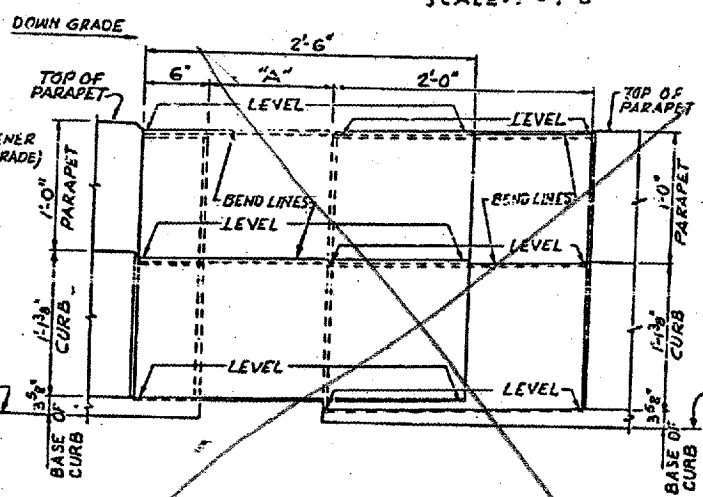


FLAME CUT PLATE
 SCALE: 1" = 1'-0"

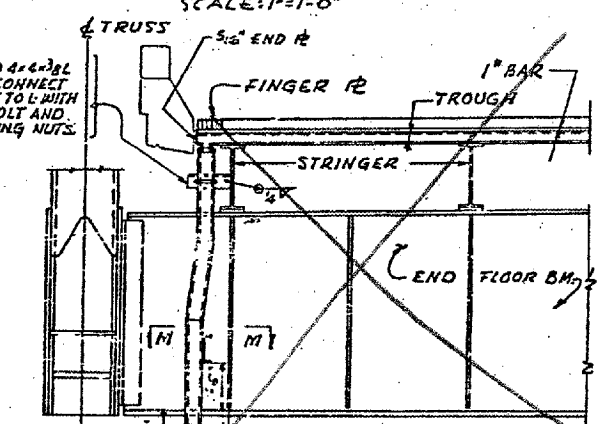
NOTE A: 1/4" NORMAL SHIM #2 PLUS ONE #4 & 2-1/2" SHIM #2 (FOR HEIGHT ADJUSTMENT.)
 NOTE B: SHOP HOLES IN STOOLES SHIMS FOR 3/4" H.S. BOLTS. FIELD DRILL HOLES IN W12 FLUX FILLED, THREADED STUDS AUTO. END WELDED AT 7/8" ALT. CTRS. 1/2" HOLE IN FIG. OF S10. BEVELED WASHERS AND SELF-LOCK NUTS.
 NOTE C: 1/2" CR 1020 STL. GRANULAR OR SOLID FLUX FILLED, THREADED STUDS AUTO. END WELDED AT 7/8" ALT. CTRS. 1/2" HOLE IN FIG. OF S10. BEVELED WASHERS AND SELF-LOCK NUTS.
 NOTE D: 3/4" CR 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.



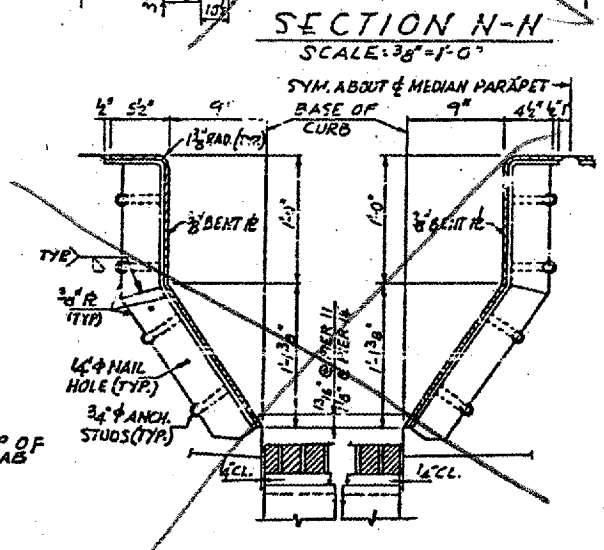
WORK LINES
 SCALE: 1/2" = 1'-0"



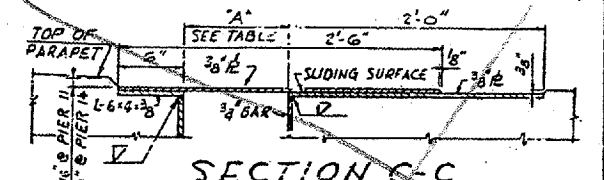
ELEVATION OF CURB AND PARAPET
 SCALE: 1/2" = 1'-0"



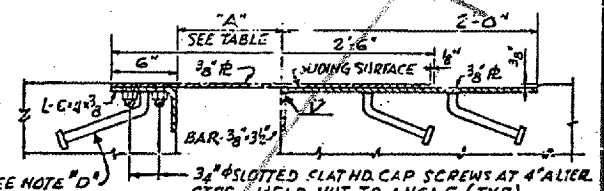
SECTION M-M
 SCALE: 1" = 1'-0"



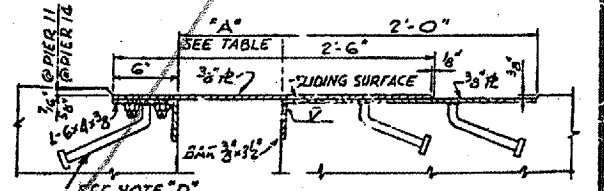
SECTION A-A SECTION B-B
 SCALE: 1/2" = 1'-0"



SECTION C-C



SECTION D-D



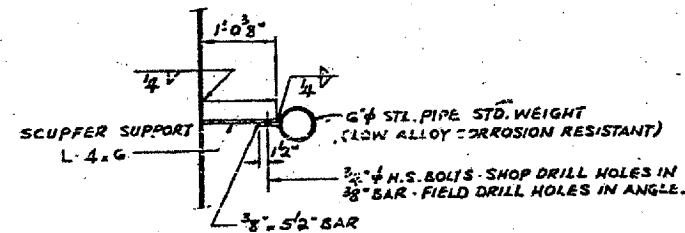
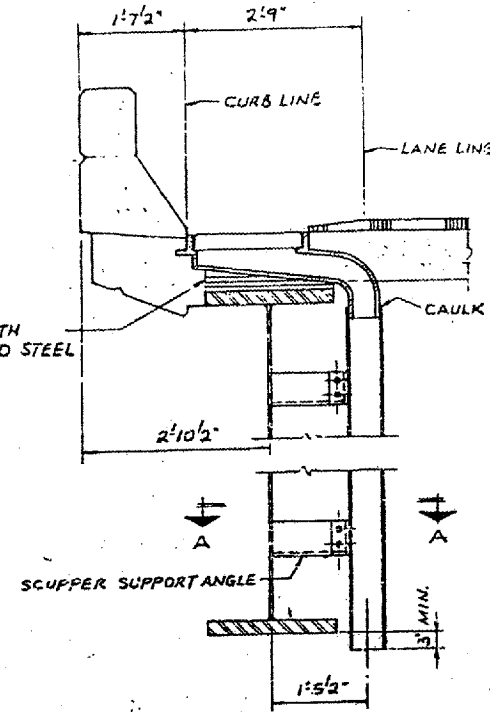
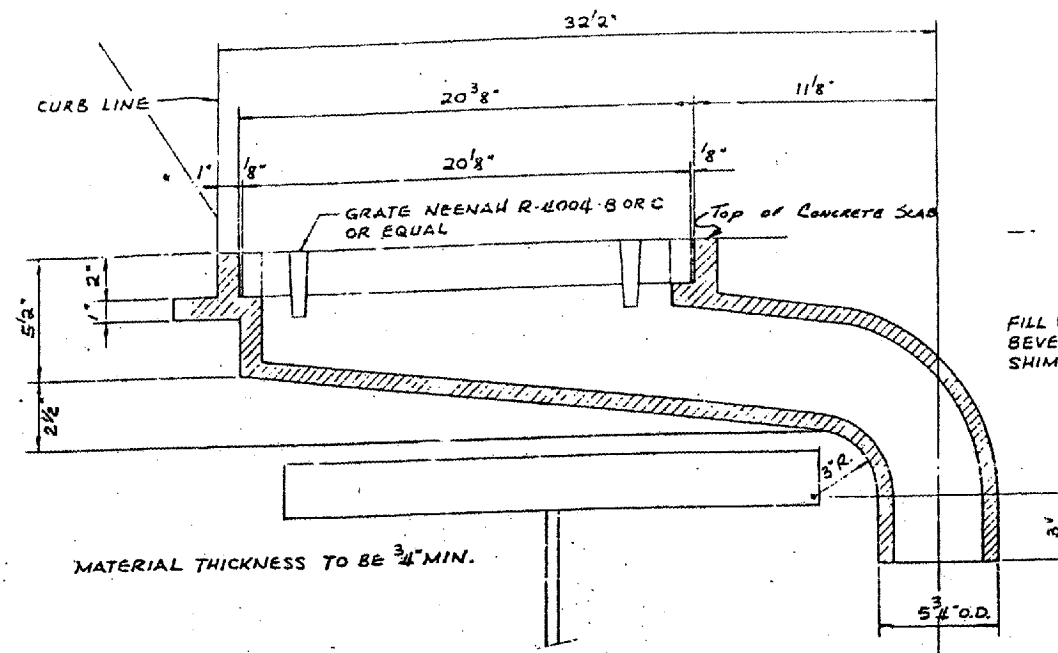
SECTION E-E
 SCALE: 1/2" = 1'-0"

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

EXPANSION GUARD - PIER 12, 13, 14
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9
 SECTION 02-1B-1P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

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

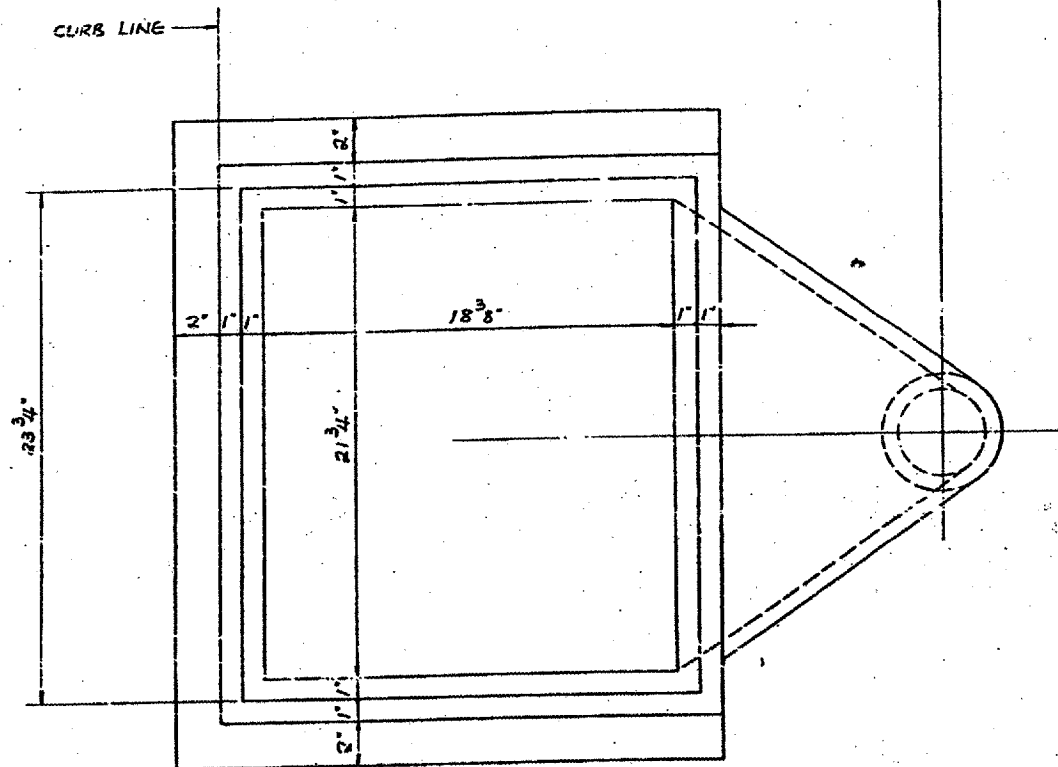
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 38 OF 67
 FOR INFORMATION ONLY



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) P.C.E.
 ALL OTHER MATERIAL SHOWN ON THIS SHEET IS TO BE FURNISHED AND ERECTED BY CONTRACTOR FOR SECTION (02-1B-1) D.



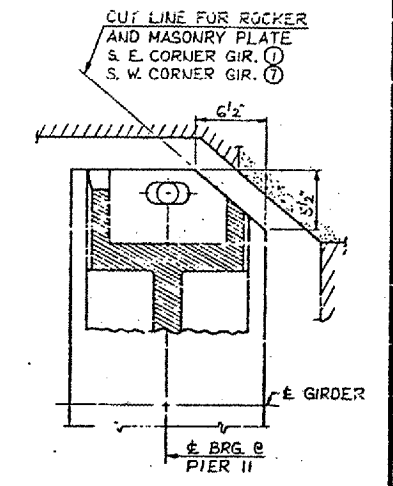
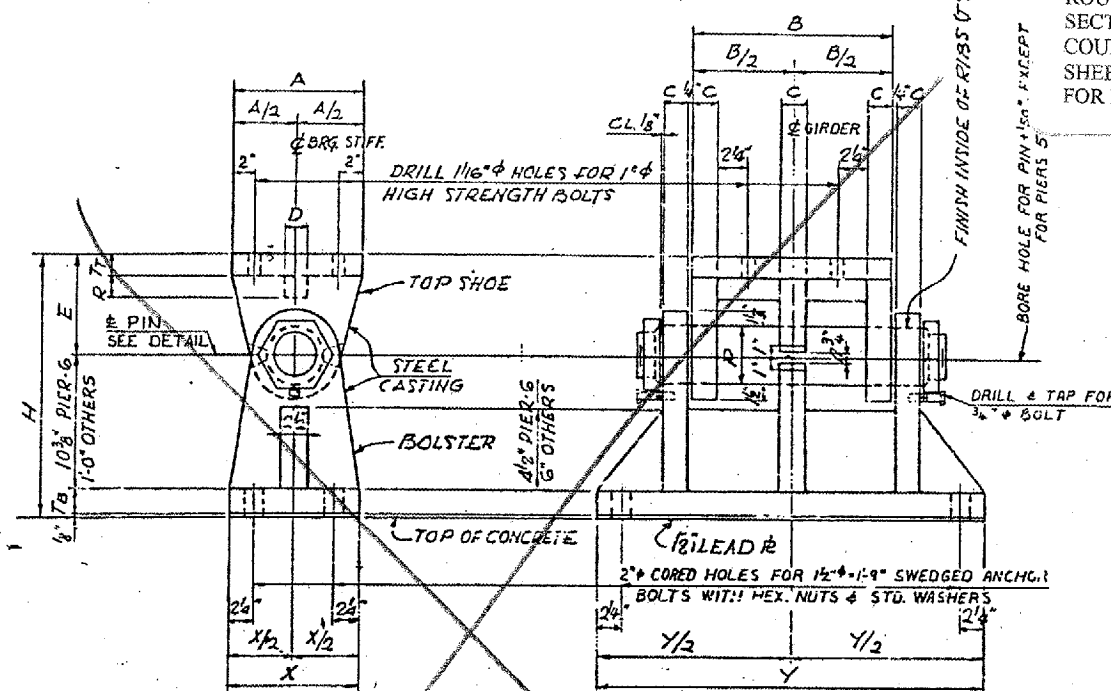
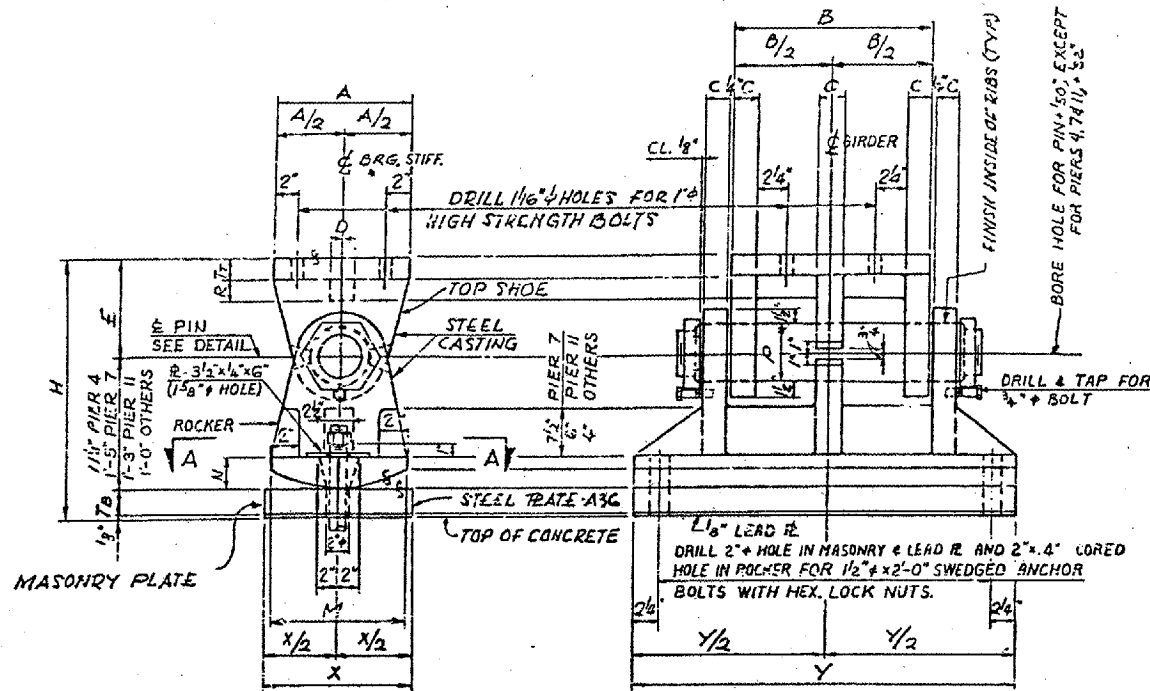
DETAILS OF SCUPPER

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 (c.c.)
 SECTION (02-1B-1) P
 ALEXANDER COUNTY, ILLINOIS
 MISSISSIPPI COUNTY, MISSOURI
 STA. 1141 + 64.75 TO STA. 1162 + 75.25

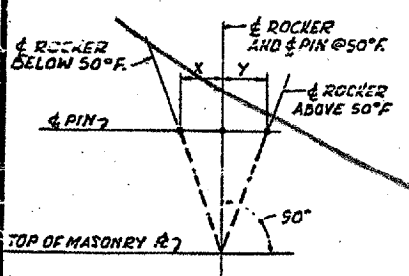
CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 39 OF 67
 FOR INFORMATION ONLY



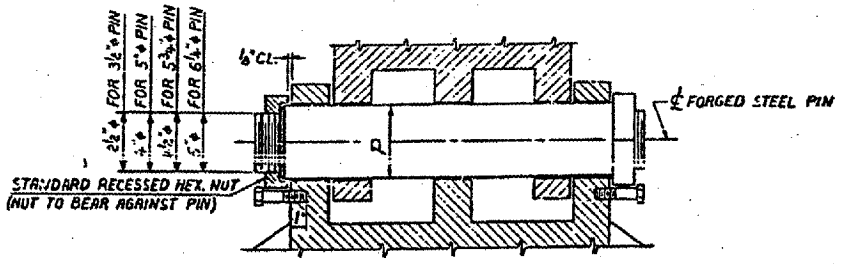
LOCATION	TOP SHOE							PIN φ	ROCKER	MASONRY PLATE				
	A	B	Tt	C	D	E	R			P	M	N	X	Y
NORTH ABUTMENT	1'-0"	1'-4"	1'-2"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-2"	1'-0"	2'-7"	1'-2"	1'-10 1/2"
PIER 2	1'-0"	1'-4"	2"	2'-4"	2"	9"	2"	5"	1'-0"	2'-2"	1'-0"	2'-9"	2"	1'-11 1/2"
PIER 3	1'-0"	1'-6"	2"	2'-4"	2"	9"	2"	5"	1'-0"	2'-2"	1'-1"	2'-11"	2'-6"	1'-11 3/4"
PIER 4	1'-3"	1'-8"	2"	2'-2"	2"	9"	2'-2"	5 3/4"	1'-0"	2'-2"	1'-3"	3'-2"	2'-2"	1'-10 1/8"
PIER 7	1'-3"	2'-3"	2'-2"	3'-4"	3'-4"	10'-2"	4'-4"	6'-4"	1'-3"	2'-2"	1'-10"	4'-0"	3'-2"	2'-7 1/8"
PIER II-SPAN 9A	1'-3"	2'-0"	2"	2'-2"	2'-2"	9"	3'-2"	5'-3/4"	1'-3"	3'-2"	1'-6"	3'-7"	2'-2"	2'-2 1/8"
PIER II-SPAN 15	1'-0"	1'-4"	1'-2"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-2"	1'-0"	2'-7"	1'-2"	1'-10 1/2"
PIER 15	1'-0"	1'-4"	2"	2'-4"	2"	9"	2"	5"	1'-0"	2'-2"	1'-1"	2'-9"	2'-6"	1'-11 3/4"
PIER 18	1'-0"	1'-4"	2"	2'-4"	2"	9"	2"	5"	1'-0"	2'-2"	1'-1"	2'-9"	2'-4"	1'-11 3/4"
SOUTH ABUTMENT	1'-0"	1'-4"	1'-2"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-2"	1'-0"	2'-7"	1'-2"	1'-10 1/2"

LOCATION	TOP SHOE							PIN φ	BOLSTER			
	A	B	Tt	C	D	E	R		P	X	Y	TB
PIER 1	1'-0"	1'-6"	2"	2'-4"	2"	9"	2"	5"	1'-2"	2'-11"	2'-2"	1'-11 1/2"
PIER 5	1'-3"	1'-8"	2"	2'-4"	2"	9"	2'-2"	5 3/4"	1'-3"	3'-2"	2'-2"	1'-11 1/2"
PIER 6	1'-3"	1'-8"	2"	2'-4"	2"	9"	2'-2"	5 3/4"	1'-3"	3'-2"	2'-2"	1'-10 1/4"
PIER 16	1'-0"	1'-4"	2"	2'-4"	2"	9"	2"	5"	1'-2"	2'-9"	2'-2"	1'-11 1/8"
PIER 17	1'-0"	1'-4"	2"	2'-4"	2"	9"	2"	5"	1'-2"	2'-9"	2'-2"	1'-11 1/8"

NOTES:
 FOR DETAILS OF FIXED BEARING AT PIER 9 SEE SHT. 12
 CAST STEEL SHALL CONFORM TO A.S.T.M. A486-65, CLASS 70, NORMALIZED.
 FORGED STEEL SHALL CONFORM TO A.S.T.M. A235-65, 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.
 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.



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



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

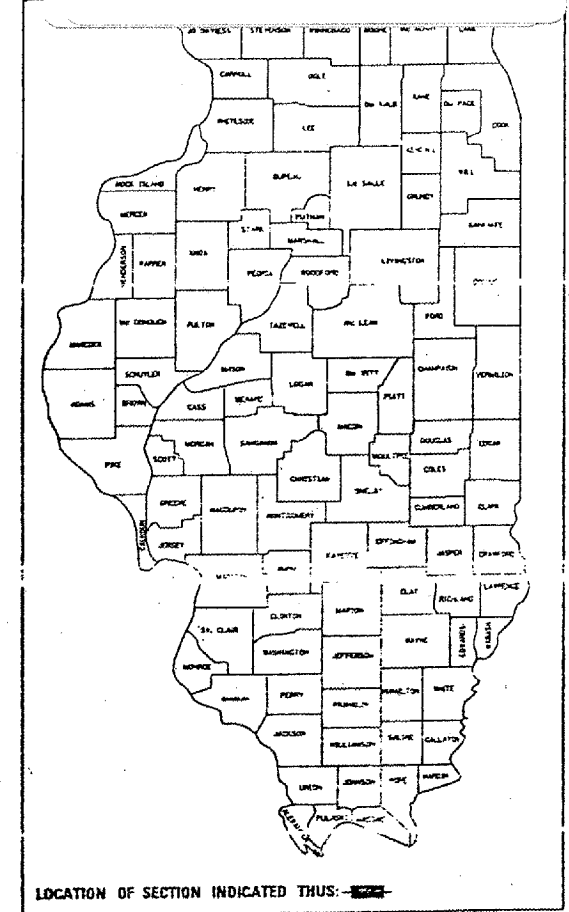
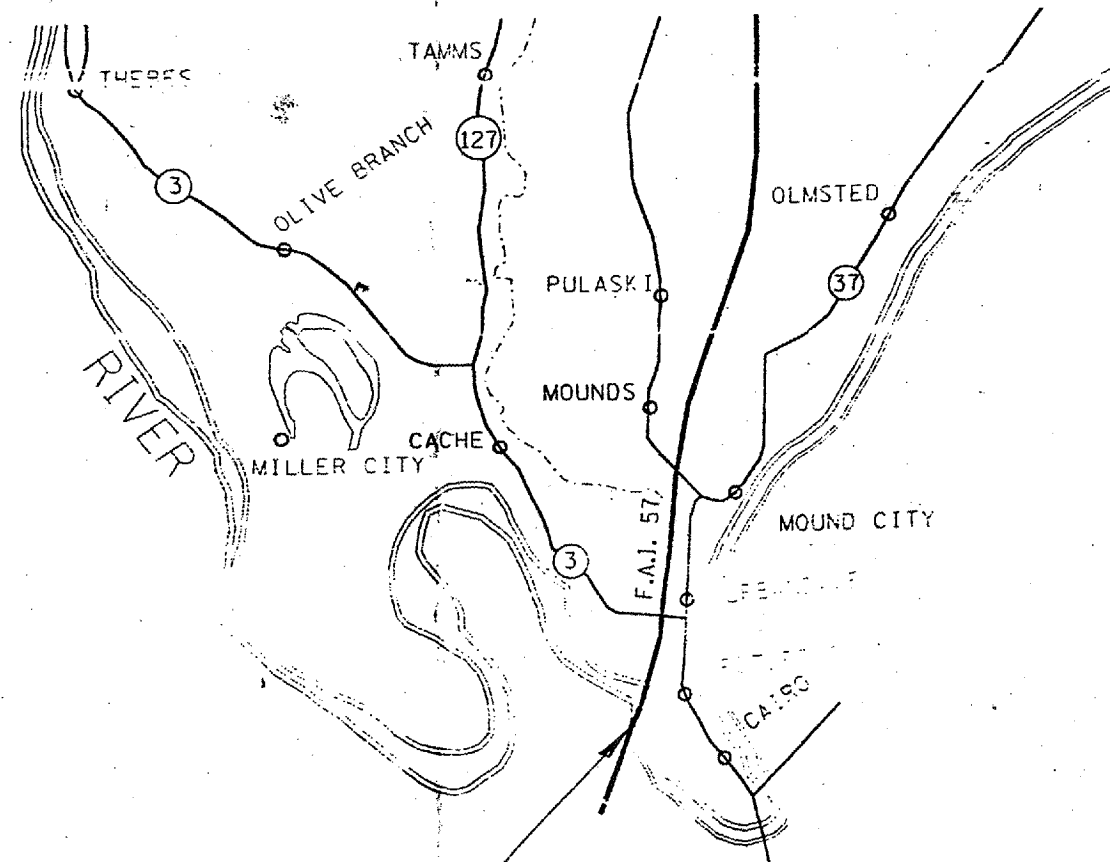
ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE. CHICAGO, ILLINOIS

BEARING DETAILS - SPANS I TO 9A & 19
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER
 PROJECT 1-57-9(6)0
 SECTION 02-1B-11P
 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: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 40 OF 67
 FOR INFORMATION ONLY

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



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PREPARED BY: *Bill Starnes*
 DISTRICT OPERATIONS ENGINEER

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

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

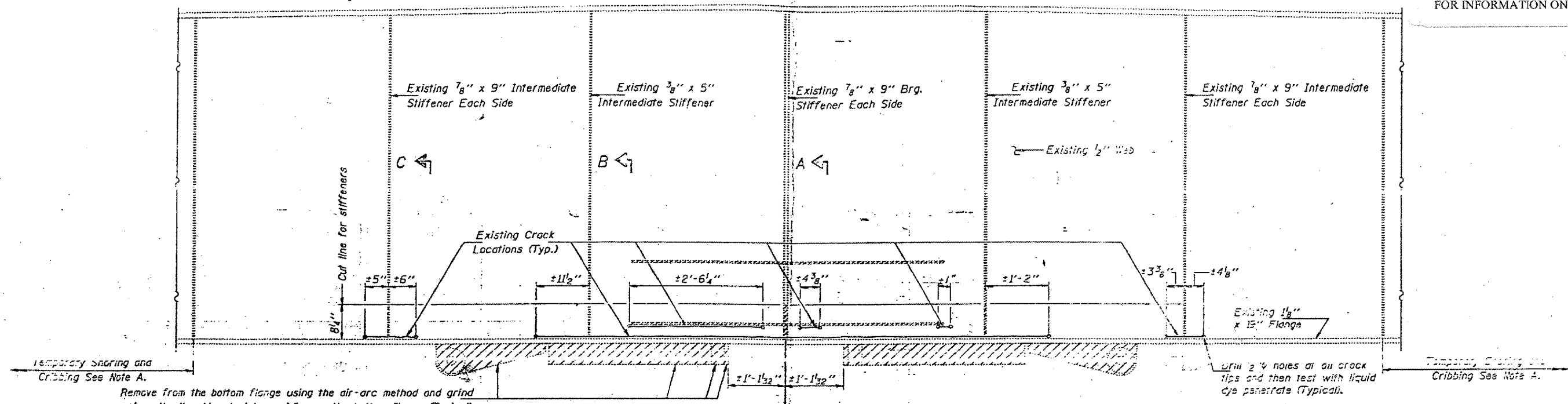
APPROVED: *April 16, 1995*
Paul C. Thompson
 DISTRICT ENGINEER

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

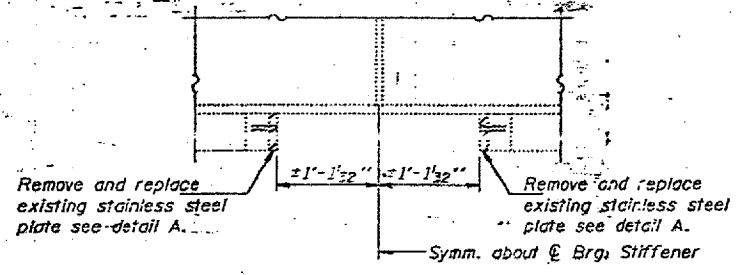
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 41 OF 67
FOR INFORMATION ONLY

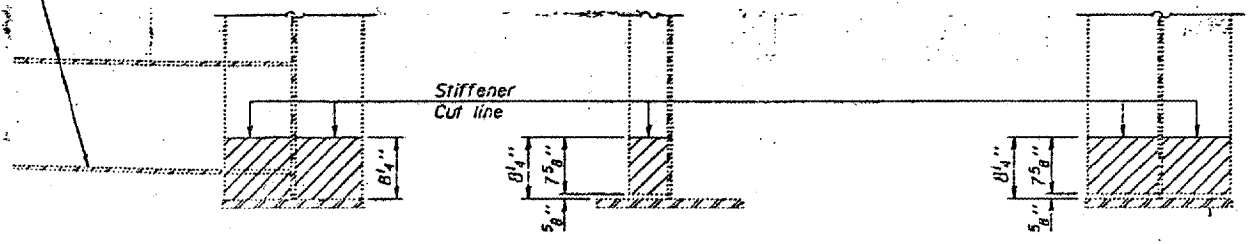


**PARTIAL ELEVATION
NORTH END FLOOR BEAM
AT PIER 11**
Hatched areas indicate removal.



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

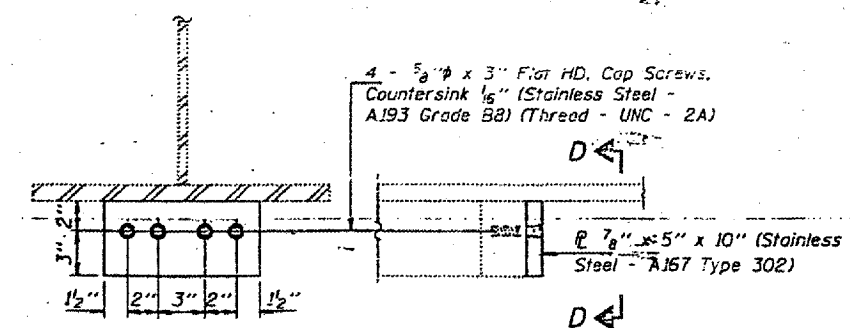
Remove existing 1/2" gusset P's from the web using the air-arc method and grind smooth all weld material remaining on the web.



SECTION A-A

SECTION B-B

SECTION C-C



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.

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.

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

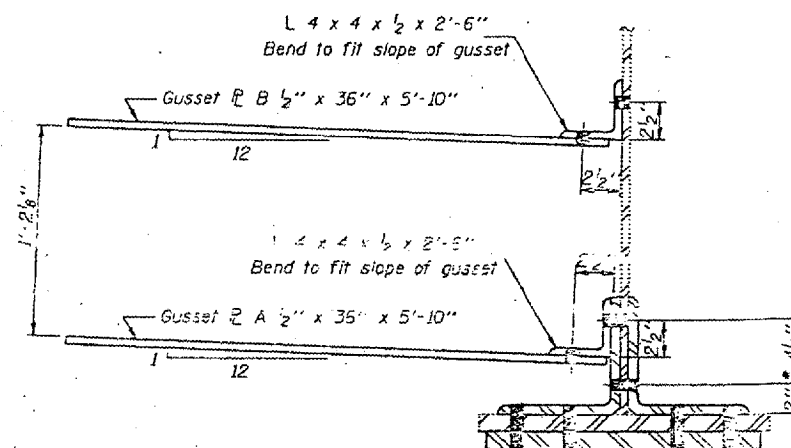
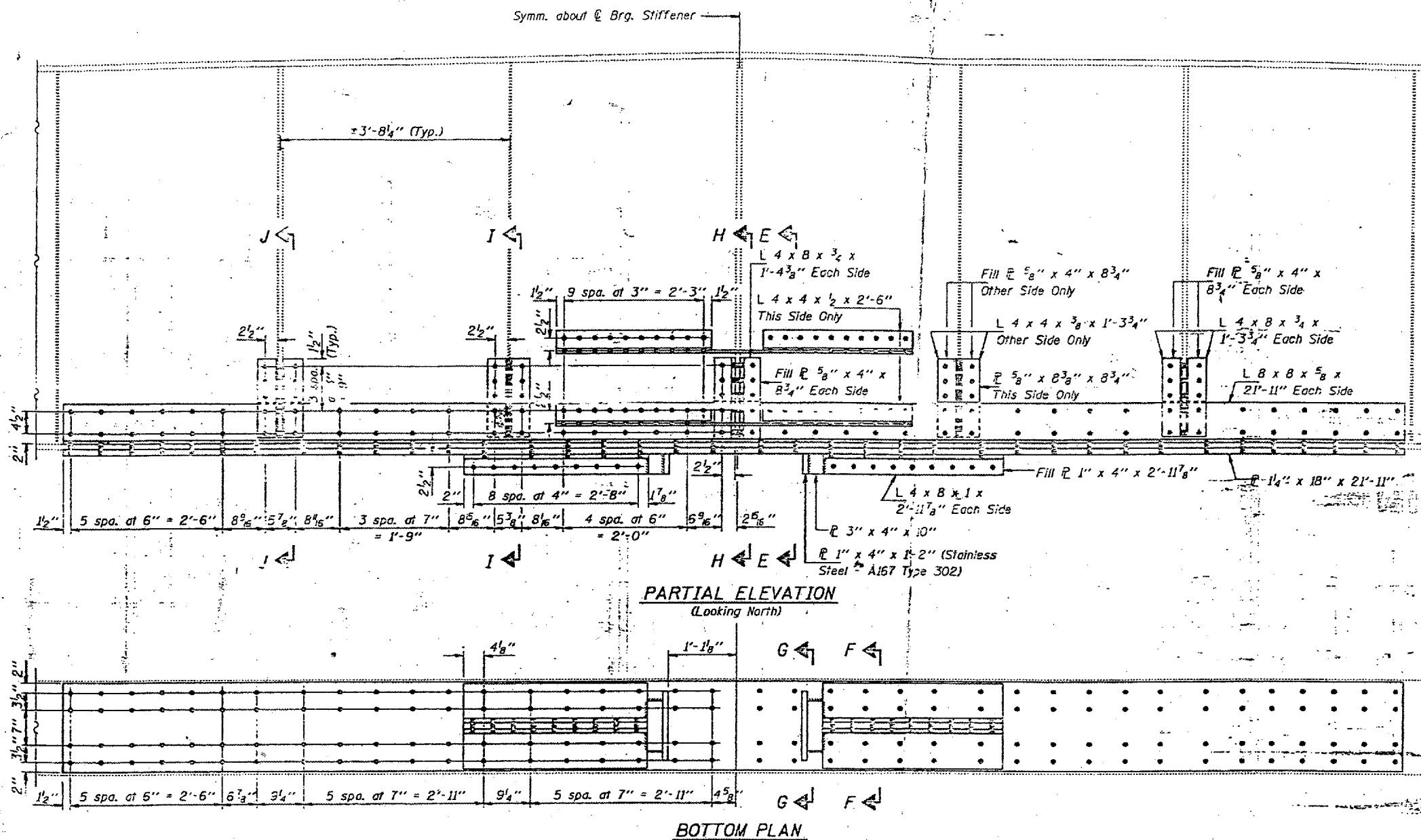
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

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

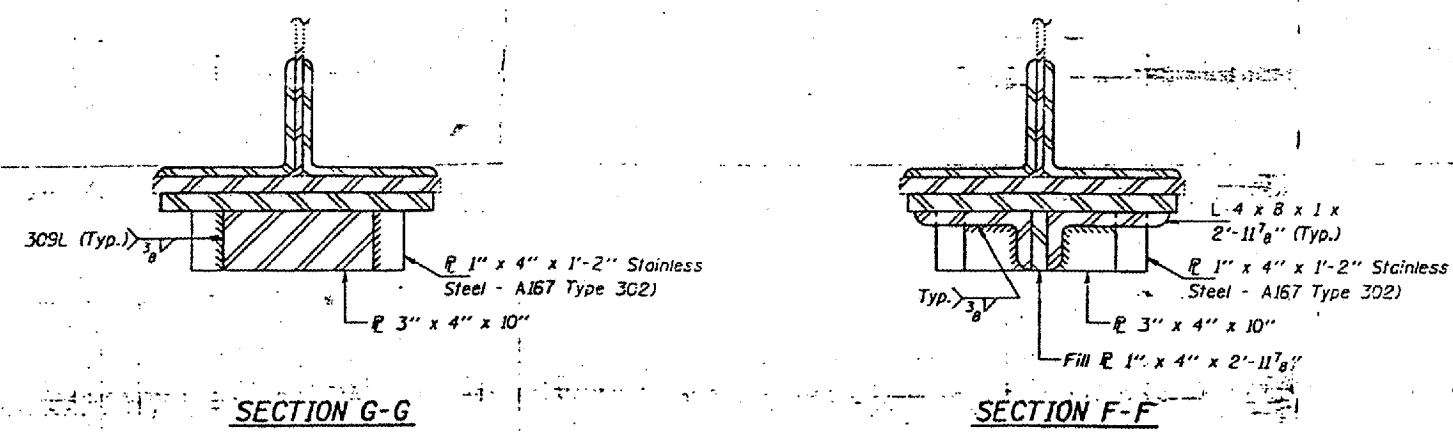
March 8 1993	
EXAMINED	Joseph E. Adams
PASSED	MEMBER OF STRUCTURAL SERVICES
APPROVED	DIRECTOR OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 42 OF 67
FOR INFORMATION ONLY



For details of Gusset plates see Sheet 5.
Dimensions should be checked to match existing Gusset Plate location.



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

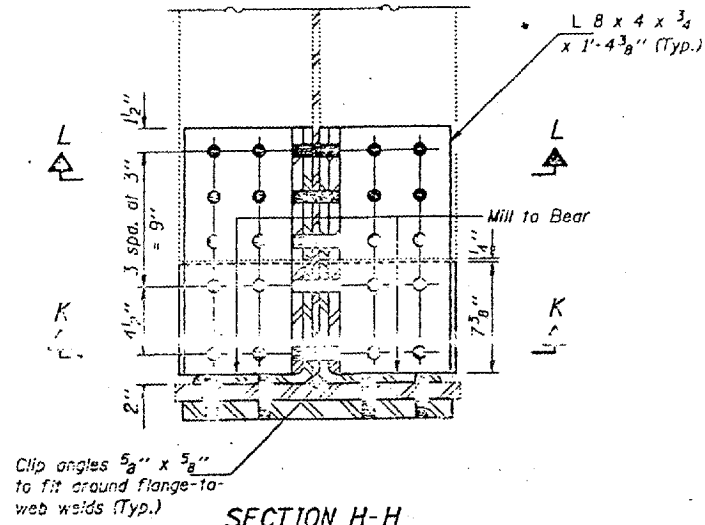
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

DESIGNED <i>Kenneth P. Stutte</i>	March 8 1993
CHECKED <i>CHM</i>	EXAMINED <i>Joseph E. Adams</i>
DRAWN <i>Paul Summer</i>	PASSED
CHECKED <i>KPS</i>	APPROVED

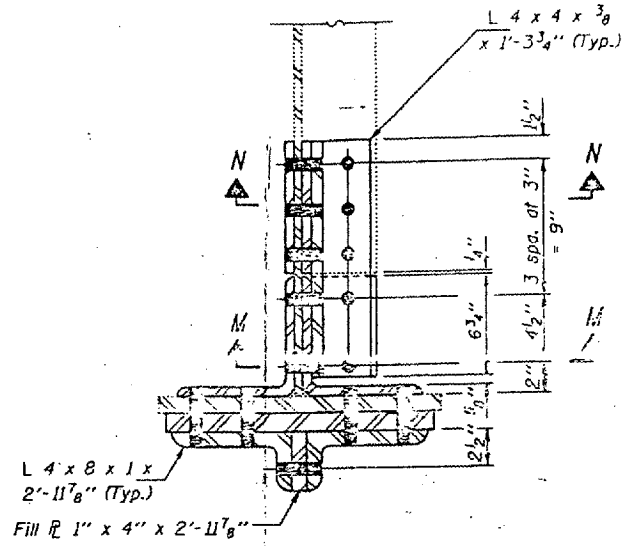
DESIGNER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

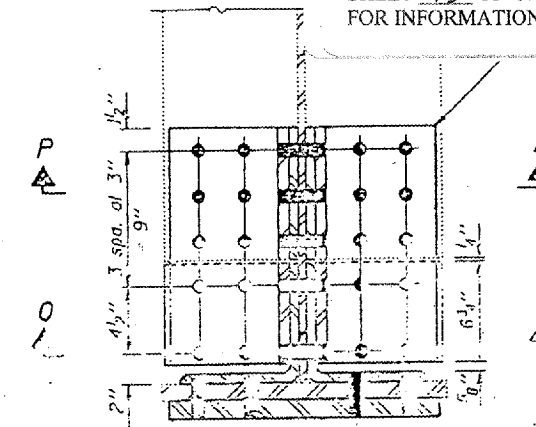
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 43 OF 67
FOR INFORMATION ONLY



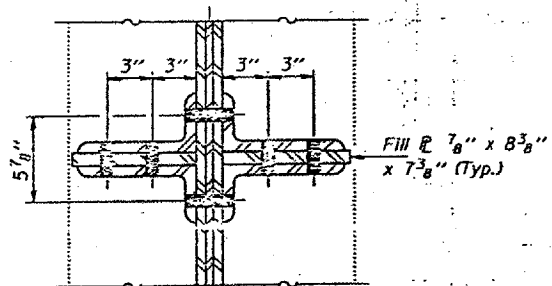
SECTION H-H



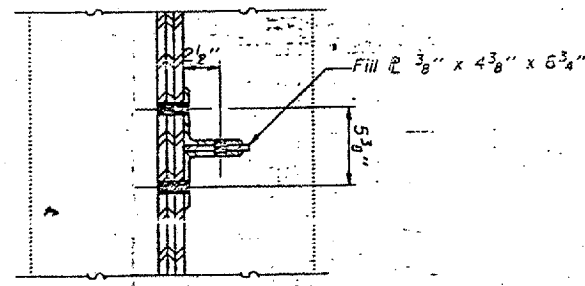
SECTION I-I



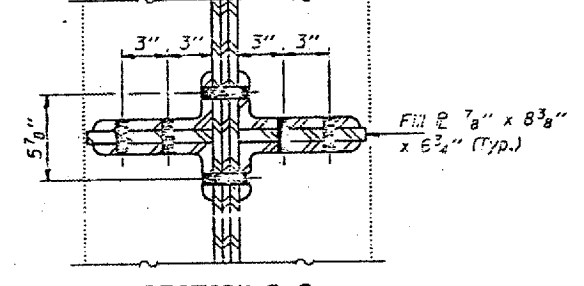
SECTION J-J



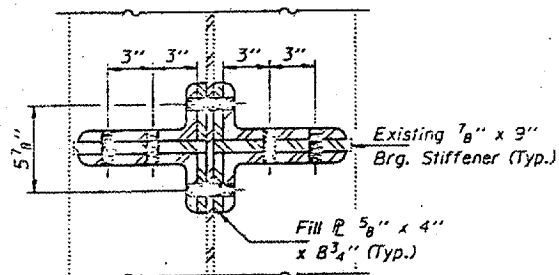
SECTION K-K



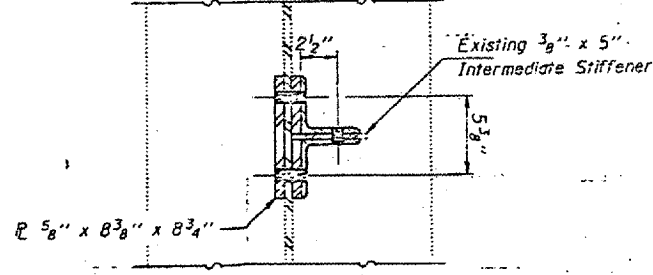
SECTION M-M



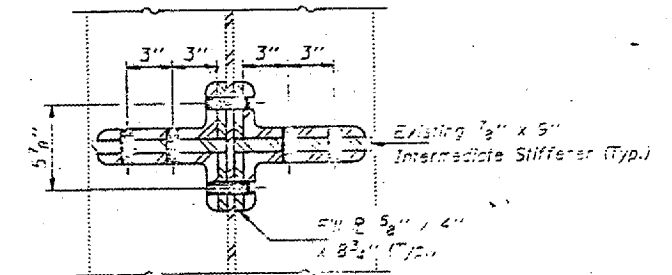
SECTION O-O



SECTION L-L



SECTION N-N



SECTION P-P

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

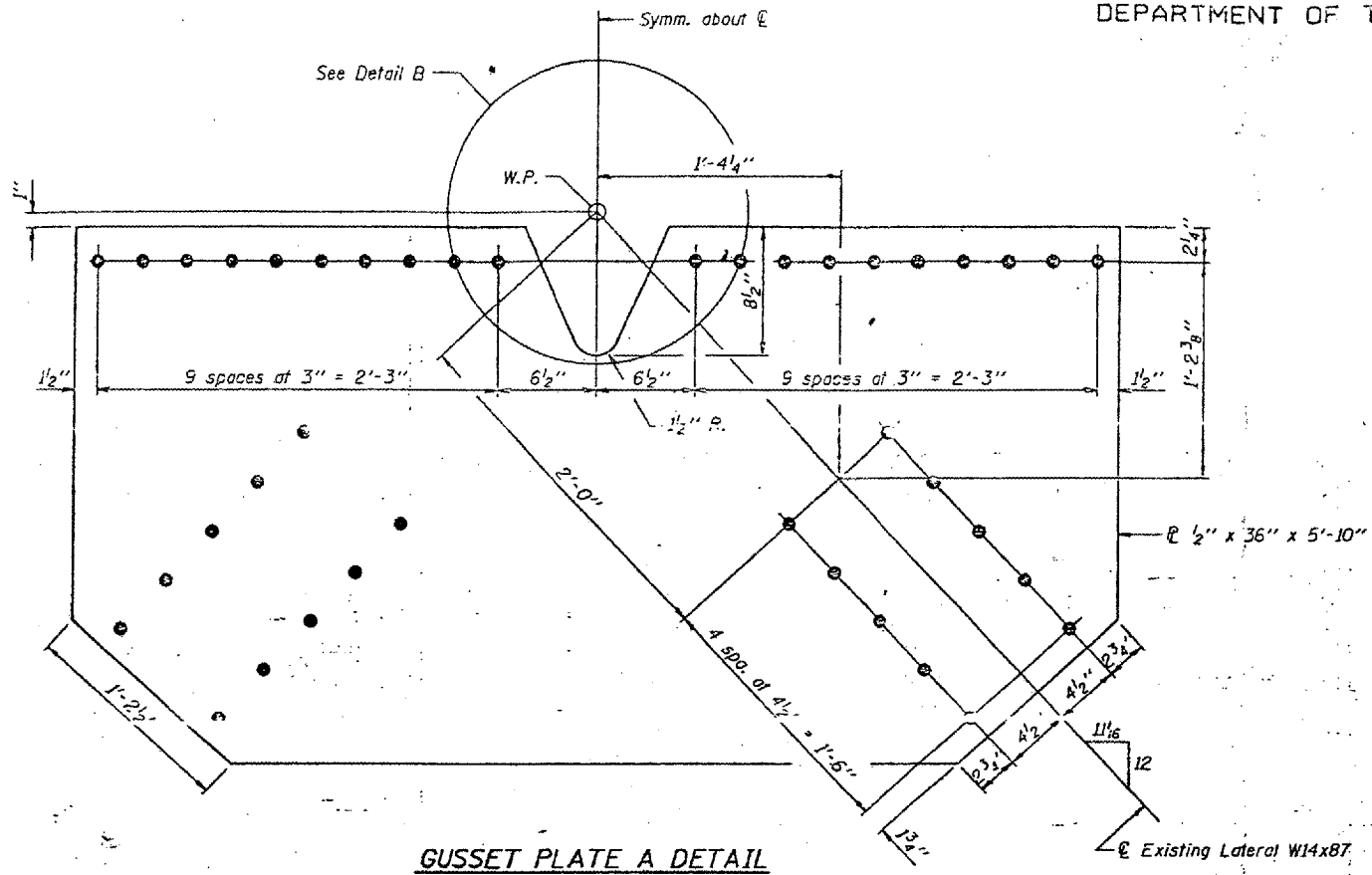
EXAMINED	<i>Josh E. Adams</i>	March 8 1993
PASSED		
APPROVED		

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

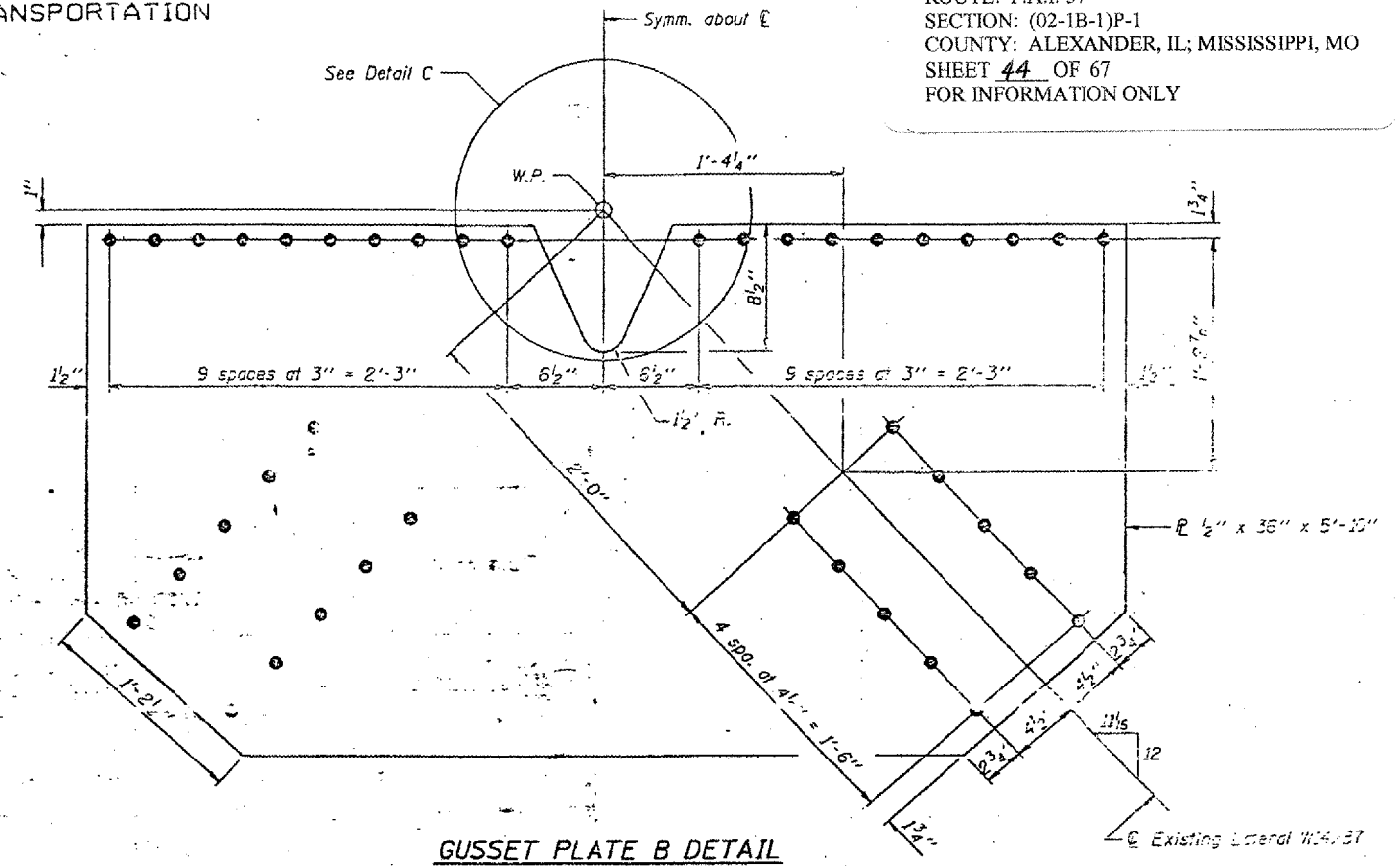
FLOOR BEAM REPAIRS
F.A.I. RT. 57 SEC. (02-1B-1) (DL-65)
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

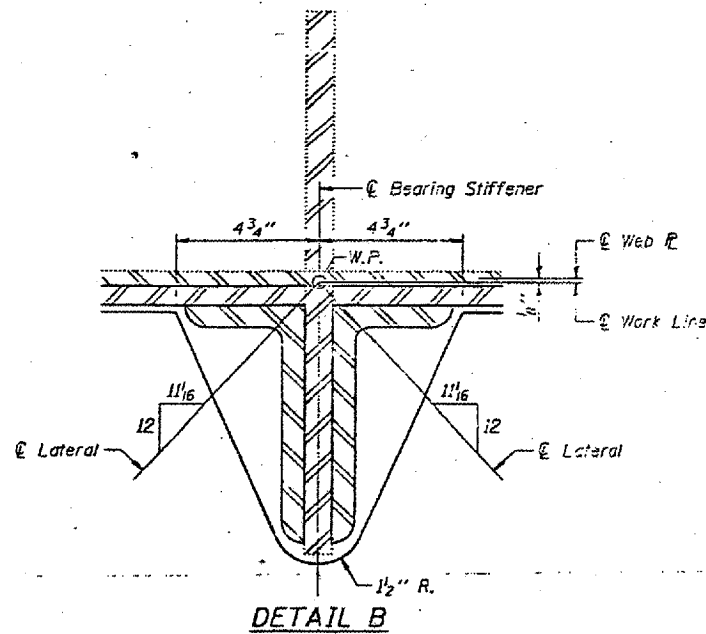
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL, MISSISSIPPI, MO
SHEET 44 OF 67
FOR INFORMATION ONLY



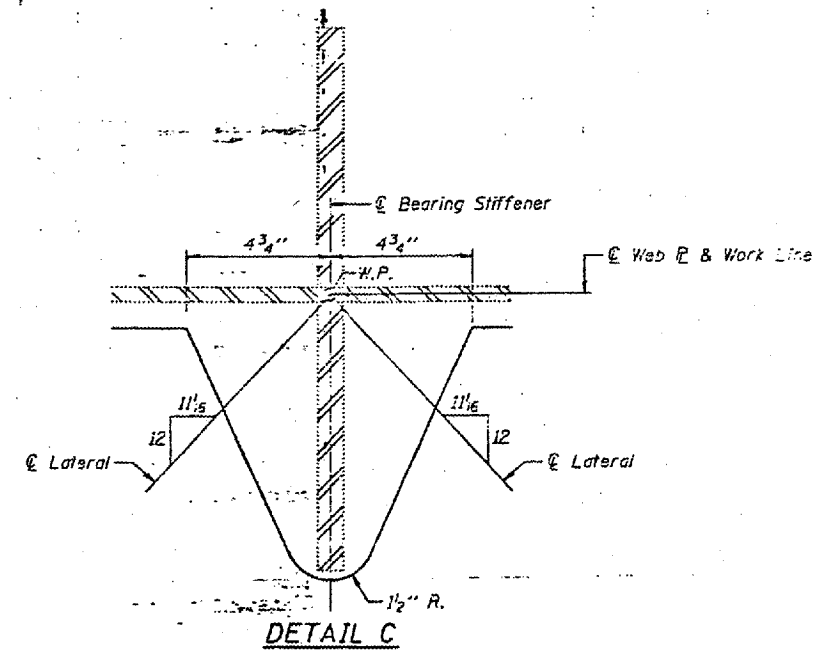
GUSSET PLATE A DETAIL



GUSSET PLATE B DETAIL



DETAIL B



DETAIL C

DESIGNED <i>Kenneth P. Stutz</i>	March 8 1993
CHECKED <i>CHM</i>	EXAMINED <i>Joseph E. Adams</i>
DRAWN <i>Paul Sumner</i>	PASSED
CHECKED <i>KPS</i>	APPROVED

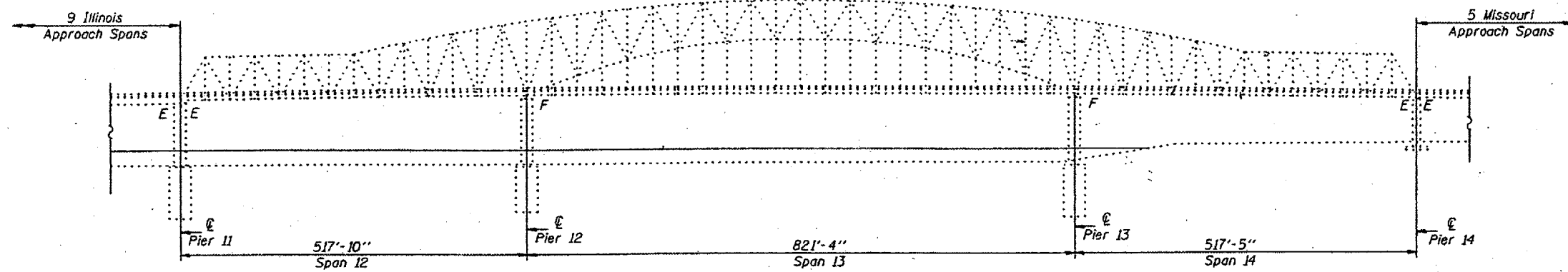
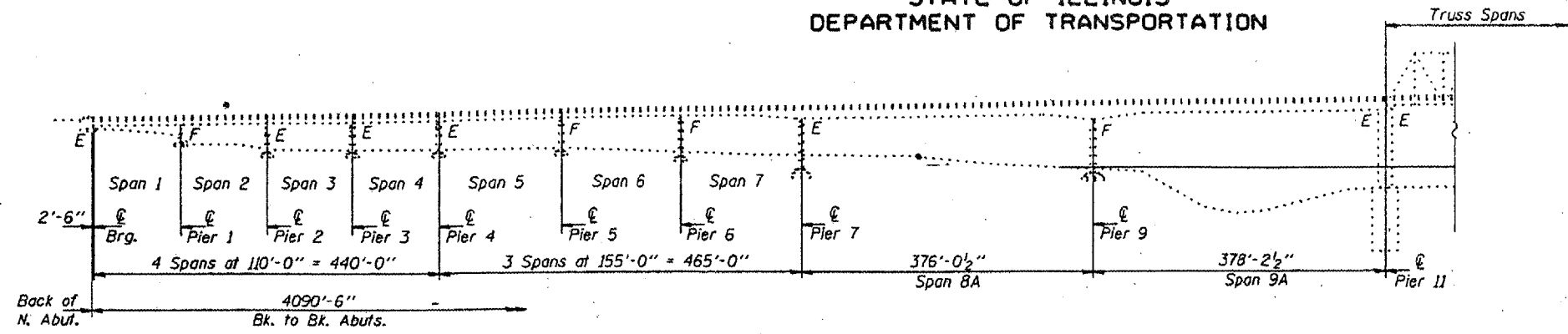
EXAMINED <i>Joseph E. Adams</i>	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES
APPROVED	DIRECTOR OF HIGHWAY

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

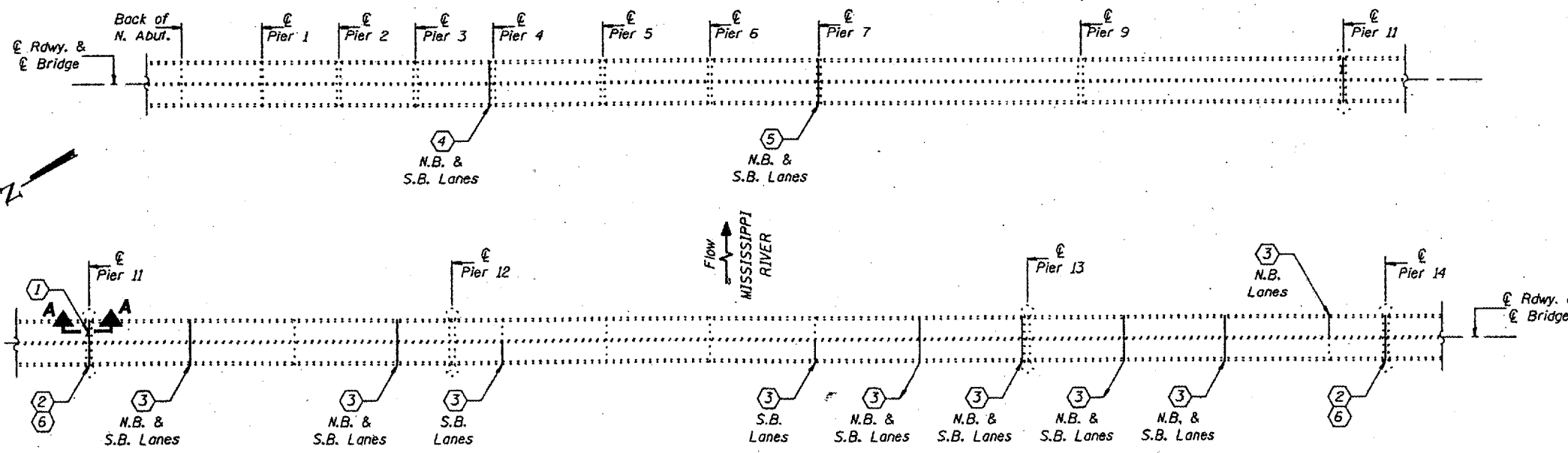
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 45 OF 67
FOR INFORMATION ONLY



PARTIAL ELEVATION
(Looking East)

1 All new structural steel shall conform to AASHTO Classification M-2/U 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 $\frac{3}{4}$ " 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 4/8. 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 \mathcal{R} 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 1/2" PJS and replace with new 2 1/2" PJS. (Removal shall be incidental to Preformed Joint Seal 2 1/2".)
 - 4 Remove existing Finger \mathcal{R} 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 \mathcal{R} sections on each side of expansion joint, N.B. & S.B. Lanes, as necessary for height adjustment and re-install existing Finger \mathcal{R} sections.



PARTIAL DECK PLAN

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 1/2"	Foot	490
Neoprene Expansion Joint (9")	Foot	130
Drain System	L.S.	1
Finger Plate Adjustment	L.S.	1

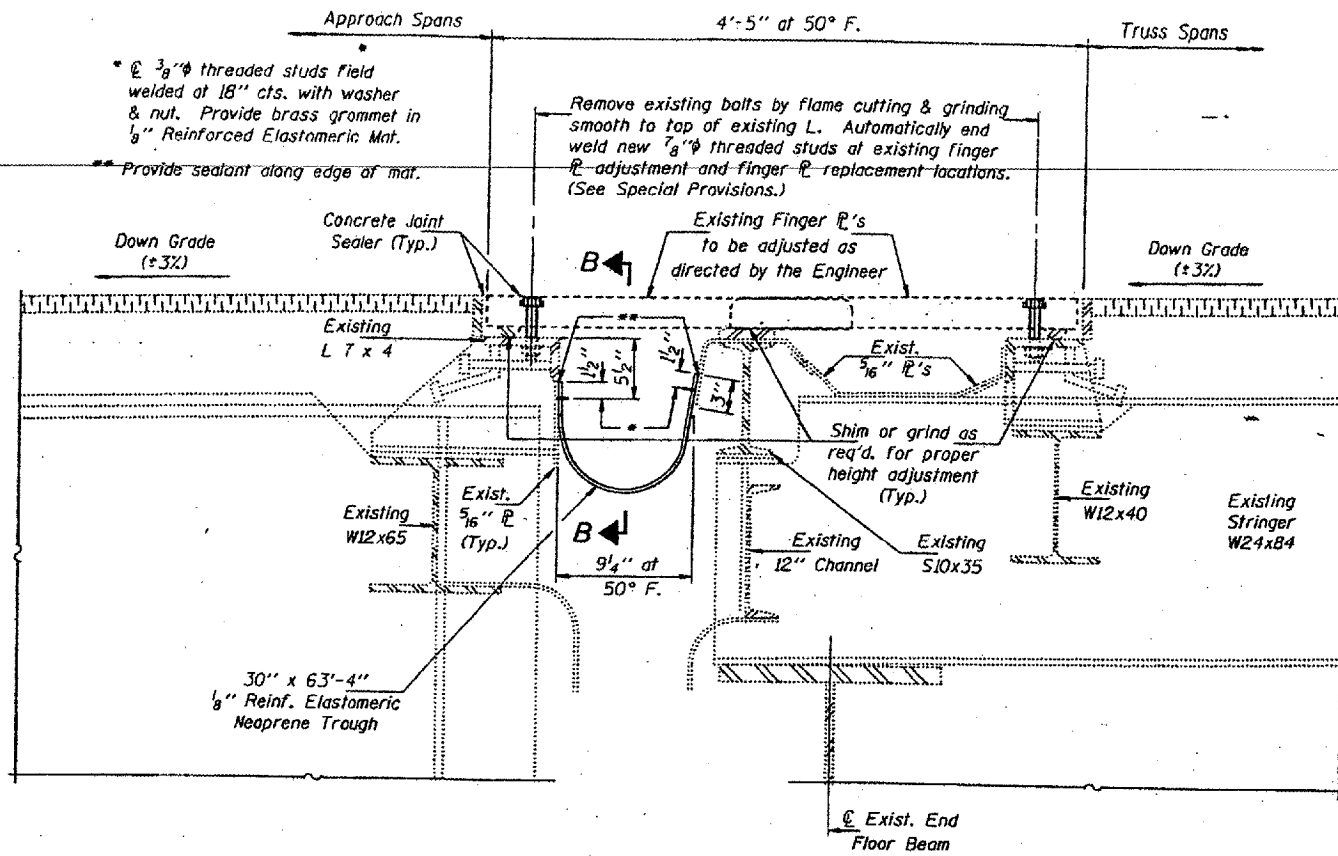
DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	
DRAWN	Dierberl	PASSED	
CHECKED	NJS KPS		

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

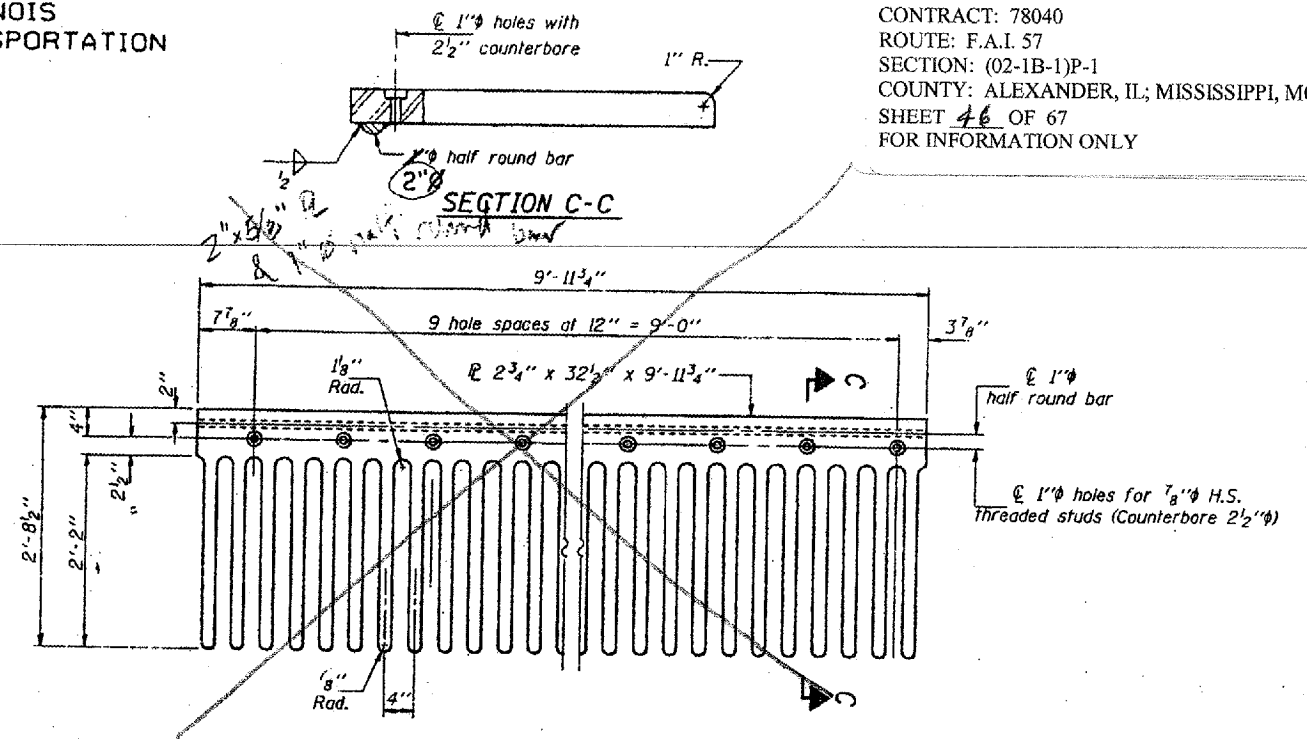
BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

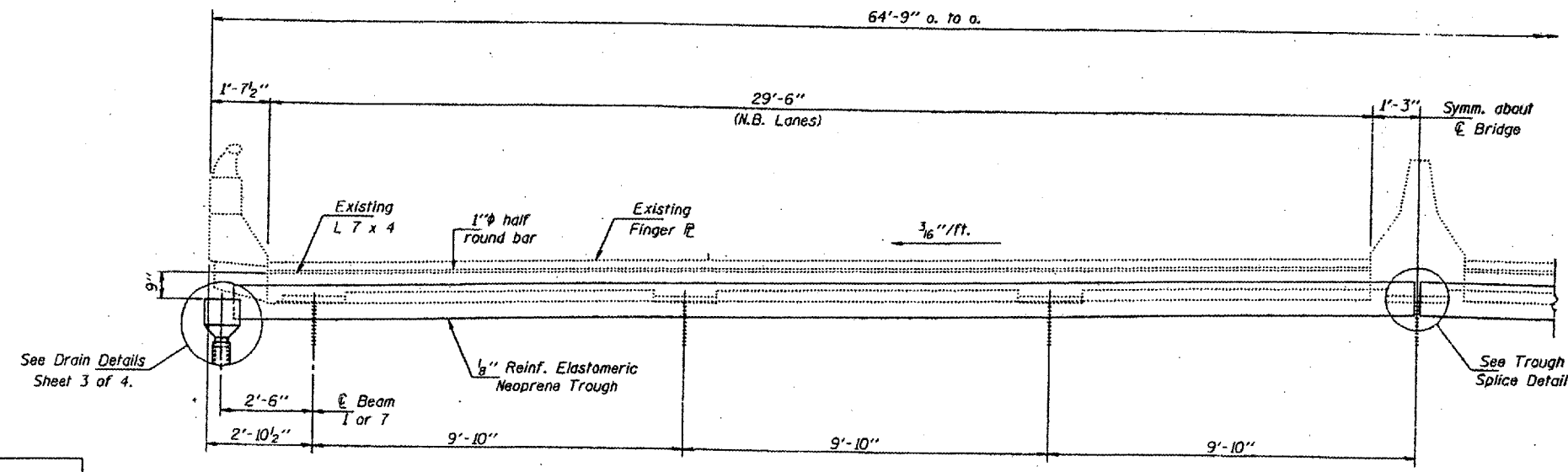
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 46 OF 67
FOR INFORMATION ONLY



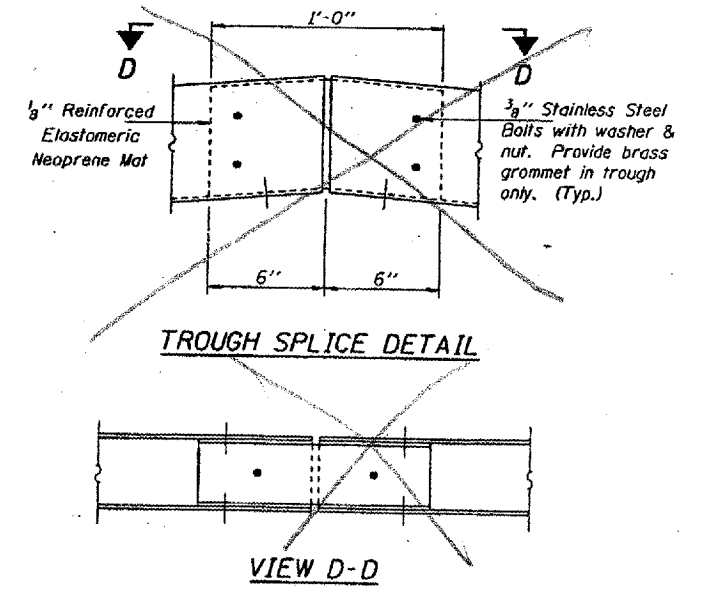
SECTION A-A
Pier II shown; Pier 14 similar



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



SECTION B-B



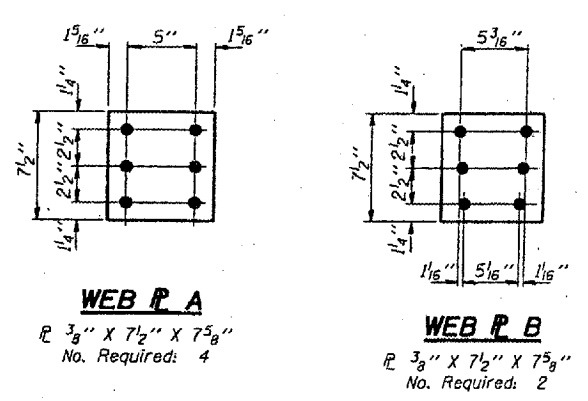
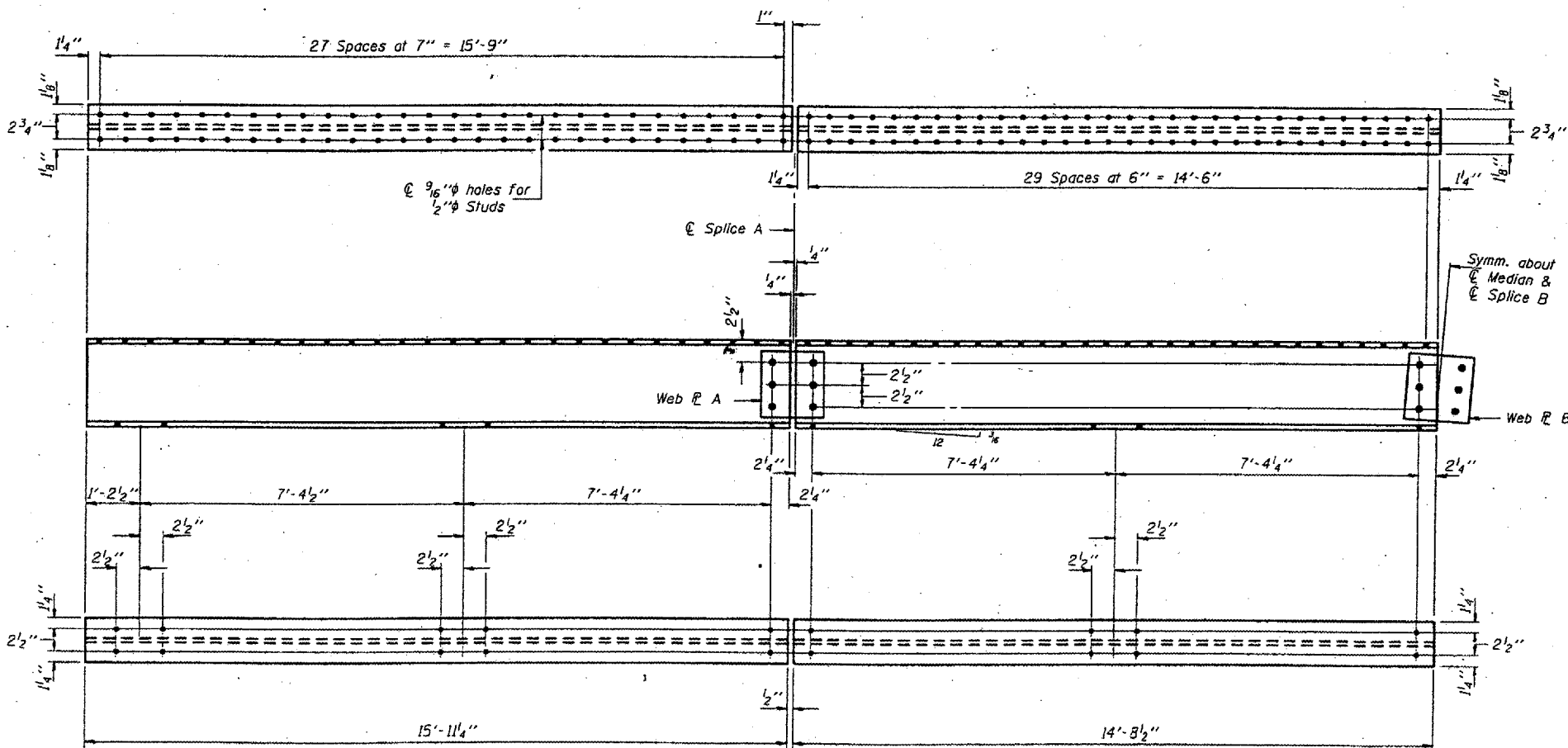
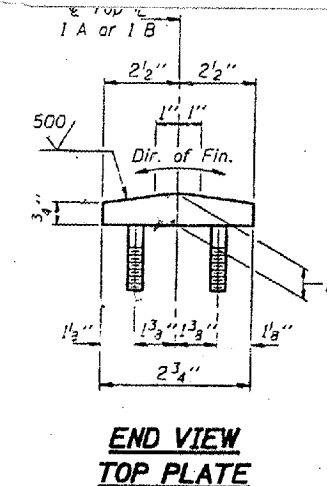
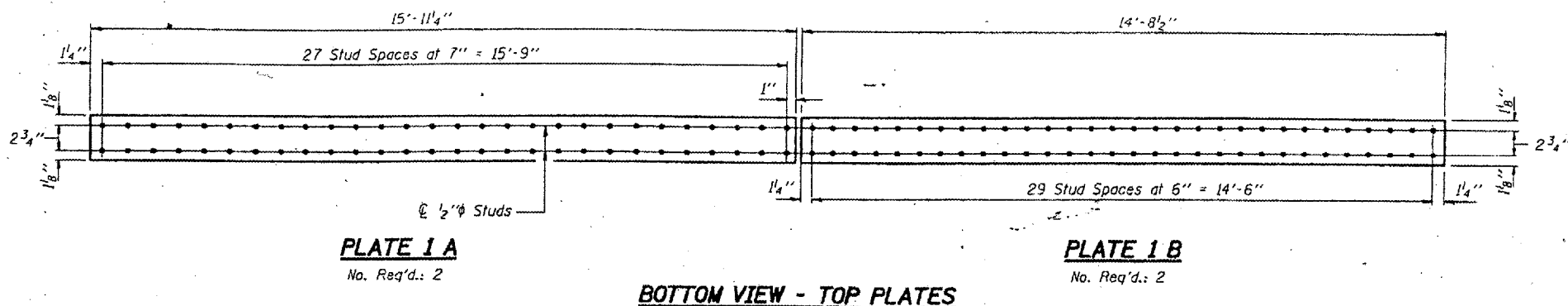
DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>Joseph E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-ferbert	PASSED	
CHECKED	NJS KPS	ENGINEER OF BRIDGES AND STRUCTURES	

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

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-IB-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 47 OF 67
FOR INFORMATION ONLY



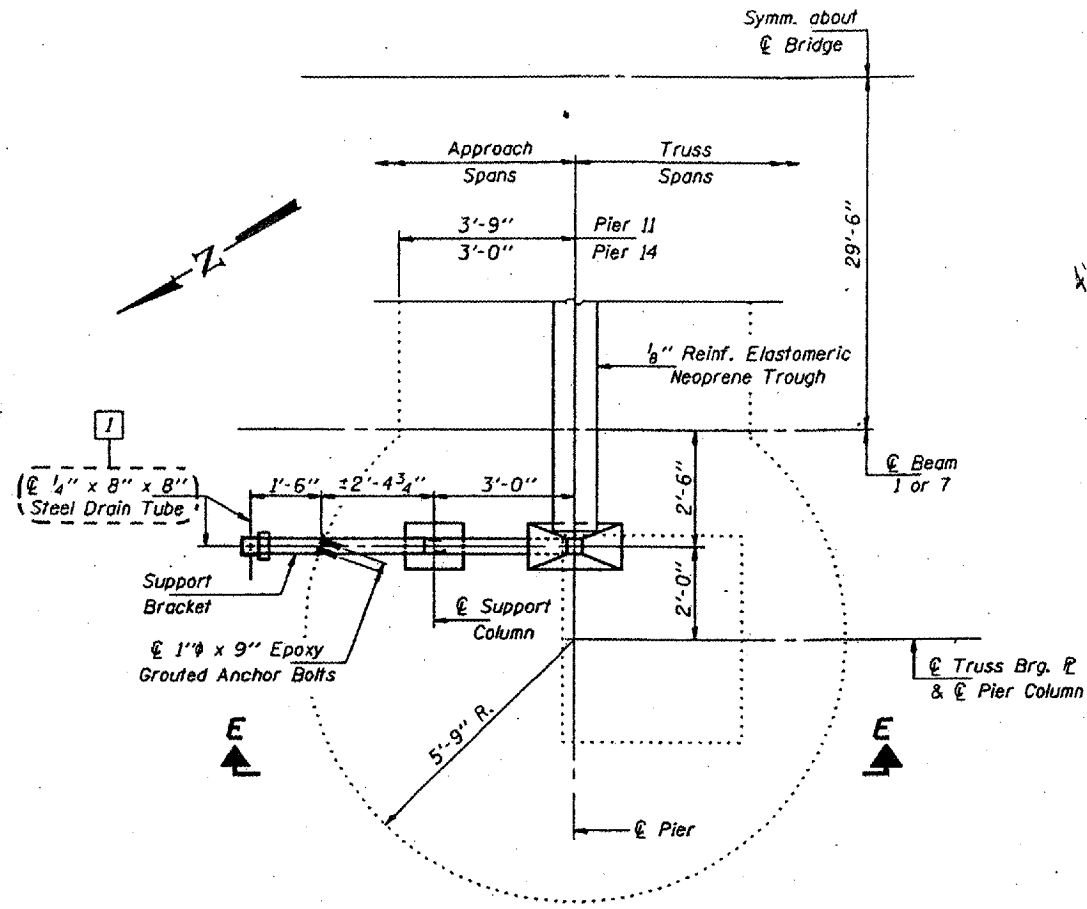
DESIGNED	C.M.E.	APRIL 22	1997
CHECKED	V.H.V.	EXAMINED	<i>John C. Allen</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-herbert	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	R.P.S. C.M.E.		

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

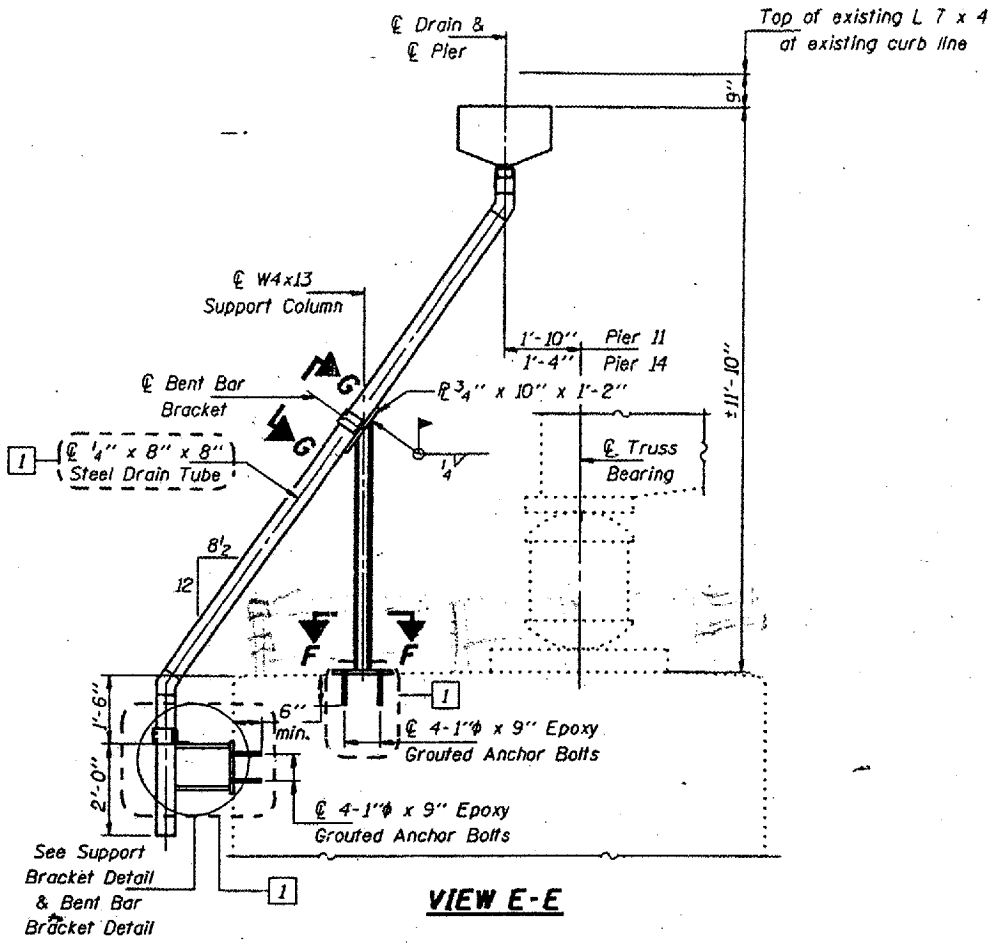
BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-IB-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

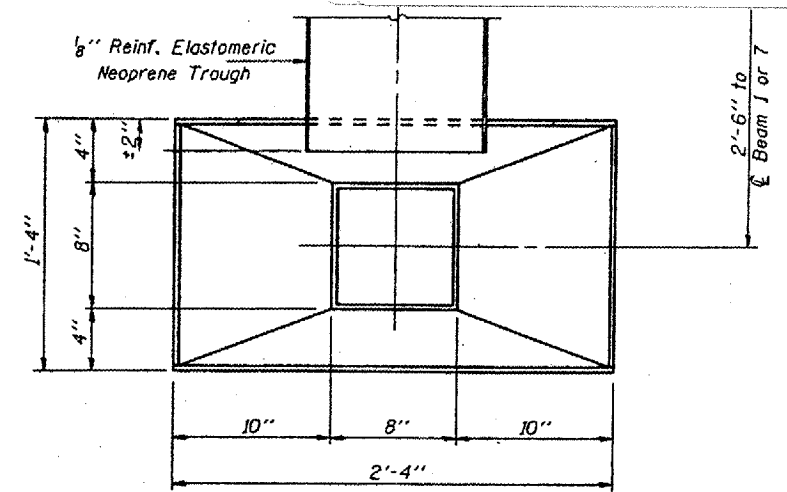
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SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 48 OF 67
FOR INFORMATION ONLY



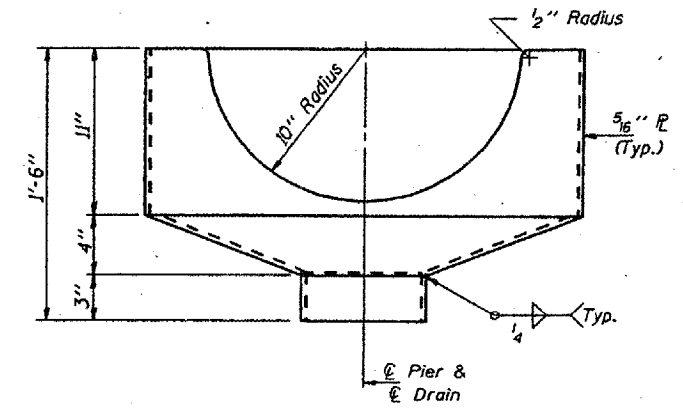
PARTIAL PLAN - PIER II
(Pier 14 similar by rotation of 180°)



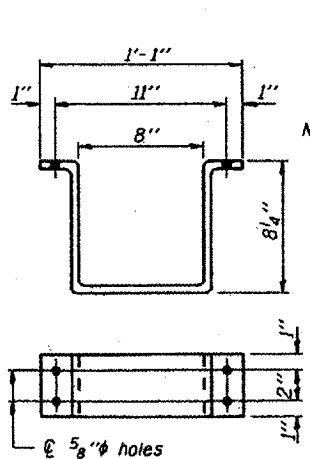
VIEW E-E



TOP VIEW

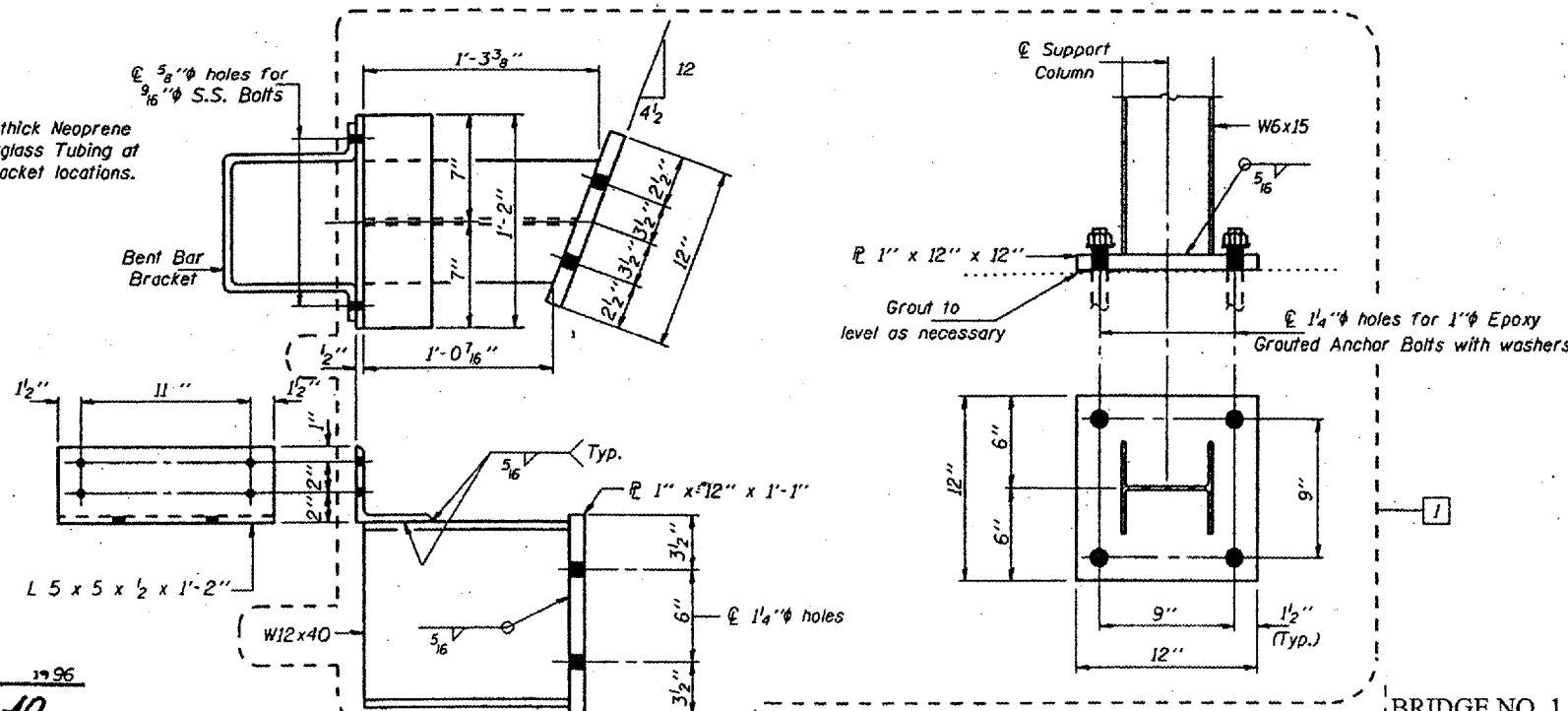


DRAIN ELEVATION
(Looking out from Bridge)
Total No. Req'd.: 4



BENT BAR BRACKET DETAIL

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

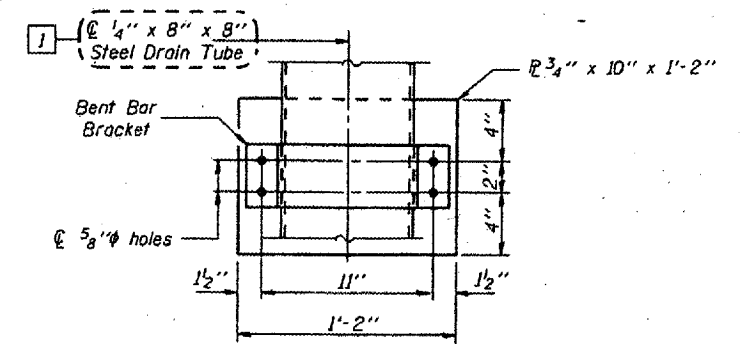


SUPPORT BRACKET

Total No. Req'd.: 4

SECTION F-F

Total No. Req'd.: 4



VIEW G-G

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

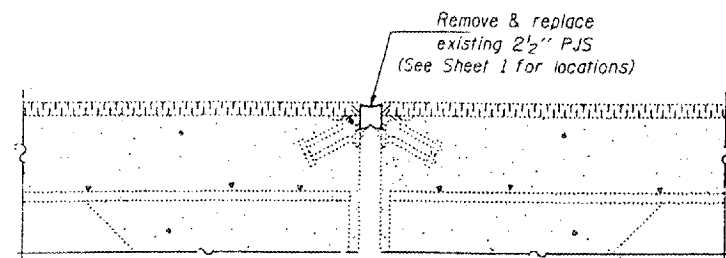
DRAIN DETAILS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

DESIGNED	DAH KPS
CHECKED	NJS
DRAWN	Dferbert
CHECKED	NJS KPS

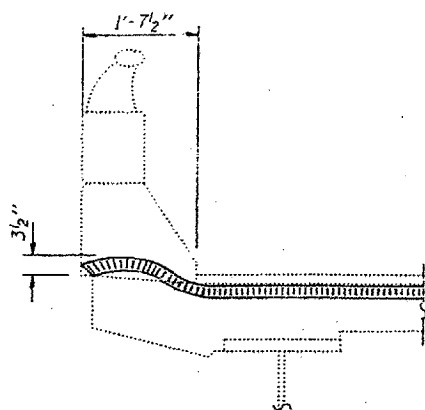
AUGUST 21 1996
EXAMINED *John E. Adams*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

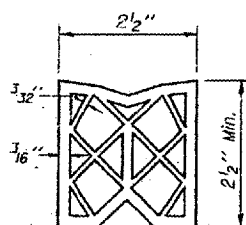
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 49 OF 67
FOR INFORMATION ONLY



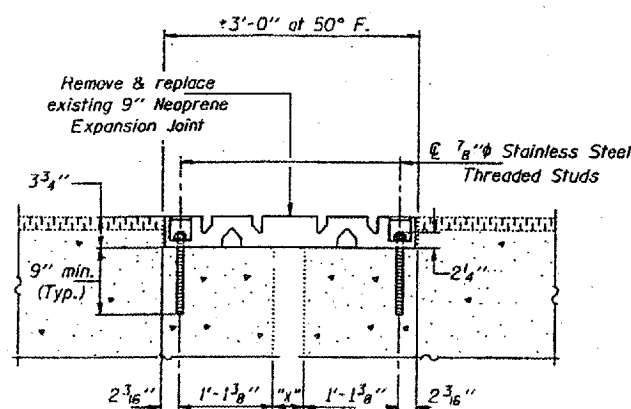
SECTION THRU PJS JOINTS



END OF SEAL TREATMENT

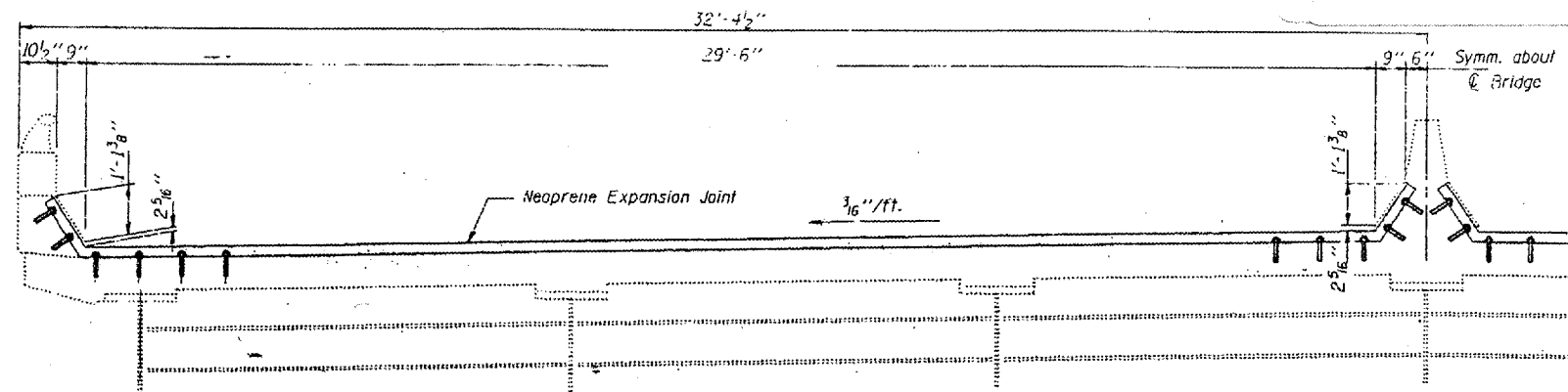


2 1/2" PREFORMED JOINT SEAL

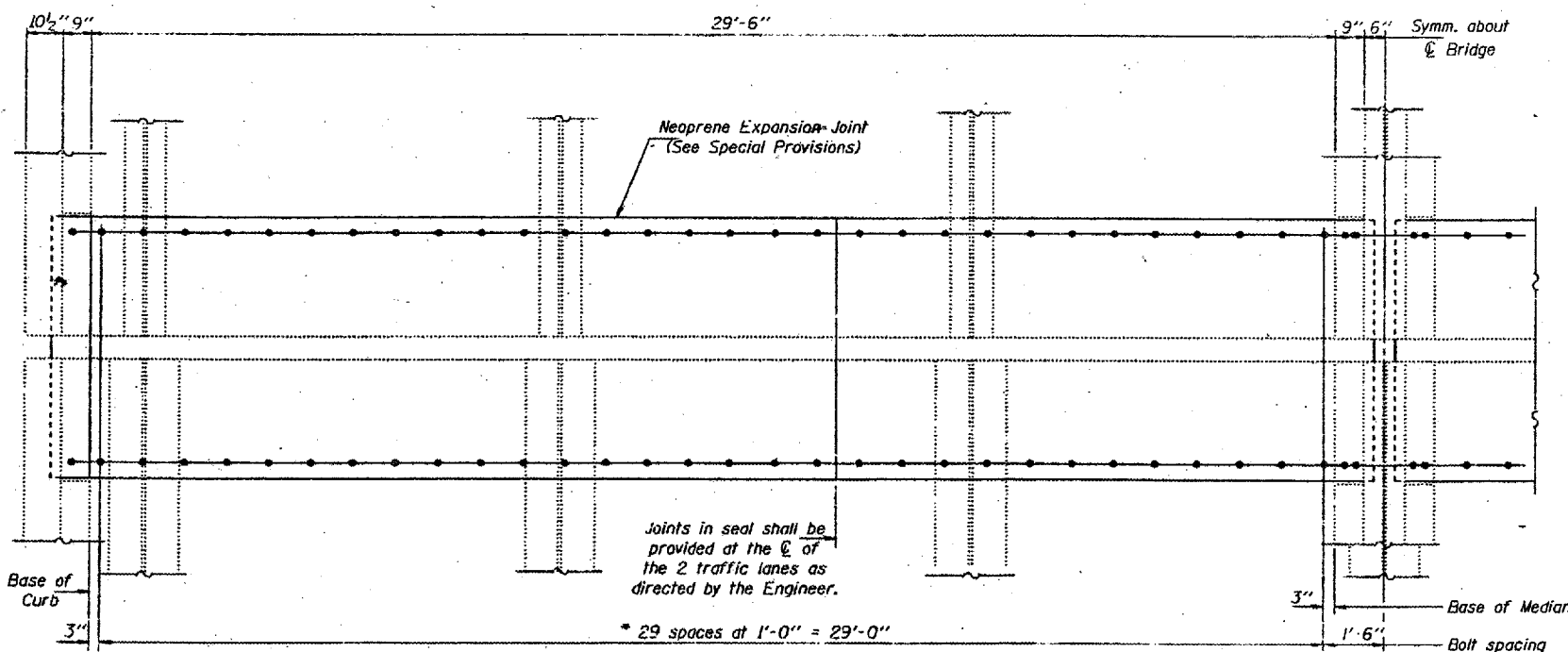


SECTION THRU NEOPRENE EXP. JT. (9")

Temp. (°F.)	Dim. "x"
130	3 1/8"
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"



ELEVATION



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

* Remove existing 7/8" studs by flame cutting and grind flush with top of concrete. Epoxy grout new 7/8" Stainless Steel threaded studs in 1 1/2" x 9" (min.) drilled holes.

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

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

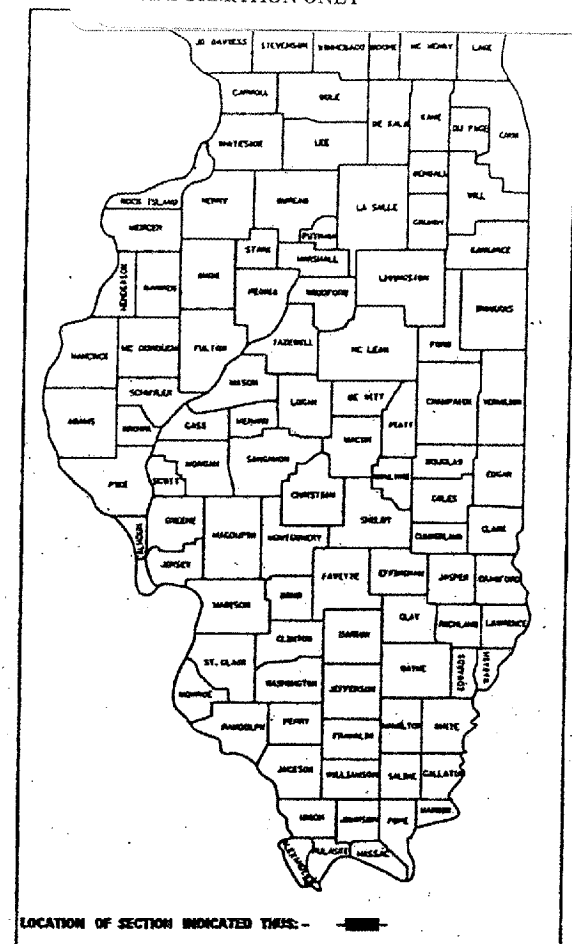
BRIDGE REPAIRS
F.A.I. 57 OVER MISSISSIPPI RIVER
SEC. 02-1B-1
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
 HIGHWAY

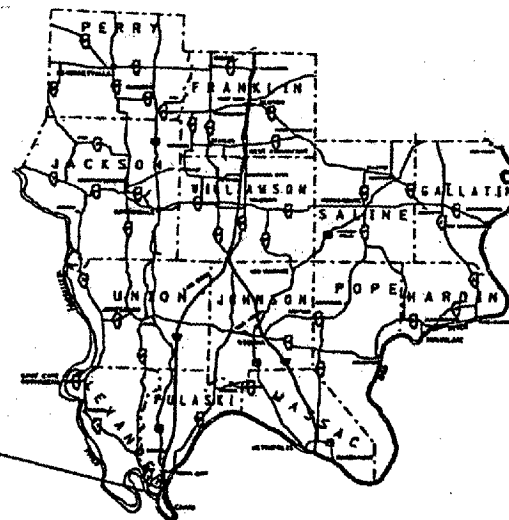
FAI ROUTE 57 (I-57)
 SECTION: (02-1B-1)I-4
 NAVIGATION LIGHT REPAIRS
 ALEXANDER CO., IL. & MISSISSIPPI CO., MO.
 C-99-013-00

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 50 OF 67
 FOR INFORMATION ONLY



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

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



STRUCTURE NO. 002-0022
 NAVIGATIONAL LIGHT REPAIRS

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.

JULIE
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-832-0123

CONTRACT NO.

002-0022

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

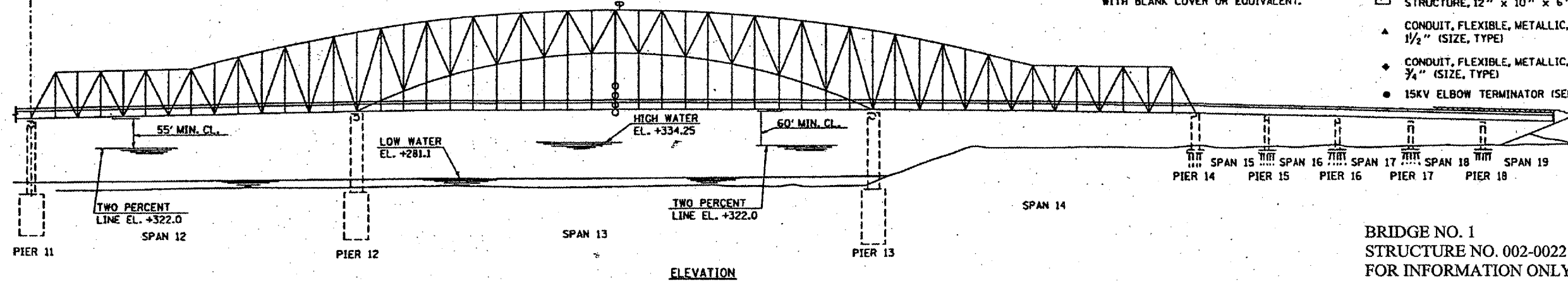
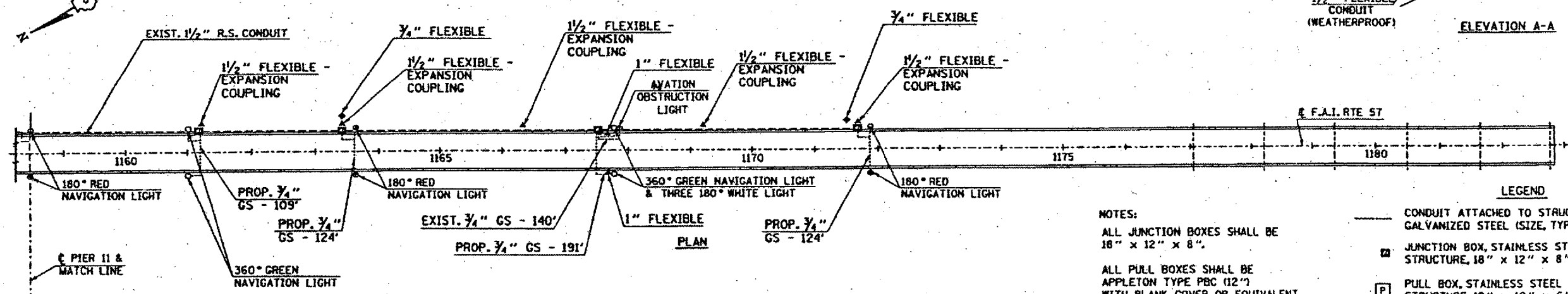
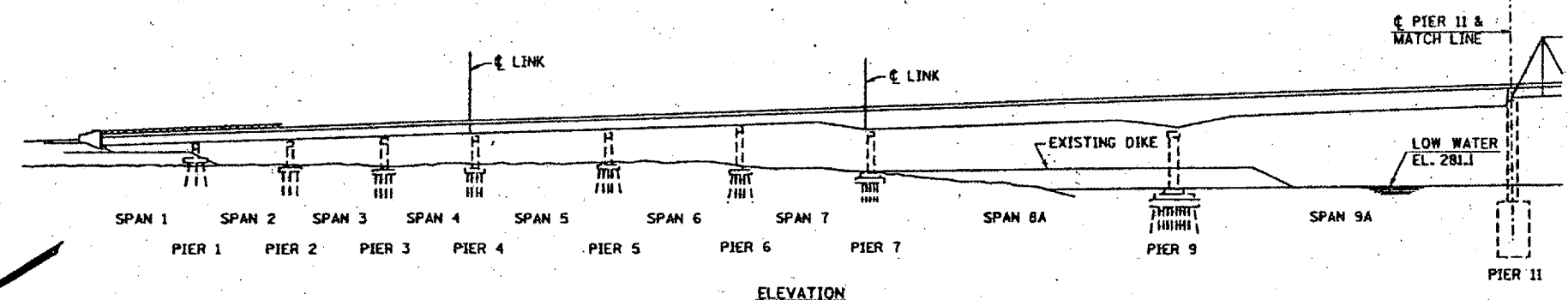
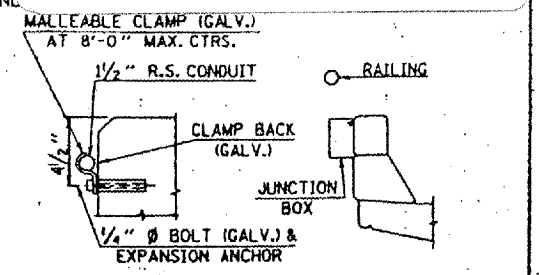
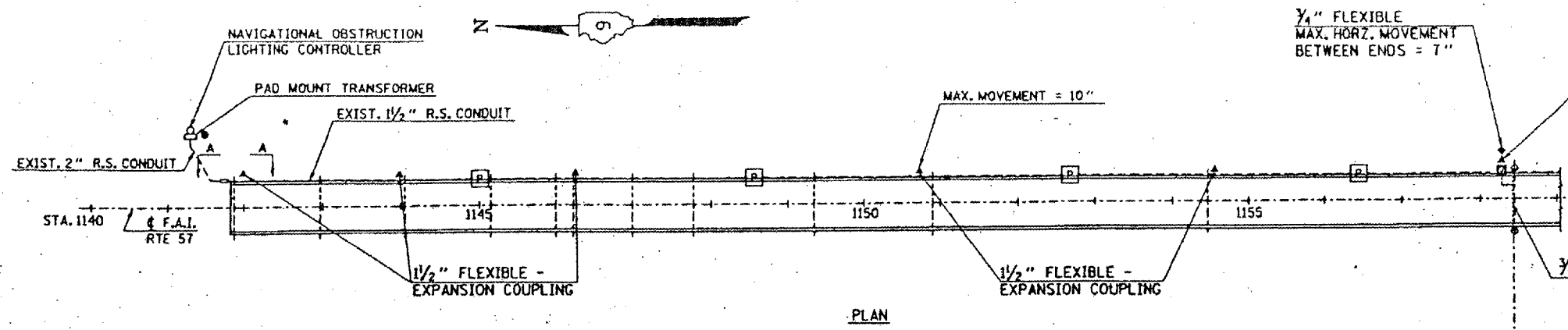
SUBMITTED Aug 24, 1999
Ralph R. Rutledge DISTRICT ENGINEER

October 1, 1999
Bill Hender 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: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 51 OF 67
 FOR INFORMATION ONLY



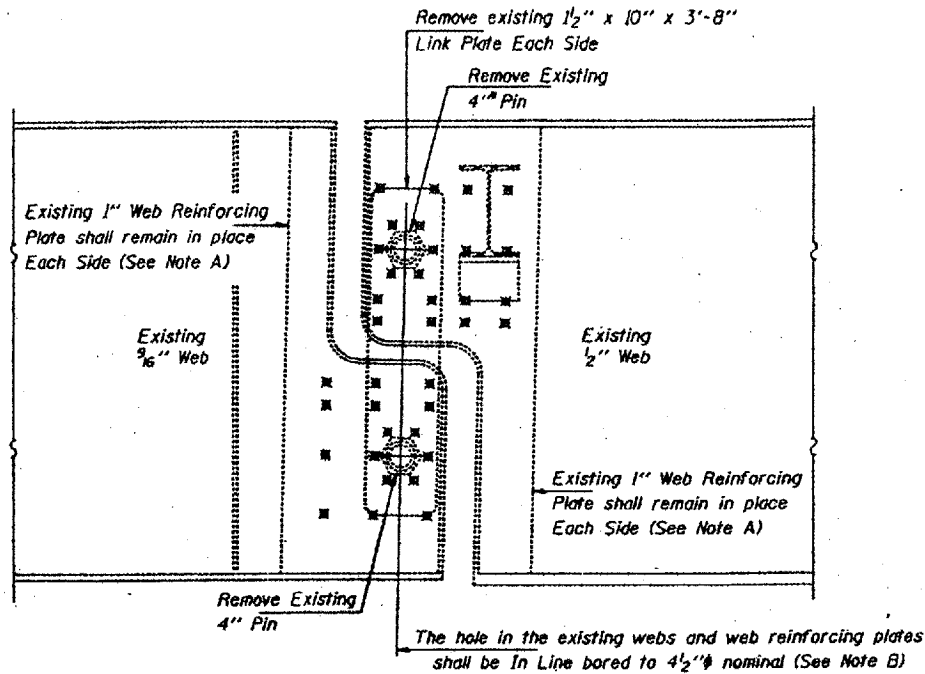
NOTES:
 ALL JUNCTION BOXES SHALL BE 18" x 12" x 8".
 ALL PULL BOXES SHALL BE APPLETON TYPE PBC (12") WITH BLANK COVER OR EQUIVALENT.

- 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)

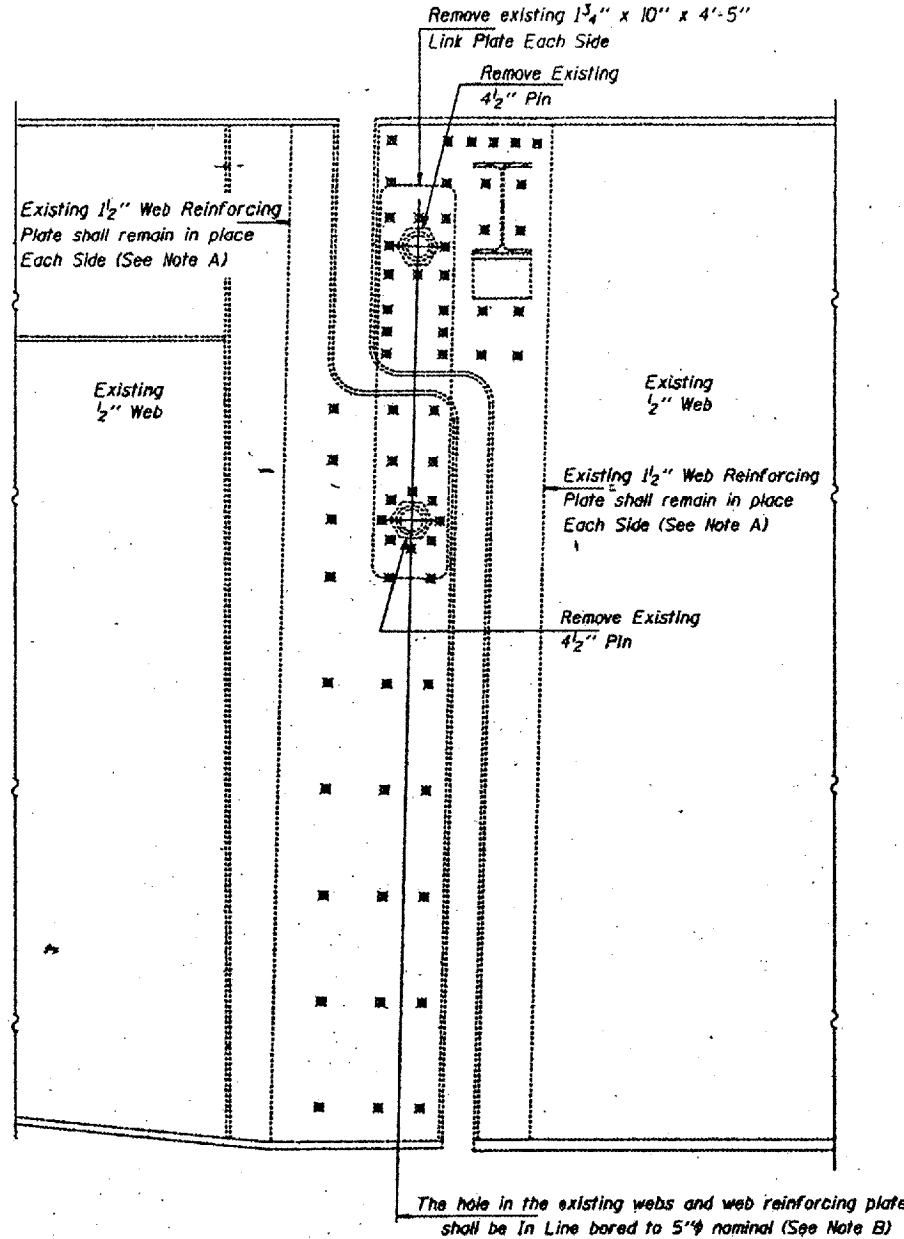
BRIDGE NO. 1
 STRUCTURE NO. 002-0022
 FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 52 OF 67
FOR INFORMATION ONLY



ELEVATION AT EXISTING PIN ASSEMBLY SPAN 4



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".

GENERAL NOTES

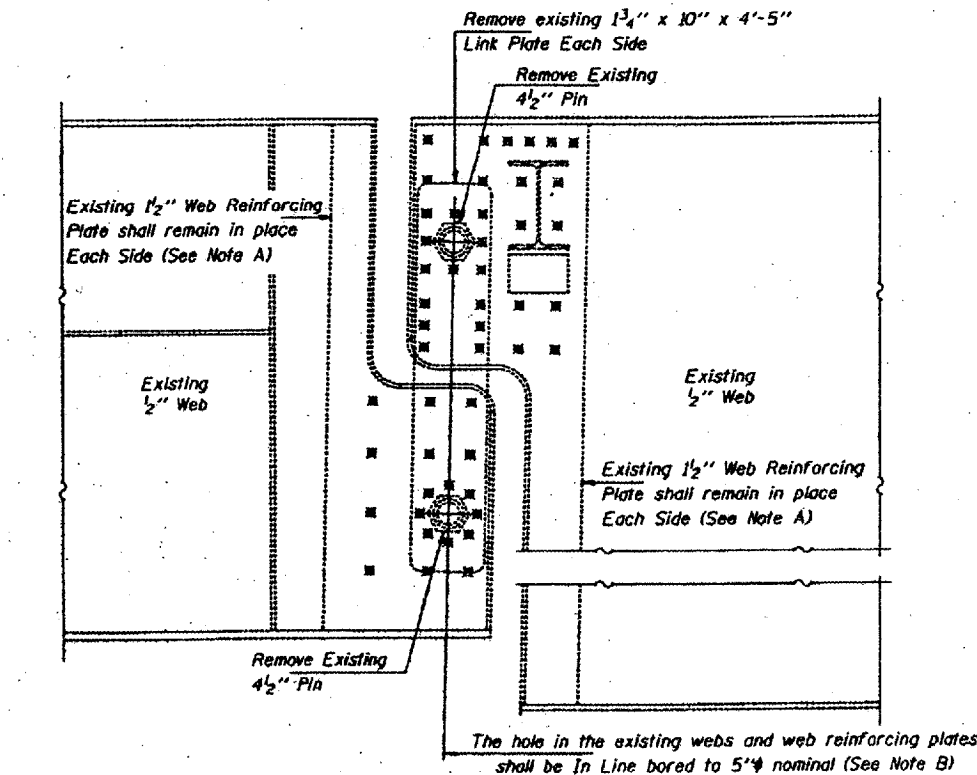
- All new structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
- The Contractor shall provide support and/or shoring systems for the beam in the area of existing pin and link plate replacement. See Special Provision "Temporary Support System."
- The inorganic 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



ELEVATION AT EXISTING PIN ASSEMBLY SPAN 7 GIRDERS 2 THRU 6

MAXIMUM REACTIONS
AT PIN SPAN 4

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

MAXIMUM REACTIONS
AT PIN SPAN 7

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

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: VICTOR H. VELIZ
CHECKED: *Carl M. Every*
DRAWN: Paul Sumner
CHECKED: VHY CME

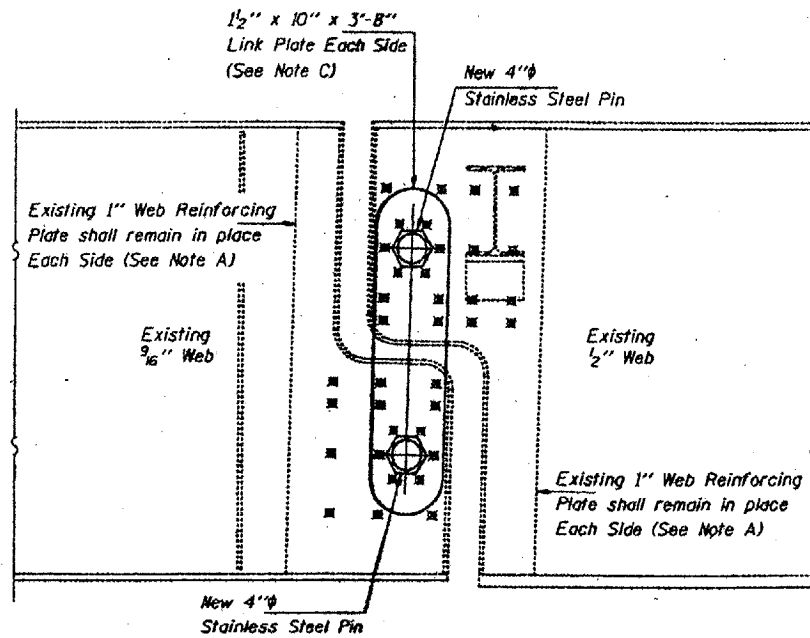
FEBRUARY 19, 1998

EXAMINED: *John E. Adams*
PASSED: _____

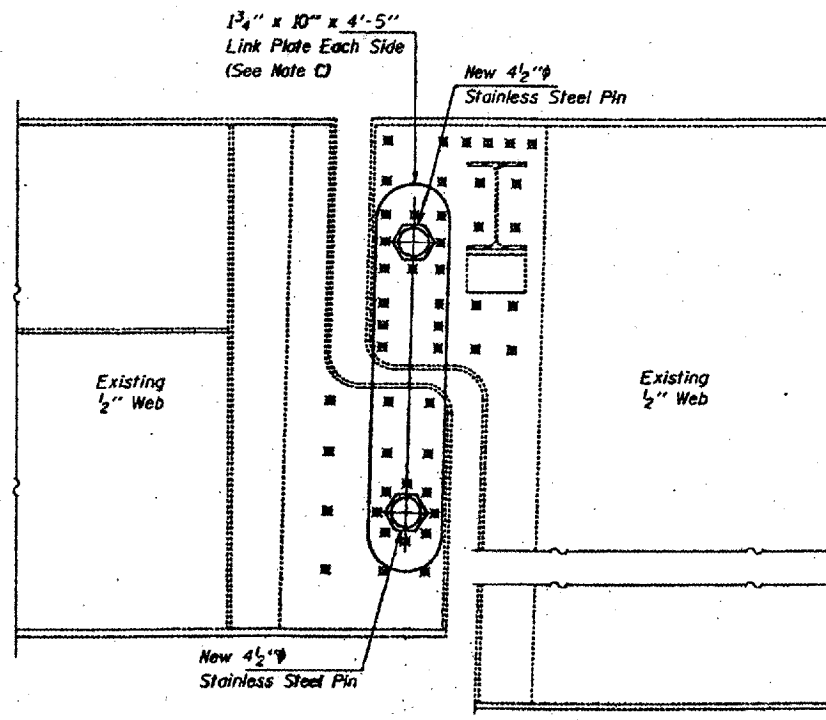
DESIGNER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

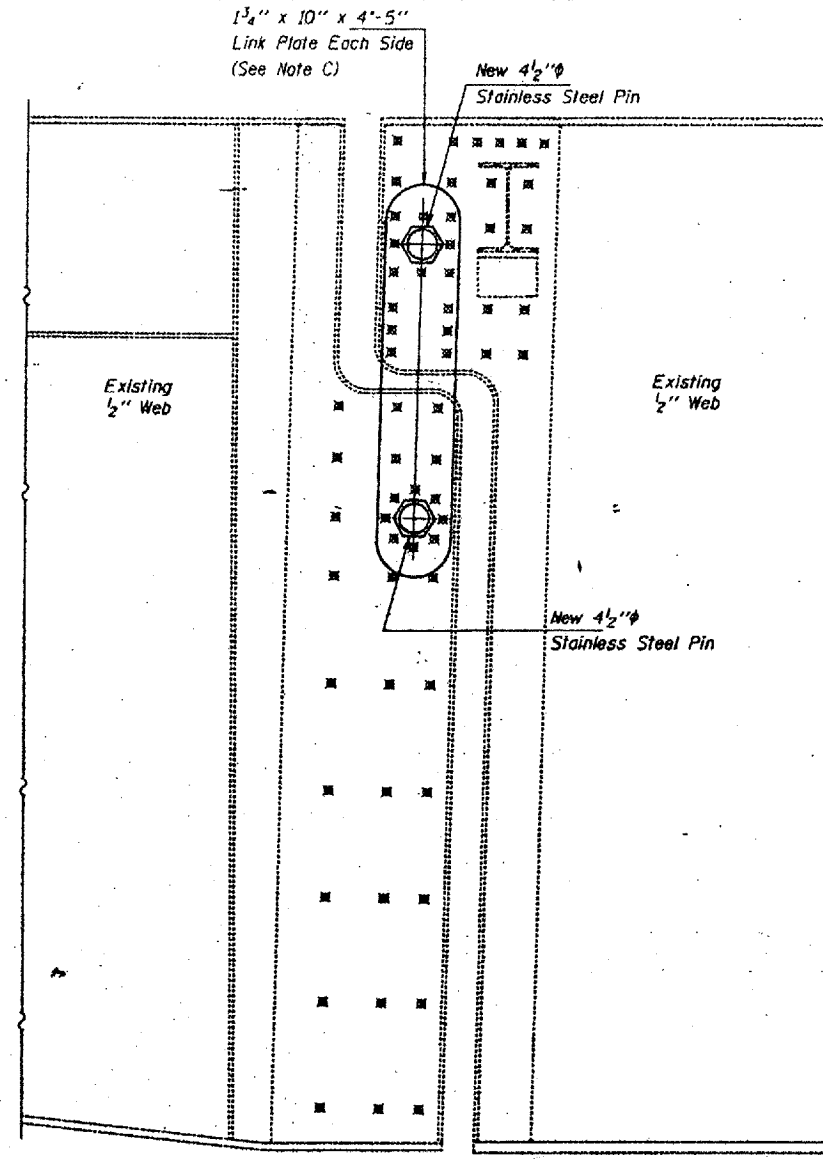
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 53 OF 67
FOR INFORMATION ONLY



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.

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Summar
CHECKED	VHV CME

FEBRUARY 19, 1998

EXAMINED *John E. Adams*
ENGINEER OF STRUCTURAL SERVICES

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

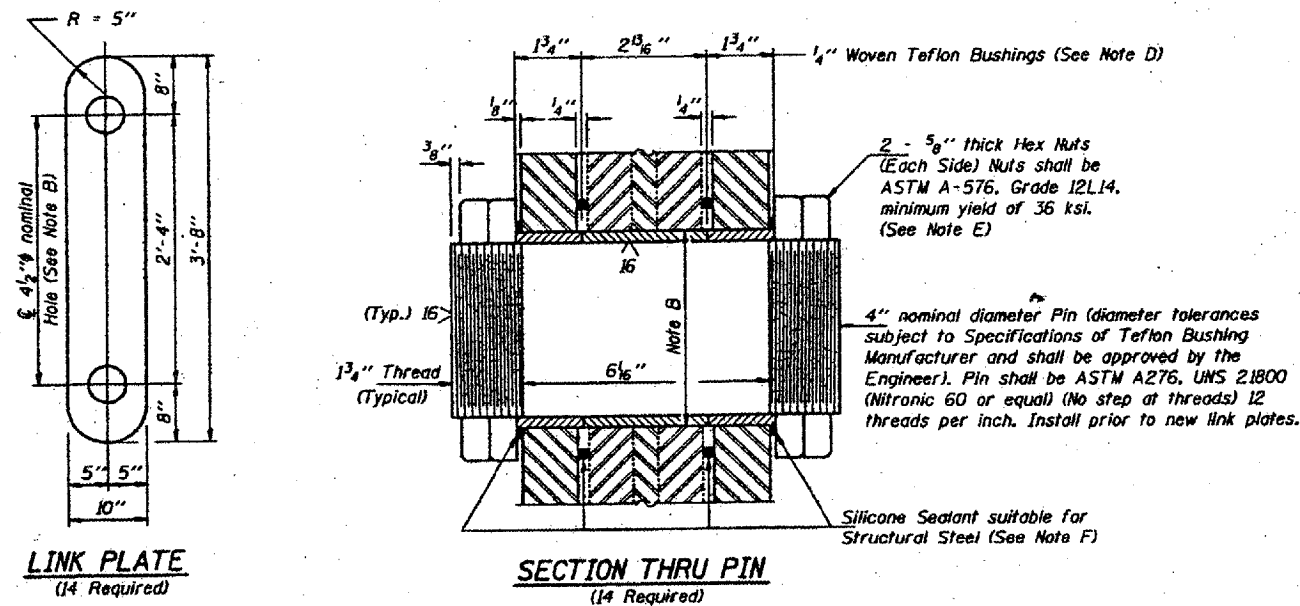
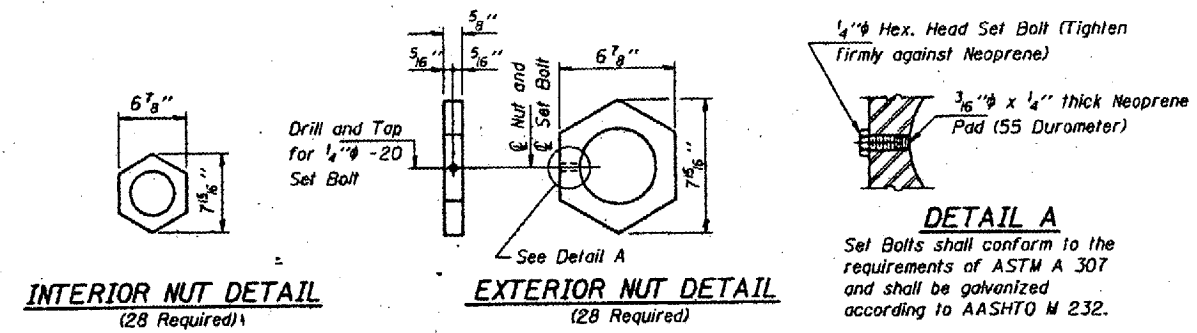
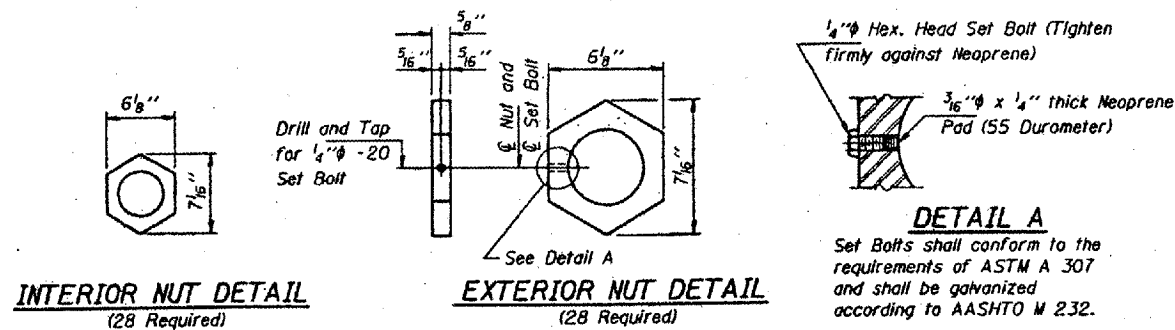
Notes: For Pin and Link Plate Details see sheet 3 of 13.

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

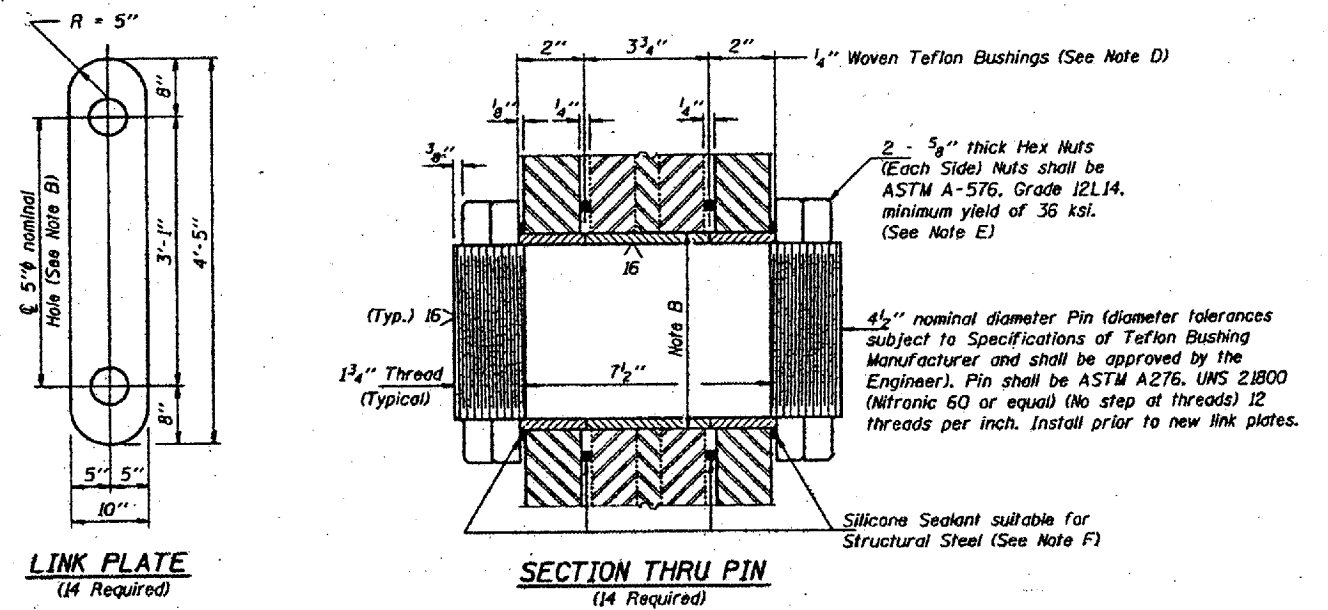
PIN AND LINK PLATE REPLACEMENT
SPANS 4 AND 7
F.A.I. ROUTE 57 SEC. 02-1B-1
ALEXANDER COUNTY
STA. 1168+50
STR. No. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 54 OF 67
FOR INFORMATION ONLY



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 Sumner
CHECKED	VHV CME

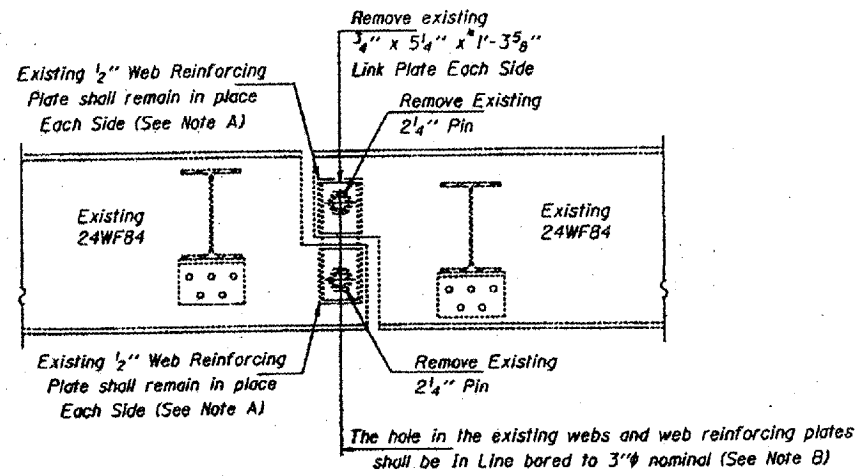
FEBRUARY 19, 1998
EXAMINED *Joseph E. Adams*
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

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

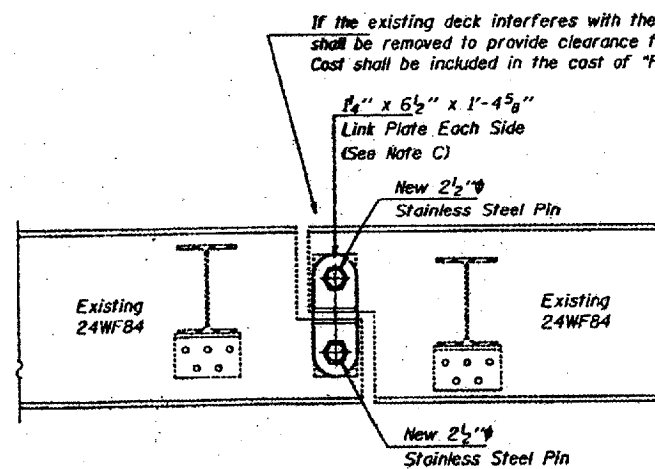
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 55 OF 67
FOR INFORMATION ONLY

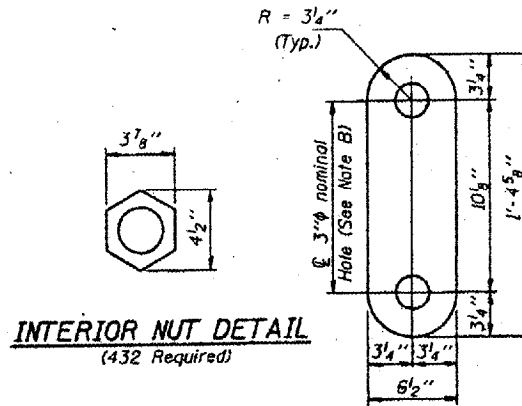


ELEVATION AT EXISTING PIN ASSEMBLY
SPANS 12, 13 AND 14

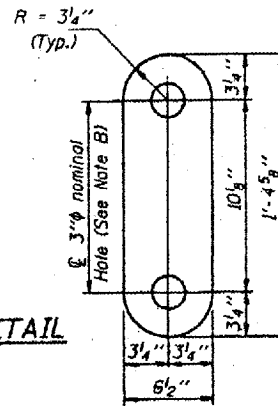
Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".



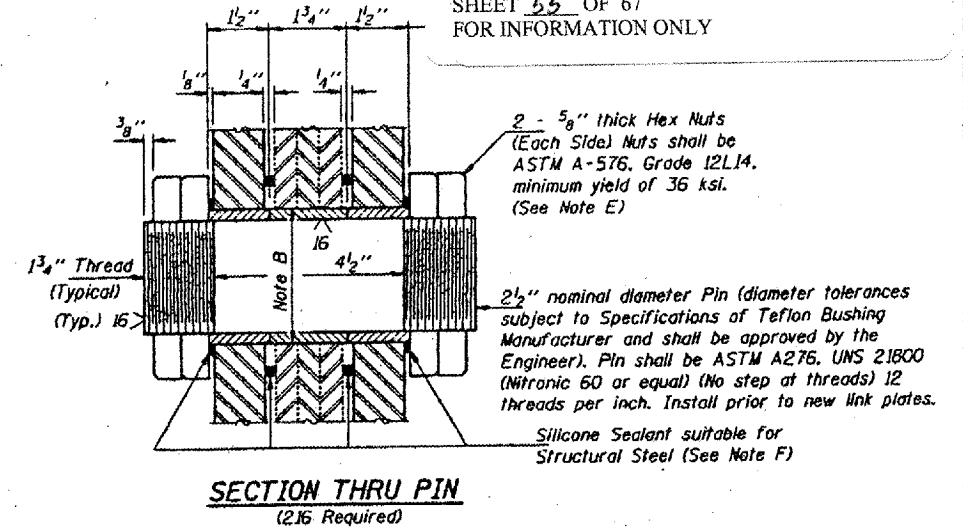
ELEVATION AT NEW PIN ASSEMBLY
SPANS 12, 13 AND 14



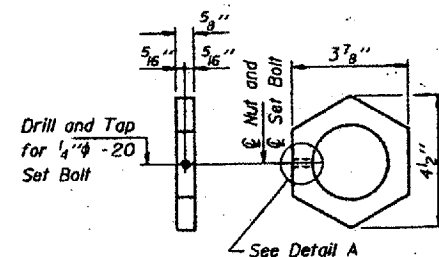
INTERIOR NUT DETAIL
(432 Required)



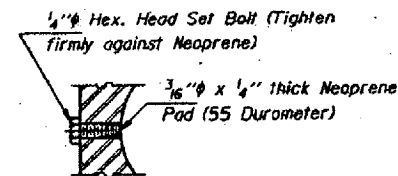
LINK PLATE DETAIL
(216 Required)



SECTION THRU PIN
(216 Required)



EXTERIOR NUT DETAIL
(432 Required)



DETAIL A
Set Bolts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

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

MAXIMUM REACTIONS AT PIN

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

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Summar
CHECKED	VHV CME

FEBRUARY 19, 1998
APPROVED: *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 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

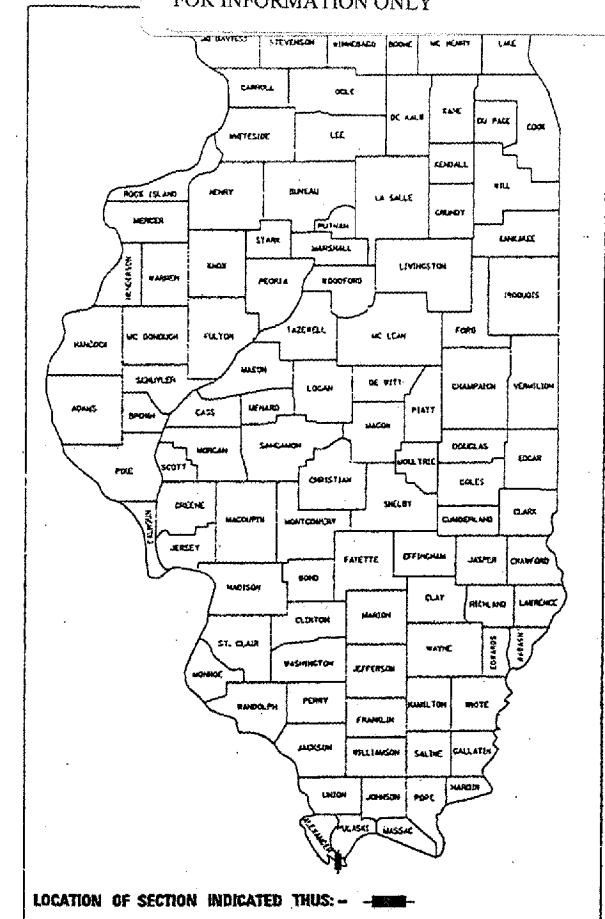
PLANS FOR PROPOSED

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

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

CONTRACT: 78040
 ROUTE: F.A.I. 57
 SECTION: (02-1B-1)P-1
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
 SHEET 56 OF 67
 FOR INFORMATION ONLY

D-99-042-



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED Jan 10, 20 02
Paul A. Matheny
 DISTRICT ENGINEER

February 1, 20 02
Michael Hine
 ENGINEER OF DESIGN AND ENVIRONMENT

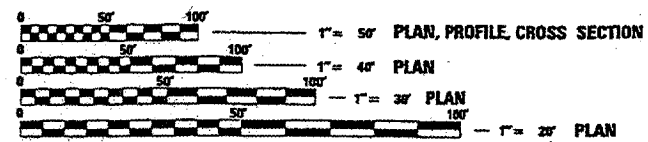
February 1, 20 02
James P. Pate
 DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

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

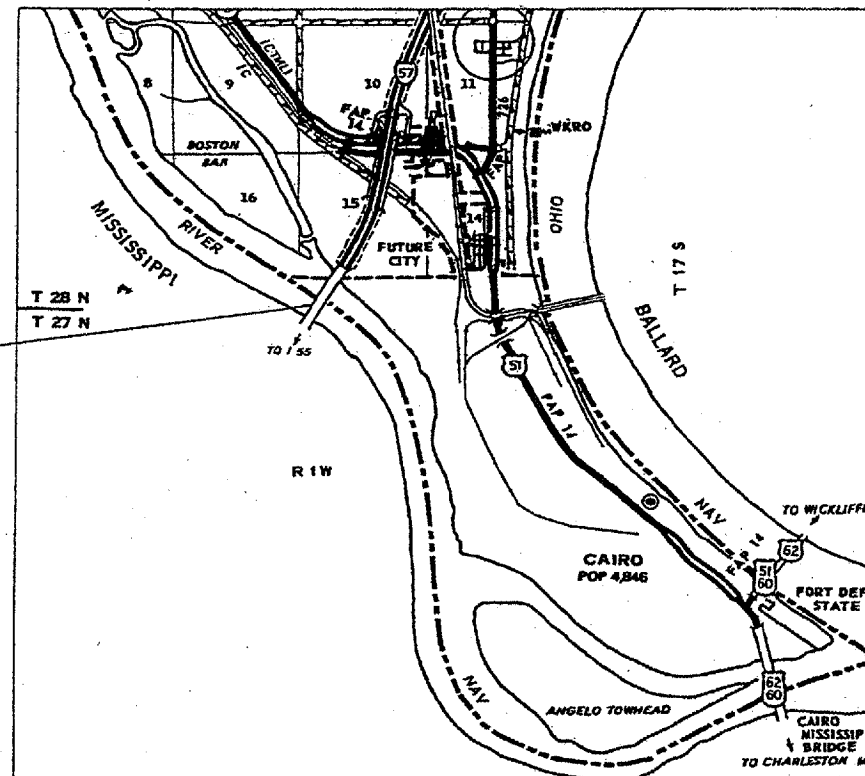
I-57 TRAFFIC DATA

2000 ADT 10,300
 WYATT TOWNSHIP



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.juliecall.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

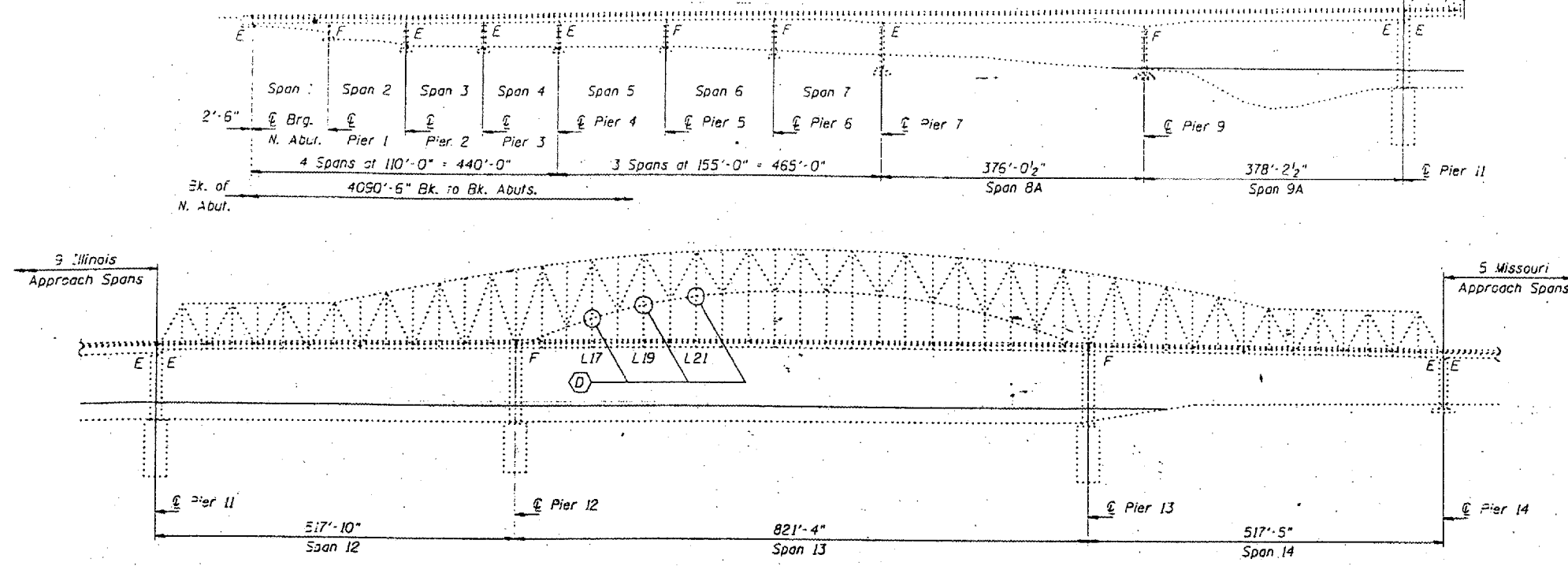
NET LENGTH OF PROJECT = 4090'-6"

9-173

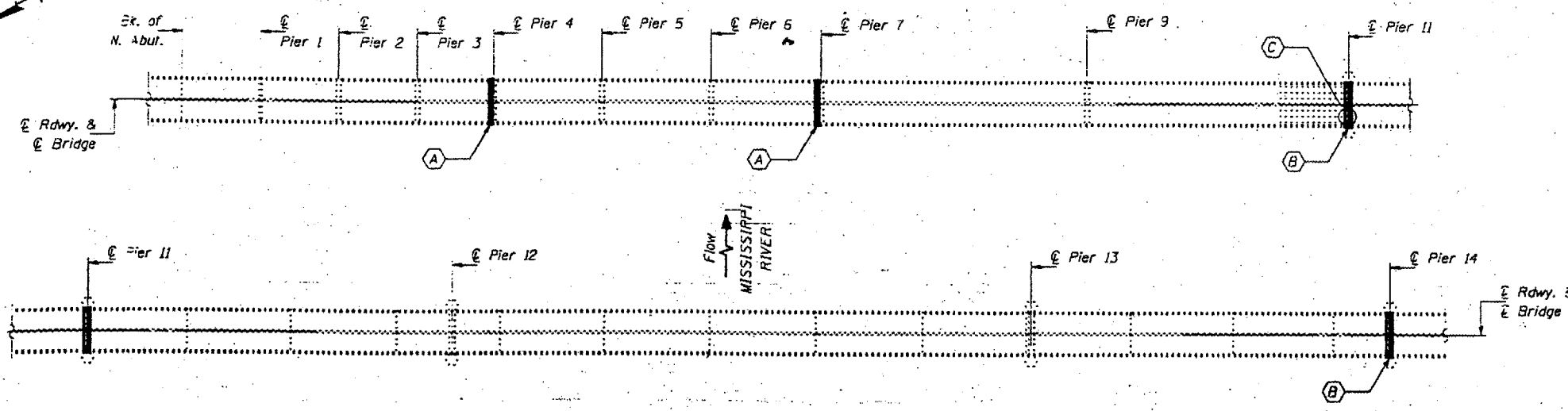
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 57 OF 67
FOR INFORMATION ONLY

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 4/9. See Special Provision for "Cleaning and Painting New Metal Structures".
The SSPC-DPI 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 F. Schaeffer Jr.
CHECKED V.H.V. A.T.H. P.S.J.

FEBRUARY 4, 2002

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES

PASSED

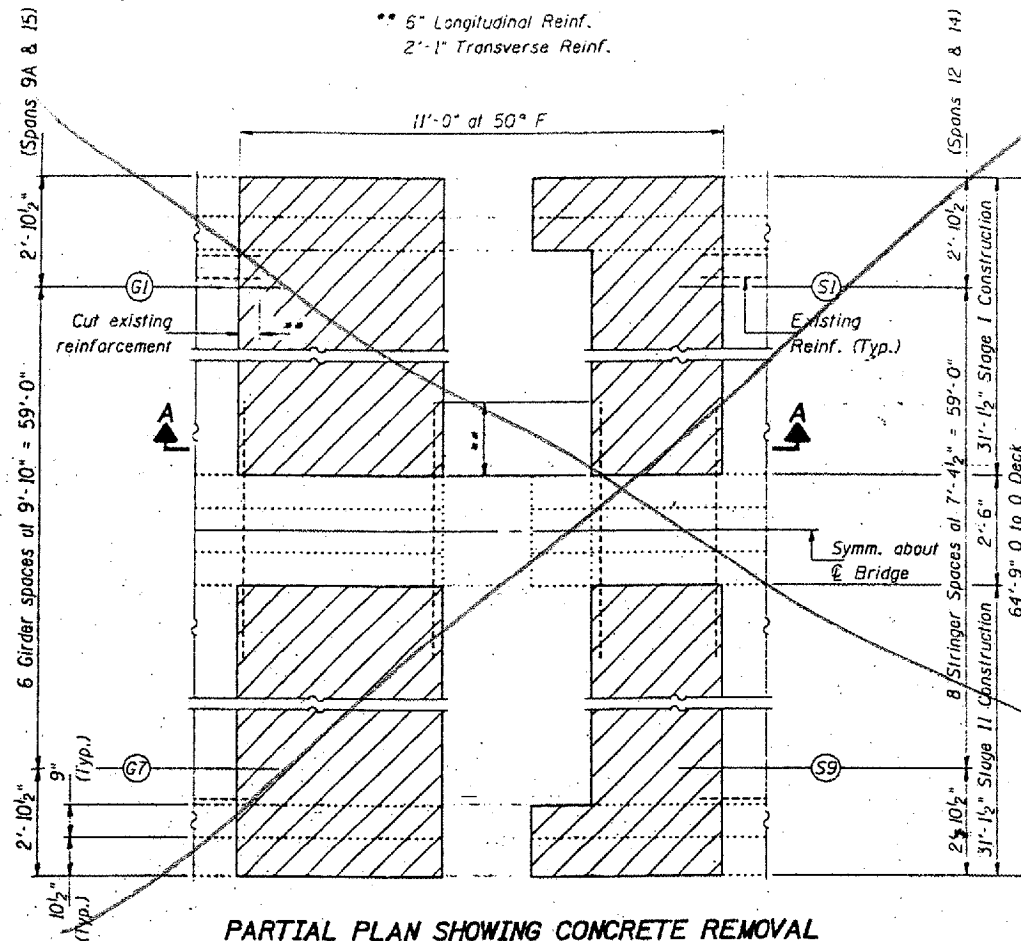
DESIGNER OF BRIDGES AND STRUCTURES

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

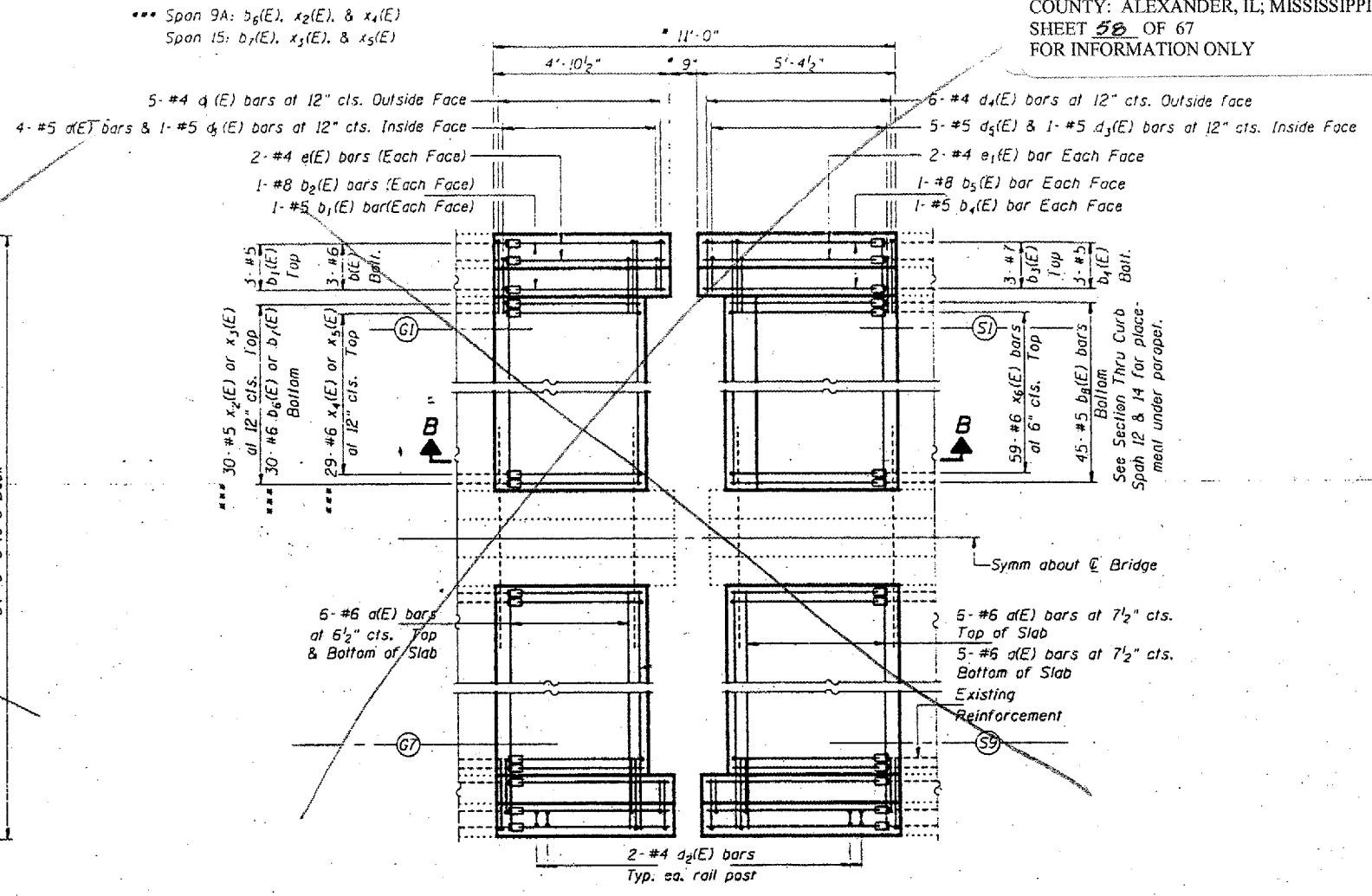
PLAN & ELEVATION
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 58 OF 67
FOR INFORMATION ONLY



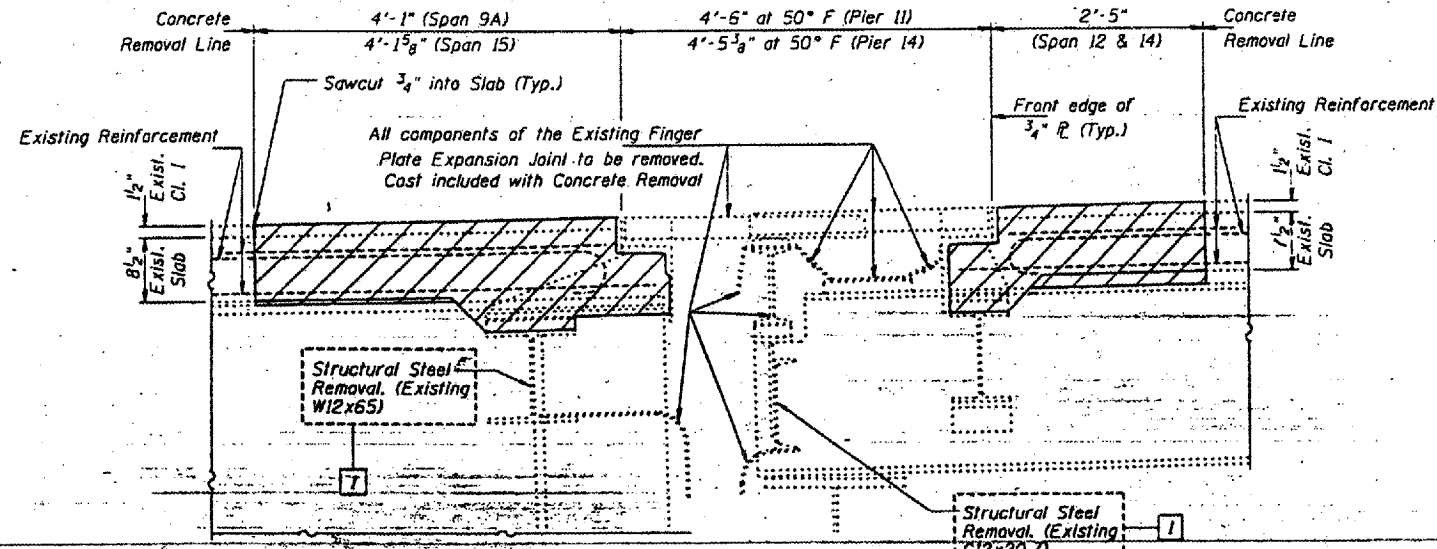
PARTIAL PLAN SHOWING CONCRETE REMOVAL
(Pier 11 Shown, Pier 14 Similar)



PARTIAL PLAN SHOWING CONCRETE REPLACEMENT
(Pier 11 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 6 of 14.
For Rail Post Anchor Device Detail, see Sheet 4 of 14.

Notes: New transverse d(E) bars shall be lapped with existing bars.
All new longitudinal (b, e, & 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

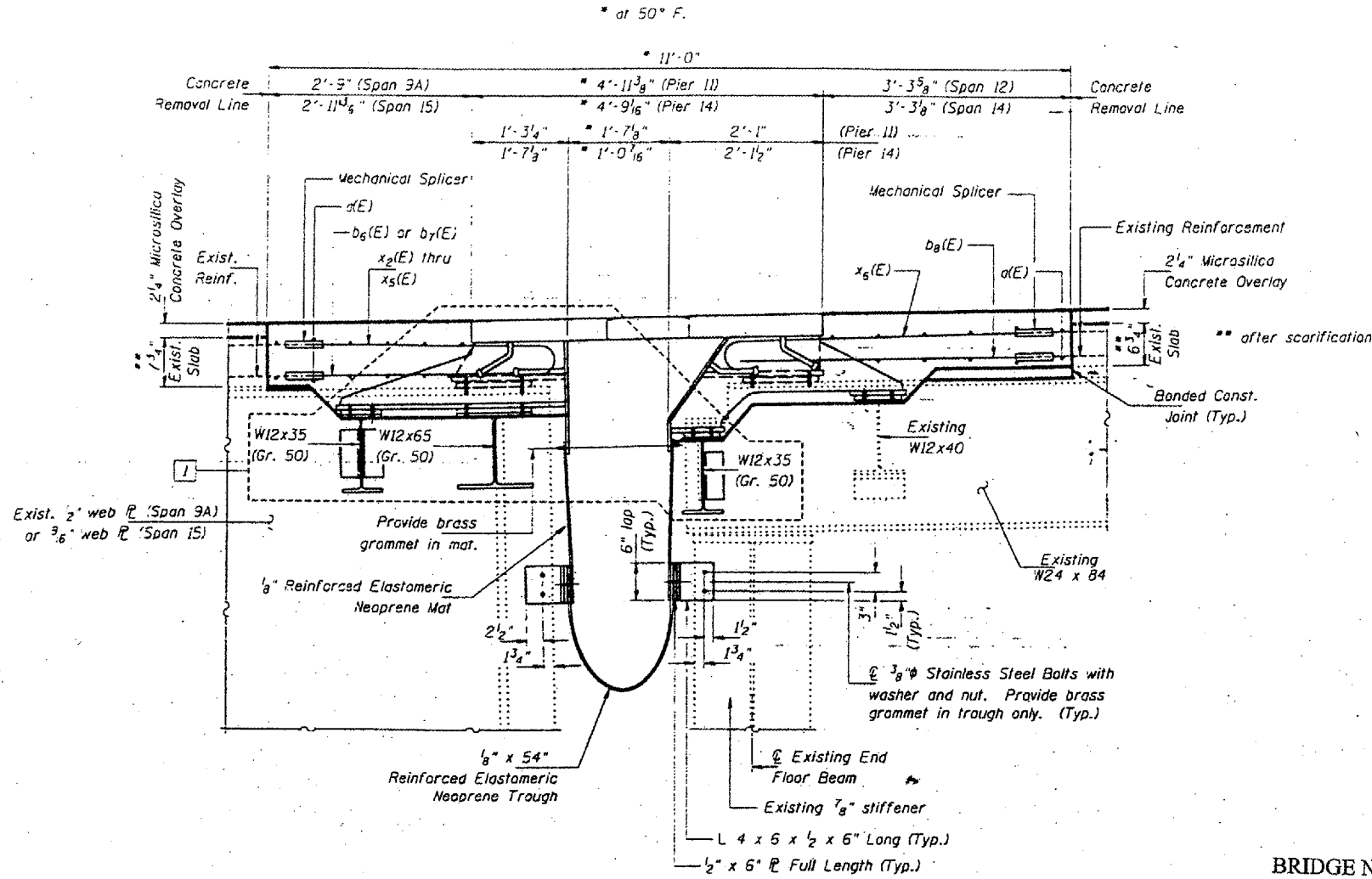
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

EXPANSION JOINT DETAILS - PIER 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. Schneller Jr.	PASSED
CHECKED	A.T.H. P.S.J.	ENGINEER OF BRIDGES AND STRUCTURES

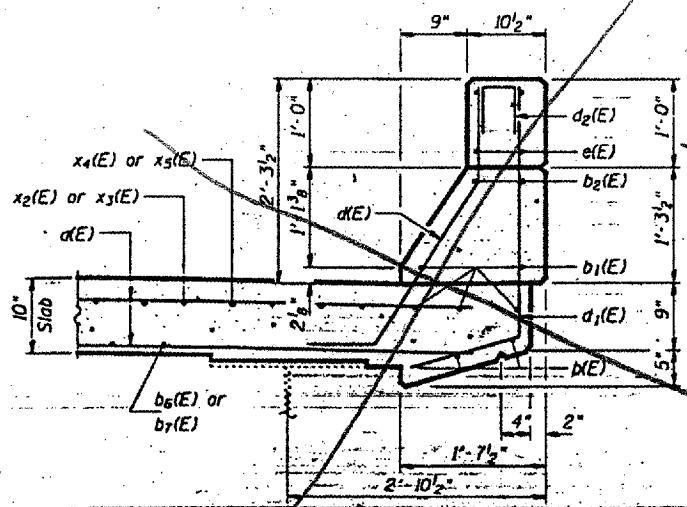
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 59 OF 67
FOR INFORMATION ONLY

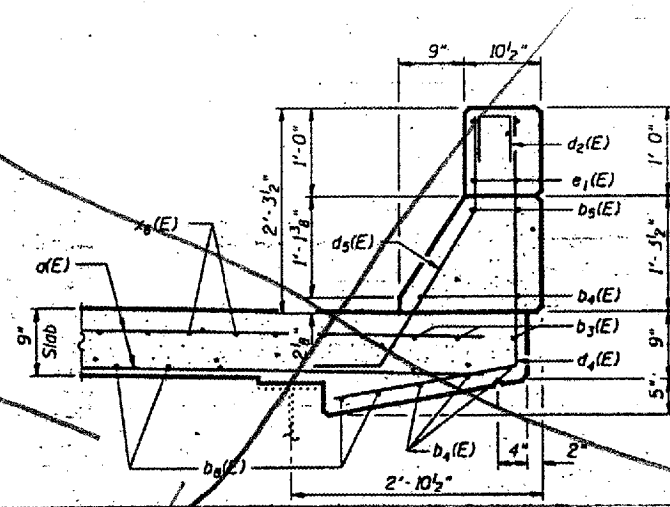


SECTION B-B
Pier 11 shown; Pier 14 similar

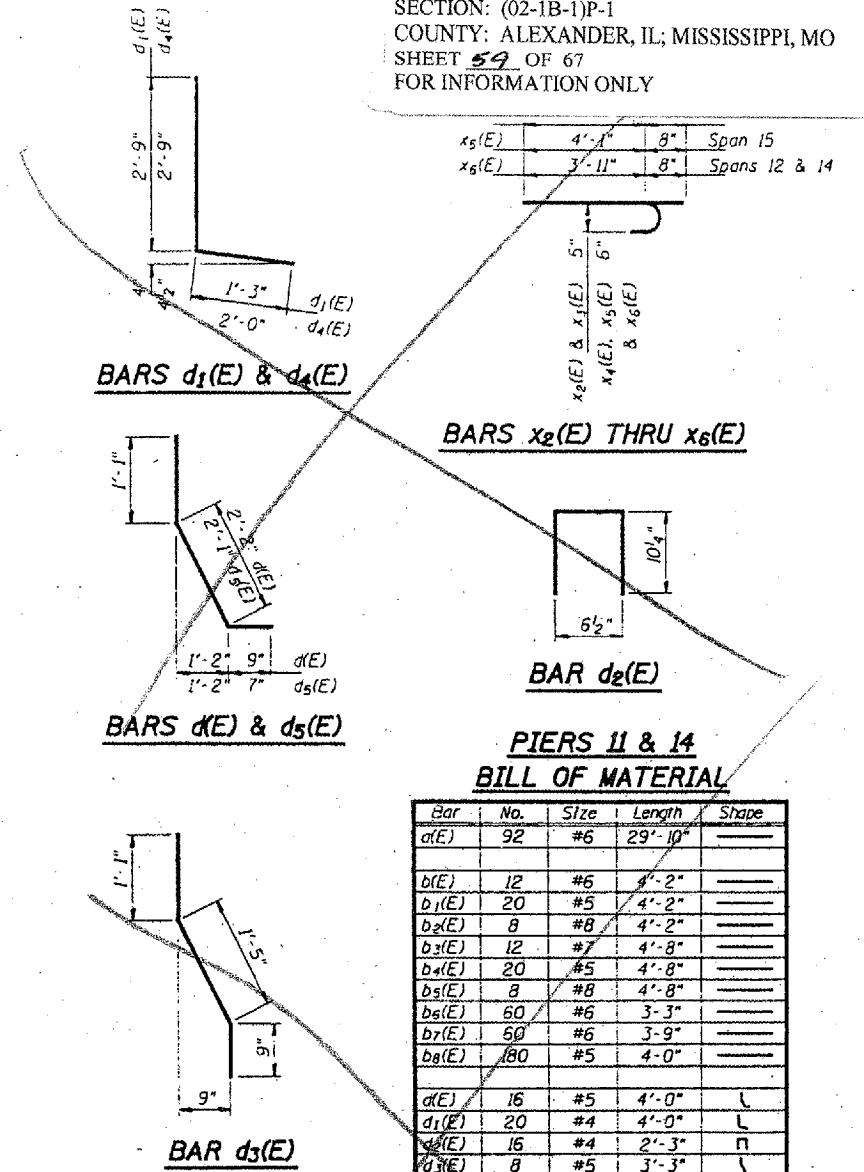
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY



SECTION THRU CURB - SPAN 9A & 15



SECTION THRU CURB - SPAN 12 & 14



**PIERS 11 & 14
BILL OF MATERIAL**

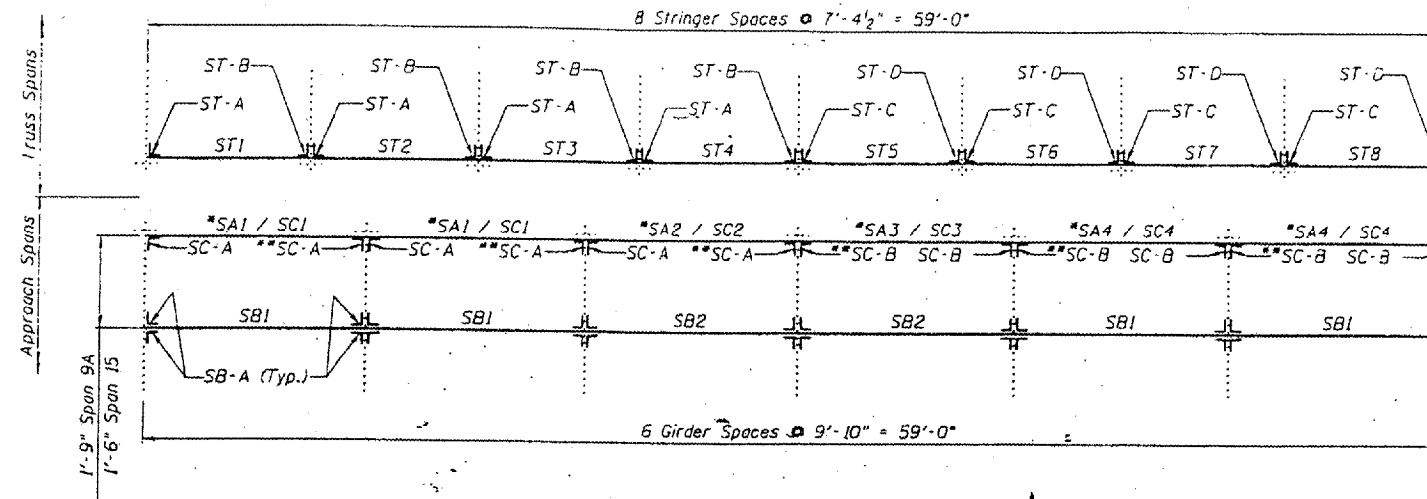
Reinforcement bars designated (E) shall be epoxy coated.

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 P. Schmittler Jr.	PASSED
CHECKED	A.T.H. P.S.J.	ENGINEER OF BRIDGES AND STRUCTURES

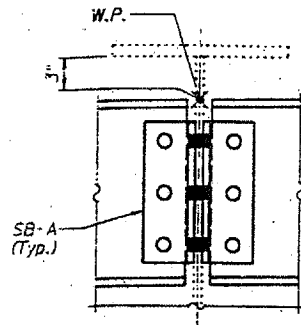
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 60 OF 67
FOR INFORMATION ONLY

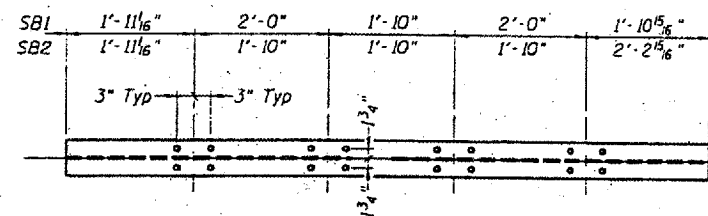


PARTIAL FRAMING PLAN AT PIERS 11 AND 14

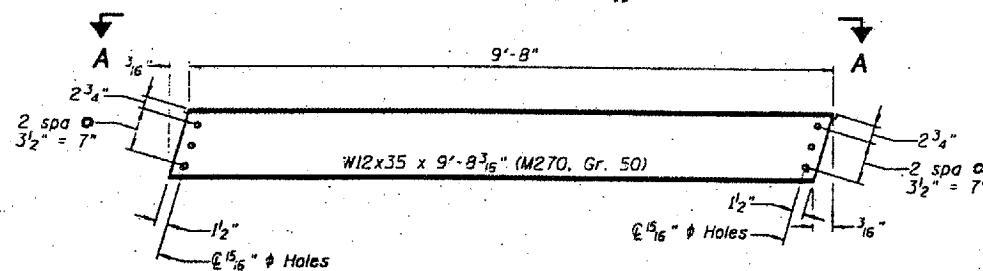
* SA# at Span 9A (no clip angles req'd), SC# at Span 15
** Inverted top for bottom from detail shown on Sheet 6B of 14.



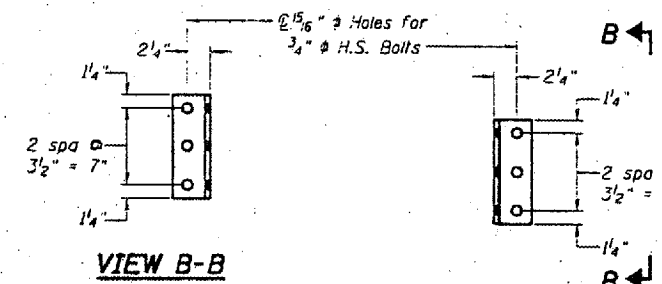
DETAIL A



VIEW A-A

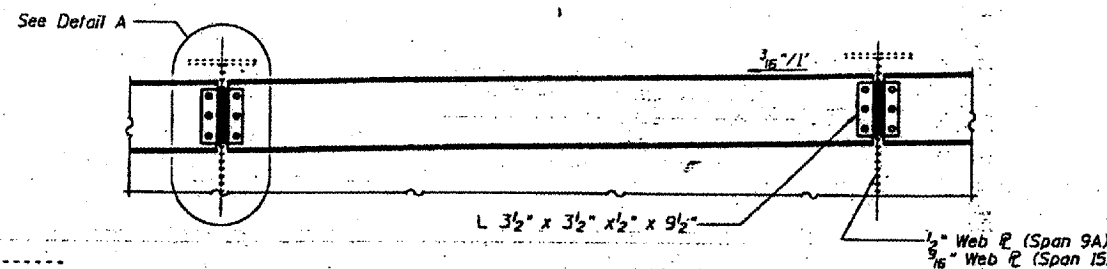


SB1 AND SB2
(SB1 8 Req'd, SB2 4 Req'd)



VIEW B-B

SB-A
(48 Req'd)



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

BACK STOOL SUPPORT - SPANS 9A AND 15

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

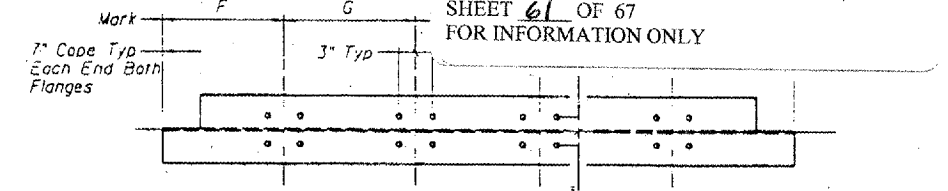
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 61 OF 67
FOR INFORMATION ONLY

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 / ₆ "	2
SA2	1'-10 ¹ / ₂ "	1'-10"	1'-10"	1'-10"	2'-2 ¹ / ₆ "	1
SA3	2'-2 ¹ / ₆ "	1'-10"	1'-10"	1'-10"	1'-10 ¹ / ₆ "	1
SA4	1'-10 ¹ / ₂ "	2'-0"	1'-10"	2'-0"	1'-10 ¹ / ₆ "	2

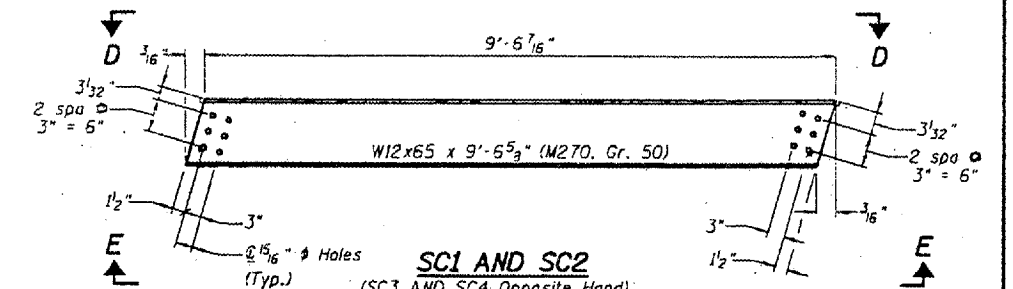
FRONT STOOL SUPPORT SPAN 15

Mark	F	G	H	J	K	No. Req'd
SC1	1'-10 ³ / ₃₂ "	2'-0"	1'-10"	2'-0"	1'-10 ³ / ₃₂ "	2
SC2	1'-10 ¹ / ₄ "	1'-10"	1'-10"	1'-10"	2'-2 ³ / ₁₆ "	1
SC3	2'-2 ³ / ₁₆ "	1'-10"	1'-10"	1'-10"	1'-10 ¹ / ₄ "	1
SC4	1'-10 ³ / ₃₂ "	2'-0"	1'-10"	2'-0"	1'-10 ³ / ₃₂ "	2



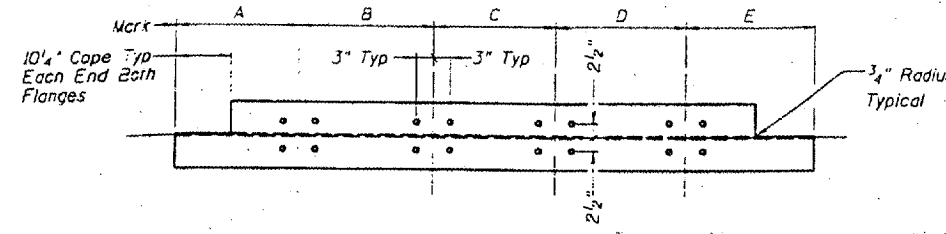
VIEW D-D

(No opposite hand required)



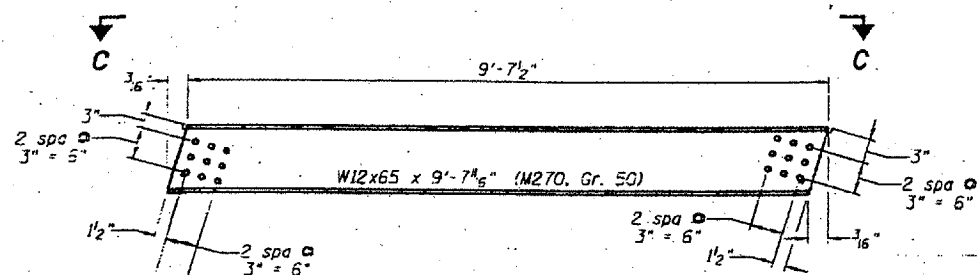
VIEW E-E

(No opposite hand required)



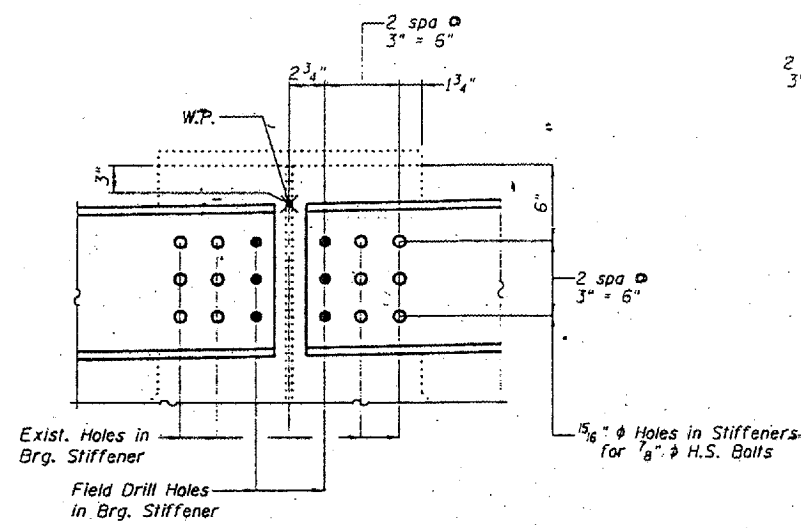
VIEW C-C

(No opposite hand required)

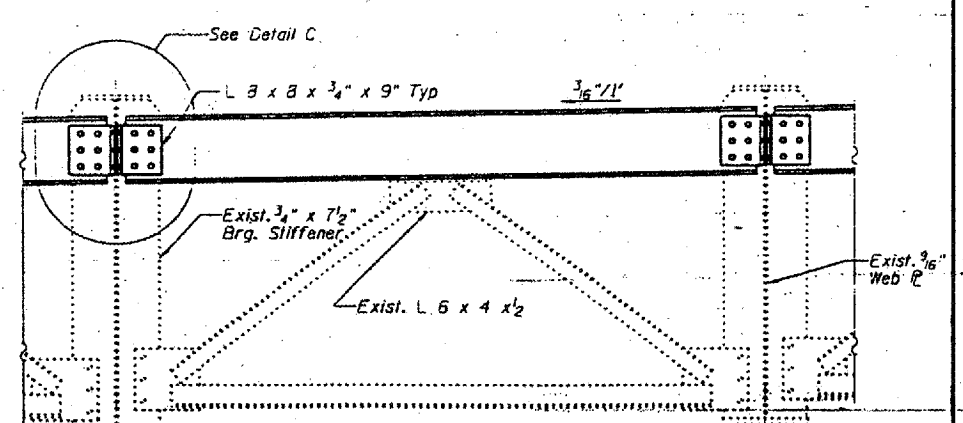


SA1 AND SA2

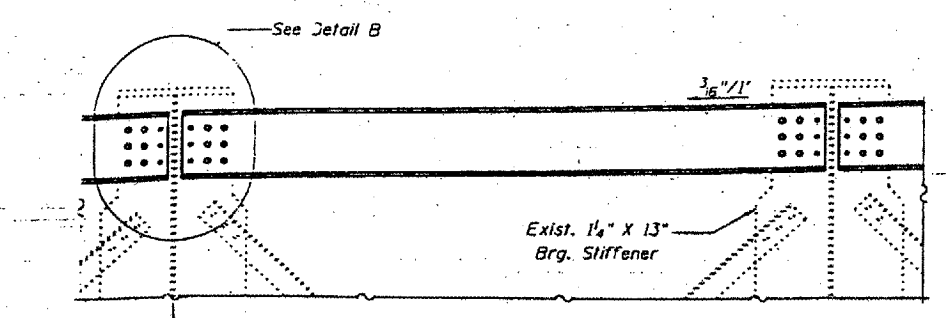
(SA3 AND SA4 Opposite Hand)



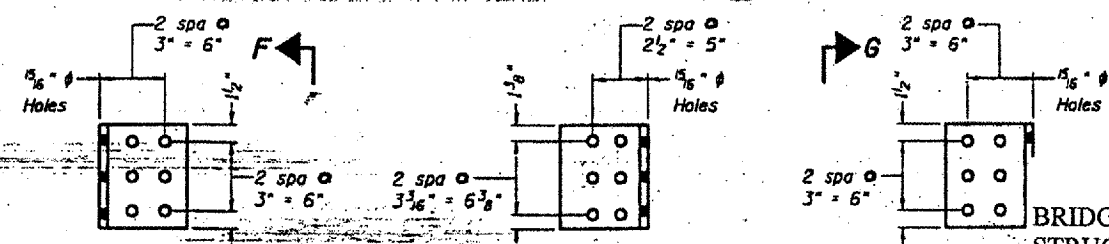
DETAIL B



DETAIL C

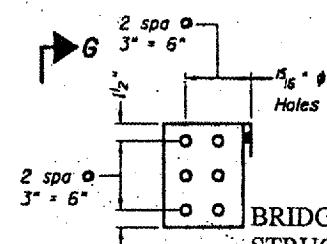


FRONT STOOL SUPPORT - SPAN 9A



SC-A
(6 Req'd)

VIEW F-F
View G-G Opposite Hand



SC-B
(6 Req'd)

FRONT STOOL SUPPORT - SPAN 15

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

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

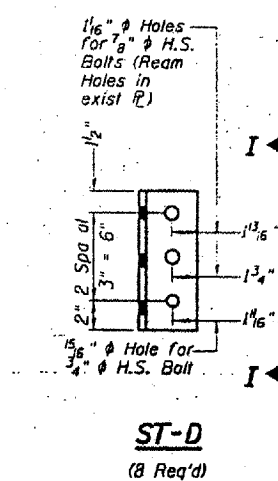
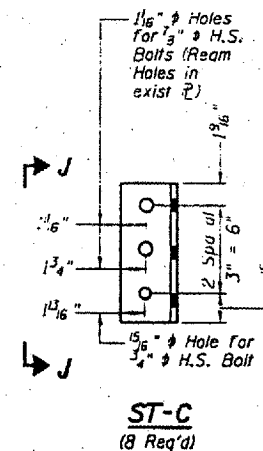
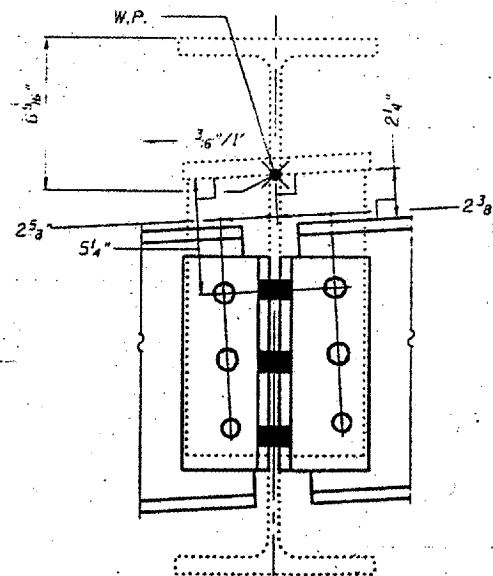
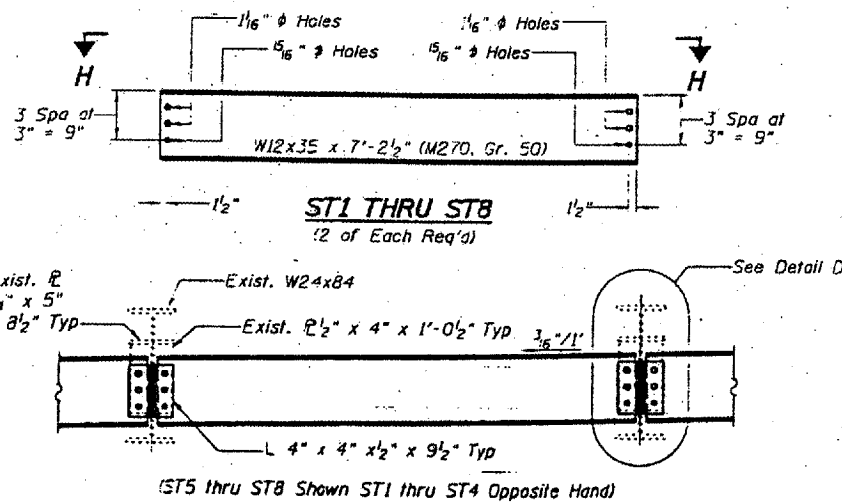
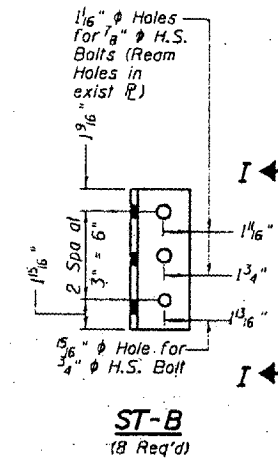
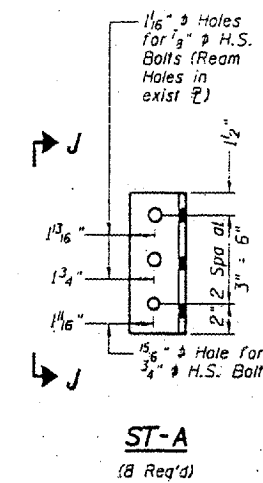
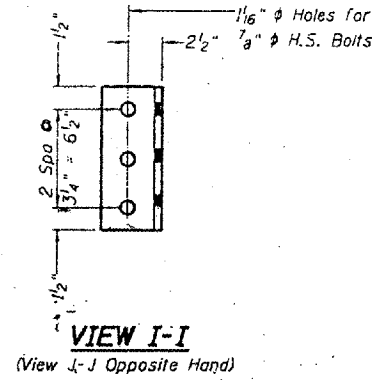
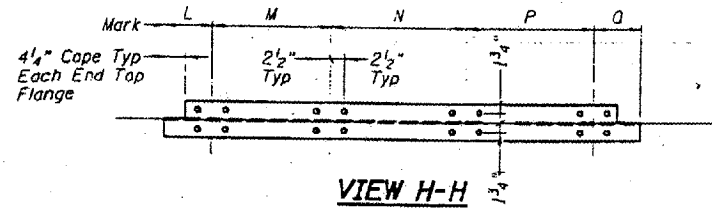
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PREPARED
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 62 OF 67
FOR INFORMATION ONLY

FRONT STOOL SUPPORT

Mark	L	M	N	P	Q
ST1	1'-1"	1'-5 1/4"	1'-11 1/4"	1'-5 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'-5 1/4"	1'-11 1/4"	1'-11 1/4"	8 3/4"
ST4	1'-7 1/2"	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"



FRONT STOOL SUPPORT - SPANS 12 AND 14

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

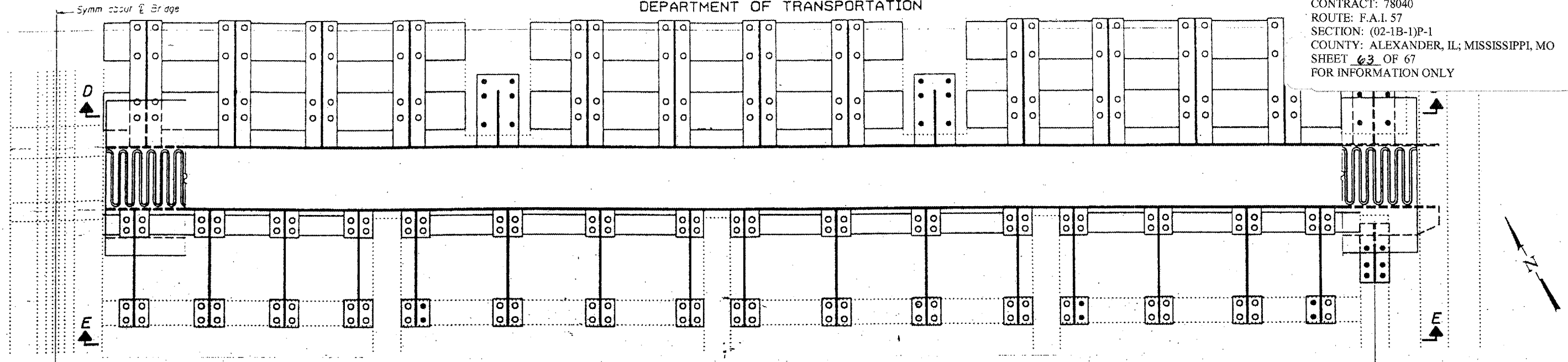
DESIGNED *John DeMorris*
ENGINEER OF STRUCTURAL SERVICES
PREPARED
ENGINEER OF BRIDGES AND STRUCTURES

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

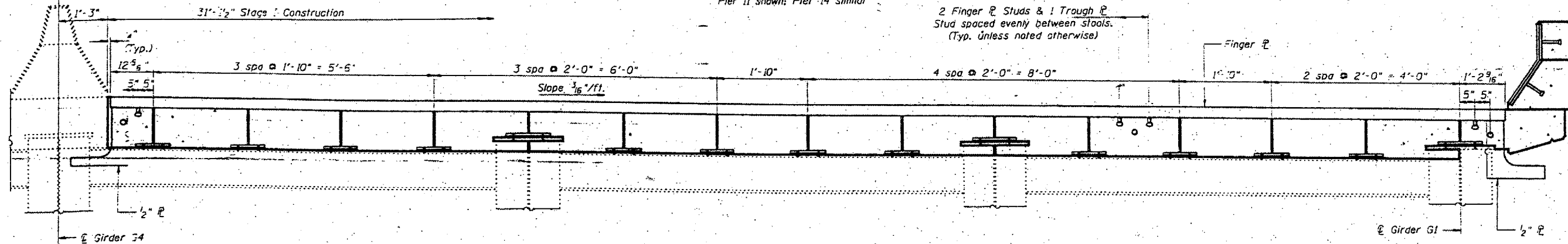
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 63 OF 67
FOR INFORMATION ONLY



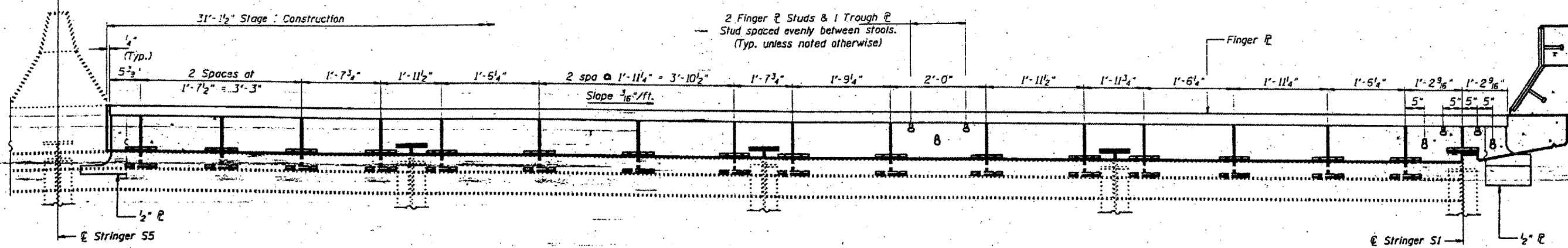
PLAN

Pier 11 shown; Pier 14 similar

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



SECTION D-D



SECTION E-E

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

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

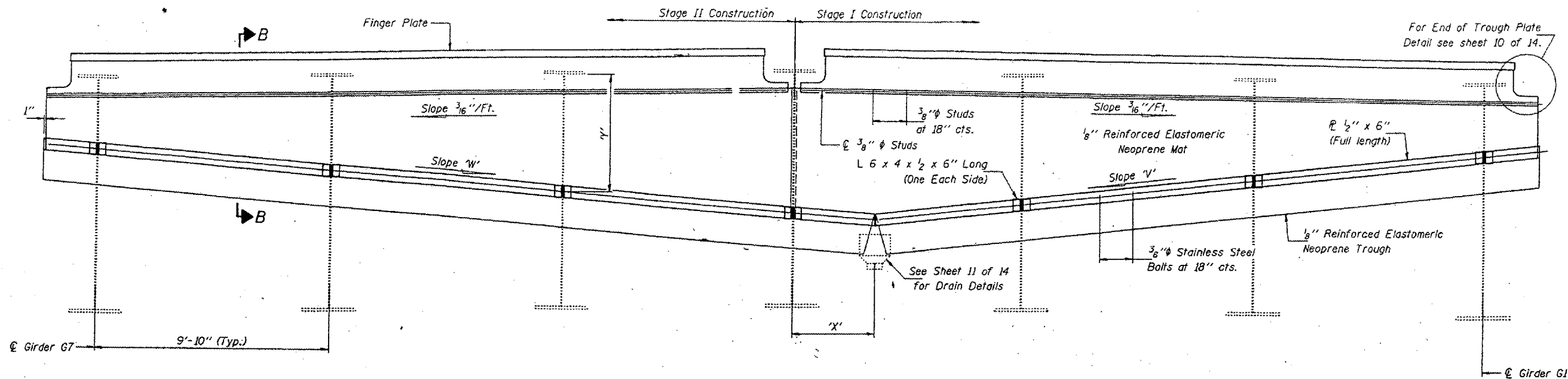
Notes:
For Parapet Plate Assembly see sheet 10 of 14.

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

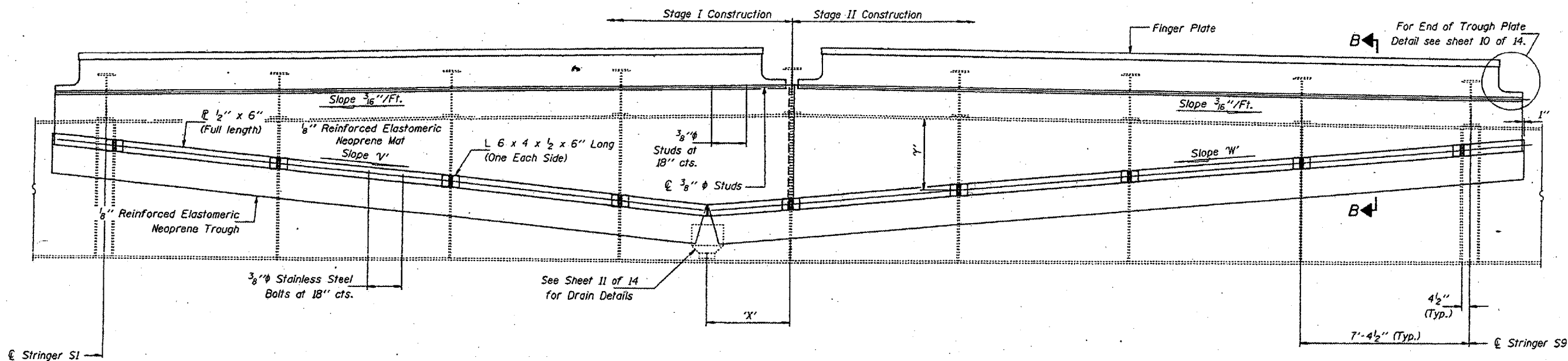
EXPANSION JOINT DETAILS - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 64 OF 67
FOR INFORMATION ONLY



ELEVATION - APPROACH SPAN
(Looking North)



ELEVATION - TRUSS SPAN
(Looking South)

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

FEBRUARY 4, 2002
EXAMINED *John A. Morris*
PASSED
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" R.

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

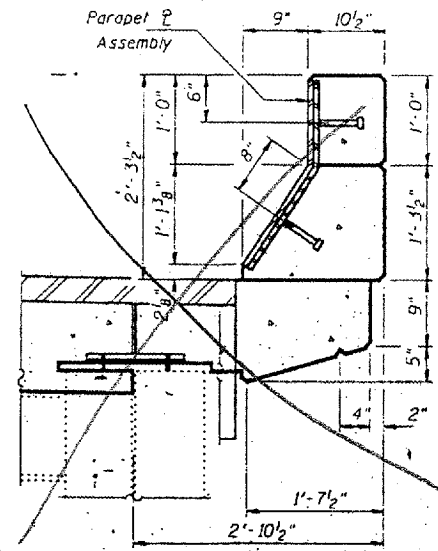
TROUGH DETAILS - PIER II & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

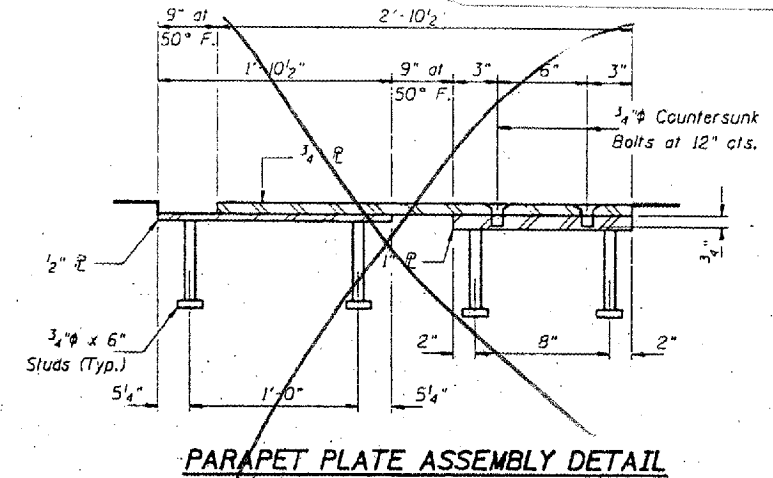
CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 65 OF 67
FOR INFORMATION ONLY

TROUGH DIMENSIONS

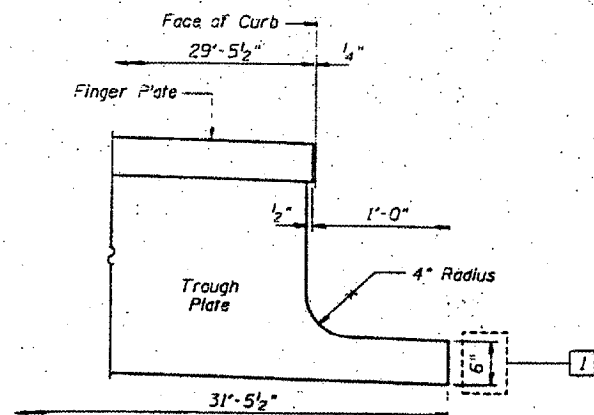
SLOPE/ DIMENSION	Pier 11	Pier 14
"Y"	1'4" / ft.	7'9" / ft.
"W"	1" / ft.	5'8" / ft.
"X"	3'-6 3/4"	4'-10 1/2"
"Y" Approach Span	G1	3'-0 1/2"
	G2	4'-2 3/8"
	G3	5'-4 1/5"
	G4	5'-10 5/8"
	G5	4'-11 1/4"
	G6	3'-11 3/8"
	G7	2'-11 5/8"
"Y" Truss Span	S1	1'-0 1/4"
	S2	1'-10 5/16"
	S3	2'-8 4/5"
	S4	3'-7 1/2"
	S5	3'-10 3/8"
	S6	3'-1 3/8"
	S7	2'-4 3/8"
	S8	1'-7 7/8"
	S9	11 9/16"



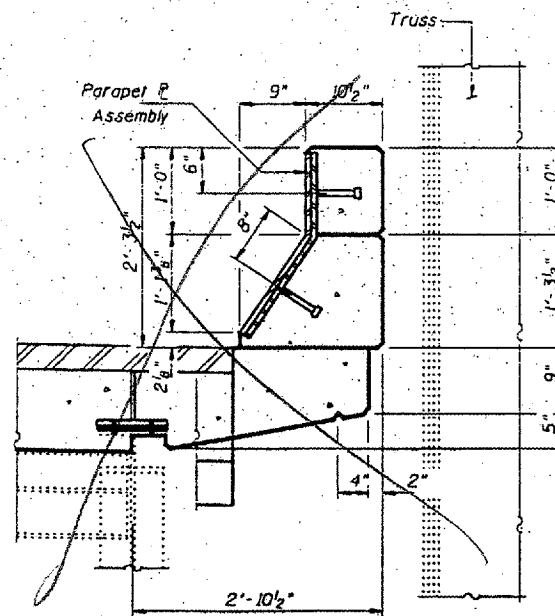
SECTION THRU CURB - SPANS 9A & 15



PARAPET PLATE ASSEMBLY DETAIL



TYPICAL END OF TROUGH PLATE DETAIL



SECTION THRU CURB - SPANS 12 & 14

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

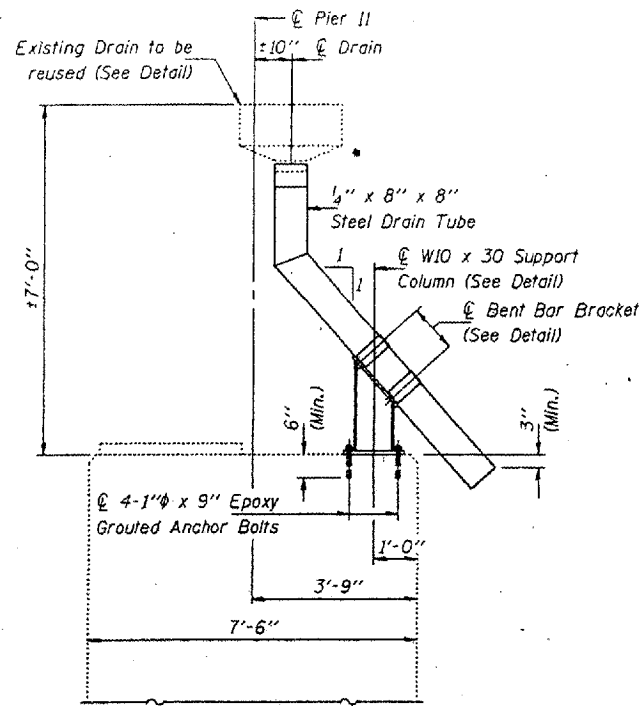
FEBRUARY 4, 2002
 EXAMINED *John DeMorris*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

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

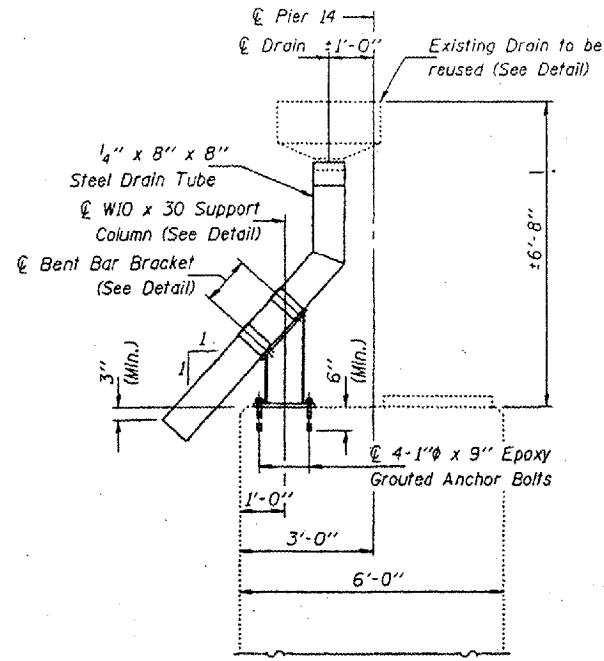
EXPANSION JOINT DETAILS - PIER 11 & 14
F.A.I. 57 OVER MISSISSIPPI RIVER
ALEXANDER COUNTY
S.N. 002-0022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P-1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 66 OF 67
FOR INFORMATION ONLY

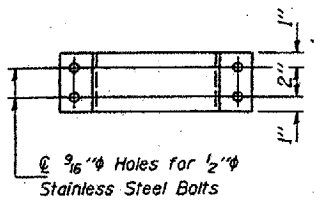
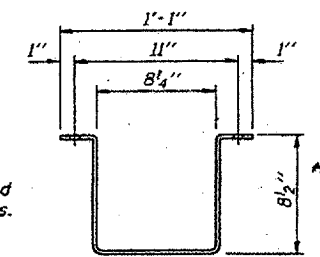


ELEVATION - PIER II



ELEVATION - PIER 14

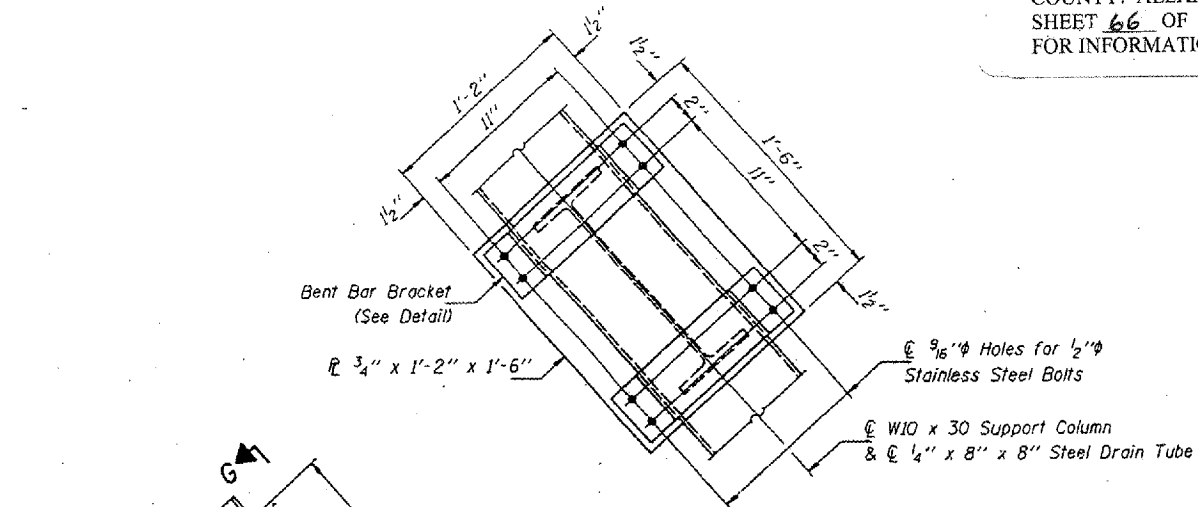
Note: Place 1/8" thick Neoprene around Drain Tube at Bracket locations.



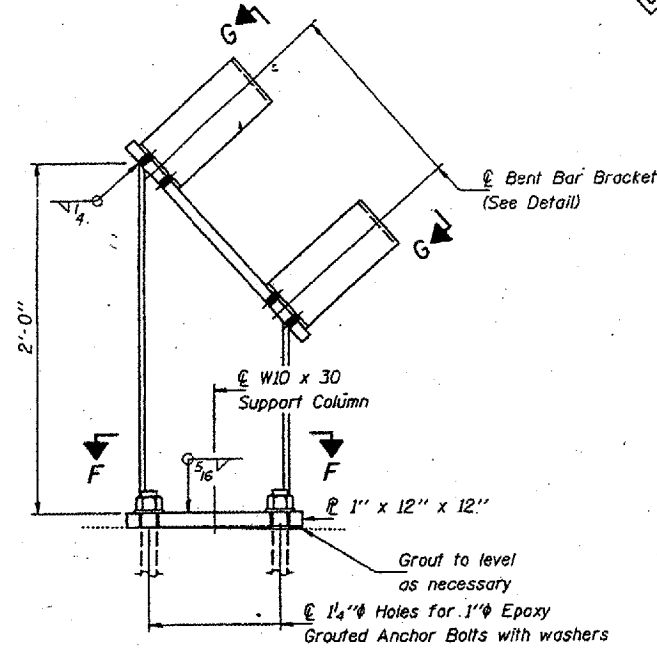
BENT BAR BRACKET
DETAIL

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

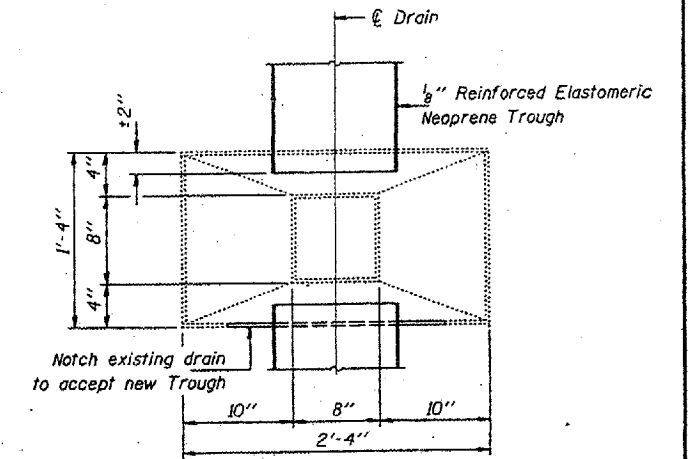
Notes:
The 1/4" x 8" x 8" Structural Steel Tubing shall conform to the requirements of ASTM designation A-500, Grade B, Structural Steel Tubing.
Steel tubing shall be galvanized in accordance with AASHTO M11 and ASTM A-385. Cost included with Drain System.
Existing 1/4" x 8" x 8" Steel Drain Tubes may be re-used for new Drainage System, as directed by the Engineer.



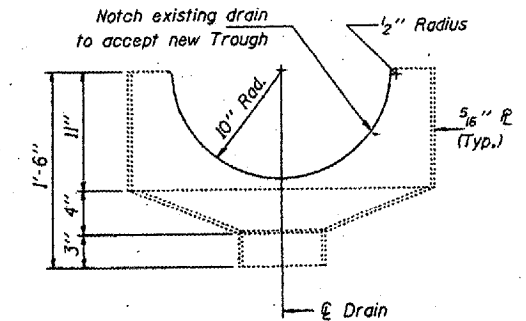
VIEW G-G



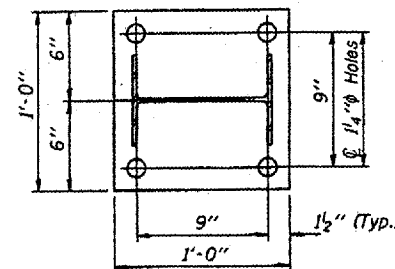
SUPPORT COLUMN
(No. Req'd. = 2)



TOP VIEW



DRAIN ELEVATION



SECTION F-F

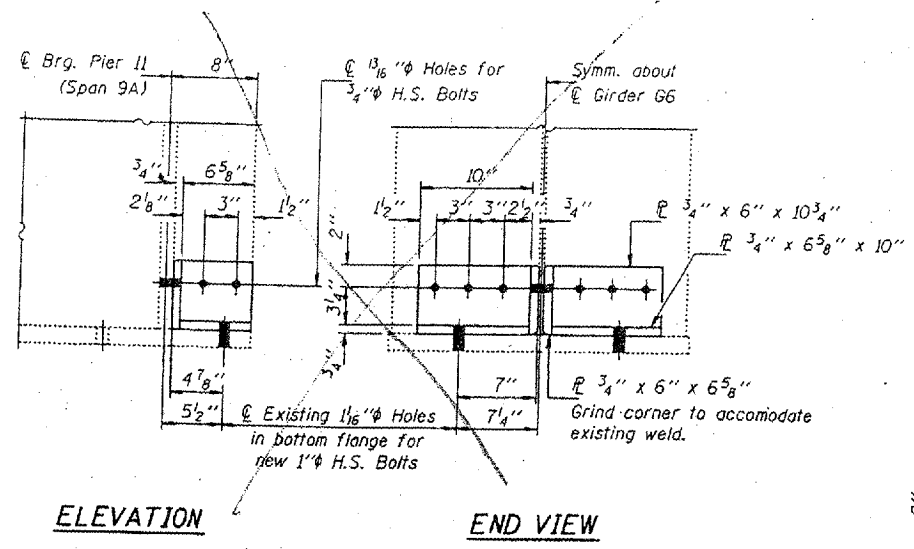
BRIDGE NO. 1
STRUCTURE NO. 002-0022
FOR INFORMATION ONLY

DRAIN SYSTEM - 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.	PASSED
CHECKED	P.S.J. A.T.H.	ENGINEER OF BRIDGES AND STRUCTURES

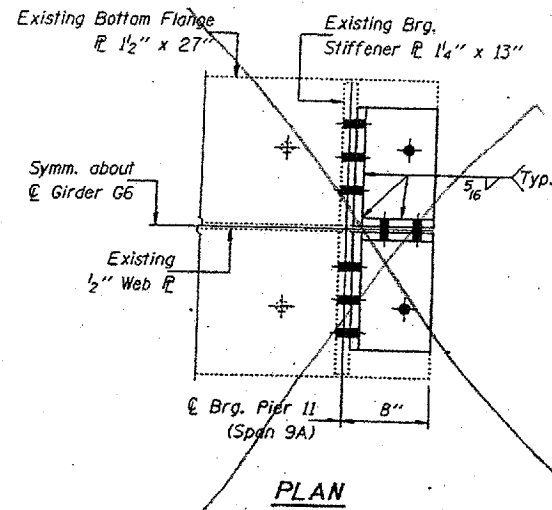
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040
ROUTE: F.A.I. 57
SECTION: (02-1B-1)P1
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO
SHEET 67 OF 67
FOR INFORMATION ONLY



ELEVATION

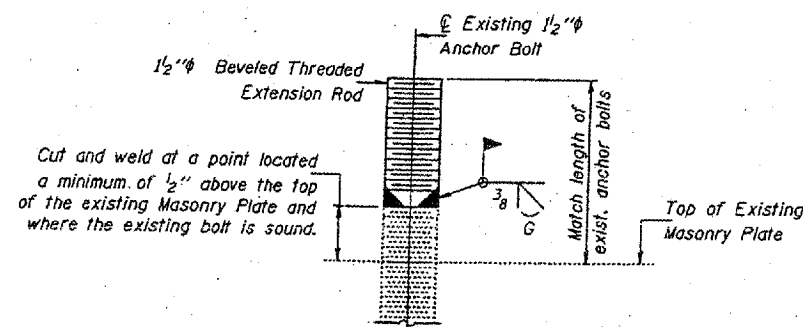
END VIEW



PLAN

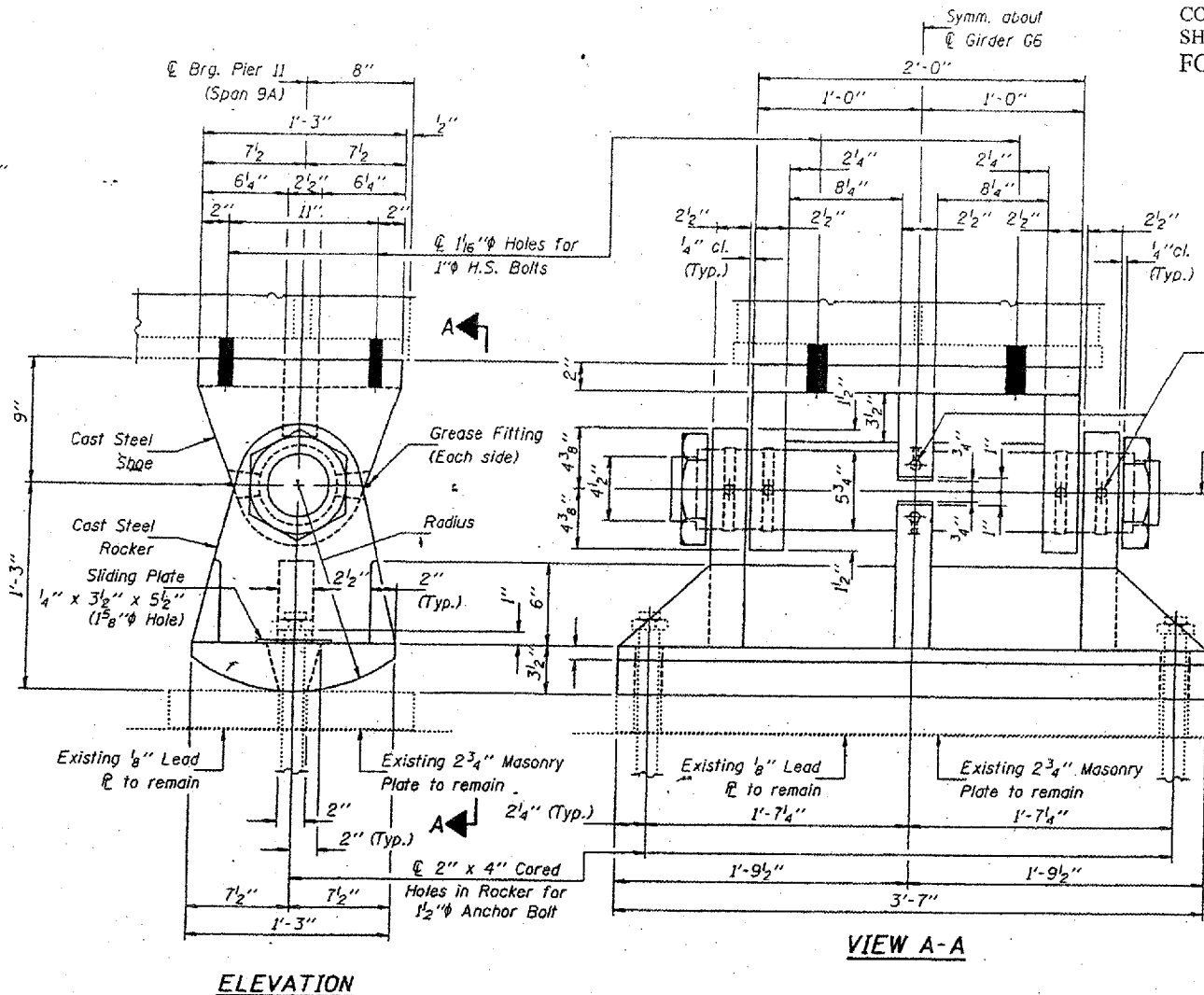
GIRDER G6 CRACK REPAIR

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.



ANCHOR BOLT REPAIR DETAIL

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



ELEVATION

VIEW A-A

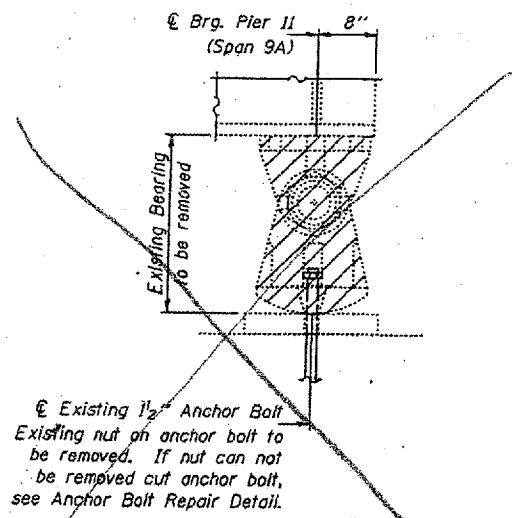
GREASE GROOVE ON SADDLE

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 + 1/32 inch for Standard Steel Case Hardened Pin (See Standard Specifications) Recessed Hex. Nut

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.



EXISTING BEARING REMOVAL DETAIL

REACTION TABLE		
Q	(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

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